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A STUDY TO ASSESS THE EFFECTIVENESS OF PLANNED TEACHING PROGRAMME ON KNOWLEDGE REGARDING EBOLA VIRUS DISEASE AMONG STAFF NURSES WORKING IN BHARATI HOSPITAL SANGLI

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ABSTRACT

"A study to assess the effectiveness of planned teaching programme on knowledge regarding Ebola virus disease among staff nurses working in Bharati Hospital, Sangli."The study was conducted by Mrs. Archana R. Dhanawade, clinical instructor, BVDU,CONSG, SANGLI.

OBJECTIVES

- To assess the existing knowledge regarding Ebola virus disease.
- To evaluate the effectiveness of planned teaching programme regarding Ebola virus disease.

HYPOTHESIS

1. H_0 – There will be no significant differences in the knowledge. score between pre-test and post- test after administration of planned teaching programme.
2. H_1 – There will be significant differences in the knowledge score between pre-test and post- test after administration of planned teaching programme.

The study was conducted in Bharati Hospital, Wanlesswadi, Sangli. The research design used was quasi experimental, simple random sampling technique was used for sampling method, sample of the study constitute of 60 staff nurses working in Bharati Hospital, Wanlesswadi, Sangli.

The tool consists of two sections: section-I included 04 items seeking information on demographic profile and section-II includes 22 items i.e. Introduction of Ebola virus disease ,

definition, structure and morphology, mode of transmission, clinical manifestation, complications, diagnostic evaluation, management and prevention of Ebola viral infection.
The content validity of tool and planned teaching programme was established with the help of experts from medical surgical nursing, child health nursing, obstetrics and gynecology, community health nursing and mental health nursing. We have made necessary changes and modifications according to their opinion and suggestions. The reliability of tool was done by test retest method and it was r= 0.9.

Pilot study was conducted in Wanless Hospital, Miraj from 2nd December 2014 to 6th December 2014.

Main study was conducted in Bharati Hospital, Wanlesswadi, Sangli from 11th dec 2014 to 17thdec 2014.

Analysis was done by using descriptive and inferential statistic. The tests used were calculation of frequency, percentage and paired "t" test.

Major finding of the study

The purpose of the present study was to assess effectiveness of planned teaching programme on knowledge regarding Ebola virus disease among staff nurses.

The finding of the present study showed significant different in the mean and standard deviation of pre-test and post- test. The research hypothesis (H1) was accepted as planned teaching programme is highly effective in increasing the knowledge regarding Ebola virus disease among staff nurses.

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CHAPTER 1

Background of the study

Good health is fundamental rights of every human being. Internal and external growth of person is not possible without good health. Good health is essential to lead both a quality and successful life. Beyond being personal responsibility health is national and international responsibility and also a worldwide social goal.

According to WHO the main objective is achieving the goal of "Health for all by primary Health care services".[1]

(Ebola River is Zaire) first emerged in Sudan and Zaire. The first outbreak of Ebola infected over 248 people with mortality rate of 53%.

A few months later the second outbreak of Ebola virus emerged from Zaire with highest mortality rate infecting 318 people in spite of tremendous efforts of experience and dedicated researchers, Ebola's natural reservoir was not identified.

The third outbreak of Ebola was identified in 1989 when infected monkeys were imported into Reston, Virginia and Philippines.[2]

The recent outbreak of Ebola was reported in guinea a western African country in the month of July. On 8th August the WHO declared the epidemic to be an international public health emergency. Urging the world to offer help affected regions. The director general said, countries affected are not capable to manage an outbreak of this size and complexity on their own.

By mid-August, the doctors reported "the situation in Liberia is detoriating daily". They reported the fear of Ebola among staff members and patients which resulted in leaving many people without treatment. By late august the disease spread to Nigeria.

By 6th September, 2014, 4293 suspected cases of Ebola including 2296 death were reported addition to this out break more than 120 health care workers died due to lack of equipments and long hours. Till November 2014 the number of death was more than 5000 and infecting nearly 16000 people.[3]

NEED FOR THE STUDY

The Ebola virus is the major epidemic disease occurring in Africa; it is very serious health problem today the world is facing, as it caused major deaths within a short period of time. This Ebola virus is fatal to human being as well as to animals. Moreover the specific treatment for Ebola is not yet available and also no vaccines. So prevention is only measures to control the spread of disease.

As this disease is spreading rapidly, even in India victim was found in month of November at Delhi Airport. So as the health team members, the staff nurses should have adequate knowledge about the disease and its prevention, to handle the situation. It will also help to remove the misconception about the disease and to use appropriate preventive measures. Also creating awareness about the disease is prime responsibility of health care workers.

According to WHO more than 5000 people died from Ebola and 15000 were suffering from Ebola till November 2014.[4]

STATEMENT OF PROBLEM

"A study to assess the effectiveness of planned teaching programme on knowledge regarding Ebola virus disease among staff nurses working in Bharati Hospital, Sangli."

OBJECTIVES OF THE STUDY

- To assess the existing knowledge regarding Ebola virus disease.
- To evaluate the effectiveness of planned teaching programme regarding Ebola virus disease.

OPERATIONAL DEFINITION

- **ASSESS**

According to Oxford dictionary.

"Assess means calculate or estimate the value importance or quality of someone or something".

In this study assess means to identify or estimate knowledge of nurses regarding Ebola virus disease through structured questionnaires.

- **EFFECTIVENESS**

According to Oxford Dictionary "Effectiveness means producing a desired or intended result"In this study effectiveness refers to extend to the planned teaching programme has achieved desired result of increasing in nurses knowledge regarding Ebola virus disease.

- **PLANNED TEACHING PROGRAMME (PTP).**

According to oxford dictionary, "Planned teaching programme means detailed proposal systematically arranged to provide information regarding knowledge on health issues". In this study it refers to systematically developed instruction & teaching aids designed for to provide information regarding Ebola virus disease.

KNOWLEDGE

According to oxford dictionary "Knowledge means information & awareness acquired through Experience or education". In this study knowledge means information which the nurses have regarding Ebola virus disease previously through newspapers or any other resources.

HYPOTHESIS

❖ **H_0**– There will be no significant differences in the knowledge score between pre-test and post- test after administration of planned teaching programme

- **H_1**– There will be significant differences in the knowledge score between pre-test and post- test after administration of planned teaching programme

SUMMARY

The chapter deals with an introduction, background of problem, need of the study, statement of problem, objective of study, operational definitions, hypothesis for knowledge among the staff nurses working in hospitals.

