

A STUDY TO ASSESS THE EFFECTIVENESS OF AUDIO DRAMA ON KNOWLEDGE REGARDING ORAL HYGIENE AMONG CHILDREN IN SELECTED BLIND SCHOOLS OF PUNE CITY

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ABSTRACT

Introduction: The prevalence of childhood blindness was 0.17% in India. Oral hygiene is one of the difficult tasks to do for visually impaired children. Unfortunately, conventional methods of teaching of maintenance of oral hygiene like using visual aids, disclosing agents do not aid in teaching the visually impaired children who depend of touch and feel to learn. The number of people visually impaired due to infectious disease has greatly reduced in the last 20 years. Around 80 % of all visual impairment cause can be avoided or cured. True ability of understanding by others means will improve understanding of visually impaired children and help in their practices in maintaining oral hygiene. **The present study title:** "A study to assess the effectiveness of audio drama on knowledge regarding oral hygiene among children in selected blind schools of Pune city". The objective of the study was to assess the level of knowledge regarding oral hygiene before administration of audio drama among blind children, To assess the level of knowledge regarding oral hygiene after administration of audio drama among blind children, to assess the effectiveness of audio drama on knowledge regarding oral hygiene among blind children and to associate finding with selected demographic variable. **Material and Methods:** In present study, researcher adopted Quasi experimental pre-test –post-test single group design. It was carried out on 60 blind children. The Non-probability purposive sampling technique was used to select 60 blind children. The sample consisted of 60 blind children who fulfilled the inclusion criteria of the study. In order to assess the effectiveness of the audio drama on knowledge regarding oral hygiene self-structured questionnaire on knowledge regarding oral hygiene was used as data collection tool. The content validity of the tool was done after obtaining suggestions from 19 experts in the field of medical, Nursing, Schools, Statistician and Angel Certified media studio etc. Reliability of the tool was done using the "split-half method" by using "Karl Pearson's formula. Reliability was found that the 'r' value was 0.85 hence the tool was found reliable. Ethical clearance was taken from Institutional ethics committee. **Result:** Majority (58.33%) of the children was from the age group of 12 years, 46.66% of them were in 5th standard & all were belonging to nuclear family. The findings show that 90% are having good knowledge and 10% are having average knowledge with mean score 7.9833 and SD 1.14 before intervention. Findings of this section show that all blind children are having good knowledge after 2 hrs assessment with mean score 15.91 and SD 0.336 after intervention. After 7 days again assessment done which shows that all blind children are having good knowledge with mean score 15.703 and SD 0.743 after 7 days of intervention. It means knowledge regarding oral hygiene is not learnt temporarily, it retained for long time. Study concludes that audio drama is effective on knowledge regarding oral hygiene among children. Knowledge regarding Oral hygiene of blind children is not significantly associated with demographic variables. **Conclusion:** From the above findings, the researcher concluded that The descriptive analysis was done to assess the effectiveness of audio drama on knowledge regarding oral hygiene which shows that audio drama is effective method for enhancement of knowledge of children.

Keywords: (Effectiveness, Audio drama, Knowledge, Oral hygiene, Children, Blind)

INTRODUCTION

Children are believed to be future of mankind. The health of children is of vital importance to all societies. According to estimates there are 1.4 million blind children in the World, two-thirds are present in developing countries. Visual impairment is vision loss to such a degree so which requires an additional support and there is a significant limitation of visual capability. An uncorrected refractive error is main causative factor for visual impairment globally but in middle and low income countries cataracts is responsible for blindness. Visually impairment due to infectious disease is reduced in past 20 years. Around 80 % of all visual impairment cause can be avoided or cured. The prevalence of childhood blindness was 0.17% in India. Oral hygiene is one of the difficult tasks to do for visually impaired children. As compared to normal sight children, visual impaired children have poorer oral hygiene and high caries index. Unfortunately, conventional methods of teaching of maintenance of oral hygiene like using visual aids, disclosing agents do not aid in teaching the visually impaired children who depend of touch and feel to learn. Maintenance of oral health, removal of plaque and proper brushing of teeth children is required which is difficult for visually impaired children. Plaque is one of the risk factor for caries

development. True ability of understanding by others means will improve understanding of visually impaired children and help in their practices in maintaining oral hygiene.

