"A STUDY TO EVALUATE THE EFFECTIVENESS OF VIDEO ASSISTED TEACHING ON KNOWLEDGE REGARDING FIRST AID MANAGEMENT ON SELECTED HEALTH EMERGENCIES OF UNDER FIVE CHILDREN AMONG ANGANWADI WORKERS."

Percis. S
Assistant Professor,
P P Savani University, Surat, Gujarat, India.

ABSTRACT:

Background of the study: Anganwadi is a type of rural mother and child care center in India. They are started by the Indian government on 1975 as a part of Integrated Child Development Services program for the purpose to combat child hunger and malnutrition. A typical Anganwadi center should provide basic health care in villages. So, training of AWW on first aid would really help to preserve many young lives during emergency situation

Objectives: 1.To assess the level of knowledge on first aid management of selected health emergencies of under five children among Anganwadi Workers before administration of VAT. 2. To assess the level of knowledge on first aid management of selected health emergencies of under five children among Anganwadi Workers after administration of VAT. 3. To determine the effectiveness of VAT on first aid management of selected health emergencies of under five children in terms of gain in knowledge score. 4. To find the association between Pretest knowledge score with selected baseline data (age, educational status, religion, marital status, years of work experience, family income, source of previous information, previously seen health emergencies)

Methodology: An Evaluative research approach and Pre-experimental research design was adopted for this study. The sample size for this study was 100 Anganwadi Workers who were selected using Non probability purposive sampling technique. Data were collected using knowledge questionnaire regarding first aid management on selected health emergencies of under five children prepared by the investigator. The VAT was administered to the AWW. The post test was conducted after 7 days of VAT. Data were analyzed using descriptive and inferential statistics.

Results: This study findings show that the Pretest mean knowledge score was 13.92 and the posttest mean knowledge score was 20.76. It shows that there was a significant difference between the pretest and posttest knowledge score regarding first aid management on selected health emergencies of under five children among Anganwadi Workers as measured by 't' test value (19.012) which was significant at 0.05 level of significance.

Conclusion: The finding of the study shows that the knowledge of Anganwadi Workers was not adequate before the introduction of VAT. The Posttest knowledge scores showed significant increase in the level of knowledge. Hence the VAT was an effective method of improving the knowledge of AWW.

Index terms: First Aid Knowledge, Anganwadi Workers, Selected Health Emergencies, Under Five Children.

I. INTRODUCTION:

"Safety and security don't just happen, they are the result of collective consensus and public investment .We owe our children, the most vulnerable citizens in our society, a life free of fear"

-Nelson Mandela, former President of South Africa

Anganwadi is a type of rural mother and child care Centre in India. They were started by the Indian government on 1975 as part of Integrated Child Development Services program to combat child hunger and malnutrition. Anganwadi means "courtyard shelter" in Indian language. A typical Anganwadi Centre should provide basic health care in villages.[1]

Anganwadi Centre is managed by honorary female worker who are called as 'Anganwadi worker' (AWW) and play a key as community level functionary. She is specially selected and trained woman from the local community, educated up to high school. The presence of Anganwadi Workers in the community has a synergic effect as she liaises between health functionaries and community.[2] so, training of AWW on first aid would really help to preserve many young lives during emergency situation.[3]

The analysis of the Global burden of Disease Study 2016 reveals that 24.8% of under-five deaths have occurred in South Asia, 28.1% in western Sub-Saharan Africa and 16.3% in Eastern Sub-Saharan Africa. In absolute term, the largest number of under-five death has occurred in India was 0.9 million. According to data from the National Family Health Survey 4, the under-five mortality rate in India was 50 per 1000 live births.[2]