CHAPTER 2

REVIEW OF LITERATURE

Review of literature is a key step in research process. The major goal of the review of the literature is to develop strong knowledge base to carryout research and non research scholarly activities.[6]

LITERATURES RELATED TO EBOLA VIRUS

1.A study was conducted by The University of Chicago press , A special supplement of the Journal of infectious diseases, volume 79 supplement 1, February 1999, the second outbreak occurred in 1995 in the Democratic republic of Congo, affecting 315 and killing 254. The disease has a high mortality rate. The prevention of Ebola virus disease is use of personnel protective equipments and avoids conduct with blood and bodily fluids of infected persons. Number of experimental treatments is being studied.[7]

2.A study was conducted by world health organization, Ebola Viral disease or Ebola hemorrhagic fever is a disease to human and other primates caused by an Ebola virus in which bleeding both internally and externally and leads to death. Fruit bats are believed to be a carrier and may spread the disease virus without being affected. Major outbreak of Ebola virus in Africa. No specific treatment for the disease is yet available.[8]

3.A Study was conducted by C.M. Fauquet, International Committee of toxomy of virus on 2005, Ebola viral disease was first identified in Sudan (now south Sudan) and the Democratic Republic of the Congo. The disease typically occurs in outbreak in tropical regions of sub-sabaran Africa. The largest outbreak to date is the ongoing 2014. Bleeding is the major problem in this disease condition. The transmission of virus is human via direct contact with blood or bodily fluids from on infected person. No Ebola virus- Specific treatment exists. Efforts are under way to develop a vaccine; however, none yet exists.[9]

4.A study was conducted by Dr. Ratan Kumar Vaish, senior consultant, department of internal medicine, Rockland group of hospitals, Delhi- NCR. The condition is contagious. So migratory populations are most likely to get infected and transmits the virus. Interesting this condition is also a hospital acquired infection and is commonly transmitted to hospital staff. Apart from that, high risk individuals include diabetics. Immunocompromised patients, patients with kidney and liver failure and HIV infected people.[10]

5.A study was conducted by N. Nriram, international journal, an overview on Ebola virus disease, Ebola virus disease (EVD), also known as Ebola hemorrhagic fever, is a severe, often fatal illness in humans. EVD outbreaks have a case fatality rate of up to 90%. EVD outbreaks occur primarily in remote villages in Central and West Africa, near tropical rainforests. The virus is transmitted to people from wild animals and spreads in the human population through human-to-human transmission. Fruit bats of the Pteropodidae family are considered to be the natural host of the Ebola virus. Severely ill patients require intensive supportive care. No licensed specific treatment or vaccine is available for use in people or animal.[11]

6.A study was conducted by N LN recommendations and resource says that Formerly sporadic, with high case fatality rates (up to 90%), the deadly Ebola hemorrhagic fever outbreaks are becoming more and more frequent in Africa, mostly in relation to increasing contact with infected wildlife. Previous epidemics were detected after a long delay, especially because of the remoteness of the epidemic focus, the lack of laboratory facilities and the poor knowledge of the disease b d doctors and nurses, who confused Ebola disease with malaria or typhoid fever.[12]

7. Cases were first reported from forested areas in south-eastern Guinea. The outbreak has rapidly evolved and several districts and Conakry have reported cases and deaths caused by EVD. A small number of suspected cases and deaths have also been reported from neighboring countries with all of them having crossed from Guinea. Confirmed cases have been reported from Guinea and Liberia.[13]

8. A study was conducted byBBC, Patrick Sawyer, on 6th October 2014 the Ebola infected man who traveled to Lagos Nigeria by plane, passed the disease on to eight health workers before being properly isolated. Nigerian health authorities acknowledged Tuesday that they did not immediately quarantine a sick airline passenger who later died of Ebola, announcing

that eight health workers who had direct contact with him were now in isolation with symptoms of the disease. In spite of the seriousness of this disease and in spite of the fact the fact that the BBC itself covered a study in 2012 that demonstrated that Ebola can spread through the air, no one in the corporate media has budged from the official line regarding transmission.[4]

9.A Study was conducted by National Center for Infectious Diseases, Centers for Disease Control and Prevention, Atlanta, Georgia Most of the known information on filoviruses can be found in *Marburg Virus Disease*]*Ebola Virus Hemorrhagic Fever*], and this supplement. *Marburg and Ebola Viruses*] has just been published and contains, but is not limited to, particularly good summaries of recent work on the molecular biology of filoviruses. Much of the Russian literature has never been properly surveyed and synthesized in the English language. This supplement contains reviews of Russian work on antibody therapy and pathogenesis, and other information on pathogenesis and vaccine immunology is available.[14]

10. A study was conducted by Geisbert TW[1], Bausch DG, Feldmann H. Rev Med Virol. 2010 Nov, Prospects for immunization against Marburg and Ebola viruses**.** For more than 30 years the filoviruses, Marburg virus and Ebola virus, have been associated with periodic outbreaks of hemorrhagic fever that produce severe and often fatal disease. The filoviruses are endemic primarily in resource-poor regions in Central Africa and are also potential agents of bioterrorism. Although no vaccines or antiviral drugs for Marburg or Ebola are currently available, remarkable progress has been made over the last decade in developing candidate preventive vaccines against filoviruses in nonhuman primate models. Due to the generally remote locations of filovirus outbreaks, a single-injection vaccine is desirable. Among the prospective vaccines that have shown efficacy in nonhuman primate models of filoviral hemorrhagic fever, two candidates, one based on a replication-defective adenovirus serotype 5 and the other on a recombinant VSV (rVSV), were shown to provide complete protection to nonhuman primates when administered as a single injection. The rVSV-based vaccine has also shown utility when administered for post exposure prophylaxis against filovirus infections.[15]

11. A study was conducted by Geisbert TW[1], Feldmann H. 2011 Nov,Recombinant vesicular stomatitis virus-based vaccines against Ebola and Marburg virus infections**,** the filoviruses, Marburg virus and Ebola virus, cause severe hemorrhagic fever with a high mortality rate in humans and nonhuman primates. Among the most-promising filovirus vaccines under

development is a system based on recombinant vesicular stomatitis virus (rVSV) that expresses a single filovirus glycoprotein (GP) in place of the VSV glycoprotein (G). Importantly, a single injection of blended rVSV-based filovirus vaccines was shown to completely protect nonhuman primates against Marburg virus and 3 different species of Ebola virus. These rVSV-based vaccines have also shown utility when administered as a post exposure treatment against filovirus infections, and rVSV-based Ebola virus vaccine was recently used to treat a potential laboratory exposure. Here, we review the history of rVSV-based vaccines and pivotal animal studies showing their utility in combating Ebola and Marburg virus infections.[16]