According to WHO impairment means abnormality of physiological and psychological function. As loss of teeth due to diseases. Impairment is concerned with individual functions in eyes which is part of body. Parents, teachers, blind youth, and the adult blind community are getting increasingly getting aware about the education of blind people which is not enough. They are devoid of quality education which prevents them from competing in the demanding high tech economy and society. They are unable to develop the positive attitude toward their impairment which is important for them to become mature and independent. Parents, teachers, blind youth, and the adult blind community are getting increasingly getting aware about the education of blind people which is not enough. They are devoid of quality education which prevents them from competing in the demanding high tech economy and society. They are unable to develop the positive attitude toward their impairment which is important for them to become mature and independent.

NEED FOR THE STUDY

To add the quality of life oral health is important. Performing oral hygiene is taken as a task for person with hearing impairment. Blindness and low vision are considered to have profound effects on quality of life for many people. Normal development and education of children is affected; and negatively impact mobility and economic wellbeing of the person. Emotional and social stress is faced by the individual as result of being blind.

A study by Taranatha Mahantshaet all in 2015 on comparative study regarding assessment of oral hygiene using brail versus audio instructions among visually impaired children. Objective of study was to compare status of oral hygiene among institutionalized children of age between 6 and 20 years given with Braille and audio instructions in Raichur city of Karnataka. In age group of 6 to 20 years total 50 children were included. It was observed that combination of both is important to achieve proper oral hygiene . In India there are 320,000 1/5th of worlds visually impaired children (<16years). They are not able to perform their daily activity including oral hygiene with gingivitis and periodontal disease and dependent on parents. The school system must have proper environment for promotion of oral hygiene for such children. Blind children rely on sound, speech and touch to learn and understand situation. Audio film of normal format of art that tells a story solely through sound without need for visual elements or a narrator must be used. It is effective 80 % than other mode of teaching. Hence audio drama which is a recorded format is powerful visual tool in the psychological dimension. Douglas Walker, 2009, says that visually impaired students are very much used to listen and capable to operate in terms rewind and pause to make them hear effectively.

OBJECTIVES OF THIS STUDY

To assess the level of knowledge regarding oral hygiene before administration of audio drama among blind children

To assess the level of knowledge regarding oral hygiene after administration of audio drama among blind children.

Assess effectiveness of audio drama on knowledge regarding oral hygiene among blind children

To associate finding with selected demographic variable.

REVIEW OF LITERATURE

1. Review of Literature related to Visual Impairment and Personal Hygiene
2. Review of related to effectiveness of Audio drama on oral Hygiene.

A study by Reshma Mohan et all in 2017 on Comprehensive Dental Care for the Visually Impaired: A Review. In the present century, impaired, disabled and handicapped individuals are not ignored due to their disability. They are encouraged to lead a normal life. This narrative literature review helps to enumerate various management, treatment and preventive modalities to promote oral hygiene of the oral health of blind. Barriers in oral care in to the visually impaired population needs to worked on

Work by Priya in 2012 highlighted many aspects. Study aimed to investigate the dental hygiene practice and knowledge school of Chennai. Which was assessed using a questionnaire? The subjects of age group of 10-16 years (219 were males and 373 females) were randomly selected from five private and government schools (Total 592 children). Knowledge score was statistically significant with $P = 0.004$ in these subjects. Frequency of brushing the teeth twice per day was significant ($p=0.008$) in the two different age groups. Female and male children varied statistically.

A descriptive study conducted by Abhishek Mehta et al in 2012 regarding knowledge and attitude of school children related to oral health. Main goal of the study was implementation of oral health promotion programme close ended questionnaire was structured to assess participant's knowledge. Result shows that 32% did not clean their teeth daily. Almost 45.5% of children had teeth problem. But only few 35.9% consult dentist.¹⁶

Study conducted by Jain N, et al in 2012 regarding practice and awareness about oral hygiene. Scarcity of knowledge regarding oral hygiene is there. With the age group of 15-50 years 500 patients participated. Structured questionnaire to assess practice. Lack of knowledge and Practice was observed it was found that so many people don't use toothbrush.

A Study Conducted in 2017 by Jurun Barle on effectiveness of structured teaching programme on knowledge regarding oral hygiene among visual impaired children. 60 children participated in study and found that there was effect of teaching programme. Knowledge level of children increases to mean 23 with 2.13 standard deviation. There were increase the level of knowledge.