Not all accidents, injuries or illnesses require a trip to hospital but it doesn't mean they don't cause pain and suffering to the child. A child crying because of a bruised elbow or with a fever is in pain and suffering. By knowing how to act even just by employing simple technique such as applying an ice pack correctly or utilizing appropriate bandaging will help to relieve their discomfort.[4]
While everyone can benefit from first aid training, it may be a more necessary requirement for certain people. People who educate and watch over children ideally should be able to perform first aid. Day care Centre personnel should be able to perform first aid.[5]
First Aid is the immediate and temporary care given to the victim of an accident or sudden illness, before medical help is obtained. One must know the basics of administering first aid and this knowledge is gained by getting trained. The main aim of first aid are to preserve life ,to prevent further injury and deterioration of the condition, to make the victim as comfortable as possible to conserve strength and to put the injured person under professional medical care at earliest.[6]

II. NEED FOR THE STUDY

Former prime minister of India Smt. Indira Gandhi at World Health Assembly emphasized that services must begin where people are and where problem arise. The child is an investment for National development and productivity. The children age group of under five years go to Anganwadi for non-formal education. About 24.9% of children represent this age group. It is a period rapid physical growth and development.[7]
According to Indian census 2011, total number of children in the age group of 0-6 years was 158.8 million in India [8] and the total population of 0-6 years of Dadra and Nagar Haveli was 50,895.[9]
Press Information Bureau Government of India September 2013, Ministry of health and family welfare reports that 67.23% of children in the 6 months to 6 years have been covered under ICDS. In Dadra Nagar Haveli, the number of children enrolled in Anganwadi are 16,958 As per Anganwadi survey register, 15130 children (89.22%)were covered.[10] The WHO report indicates that injuries are the leading cause of death and in many countries for children after their first birthday.[11]
A Community based cross sectional study was conducted in South Delhi. Total sample of the children were selected from 400 households by systematic random sampling technique. Structured questionnaire was used as tool. The study findings revealed that the prevalence of home injury was found to be 39.7%, significantly higher in the age group of 1-3 years (54.3%) followed by 5-10 years (45.1%). Most common type of home injury was falls (59.5%) followed by injury with sharps and burn injury. [12]

III. OBJECTIVES

1. To assess the level of knowledge on first aid management of selected health emergencies of under five children among Anganwadi Workers before administration of VAT.
2. To assess the level of knowledge on first aid management of selected health emergencies of under five children among Anganwadi Workers after administration of VAT.
3. To determine the effectiveness of VAT on first aid management of selected health emergencies of underfive children in terms of gain in knowledge score.
4. To find the association between Pretest knowledge score with selected baseline data.

IV. ASSUMPTIONS:

V. HYPOTHESIS:

H1: There is a significant difference between the pre and posttest mean knowledge scores regarding first aid management on selected health emergencies of underfive children among Anganwadi Workers.

H2: There is a significant association between the pretest knowledge score on first aid management of selected health emergencies of underfive children and selected socio-demographic variables.

VI. OPERATIONAL DEFINITIONS:

1. **EFFECTIVENESS:** It refers to the significant gain in knowledge score by comparing pre and post mean knowledge scores of Anganwadi Workers on selected heath emergencies of underfive children before and after VAT.
2. **VIDEO ASSISTED TEACHING ON SELECTED HEALTH EMERGENCIES OF UNDERFIVE CHILDREN**: It refers to video (documented film) consisting of explanation regarding first aid management on selected health emergencies which included the definition, causes, signs & symptoms and first aid management of the selected health emergencies such as wounds/bleeding, febrile convulsion/ epilepsy, diarrhea/dehydration, foreign body obstructions, fracture, burns/electrical injuries, snake bite and dog bite.
3. **KNOWLEDGE**: It refers to correct responses given by the Anganwadi Workers to the items in structured knowledge questionnaire regarding first aid management of selected health emergencies of underfive children as expressed in terms of scores.
4. **ANGANWADI WORKERS:** In the present study it refers to a female aged between 19 – 58 years, who is working in Anganwadi centers of Dadra and Nagar Haveli.

