



# Short Running Title: Effect of audio drama on Menstrual Hygiene

**“A Quasi experimental study to assess the effect of audio drama on menstrual hygiene and reproductive health in terms of knowledge and expressed practices among visually challenged adolescent girls”**

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## **ABSTRACT**

**Introduction** - Eyes are the vital organ in human body used for viewing the world, in the absence of eye vision, everyone has to face a lot of problems in life. Visually challenged Adolescent girls constitute a vulnerable group not only because of their social status but also in relation to their health.

**Aim of the study** - Current study was carried out to assess the effect of audio drama on menstrual hygiene and reproductive health in terms of knowledge and practices among visually challenged adolescent girls.

**Method:** A quasi experimental, non equivalent group pre test and post test design (Quantitative research approach) was conducted on 60 visually challenged adolescent girls who were selected by using purposive sampling technique and randomly assigned to experimental (n= 30) and comparison (n=30) group. Data was collected by using menstrual variable proforma, Braille structured questionnaire and checklist on menstrual hygiene.

**Intervention:** Audio drama on menstrual hygiene and reproductive health was played among visually challenged adolescent girls. Audio drama was played for 20 min.

**Results:** SPSS version 20 was used for statistical analysis. The results of the study shows that the mean knowledge score in experimental group was significant higher ( $t = 12.31, p < 0.00$ ) than comparison group. Similarly, the mean practices score was significant higher ( $t = 8.65, p < 0.05$ ) in experimental group than comparison group. There was mild positive relationship ( $r = 0.30, p > 0.05$ ) between post test knowledge scores and practices score among visually challenged adolescent girls.

**Conclusion:** It can be concluded that audio drama was effective to improve the knowledge and practices regarding menstrual hygiene and reproductive health.

**Key words:** Audio drama, knowledge, expressed practices, Menstrual hygiene, visually challenged girls.

## INTRODUCTION

Eyes are the vital organ in human body used for viewing the world, in the absence of eye vision, everyone has to face a lot of problems in life.

The beginning of menstruation in a girl means the beginning of reproductive life. It is a physiological event which occurs during adolescence period. It is monthly uterine bleeding for 4-5 days (average) coming regularly every 28-35 days. Normally females who have 28 days cycle, get 13 menses in a year.<sup>1</sup>

Visually challenged Adolescent girls constitute a vulnerable group not only because of their social status but also in relation to their health. In this regard, menstruation is regarded unclean or dirty in society.<sup>2</sup>

Visually impaired girls and women face even greater problems as they struggle for information and basic services for managing their menstrual health.<sup>3</sup>

The visually impaired girls need help to perform their daily activities. They need help in identification, placing menses materials, washing the used clothes and disposal of used menstrual materials.<sup>4</sup>

Hygiene-related practices among visually impaired girls during menstruation have significant importance, as it has a health impact in terms of increased vulnerability because due to lack of hygiene it leads to reproductive tract infections.<sup>5</sup>

It was seen from the background that knowledge and practices of visually challenged adolescent girls regarding menstrual hygiene was not satisfactory because physical disability also restrict the visually challenged adolescent girls to follow hygienic practices during menstruation.<sup>6</sup>

**Therefore, this study was planned with following objectives:**

1. To assess and compare the knowledge and practices regarding menstrual hygiene and reproductive health among visually challenged adolescent girls.
2. To determine the relationship between knowledge and practices score regarding menstrual hygiene and reproductive health among visually challenged adolescent girls.

## Material and Method

**Research design** – This was a Quasi experimental study using quantitative approach, conducted among visually challenged adolescent girl, in the month of September to December 2020.

**Target Population** – Visually challenged adolescent girls who were studying in schools for blind of Punjab.

**Duration of Study** –September - December,2020

**Sampling technique** – Purposive sampling technique.

**Sample size** - 60

$$\text{Cohen's } d = (\mu_1 - \mu_2) / \sigma = (7.4 - 13.7) / 0.15 = 0.57$$

The calculated effect size was 0.57 at the power of 0.80, so calculated sample size was 54. Hence considering the probability of sample loss, 30 sample for each group were decided.