A study by sathyadeepa. P. et al in 2012 on Effect of audio drama to promote personal hygiene among visually Challenged adolescent girls at selected blind schools, Coimbatore. Objective of study was to find out the effect of audio drama to promote personal hygiene among visually challenged adolescent girls in selected Blind schools, Coimbatore. Purposive sample of 21 samples were selected for this study. Initially, the knowledge and practice of personal hygiene of the visually challenged adolescent girls was assessed using an interview schedule and checklist respectively. Audio drama on techniques and importance of hygienic practices was played 20 minutes daily once for a period of 26 days. Post test was done using the same tool. Appropriate statistical techniques were used to test the hypotheses. The finding shows significant improvement in knowledge and practice of personal hygiene. Thus, audio drama promotes knowledge and practice of personal hygiene among visually challenged adolescent girls.

A descriptive study conducted by NandiniSen 2017 among 500 patients in a work entitled as Knowledge, attitude and practice among patients attended department of public health dentistry in dental hospital. Questions regarding oral health knowledge, attitude, and practices were self administered. Even if dental decay is present many of the participants did not reported because the pain was not there. Half of the people were aware that tobacco chewing may cause cancer. Many participants used toothbrush and toothpaste and 52% had tongue cleaning habit. Rural population did not practice toothbrushing as compared to urban population. Study concluded that rural area had an unsatisfactory level of oral hygiene and information and special efforts are required to overcome it.

EXPERIMENTAL SECTION

Material and method:

In present study, researcher adopted Quasi experimental pre-test –post-test single group design. It was carried out on 60 blind children. The Non-probability purposive sampling technique was used to select 60 blind children. The sample consisted of 60 blind children who fulfilled the inclusion criteria of the study. In order to assess the effectiveness of the audio drama on knowledge regarding oral hygiene self-structured questionnaire on knowledge regarding oral hygiene was used as data collection tool. The content validity of the tool was done after obtaining suggestions from 19 experts in the field of medical, Nursing, Schools, Statistician and Angel Certified media studio etc. Reliability of the tool was done using the “split-half method” by using “Karl Pearson's formula. Reliability was found that the 'r' value was 0.85 hence the tool was found reliable. Ethical clearance was taken from Institutional ethics committee

Description of Tool: The tool includes two sections:

Section I: demographic variables

It involves demographic data such as age Educational Qualification, and type of family.

Section II – self structured questionnaire regarding knowledge of oral hygiene

Section II comprised of eighteen (18) knowledge questions regarding oral hygiene. Each right answers carried one mark and incorrect responses are scored 0 (zero). Total score is eighteen

Level of knowledge will be Graded as: -

Level of Knowledge and score :

Good 13 to 18

Average 7 to 12

Poor 0 to 6

Plan for Data Analysis:

The analysis was done by using the data of section-I and section-II and presents them in tables, graphs and figures.

For the analysis of demographic data frequencies and percentage was calculated. The significance was calculated by using mean, standard deviation, and calculated 't' value, and association was done by Fisher's exact test with demographic variable.

RESULT AND DISCUSSION

Analysis and interpretation of the data are based on data collected from 60 blind children studying in selected blind schools of Pune city who meets the inclusion criteria.

Section-I:**Analysis of Demographic Characteristics****Table No.4.1****Description of the demographic characteristics**

S NO	PARAMETERS	FREQUENCY	PERCENTAGE
1.	Age in years		
	10 years	9	15
	11 years	16	26.67
	12 years	35	58.33
2.	Education		
	a) 3 rd standard	4	6.66
	b) 4 th standard	21	35
	c) 5 th standard	28	46.67
	d) 6 th standard	7	11.67
3.	type of family		
	Nuclear	60	100
	joint family	0	0

n=60

Table shows these are as follows Majority (58.33%) of the children were from the age group of 12 years, 46.66% of them were in 5th standard & 100% were belonging to nuclear family.

Section -2
Table No. 4.2

Level of knowledge regarding Oral hygiene of students before intervention

N=60

S. NO	Level of knowledge	Frequency	Percentage
1.	Good knowledge (13-18)	0	0
2.	Average knowledge (7-12)	54	90
3.	Poor knowledge (0-6)	06	10
4.	Mean score		7.9833
5.	Standard Deviation		1.14

Table no 4.2 Shows that out of 60 samples 90% are having average knowledge and 10% are having poor knowledge with mean score **7.9833** and SD **1.14** before intervention.