12.FalzaranoD[1], GeisbertTW, FeldmannH.ExpertRev Vaccines2011. Jan10,Marburg and Ebola viruses cause severe hemorrhagic fever in humans and nonhuman primates. Currently, there are no effective treatments and no licensed vaccines; although a number of vaccine platforms have proven successful in animal models. The ideal filovirus vaccine candidate should be able to provide rapid protection following a single immunization, have the potential to work post exposure and be cross-reactive or multivalent against all Marburg virus strains and all relevant Ebola virus species and strains. Currently, there are multiple platforms that have provided prophylactic protection in nonhuman primates, including DNA, recombinant adenovirus serotype 5, recombinant human parainfluenza virus 3 and virus-like particles. In addition, a single platform, recombinant vesicular stomatitis virus, has demonstrated both prophylactic and post exposure protection in nonhuman primates. These results demonstrate that achieving a vaccine that is protective against filoviruses is possible; the challenge now is to prove its safety and efficacy in order to obtain a vaccine that is ready for human use.[17]

13.A study was conducted by one of the , Dr. Gary Kobinger, from the National Microbiology Laboratory at the Public Health Agency of Canada on 2012 showed that Ebola was able to travel between pigs and monkeys that were in separate cages and were never placed in direct contact. Though the method of transmission in the study was not officially determined, that he believed that the infection was spread through large droplets that were suspended in the air.[18]

"What we suspect is happening is large droplets; they can stay in the air, but not long; they don't go far," he explained. "But they can be absorbed in the airway, and this is how the

infection starts, and this is what we think, because we saw a lot of evidence in the lungs of the non-human primates that the virus got in that way.[18]

14. A study was conducted by Schou S[1], Hansen AK. Et al, Ebola Virus Outbreak 2014: Clinical Review for Emergency Physicians. The 2014 Ebola outbreak in West Africa is the largest in history. Ebola viral disease is a severe and fatal illness characterized by a nonspecific viral syndrome followed by fulminant septic shock and coagulopathy. Despite ongoing efforts directed at experimental treatments and vaccine development, current medical management of Ebola viral disease is largely limited to supportive therapy, thus making early case identification and immediate implementation of appropriate control measures critical. Because a case of Ebola viral disease was confirmed in the United States on September 30, 2014, emergency medicine providers should be knowledgeable about it for a number of reasons: we are being called on to answer questions about Ebola and allay public fears, we are likely to be first to encounter an infected patient, and there are increasing numbers of US emergency physicians working in Africa who risk coming in direct contact with the disease. This article seeks to provide emergency physicians with the essential and up-to-date information required to identify, evaluate, and manage Ebola viral disease and to join global efforts to contain the current outbreak.[19]

15.A study was conducted by Meyers L[1], Frawley T[2], Goss S[2], Kang C[2],Ebola Virus Outbreak 2014: Clinical Review for Emergency Physicians. The 2014 Ebola outbreak in West Africa is the largest in history. Ebola viral disease is a severe and fatal illness characterized by a nonspecific viral syndrome followed by fulminant septic shock and coagulopathy. Despite ongoing efforts directed at experimental treatments and vaccine development, current medical management of Ebola viral disease is largely limited to supportive therapy, thus making early case identification and immediate implementation of appropriate control measures critical. Because a case of Ebola viral disease was confirmed in the United States on September 30, 2014, emergency medicine providers should be knowledgeable about it for a number of reasons: we are being called on to answer questions about Ebola and allay public fears, we are likely to be first to encounter an infected patient, and there are increasing numbers of US.[20]

16. A study was conducted by United States centers for disease control and prevention, Ebola hemorrhagic fever, 2014, Ebola viral infection usually begin suddenly with influenza like stages. It incubation period is 2 to 21 days. 40 to 50% of cases, bleeding from puncture sites

and mucous membrane. If the infected person does not recovers, death due to multiple organ dysfunction. No specific treatment available for Ebola virus disease.[21]

17. a study was conducted by Juanita Ebert Brand, Debra Siela,Virginia A. Caine, and ShandyDeart, Division of Infectious Disease, Department of Medicine, Massachusetts General Hospital, Boston, on 2014,Ebola word conjures up the thoughts of dark, steamy jungles and grim healthcare providers working feverishly in primitive conditions to battle a deadly—yet geographically isolated—disease. Today, we see Ebola in a different light as patients return from abroad for treatment and we hear of the first case identified on U.S. soil and the subsequent death of the patient. This view includes specialized treatment in a secured isolation unit, manned by battalions of care providers and support personnel to manage patient contact, treatment, medications, contaminated protective gear, and waste. It's a chilling reminder that any contagious pathogen in the world is a plane ride away from its next host.[22]

18. April 2014 - WHO is supporting the national authorities in the response to an outbreak of Ebola virus disease (EVD; formerly known as Ebola hemorrhagic fever). The outbreak is now confirmed to be caused by a strain of Ebola virus with very close homology (98%) to the Zaire Ebola virus. This is the first time the disease has been detected in West Africa.[8]

19.Interim guidance for airline cabin crews, cleaning personnel and cargo personnel, 2014 says that avoid direct contact with blood, saliva, vomit, urine and other bodily fluids of people with EVD or unknown illness, avoid close contact with wild animals and handling wild meat and avoid travelled to a region where EVD was present.

Environmental sanitation practices to control the spread of communicable disease in passenger conveyances and terminal, June 23, 2014. Before travelling to epidemics area checking the centers for disease control and prevention website, wash hands frequently, avoid bush meat, avoid contact with infected people and follow infection control procedures. Scientists are working on a variety of vaccines that would protect people from Ebola or Marburg virus. Some of results have been promising but further testing is needed.[23]

20. A study was conducted by *National Center for Infectious Diseases, Centers for Disease Control and Prevention, Atlanta, Georgia on 2014,* Most of the known information on filo viruses can be found in *Marburg Virus Disease Ebola Virus Hemorrhagic Fever* and this

supplement. *Marburg and Ebola Viruses* has just been published and contains, but is not limited to, particularly good summaries of recent work on the molecular biology of filo viruses. Much of the Russian literature has never been properly surveyed and synthesized in the English language. This supplement contains reviews of Russian work on antibody therapy and pathogenesis and other information on pathogenesis and vaccine immunology is available.[21]

ARTICLES RELATED TO EBOLA VIRUS DISEASE

21. USAbryan.bishop.2006@gmail.com, the current Ebola virus epidemic has primarily been contained in West Africa though it has subsequently spread to other areas, including the United States. The first patient in the United States infected with Ebola virus was diagnosed, treated, and expired in Texas. Two nurses caring for this patient also were diagnosed with Ebola virus and have been successfully treated. Treatment options for patients infected with Ebola virus are limited. Supportive therapy is centered on fluid resuscitation, electrolyte imbalance correction, treating complicating infections, and preventing complications of shock. Experimental therapies (ZMapp, brincidofovir, TKM-Ebola, and favipiravir) have been used during this current outbreak. Several medications such as amiodarone, chloroquine, and clomiphene may prevent the transmission of or treat Ebola virus. Different vaccine therapies are also in early-stage development. One of the vaccine strategies using recombinant vesicular stomatitis virus as a delivery vector has demonstrated efficacy when used for pre exposure and post exposure prophylaxis.[24]