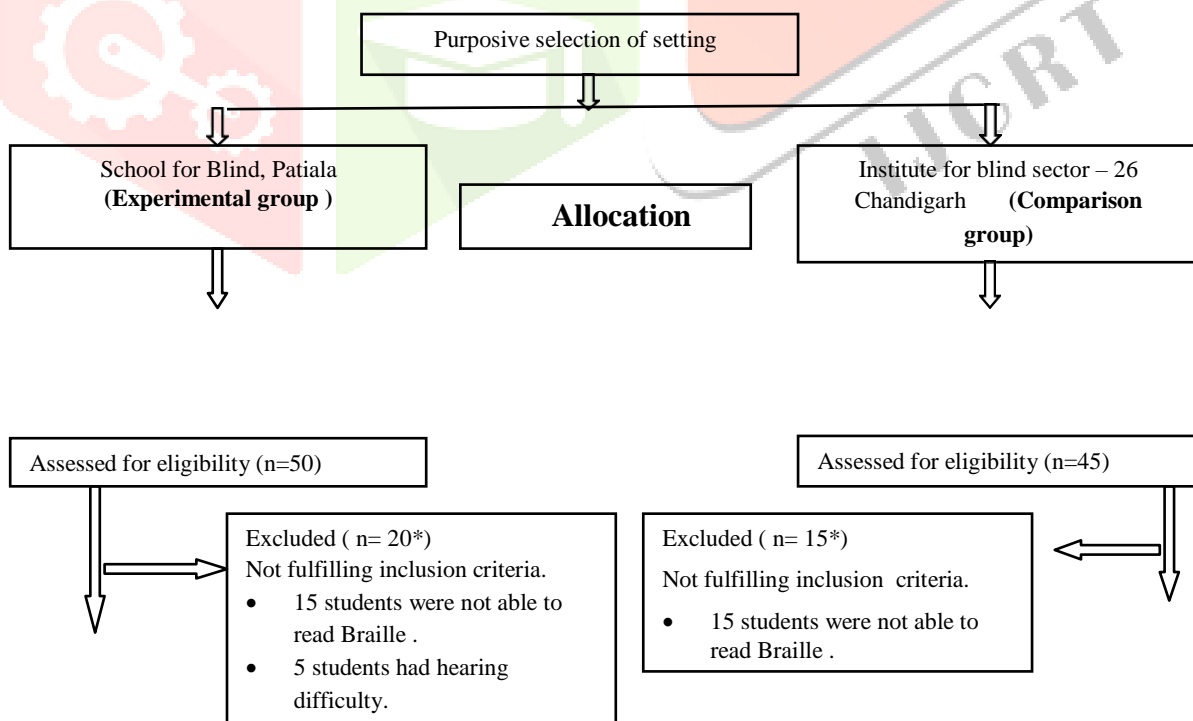
**Setting** – The present study was undertaken among visually impaired adolescent girls from two schools for Blind, in Punjab.