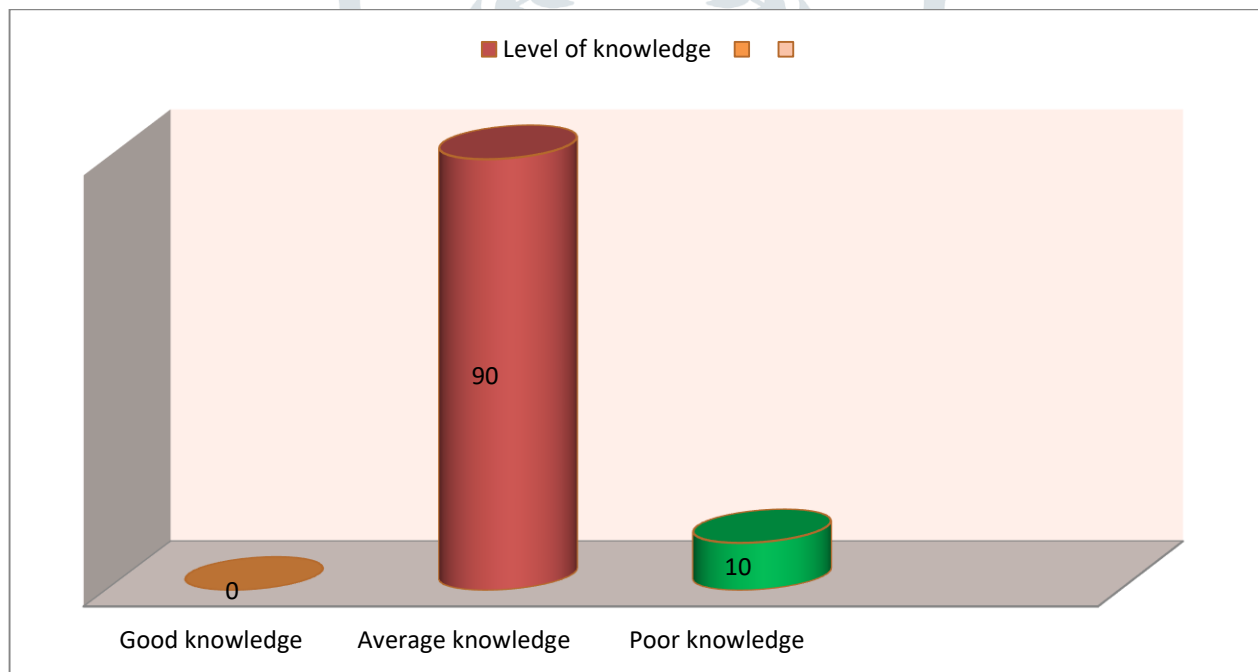


FIGURE 4.1: level of knowledge regarding oral hygiene among blind children before intervention

Section -3

Table No. 4.3
Knowledge regarding oral hygiene among blind children after 2 hours of intervention

N=60

S. NO	Level of knowledge	Frequency	Percentage
1.	Good knowledge (13-18)	60	100%
2.	Average knowledge (7-12)	00	0
3.	Poor knowledge (0-6)	00	0
4.	Mean score	15.91667	
5.	Standard Deviation	0.336	

Table No. 4.3 Shows all blind children are having good knowledge with mean score 15.91 and SD 0.336 after intervention.