VII. DELIMITATION

1. The Anganwadi Workers working in Dadra and Nagar Haveli
2. Who are willing to participate in the study
3. Able to read, write and understand Hindi

VIII. MATERIALS AND METHODS

"Research design is a planned sequence of the entire process involved in the conducting of as research study". The research design adopted for this study was Pre-experimental (one group Pretest post test) design. The Schematic representation of the research design is given below;

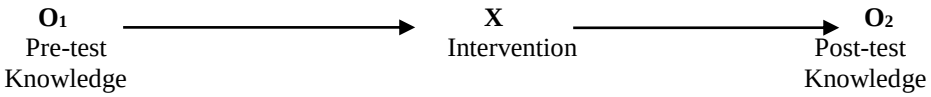

Figure 1: one group pre-test, post-test design

Keys:

O1: Assessment of knowledge on first aid Management of selected health emergencies of underfive children before administration of VAT

X: Administration of VAT on first aid Management of selected health emergencies of under five children among AWW

O2: Assessment of knowledge on first aid Management of selected health emergencies after administration of VAT.

Phase-1

The target population selected for the study was Anganwadi Workers. The accessible population for the study was, Anganwadi workers those who are all working in selected areas of Dadra and Nagar Haveli. By Non-Probability Purposive Sampling Technique 100 Anganwadi Workers were selected from accessible population, who met the inclusion criteria. The structured knowledge questionnaire was prepared to evaluate the knowledge regarding first aid Management of selected health emergencies of under five children of the review of literature, personal experience of the investigator.

Tool was validated by experts and reliability was established by Test – Retest Method.

Phase-2

Pre-test was conducted by administrating the knowledge questionnaire to measure the knowledge of Anganwadi Workers on the first day. On the same day after the pre-test, Video Assisted Teaching on first aid Management of selected health emergencies of under five children were administered. Post-test was done with the same tool after Eight days.

Phase-3

Analysis and interpretation of the data was done. Association was done with post-test knowledge scores and selected demographic variables. The effectiveness of Video Assisted Teaching on first aid Management of selected health emergencies of under five children was evaluated.

8.1 VARIABLES UNDER STUDY

Two types of variables were identified in this study.

1. **Independent variable**:- Video Assisted Teaching on first aid management on selected health emergencies of under five children
2. **Dependent variables:**

- Knowledge score of Anganwadi Workers on first aid management on selected health emergencies before treatment
- Knowledge score of Anganwadi Workers on first aid management on selected health emergencies after treatment

8.2 RESEARCH SETTING

The present study was conducted at selected Anganwadi centres in Dadra and Nagar Haveli.

8.3 RESEARCH POPULATION

Target Population: In the present study target population are the Anganwadi Workers.

Accessible Population: The accessible population for the study was the Anganwadi Workers at selected Anganwadi Centers in Dadra and Nagar Haveli.

8.4 THE SAMPLE

The sample for the present study comprised of 100 Anganwadi Workers at selected Anganwadi Centers in Dadra and Nagar Haveli.

8.5 SAMPLING TECHNIQUE

100 Anganwadi Workers were selected by non-probability purposive sampling technique from selected Anganwadi Centers in Dadra and Nagar Haveli.

8.6 SAMPLE SELECTION CRITERIA

The sampling frame structured by the investigator included the following criteria:

Inclusion criteria

- The Anganwadi Workers working in Dadra and Nagar Haveli
- Who are willing to participate in the study
- Able to read, write and understand Hindi

Exclusion criteria

- Who were not available at the time of data collection.

8.7 DEVELOPMENT AND DESCRIPTION OF THE TOOL

After an extensive review of literature, discussion with the experts and with the investigator's professional experience, structured knowledge questionnaire was developed.

8.7.1 DATA COLLECTION TOOL

This consists of 2 parts:

Part I: Assessment of demographic variables

Demographic variables include Age, Education qualification, religion, marital status, year of experience, family income, previously received information, source of information, and previously seen any selected health emergencies.

Part II: Assessment of level of knowledge on first aid management

Knowledge questionnaire – 30 questions

It consists of 9 divisions:

a) General information of first aid – 03 items.
b) Wounds /bleeding – 03 items
c) Febrile convulsion/Epilepsy – 03 items
d) Diarrhea/ dehydration – 05 items
e) Foreign body Obstruction – 03 items
f) Fractures – 03 items
g) Burns/electrical injuries-04
h) snake bite-03
i) dog bite -03

Each item has 1 correct response and each correct response carries '1' mark and each wrong answer carries '0' mark.