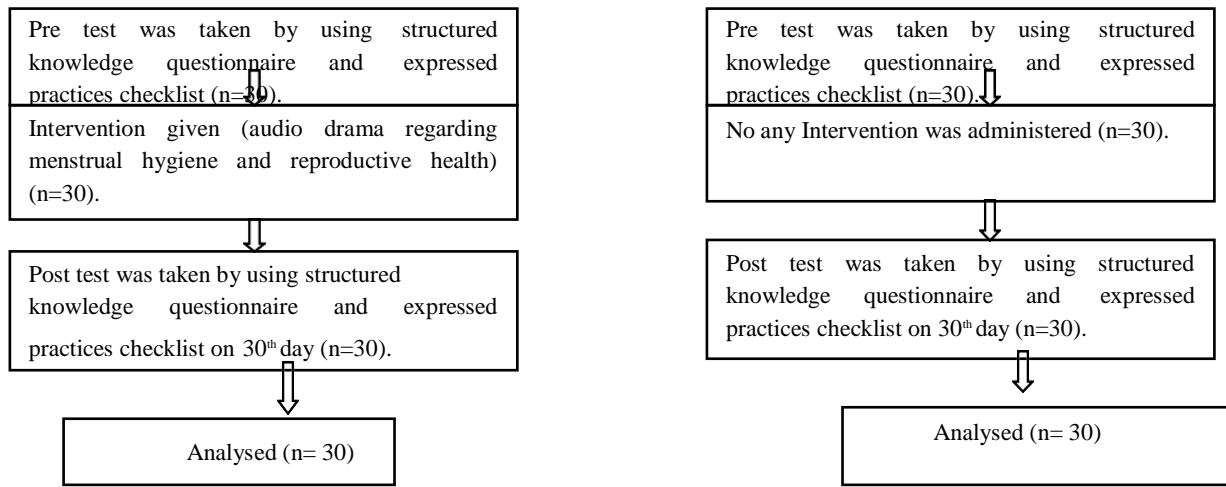
### Inclusion Criteria

The study included visually challenged adolescent girls who had attained menarche, having regular menstrual cycle and willing to participate in the study

### Exclusion criteria

Visually challenged adolescent girls who had hearing difficulty and were not able to read Braille language were excluded from the study.





**Fig- 1 Flow chart showing sample size**

## DATA COLLECTION PROCEDURE

Permission for conducting the study was taken from the the Principal of selected schools. Written informed consent was obtained from the guardian and oral informed consent was taken by study subject regarding their willingness to participate in the research project.

After establishing the rapport and informed consent was taken from visually challenged adolescent girls. After taking pre test, audio drama related to menstrual hygiene and reproductive health was played among visually challenged adolescent girls. Audio drama was recorded with the help of peer group and the components of audio drama were anatomy of the female reproductive system, concept of menstruation, menstrual cycle and its characteristics, common myths, use of sanitary napkins, personal hygiene and disposal of solid sanitary napkins. It was played for 20 min. Reinforcement was done on the 4<sup>th</sup> and 6<sup>th</sup> day in experimental group. Similarly pre test was conducted in comparison group. Post test was conducted on Day 30 in both groups.

Data was collected by using Braille structured knowledge questionnaire ( $KR_{20}=0.84$ ) comprised of 34 items to assess the knowledge of visually challenged adolescent girls through self report. Expressed practices checklist ( $r = 0.9$ ) consisted of 15 items to assess the practices of visually challenged adolescent girls by using self report.

### Statistical Analysis

Data were analyzed by using SPSS 20 (Armonk, NY: IBM Corp). K- S test was applied to check the normality of the data. Data analysis was done by using parametric test i.e. Chi-square test, paired and independent *t*-test ANOVA, post hoc using Tukey's test, Pearson's correlation coefficient was used to check the relationship between the variables.

## RESULTS

A total of 60 visually challenged adolescent girls completed the study. Computed Chi-square value ( $p > 0.05$ ) showed no significance difference between the groups in terms of age, religion, education, area of residence, received guidance regarding menstruation, age of first menstruation, What do you usually use during menstruation. Majority of visually challenged adolescent girls in experimental group (53%) and in comparison group (58.7%) were in the age group of 15 – 16 years respectively. Less than half adolescent girls in experimental group (45%) and comparison group (50%) were studying in 11<sup>th</sup> standard in experimental and comparison group respectively. In both groups, more than half (56.3%) and less than half (40.3%) of visually challenged adolescent girls were residing in rural area.

Majority of visually challenged adolescent girls in experimental group (60.1%) and comparison group (55.6%) received guidance regarding menstruation from their teachers. Majority of visually challenged adolescent girls in experimental group (58%) and comparison group (62%) had their first menstruation at the age 12-13 years. In both the groups, all (100%) of visually challenged adolescent girls used sanitary napkins during menstruation and it was supplied by the government.