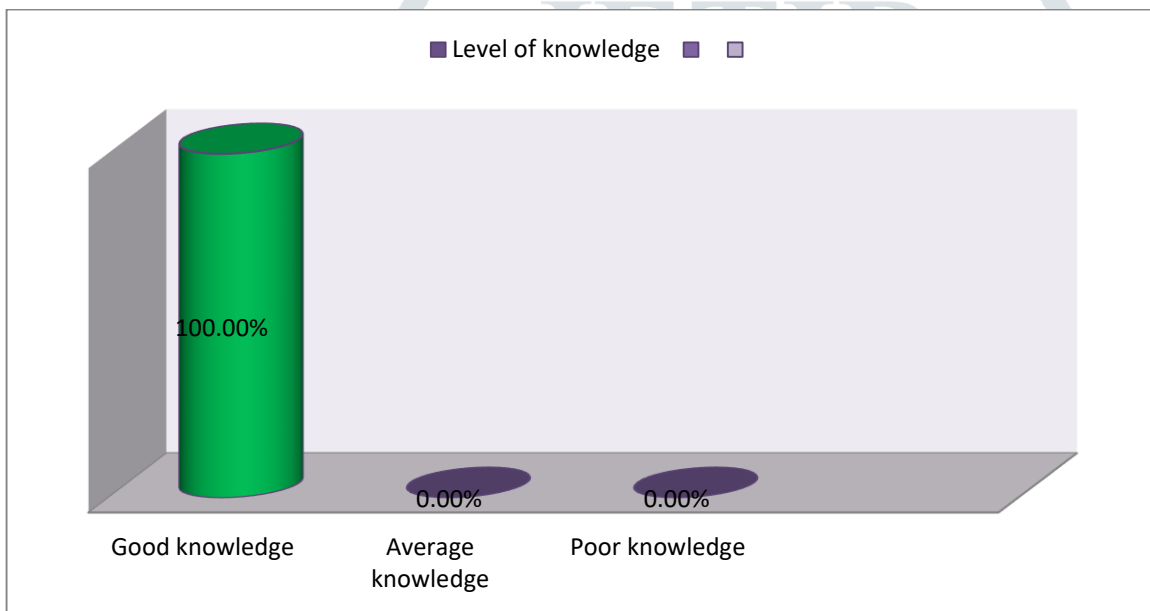


FIGURE 4.2 : level of knowledge after 2 hours of intervention

Section -4

Table No. 4.4
Knowledge level regarding oral hygiene after 7 days of intervention

N=60

S. NO	Level of knowledge	Frequency	Percentage
1.	Good knowledge (13-18)	60	100%
2.	Average knowledge (7-12)	00	0
3.	Poor knowledge (0-6)	00	0
4.	Mean score	15.703	
5.	Standard Deviation	0.743	

Table no.4. 4 shows all blind children are having good knowledge with mean score 15.703 and SD 0.743 after 7 days of intervention.

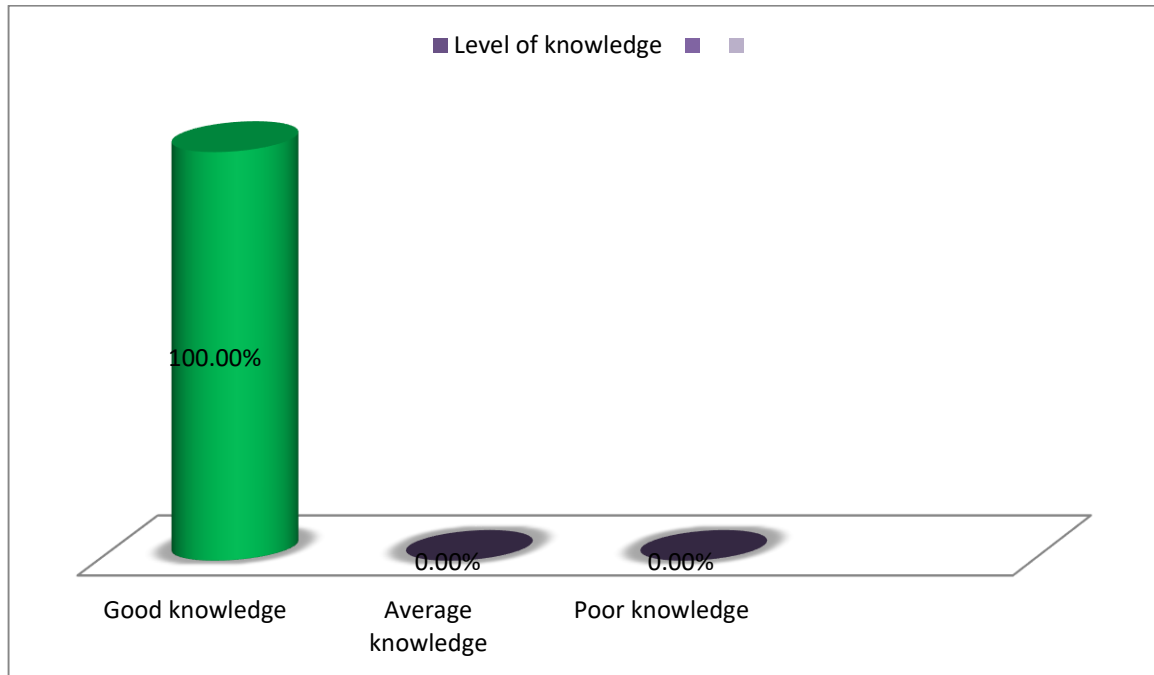


FIGURE 4.3: knowledge after 7 days of intervention

Section –5

Table No. 4.5

Association with Selected demographic variables

N=60

S.NO	PARAMETERS	knowledge regarding Oral hygiene of blind children with demographic variable			SIGNIFICANCE
		Fishers exact Statistic	P VALUE	P VALUE	
1	Age	0	1	>0.05	Not associate
2.	Education	0	1	>0.05	Not associate