22. Medline plus article, 2014, Ebola virus disease is also called as Ebola hemorrhagic fever. The virus may acquire upon contact with blood or bodily fluids of an infected animals and humans. It's are to similar to Marburg virus disease. One of the primary reasons for spread is that the health systems in the part Africa where the disease occurs function poorly. Medical workers who do not wear appropriate protective clothing may contract the disease. Hospital-acquired transmission has occurred in African countries due to the reuse of needles and lack of universal precautions. Some health care centers caring for people with the disease do not have running water.[16]

23.Media centre articles, September 2014, the Ebola virus disease, formerly known as Ebola hemorrhagic fever, is a sever , often fatal illness in human, the average EVD case fatality rate is around 50%. Case fatality rate has varied from 25% to 90% in past outbreak. There are currently no licensed Ebola vaccines but 2 potential candidates are undergoing evaluation.

The risk of transmission is increased among those caring for people infected. Recommended measures when caring for those who are infected include isolating them, sterilizing equipments and surfaces, and wearing protective clothing including masks, gloves, gowns and goggles. If a person with Ebola dies, direct contact with the body of the deceased patient should be avoided.[4]

24.A study was conducted *by CDC news on* august 13th 2014 has admitted that the Ebola virus can travel through air, but they made that admission in a very sneaky and hard to find manner(Casual contact is defined as a) being within approximately 3 feet or within the room or care area for a prolonged period of time while not wearing recommended personal protective equipment or having direct brief contact (e.g., shaking hands) with an EVD case while not wearing recommended personal protective equipment. The implication of this statement is very, very clear: Ebola DOES in fact travel through the air. This is critical information and it should be highlighted in large letters on every page, but instead it is tucked away in fine print where many won't look. Given the fact that the CDC previously was running info graphic campaigns claiming that Ebola does not travel through the air this is highly irresponsible on their part.[14]

CHAPTER 3
RESEARCH METHODOLOGY

Research methodology is a systematic way to solve the research problem. Research methodology involves the systematic procedure by which researcher starts from the initial identification of the problem to its final conclusion.[6]

The methodology of research indicates the general pattern for organizing the procedure for gathering valid and reliable data for an investigation. It includes the description of the research approach, research design, variable under study, setting, population sample and sampling technique and plan for data analysis to determine the effectiveness of planned teaching programme.

RESEARCH DESIGN

Research design facilitates the smooth sailing of various research operations thereby making research as efficient as possible yielding maximal information with minimal information.[6]

The research design adopted for the present study was quasi experimental design.

The selection of the research design is the most important steps as it provides the framework for the study. The research design helps the researcher in the selection of subjects, manipulations of independent variables, control observation to be made of statistical analysis to be used to interpret the data.

Keeping in view the objectives of the study, the research selected was one group pre-test post-test design (01x 02). Thus the research design can be presented as:

Table 01

Pre test	Planned teaching programme	post test
Day 1	Day 2	Day 7
01	x	02

One group pre- test post-test experimental design.

Key: 01 – Pre-test knowledge score

02- Post-test knowledge score

X – Planned Teaching Programme

VARIABLES

A variable is any phenomenon or characteristics or attitude under study. They are the measureable characteristics of concepts and consist of logical group of attitude. In present study following variables were used.[6]

❖ DEPENDENT VARIABLE

The response behavior or outcome that researcher wishes to predict or explain. Dependent variable in this study is knowledge of nurses regarding Ebola virus disease.

❖ INDEPENDENT VARIABLE

The treatment or experimental variable that is manipulated or varied by the researcher to create an effect on dependent variable. Independent variable in the study is planned teaching programme on knowledge regarding Ebola virus disease.

RESEARCH APPROACH

According to polit and Hungler (1985) research approach refers to the researchers overall plan for obtaining answers to the research questions and for testing the research hypothesis. The approach selected for the study was quantitative approach study.[25]

SETTING OF THE STUDY

The place where study will be conducted .setting for present research study is selected at Wanless Hospital Miraj and Bharati Hospital Sangli.

POPULATION OF THE STUDY

A population is an aggregate (or totality of all subjects that posses a set of specification. The target population is the group of population that the researcher aims to study finding will be generalized. The target population of the study was the staff nurses working in hospital.

The accessible is the group of population that researcher finds in the study area. The population of the study will be comprised of staff nurses who are working in hospitals of Sangli, Miraj and Kupwad corporation area.

SAMPLE AND SAMPLING CRITERIA

A sample is a portion of the population that has been selected to represent the population of the interest.

A survey was conducted in Sangli, Miraj and Kupwad Corporation area. A Hospital were surveyed and staff nurses were identified and listed by simple random sampling technique and by selection criteria, 60 staff nurses were selected for the study.

Sampling is process of selecting a portion of the population to obtain the data regarding a problem.

In this study, simple random sampling technique was used in selecting the hospitals, the total hospital in Miraj and Sangli areas were listed out and Wanless hospital and Bharati hospital are selected randomly and simple random technique was used.

SAMPLE SIZE

Sample size is the number of subjects needed to sample (Polit&Hungler 2008)[25]

Sample comprised of the population selected was as per their knowledge regarding Ebola virus. Thereby the sample size consisted of **60** staff nurses working in Sangli, Miraj and Kupwad corporation area who were included in this study.

SAMPLING CRITERIA

The following sampling criteria were set for the selection of samples:

1. Inclusive criteria

-The study includes Staff nurses.

- Who are willing to participate in the study

- Who can understand English and Marathi language.

2. Exclusive criteria

- Not available at the time of data collection.

Data collection technique and instruments

Various technique of data gathering involves the use of appropriate recording forms. These are called tools of instruments of data collection. Data collection technique is described as being both objective and systematic. Here objective means that data must not be influenced by anyone who collects data .where as systematic means the data must be collected in the same way by everyone who is involved in the data collection process.[Basvanthappa (2007)].[6]

The study aimed at evaluating the effectiveness of planned teaching programme regarding knowledge on Ebola virus in terms of knowledge gained. Hence, a self administered structure knowledge questionnaire, after planned teaching programme was used for collection of data.

1. Knowledge regarding Ebola virus was assessed by self administered questionnaire.
2. Planned teaching programme was given to staff nurses.
3. After 7 days (post – test) of planned teaching programm knowledge regarding Ebola virus were evaluated by a self – administered structured questionnaire.

Description of the tool

The format of the questionnaire comprises of two section or parts.