Result of paired t- test showed that the mean post test Knowledge Score among visually challenged adolescent girls was significantly higher ( $t=12.83, p=0.00^{**}$ ) than pre test in experimental group.

Result of independent t- test showed that the mean post test Knowledge Score among visually challenged adolescent girls was significantly higher ( $t=12.31, p=0.00^{**}$ ) in experimental group than comparison group.

Result of paired t- test showed that the mean post test expressed practices Score among visually challenged adolescent girls was significantly higher ( $t=10.01, p=0.00^{**}$ ) than pre test in experimental group.

Result of independent t- test depicts that the mean post test practices score among visually challenged adolescent girls was significantly higher ( $t = 9.02, p=0.00^{**}$ ) in experimental group than comparison group. **(Table – 1)**

There was mild positive non significant relationship found between post test knowledge scores and post test practices score among visually challenged adolescent girls ( $r = 0.30, p= 0.12^{NS}$ ) at 0.05 level of significance. **(Figure - 1)**

Result of Post hoc test shows that the difference in mean of expressed practices score was statistically significant between 13-14 yrs and 14-15 yrs ( $p=0.03^*$ ) at 0.05 level of significance. This shows the visually challenged adolescent girls in 13-14yrs and 14-15 yrs age groups were not having same level of expressed practices before intervention in experimental group.

Result of Post hoc test shows that the difference in mean of expressed practices score was statistically significant between 12-13yr and above 13 ( $p= 0.04^*$ ) at 0.05 level of significance.

## DISCUSSION

In the present study half (53%) adolescent girls in experimental group and more than half (58%) in comparison group adolescent girls were between the age group of (15 – 16 yrs) while the study findings were contradictory with the study conducted by **Jeyanti. B, et al (2017)**<sup>7</sup> to assess the effectiveness of audio drama in terms of knowledge and practices regarding menstrual hygiene and management of minor ailments of menstruation among 60 visually challenged girls which stated that more than half (56.6%) in experimental group and (60%) in comparison group were in the age group of 14 years .

In present study more than one forth (30%) of the visually challenged adolescent girls received guidance regarding menstrual hygiene from parents which are contradictory with the study conducted by **Sellakumar et al (2012)**<sup>8</sup> where 21(100%) visually challenged adolescent girls reported receiving guidance regarding hygiene from their parents.

Findings of present study revealed that in before intervention all 58(100%) adolescent girls used sanitary napkin during menstruation. These findings were inconsistent with the study conducted by **Sudeshna R et al (2012)**<sup>9</sup> and **Anuradha et al (2013)**<sup>10</sup> in which only 13.24% and 11.25% of adolescent girls used sanitary napkin during menstruation. This difference may be due to availability of menstrual hygiene resources in the current setting.

The audio drama was effective in enhancing the knowledge regarding menstrual hygiene and reproductive health among visually challenged adolescent girls. In present study, 72% of visually challenged adolescent girls had excellent knowledge after playing audio drama These finding were consistent with the interventional study conducted by **Samantaray et al (2017)**<sup>11</sup> to assess the effect of audio drama on knowledge regarding personal hygiene practices among visually impaired adolescent girls where 72.5% of visually challenged adolescent girls had good knowledge about personal hygiene after playing audio drama.

conducted by **Udgiri R et al (2016)**<sup>12</sup> to assess the menstrual hygiene practices among adolescent girls in which more than half (52.51%) adolescent girls changed pad only once a day which shows that in current study the adolescent girls had adequate knowledge regarding menstrual hygiene practice.

## Conclusion

Based on the findings of the study, it can be concluded that audio drama was effective to improve the knowledge and expressed practices regarding menstrual hygiene and reproductive health. So the teachers can play vital role to provide knowledge to adolescent girls regarding menstrual hygiene and reproductive health.