8.7.2 SCORING AND INTERPRETATION

Score Range for knowledge & it's Interpretation:

Level of Knowledge	Score
<50%	Inadequate Knowledge
50 – 75%	Moderately Adequate Knowledge
>75 %	Adequate Knowledge

Intervention

Video Assisted Teaching on first aid management on selected health emergencies of under five children

8.7.3 RELIABILITY

The reliability of the tool was established by test retest method for knowledge questionnaire. The reliability score was r = 0.95 for knowledge. The 'r' value indicated the highly positive correlation, which showed that the tool is reliable, feasible and practicable to conduct the main study.

8.7.4 PILOT STUDY

The predominant objectives of the pilot study were to help the investigator to become familiar with the use of tool and to find out any difficulties encountered to conduct the main study. It also aimed to assess the feasibility of the study, clarity of language and make plans for analysis thus helping in finalizing the tool. The investigator obtained the written permission from the concerned authority. Pilot study was conducted at Dapada, Dadra Nagar and Haveli. A total of 20 Anganwadi workers who fulfilled the inclusive criteria for sample selection were selected using non-probability purposive sampling technique. The investigator administered structured knowledge questionnaire and Video Assisted Teaching given to the Anganwadi workers which took approximately 1 hour 30 minutes to complete the process. Post test level of knowledge was assessed on 8th day using the same knowledge questionnaire.

The analysis of pilot study revealed that the objectives of the study could be fulfilled, based on this information investigator proceeded with the actual data collection for the main study. The tool was found to be feasible and practicable. No further changes were made in the tool after the pilot study.

8.7.5 PROCEDURE FOR DATA COLLECTION

Formal written permission was obtained from the concerned authority of ICDS department, before data collection to conduct the research study. The study was conducted at Anganwadi centres of Dadra & Nagar Haveli, named Galonda, Randha, Rakholi, and Silvassa. The study was conducted from 28th January to 6th February.

The investigator introduced herself to the AWW of the selected Anganwadi centres, the purpose of the study was explained, confidentiality was assured, and written consent was obtained from them. Pre-test was conducted for the group using the structured knowledge questionnaire to assess their level of knowledge. The VAT was conducted on the same day. The duration of the session was one hour. Different questions were raised by the group and explanations were given during the session. The Post test was conducted after seven days. The same knowledge questionnaire was used to evaluate the effectiveness of the VAT. The investigator experienced good cooperation from the authorities and participants throughout the study. The data collection process was concluded by thanking the respondents and authorities of the AWW.

8.8 PLANS FOR DATA ANALYSIS

The data obtained were analyzed by using both descriptive and inferential statistics.

Descriptive statistics

1. Frequency and percentage distribution to analyze demographic variables of AWW.
2. Mean and standard deviation will be used to analyze pre-test and post-test knowledge on first aid Management of selected health emergencies of underfive children

Inferential statistics

1. "z" test to compare the pre-test and post-test level of knowledge on first aid Management of selected health emergencies of underfive children
2. Chi- square test was used to associate selected demographic variables and posttest knowledge scores.

The analyzed data will be presented in the form of tables, figures and graphs.

IX. RESULTS &FINDINGS

The present Video Assisted Teaching was prepared with the aim of improving the knowledge of Anganwadi workers regarding first aid Management of selected health emergencies of underfive children. In order to achieve the objectives of the study, one group pre – test posttest experimental design was adopted for the study. An evaluative approach was adopted for the study. Non probability purposive sampling technique was used to select the respondents. The sample for the study comprises 100 AWW to whom the Video Assisted Teaching was administered.