Section –1

It consist of items describing sample characteristics such as

< Code number

< Education

< Experience

< Any information about Ebola

< If yes, then source of information

Section -2

Questionnaires

It consists of items related to knowledge regarding Ebola virus, the content included was:

- History of Ebola virus.
- Definition of Ebola virus
- Structure and morphology of Ebola virus
- Mode of transmission of Ebola virus
- Clinical manifestation of Ebola viral disease
- Complications of Ebola viral disease
- Diagnostic evaluation of Ebola viral disease
- Treatment of Ebola viral disease
- Prevention of Ebola viral disease

Each item had one correct response is coded with one mark the total numbers of possible responses were 22 for questionnaires

Validity and Reliability of Tool

Polit and Hungler (2008), content validity is concerned with the sampling adequacy of the content area been measured. Content validity is of special relevance to individuals designing a test to measure knowledge in a selected hospital. The content validity of an instrument is based on judgments. Expert in the content area may be called on to analyze the item.[25]

To ensure the content validity of the tool, it was submitted to all experts along with blue print. The experts were selected based on their clinical experience and interest in the problem being studied. They were requested to give their opinion on the appropriateness and relevance of items in the tool. The experts suggested corrections. Only two questions were removed from the questionnaire.

RELIABLITY OF THE TOOL

Reliability is the extent to which instrument yields the same result on repeated measures concerned with consistency, precision, stability, equivalence and homogeneity.

Reliability of the tool is determine by pre-test and post- test method and 10 staff nurses were selected randomly from Wanless Hospital and were tested by using questionnaire on

knowledge regarding Ebola virus and r value was obtained r = 0.9 it shows that the tool was found to be highly reliable.

Pilot study

A study is a small – scale version or trails run of major study. [Polit&Hungler(2008].[25]

A pilot study was conducted from 5th December 2014. This was done to assess the feasibility of the study and present the planned teaching, and to decide on a plan for a statistical analysis. Prior administrative permission was obtained from Medical director of Wanless Hospital; Miraj.The study was conducted on 2nd December 2014 with 10 staff nurses. The sample was selected by simple random sampling technique. Data was collected through self structured questionnaire. Pre- test was taken on 2nd of dec 2014. Planned teaching programme was administered and post test was conducted on 6thDecember 2014, using the same tool. After post test the data was analyzed with help of paired 'r'test the findings indicated that the plan teaching programme was effective for the staff nurses in increasing their knowledge regarding Ebola virus.

Procedure for data collection

Formal written consent was obtained from staff nurses working in Bharati hospital Sangli. Data was collected from 11– 12- 14 to 17 – 12- 14.

On 11– 12- 14 (pretest day) the purpose of study was explain to each staff nurse and confidentiality of their response was assured.

After pre test planned teaching programme was administered to the staff nurses and post test was conducted on 17th December 2014.

PLAN FOR DATA ANALYSIS

The data analysis was plan to include descriptive and inferential statistics. The following plan of analysis was made with the opinion of experts. The analysis would be done based on the objectives.

Items related to background variable would be analyzed in terms of frequency and percentage.

- For the analysis of demographic data , frequencies and percentage were calculated

- The analysis of assessment was done by frequencies, percentage, mean, median and standard deviation.
- The significance was calculated using mean, standard deviation. The findings were documented in tables, graphs and diagrams.

❖ Mean, standard deviation of test and retest assessment score would be computed

❖ Data related to acceptability and utility of assessment would be analyzed in terms of frequency, percentage mean and standard deviation.

SUMMARY

This chapter deals with the methodology adopted for present study, research design, variables under study, setting, population, sample size, selection of the sample, sampling criteria, description of tools, and reliability of the tool, pilot study, data collection procedure and plan for data analysis.

CHAPTER 4

ANALYSIS INTERPRETATION OF THE DATA

The present chapter deals with the analysis and the interpretation of the data collected for "A Study to assess the effectiveness of planned teaching programme on knowledge regarding Ebola virus disease among staff nurses working in sangli, miraj and kupwad corporation area. The data was analyzed according to the objectives of the study.

Organization of data

The analysis and interpretation of findings are given in following section

Section 1 – frequency and percentage distribution of selected demographic variables.

Section 2 – pre- test knowledge before plan teaching programme and post test knowledge of staff nurses after conducting planned teaching program me.

Table no 1 Frequency and percentage distributions of selected demographic variables

n =60

Sr. no	Study conducted	Pre-test date	Post-test date
1	Pilot study	2.12.2014	6.12.2014
2	Final study	11.12.2014	17.12.2014

DEMOGRAPHIC VARIABLES	FREQUENCY	PERCENTAGE
1 Education		
a)ANM	20	33.33%
b)GNM	20	33.33%
c)BSc nsg	20	33.33%
2) Experience		
0 to 5 year	36	60%
5 to 10years	18	30%
10 years and above	6	10%
3) information about Ebola virus		
Yes	19	31.67%
no	41	68.33%
4) Source of information		
a) Newspaper	9	47.37%
b) Television	10	52.63%.

Description of demographic variables

Frequency distribution based on education

Table no-1. 1n=60.

Education	Frequency in Number	Percentage
ANM	20	33%
GNM	20	33%
BSC	20	33%

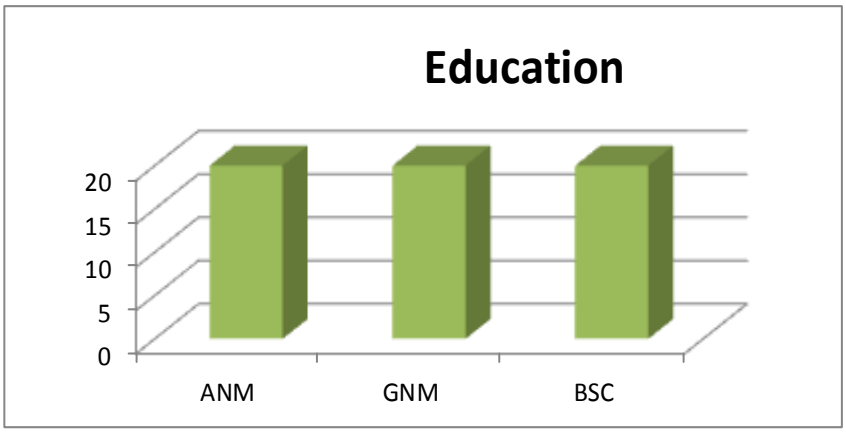

Figure no-1.1

In educational status 20 staff nurses were BSc nursing, 20 staff nurses were GNM nursing and 20 staff nurses were ANM nursing.