## ACKNOWLEDGMENT

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**Table 1**  
**Comparison of Pre test and Post test Knowledge and Expressed Practices Score**  
**among Visually Challenged Adolescent Girls**

N=60				
	Experimental Group (n = 30)	Comparison Group (n = 30)		
Assessment	Mean	Mean	t <sup>§</sup> value	p value
<b>Knowledge</b>				
Pre test (n= 30)	17.88	18.80	1.03	0.3 <sup>NS</sup>
Post test (n=30)	27.81	18.17	12.31	0.00**
t <sup>†</sup>	12.85	2.06		
p <sup>†</sup>	0.00**	0.06		
<b>Expressed Practices</b>				
Pre test (n= 30)	10.64	10.50	0.58	0.57 <sup>NS</sup>
Post test (n=30)	13.20	10.88	9.02	0.00**
t <sup>†</sup>	10.01	2.36		
p <sup>†</sup>	0.00**	0.03*		

†Paired ttest, §Independent ttest

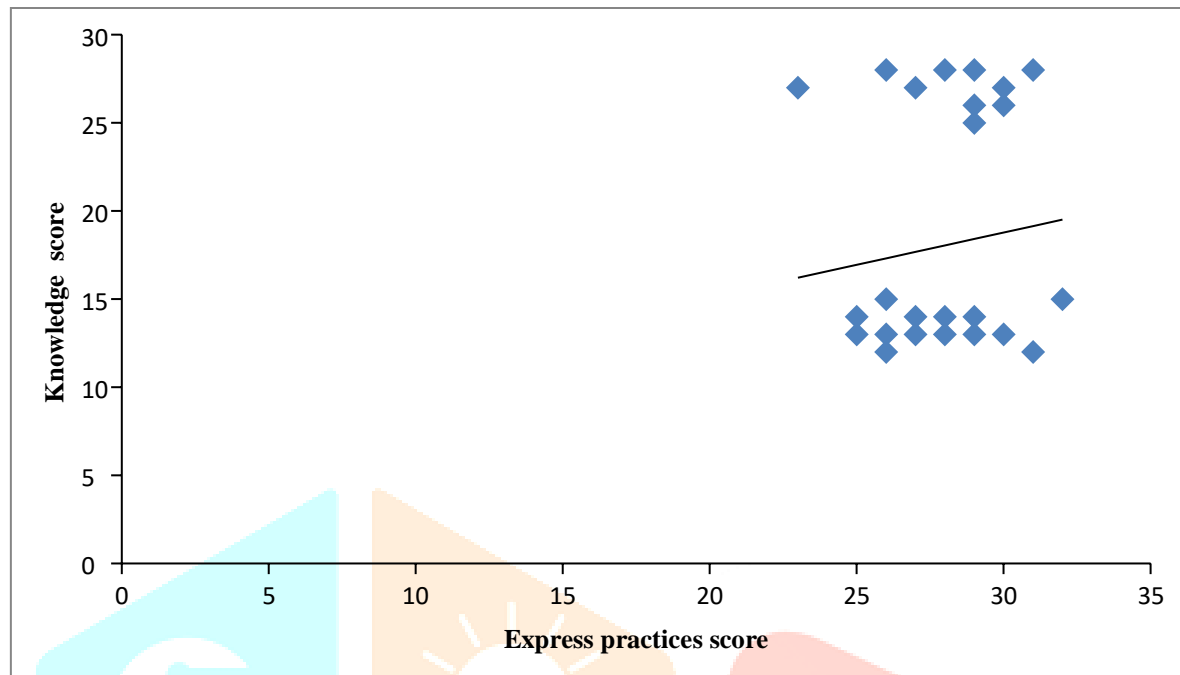
t ( 58)= 2.00 , t (29) = 2.05

\*Significant (p≤0.05)

<sup>NS</sup> Not significant (p>0.05)

\*\*Significant (p≤0.01)

**Figure – 1 Scatter plot diagram showing the relationship between the post test knowledge and expressed practices score in experimental group.**



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