The findings of the study are as follows:

SECTION I: Description of the demographic characteristics of AWW.
SECTION II: Description of Pretest knowledge score of Anganwadi Workers on first aid management
SECTION III: Description of posttest knowledge score of Anganwadi Workers on first aid management
SECTION IV: Effectiveness of VAT in terms of gain in knowledge score.

SECTION V: Association between Pretest knowledge score with selected baseline characteristics.

9.1 SECTION I: DESCRIPTION OF THE DEMOGRAPHIC CHARACTERISTICS OF AWW

According to Age wise distribution of Anganwadi Workers depicts that, the highest (33%) percentage of the Anganwadi Workers belongs to the age group of 3238 years, followed by 39-45 years (25%), 25-31 years(20%), >46 years(18%) and 1824 years (4%) respectively.

According to Education wise distribution of Anganwadi Workers depicts that, the highest (58%) percentage of the Anganwadi Workers belongs to high school, followed by middle school (21%), graduate or post graduate (19%) and least percentage (2%) of Anganwadi Workers belongs intermediate or post high school diploma respectively.

According to Religion wise distribution of Anganwadi Workers depicts that all of them (100%) belongs to Hindu religion. According to Marital Status, distribution of Anganwadi Workers reveals that majority (92%) of the Anganwadi Workers were married, widow (5%), separated (2%), unmarried (1%) respectively.

Among Anganwadi Workers the highest (31%) percentage belongs to > 16 years of experience, followed by 6-10 years (29%), 11-15 years (24%) and the least percentage (16%) of Anganwadi Workers belongs to < 5 years of experience respectively.

Among Anganwadi Workers more than half (59%) of belongs to income groups of 4500-6500 rupees, followed by >12,501 rupees (14%), 6501-8500 rupees (11%), 10501-12500 rupees (10%), 8501-10500 rupees (6%) respectively.

Among Anganwadi Workers about (96%) of them had received information, only least percentage (4%) of the Anganwadi Workers not received information.

Out of the 96% of Anganwadi Workers the majority of them (89%) received basic information on first aid through ICDS Department and the minority (7%) of the Anganwadi Workers received information from family, relatives& friends.

Among Anganwadi Workers that majority (62%) of have not seen any conditions, followed by wounds/bleeding (29%), Diarrhea/Dehydration (3%), Foreign body obstruction (1%), Fracture(1%), Snake bite (1%), Wound & Febrile(1%), Wound &Diarrhea(1%), Wound & Foreign Bodies(1%) respectively.

Among Anganwadi Workers about majority (62%) of them stated that no measures taken, followed by refer the child to hospital (21%), did simple first aid (17%) respectively.

9.2 SECTION II: DESCRIPTION OF PRETEST KNOWLEDGE SCORE OF ANGANWADI WORKERS ON FIRST AID MANAGEMENT

Knowledge level was assessed by using structured knowledge questionnaire and analyzed using descriptive statistics. This section depicts that majority (69 %) of AWW had inadequate knowledge on first aid management of selected health emergencies

and least percentage (31%) of AWW had moderately adequate knowledge on first aid management of selected health emergencies. None of the AWW had adequate knowledge in terms of pretest.

9.3 SECTION III: DESCRIPTION OF POST TEST KNOWLEDGE SCORE OF ANGANWADI WORKERS ON FIRST AID MANAGEMENT

This section reveals that majority (71%) had moderately adequate knowledge, 21% of AWW had adequate knowledge and least Anganwadi Workers (8 %) of AWW had inadequate knowledge on first aid management of selected health emergencies of underfive children in terms of Posttest.

9.3 SECTION IV: EFFECTIVENESS OF VAT IN TERMS OF GAIN IN KNOWLEDGE SCORE

The pretest mean score was 13.92±2.99 and posttest mean score was 20.76 ± 3.210 and the obtained 't' value is 19.012 which is significant at 0.05 level of significance. This shows that the obtained mean difference was a true difference and not by chance. Hence research hypothesis stated is accepted. It can be inferred that the Video Assisted Teaching was effective for improving the knowledge regarding first aid management of selected health emergencies of under-five children.