Frequency is based on experience

Table no-1.2

Experience	Number	Percentage
0 to 5 years	36	60.00%
5 to 10 years	18	30.00%
10 years and above	6	10%

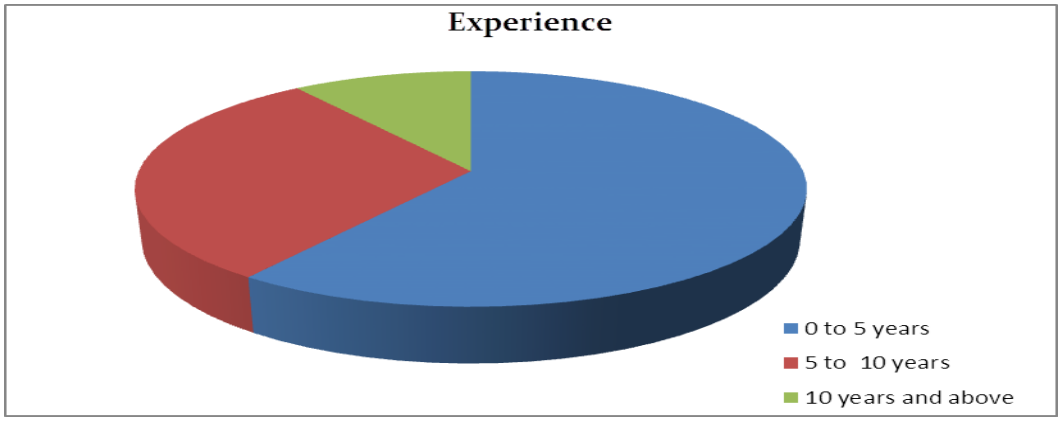

Figure no-1.2

The experience is categorized in 0 to 5 years consist of 36 staff nurses that is 60% , 5 to 10 years consist of 18 staff nurses that is 30% , 10 years and above consist of 6 staff nurses that is 10 %

Frequency Distribution based on Information about Ebola Virus disease

Table no 1.3

Information about Ebola virus	Number	Percentage
yes	19	31.67%
no	41	68.33%

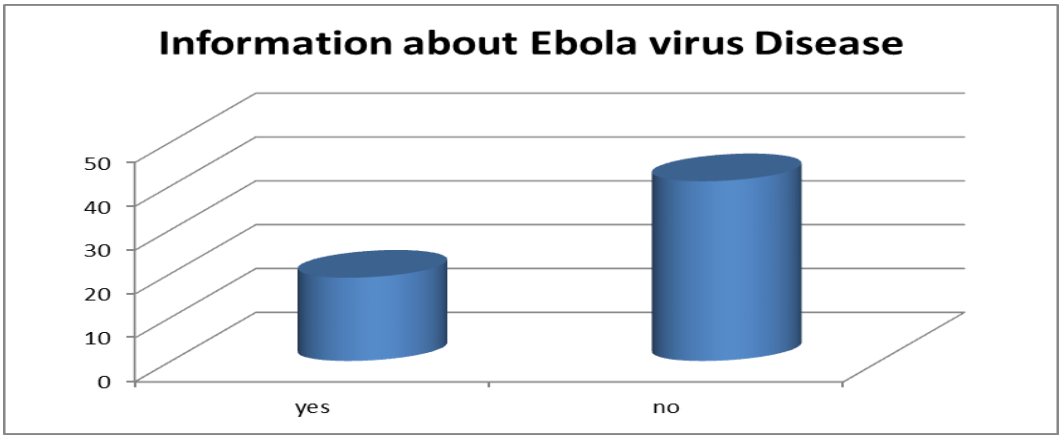

Figure no- 1.3

The above table and figure shows the information about Ebola virus disease to the staff nurses, in which it is found that 19 samples have some information about the Ebola virus while 41 samples are not having any knowledge or information about Ebola virus disease.

Frequency Distribution Based on Source of Information

Table no- 1.4

if yes source of information	frequency	Percentage
News paper	9	47.37%
Television	10	52.63%

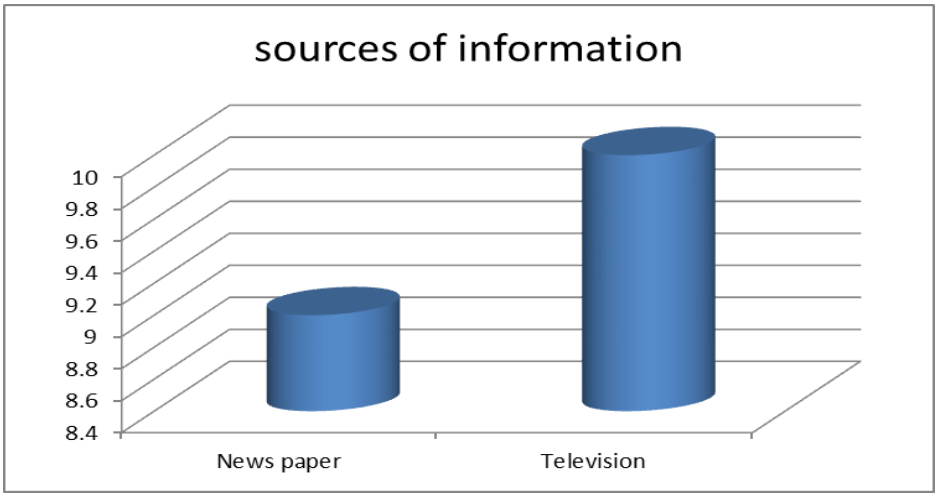

Figure no-1.4

The above table and figure shows the source of information about Ebola virus disease among the staff nurses. 9 samples had information's from news papers while the remaining 11 got the information from television.

Analysis of Final Study

Distribution according to the samples number mean and standared deviation of pre-test and post-test score of staff nurses regarding Ebola virus.