Table No. 4.5: Shows that knowledge regarding Oral hygiene of blind children are not significantly associated with demographic variables as P value is >0.05 . It means knowledge regarding Oral hygiene are not affected by any demographic variables.

Discussion

In the present study, from the data analyzed, it is evident that the demographic variable Majority (58.33%) of the children were from the age group of 12 years, 46.66% of them were in 5th standard & all were belonging to nuclear family. The findings show that 90% are having good knowledge and 10% are having average knowledge with mean score 7.9833 and SD 1.14 before intervention. Findings of this section show that all blind children are having good knowledge after 2 hrs assessment with mean score 15.91 and SD 0.336 after intervention. After 7 days again assessment done which shows that all blind children are having good knowledge with mean score 15.703 and SD 0.743 after 7 days of intervention. It means knowledge regarding oral hygiene is not learnt temporarily, it retained for long time. Study concludes that audio drama is effective on knowledge regarding Oral hygiene of blind children and not significantly associated with demographic variables.

A Study Conducted in 2017 by Jurun Barle on effectiveness of structured teaching program on knowledge regarding oral hygiene among visual impaired children. 60 children participated in study and found that there was effect of teaching program. Knowledge level of children increases to mean 23 with 2.13 standard deviation. There were increase the level of knowledge

Conclusion

Descriptive analysis performed to evaluate effectiveness of audio drama which shows that audio drama is effective method for enhancement of knowledge of children. The demographic variable and Knowledge regarding Oral hygiene of blind children are not significantly associated.

IMPLICATION

Study implicated to nursing practice, nursing education, nursing administration and research.

NURSING PRACTICE

For health of every individual as nurse needs to pay attention to all the comprehensive aspects of health. Nurse should assess the oral hygiene and can use audio drama as technique to enhancement of knowledge. Audio drama can also be used for other health education methods. Audio drama can be used in nursing profession as teaching methods which can be used in community areas, de-addiction centers, industrial areas and special school. At a time of change and growth for nursing, it is important that nurses be open to new ways, and even new roles, in order to improve and enhance the care provided. Yet it is necessary that nurses subject all new trends, practices or theories, to a careful analysis and evaluation.

NURSING EDUCATION

Nursing education is developing and high level of education is delivered to attain international standard. The need for nursing colleges to consider that audio drama can be used to awareness and promotion of health in all aspect of social problem. The role of nurse teachers implementing audio drama technique in the education setting. Hence audio drama can be included in the nursing education curriculum.

NURSING ADMINISTRATION

Continuing nursing education should be emphasized on different type teaching methods like audio drama. As an administrator, the nurse should motivate her staff to participate in learning new trend in nursing field. Learning to communicate, develop good Intra-personal relationship and to practice the new trends in the nursing field.

NURSING RESEARCH

In the current scenario, various nursing researches have been conducted on different aspect health teaching method, audio visual method etc. All these researches shown audio drama is effective on knowledge regarding oral hygiene.

LIMITATIONS

1. Study is limited to the blind school children only.
2. Sample size is limited and not covering to the school of entire city.
3. Analysis of the study will be based purely on the basis of responses given by the students.
4. The study was limited to the experience level of the researchers.
5. Data collection period was only for 4 weeks.

RECOMMENDATIONS

There are the following recommendations

1. It is suggested that the study may be replicated using a larger population of adolescents, school age students and MR Child.
2. A study can be carried out to assess the effects of audio drama on menstrual hygiene.
3. A similar study may be initiated to observe the effect of audio drama on motivational seminars.
4. A similar study can be done to assess the effects of audio drama on building self-esteem.
5. Study can be done using other alternative method or technique of oral hygiene.

DISSEMINATION OF FINDINGS

The findings can be distributed through publication and standardized journal, paper presentation, presentation and conferences, seminar, workshops and health education.

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