9.4 SECTION V: ASSOCIATION BETWEEN PRETEST KNOWLEDGE SCORE WITH SELECTED BASELINE CHARACTERISTICS.

There was no significant association between variables (Age $\chi 2$ =3.124, education $\chi 2$=2.828, Marital Status $\chi 2$=3.548, Years of Experience $\chi 2$=6.955, Family Income $\chi 2$= 5.048 received information $\chi 2$=0.810, source of information $\chi 2$=1.190, previously seen any condition $\chi 2$=6.612) was not significant at 0.05 level. Thus it can be interpreted there was no significant association between the Pretest knowledge score and any of the selected baseline characteristics variables.

X. RECOMMENDATIONS FOR FURTHER STUDY

Based on the findings of the study, following recommendations have been made:

1. A study can be replicated on a large sample to generate the findings.
2. A study can be carried out to evaluate the efficiency of various teaching strategies like pamphlets, leaflets along.
3. A study can be conducted with two group design (experimental and control group)
4. A study can be carried out to assess the attitude and practice of first aid management on selected health emergencies in Anganwadi setting.

ACKNOWLEDGEMENT

O' Lord my God, I will give you thanks forever.

All praise and thanks to the Almighty God who always guides me to the right path and has helped me to complete this thesis.

Greatly extend my thanks to Mrs. Namrita, IN charge of ICDS Department and Anganwadi supervisors, workers for their permission and cooperation to complete my study.

I extend my thanks to all the Nursing and non-nursing experts who gave valuable suggestions on validation of my research tool.

I greatly express my gratitude and sincere thanks to enthusiastic personality my beloved Husband Mr. Peter Paul for his unfailing love, motivation and support to complete my research study.

My sincere thanks and gratitude are due to all those who directly or indirectly helped me in successful completion of this dissertation

REFERENCE

1. Anganwadi .from Wikipedia, the free encyclopedia. Wikipedia. https://en.wikipedia.org/wiki/Anganwadi
2. Abantika Ghosh .Under-five mortality rate highest in India: Report. September 16, 2017.Available from: http://indianexpress.com/article/india/under-five-mortalityrate- highest-in-india-report-lancet-uttar-pradesh-kerala-4845938/
3. Y sachdev, avsm. Integrated child development services (icds) scheme. 2001 Apr; 57(2):139–143.Published online 2011 Jul 21. doi:10.1016/S0377-1237(01)801350
4. Emergency first response creating confidence to care.5 reasons why basic first aid knowledge is essential. http://www.emergencyfirstresponse.com/5-reasons-why-basicfirst- aid-knowledge-is-essential/
5. Marian Aldana.The Importance of First Aid. . Seton blog. 2013. Available from URL:https://www.seton.com/blog/2013/06/the-importance-of-first-aid
6. Indrani TK. First aid for nurses. First edition .new delhi: jaypee brothers medical publishers(p) Ltd; 2008
7. Chaudhari rinal ratilal, naik nithi bharat kumar, patel hemaxi, bhandari aneri dhirajlal a study to assess the effectiveness of structured teaching programme regarding management of minor ailments of under-five children among Anganwadi Workers.
8. State wise child population in India 2011 census,https://updateox.com/india/statewise-child-population-in-india-2011-census/.
9. Census 2011. Available at: https://www.census2011.co.in/questions/33/statechildpopulation/child-population-of-dadra-and-nagar-haveli-state-2011.html
10. Press Information Bureau; Government of India Ministry of Women and Child Development.
11. Korle bu.domestic accidents among children under five on the risk;Available from:http://www.myjoyonline.com/news/2015/november-30th/domesticaccidents-among-children-under-five-on-the-rise-korle-bu.php
12. Bhuvaneswari N, Prasuana JG, Goel MK, Rasania SK . An epidemiological study on home injuries among children of 0-14 years in South Delhi. NCBI.2018 JanMar; 62(1):4-9.doi:10.4103/ijph.IJPH_428_16.Available from: https:/ /www. ncbi. nlm. nih.gov/pubmed/29512558.