Table no-2

	Number	mean	Sd
pre-test	60	12.34	2.647
post-test	60	17.48	2.013

Bar diagram of Mean

Table no-2.1

	Pre-test	Post-test
Mean	12.34	17.48

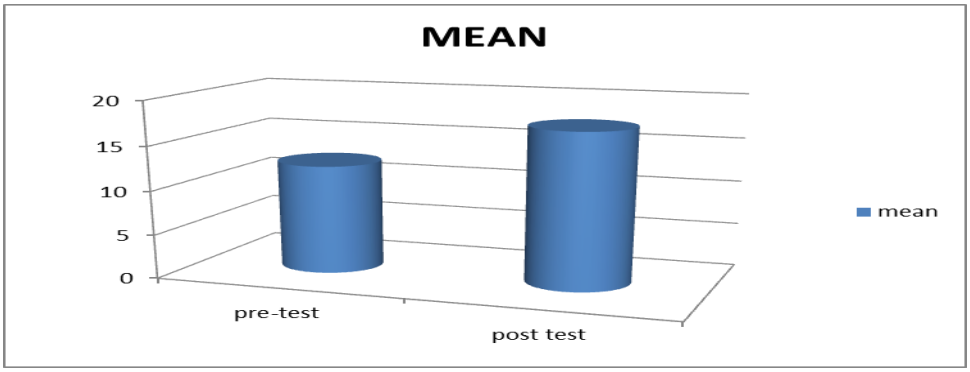

Figure no-2.1

Bar diagram of standard deviation

Table no-2.2

	Pre- test	Post- test
s.d	2.647	2.012

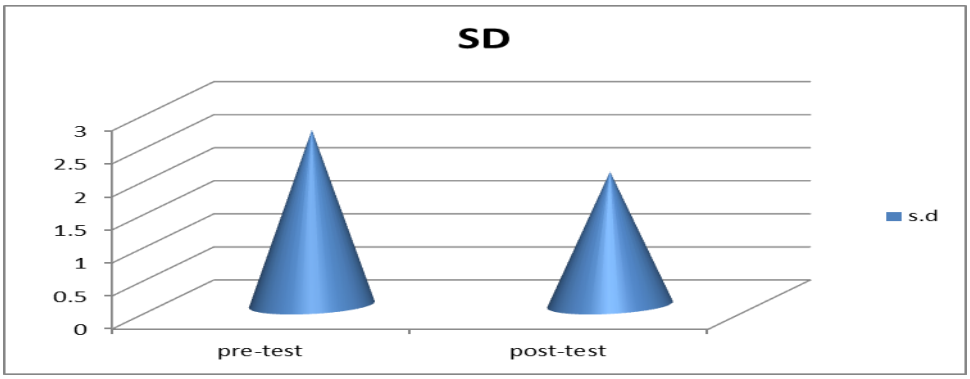

Figure no-2.2

The "t" value of knowledge is 17.989

"p"= 0.000

The mean knowledge was evaluated in pre test and post test conducted on 60 samples and it showed significant increase in knowledge about Ebola virus after conducting planned teaching programme

And the staff nurses have gained knowledge regarding Ebola virus disease.

CHAPTER 5

DISCUSSION, CONCLUSION, IMPLICATIONS AND RECOMMENDATIONS

SUMMARY

This chapter presents a summary and conclusion of the study, as well as knowledge regarding Ebola virus disease. This chapter ends with suggestions and recommendations for future research in this field.

The main aim of this study was to evaluate existing knowledge and effectiveness of planned teaching programme on knowledge regarding Ebola virus disease among staff nurses working in Sangli, miraj and kupwad corporation area.

- A structured questionnaire was prepared which includes history, causes, morphology, pathophysiology, sign and symptoms and management of Ebola viral infection.
- A pilot study was conducted with sample from 2 to 6thdec 2014
- A final study was conducted with samples from 11 to 17thdec 2014
- A structured questionnaire was used for assessing the effectiveness of planned teaching programme on knowledge regarding Ebola virus disease
- The collected data was tabulated, coded and summarized. Analysis was done by using descriptive and inferential statistics. The tests used were calculation of frequency percentage.

FINDINGS

The main aim of study was to assess the effectiveness of planned teaching among staff nurses working in Bharati hospital Sangli.

OBJECTIVES OF THE STUDY

- To assess the existing knowledge among staff nurses.
- To administer the planned teaching programme.

Quasi experimental method was used to evaluate the effectiveness of planned teaching among staff nurses on Knowledge regarding Ebola virus. In Bharati hospital the study was limited to the staff working in Bharati hospital Sangli.

The structured questionnaire was used for evaluating the effectiveness of planned teaching programme among staff nurses on knowledge regarding Ebola virus disease in Bharati hospital Sangli. The collected data as tabulated coded and summarized. Analysis

was done by using descriptive and inferential statistics. The tests used were calculation of frequency:

Major findings of the study

Section 1

In educational status,33.33% nurses were ANM, 33.33% were GNM and 33.33% were BSc Nsg in short equal number of staff nurses selected from ANM, GNM and BSc.

In experience category 60% had working experience up to 5years, 30% had experience up to 10years and 10% had experience of 10years and above.

In information regarding Ebola virus disease, 31.67% had information about Ebola virus and 68.33% did not had any information about Ebola virus disease.

The source of information, 47.37% gained information about Ebola virus from newspapers and 52.63% gained information from television

Section 2

- Findings related to evaluate the effectiveness of planned teaching programme on knowledge regarding Ebola virus disease among staff nurses.
- During pre test the samples were not having adequate knowledge regarding Ebola virus disease.
- After planned teaching programme, the samples gained adequate knowledge regarding Ebola virus disease as the post score was increased.

DISCUSSIONS OF THE STUDY

The findings of the present study have been discussed as per the objectives of the study. A finding of the study shows that after conducting planned teaching programme there was increase in the knowledge regarding Ebola virus disease among staff nurses. And statistically it was found that there is highly significant difference in pre-test and post test scores.

This study suggest that sample included in the category research study in experience are more in number between 0- 5 years that is 36 sample (60 %), then 5-10 years are little between less that is 18 in number (30 %) and very less that is 10 % only 6 sample are in experience between 10 years and above .

Now regarding the source of information, only 19 samples have same information about Ebola virus, while 41 are unaware of this Ebola virus.

In source of information 9 samples gained or had previous information about Ebola virus disease from newspapers while 11 samples gained from television.

The mean knowledge of pre-test and post test scores were evaluated and it showed a significant increase in the knowledge of the staff nurses who were selected for the research study and the hypothesis H_1 was accepted.

CONCLUSION

The purpose of the present study was to assess the effectiveness of planned teaching programme regarding Ebola virus disease among staff nurses.

The quasi experimental research design was used for the study, which consist of one group pre-test and post test method. The group consists of 60 samples which were selected by simple random sampling criteria for the study. The pre-test was conducted to assess existing knowledge about Ebola virus disease among staff nurses and then planned teaching programme was given on Ebola virus followed by post test to assess increased scores in the knowledge about Ebola virus disease.

The content validity of tool was done, the pilot study was conducted on 10 samples and the feasibility of the study was established from Wanless hospital miraj, conducted from 2/12/14 to 6/12/14.

Based on the objectives and the hypothesis the collected data was analyzed by using descriptive and inferential statiatics.

Statistically mean score finding showed that planned teaching programme about Ebola virus was effective in increasing the knowledge regarding Ebola virus among staff nurses. It shows that yet staff nurses need to improve gain knowledge regarding Ebola virus disease.

IMPLICATIONS

The findings of the present study have implications for nursing practice, nursing administration, nursing education and nursing research.

1) Nursing practices

Today society demands a greater accountability and increase efficiency and effectiveness from health care centers. Nursing care is no more task oriented, fragmented care, but it demands a comprehensive and holistic care.

The findings of this study suggest that the knowledge about Ebola virus disease is not yet increased and nurses are not able to handle patients with Ebola virus disease if comes in their working experience, so we should take measures to improve their knowledge and skills and follow all the universal precautions and personal protective equipments to prevent the spread of the disease.

2) Nursing education

Education is the key to the development of excellence in nursing practice. Education faces tremendous challenge in keeping pace with the changes in nursing practice to maintain its high quality.

The finding of the study indicates that emphasis should be placed in nursing curriculum about the disease Ebola virus and its prevention.

The nurses with proper knowledge it will be helpful to remove all the wrong concepts that it is not possible to control the spread of the disease.

As a member of health team it will help in training of nursing students so that the future nurses themselves will become knowledgeable and can be helpful to themselves and to others.

3) Nursing administration

Our rapid changing world made necessary for us as nurses to increase our knowledge and skills concerning patient care. The study has important implication for nursing administration at various levels by planning and organizing educational programmes and also can organize in-service educational programme for nurses to abreast the knowledge about Ebola virus disease.

4) Nursing research

No profession can exist without research to develop its body of knowledge to test its strategies. The health care environment is dynamic and more demanding. There is need to promote research based practice and the use of evaluation methods to measure outcome and

document the quality and cost effective care as nursing moves an independent professional practice mode.

Research studies may be conducted on Ebola virus disease which adds to the nursing body of knowledge. Dissemination of research knowledge helps to improve the general health status of individual. It also removes the wrong concept about the disease by creating awareness.
As we used planned teaching programme on Ebola virus disease such type of other teaching models may be used to find out the effectiveness.

RECOMMENDATIONS

Based on the findings, the following recommendations are proposed for future research.

1- A similar study can be conducted on large sample.
2- The study related to assessment of knowledge and attitude regarding Ebola virus disease can be done.
3- A similar study can be conducted to assess the knowledge of different health team professionals about Ebola virus disease.

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DEMOGRAPHIC DATA

1.Code no. | |

2. Education | |

3. Experience | |

4. Previous knowledge about Ebola virus | |

Yes | |

No

5. If yes, source of information | |

SECTION-2

INSTRUCTION

Kindly go through the questions, choose the correct answer and indicate the answer by placing a tick mark [ ] against the correct answer. All questions are compulsory.

1. Ebola virus disease was discovered in the year

A. 2014 [ ]

B. 1990 [ ]

C. 1976 [ ]

D. 1968 [ ]

2. The first case of Ebola virus disease was found in

A. Germany [ ]

B. America [ ]

C. Africa [ ]

D. India [ ]

3. Other name for Ebola virus diseases is,

A. Hemorrhagic fever [ ]

B. Dengue fever [ ]

C. Yellow fever [ ]

D. Q- fever [ ]

4. The structure of Ebola virus is,

A. Round like [ ]

B. Thread like [ ]

c. Spiral like [ ]

D. Rod like [ ]

5. The genome of Ebola virus is,

A. RNA [ ]

B. DNA [ ]

C. t- RNA [ ]

D. r- RNA [ ]

6. Ebola virus belongs to the family of,

A. Filovirus [ ]

B. Retrovirus [ ]

C. Orthomyovirus [ ]

D. Corona virus [ ]

7. Temperature required to kill Ebola virus is,

A. 56c [ ]

B. 57 c [ ]

C. 58 c [ ]

D. 60 c [ ]

8. The mode of transmission of Ebola virus is,

A. Human to human [ ]

B. Animal to human [ ]

C. Human to animal [ ]

D. None of the above [ ]

9. The incubation period for Ebola infection is,

A. 4 to 18 days [ ]

B. 5 to 15 days [ ]

C. 2 to 21 days [ ]

D. 1 to 12 days [ ]

10. The reservoir of the Ebola virus is,

A. Cat [ ]

B. Bat [ ]

C. Rat [ ]

D. Dog [ ]

11. The main targets cells in human body for Ebola virus is,

A. Pancreatic cells [ ]

B. Liver cells [ ]

C. Epithelial cells [ ]

D. Squamous cells [ ]

12. The early sign of Ebola viral infection is,

A. Diarrhea [ ]

B. Chest pain [ ]

C. Rash [ ]

D. Severe headache [ ]

13. The late typical symptom of Ebola viral infection is,

A. Polyurea [ ]

B. Breathing difficulty [ ]

C. Hemiplegia [ ]

D. Bleeding from nose and mouth [ ]

14. The confirmatory test for Ebola virus is,

A. PS for MP [ ]

B. ELISA [ ]

C. Blood culture [ ]

D. Western blot [ ]

15. Ebola viral infection may lead to,

A. Increased WBC count [ ]

B. Increased RBC count [ ]

C. Decreased platelet count [ ]

D. Increased platelet count [ ]

16. RNA interference drug for Ebola viral infection is called as,

A. AKT drug [ ]

B. TKM DRUG [ ]

C. Zmapp drug [ ]

D. Zuduvin [ ]

17. The late complication of Ebola viral infection is,

A. Arthralgia [ ]

B. Hemorrhage [ ]

C. Anuria [ ]

D. Ocular diseases [ ]

18. Even after the recovery from Ebola viral infection the Ebola virus remains in,

A. Blood [ ]

B. Saliva [ ]

C. Semen [ ]

D. C.S.F Fluid [ ]

19. The first step to prevent spread of Ebola viral infection is,

A. Regular hand washing [ ]

B. Avoid contact with body fluids [ ]

C. Proper disposal of infected waste [ ]

D. Use of clean instruments [ ]

20. The preventive measure for Ebola viral infection is,

A. Education about Ebola virus [ ]

B. Isolation of infective person [ ]

C. Use personal protective equipments. [ ]

D. All of the above [ ]

21. Proper hand washing is crucial to protect against Ebola viralinfection as it,

A. Destroy the spores of Ebola virus [ ]

B. Minimises reactions [ ]

C. Avoid cross infection [ ]

D. Eliminate Ebola virus [ ]

22. Ebola viral infection kills nearly,

A. 10/10 [ ]

B. 9/10 [ ]

C. 6/10 [ ]

D. 3/10 [ ]

Question no	answers
1	C
2	C
3	A
4	B
5	A
6	A
7	D
8	A
9	D
10	B
11	B
12	D
13	D
14	B
15	C
16	B
17	D
18	C
19	A
20	D
21	C
22	B

LIST OF EXPERTISE

Sr.No.	Experts	Designation
1	DR. (Mrs.)Nilima R. Bhore	Principal, B.V.D.U.C.O.N. Sangli.
2	Mr. PravinDani	Professor B.V.D.U.C.O.N. Sangli.
3	Mr. Sunil Kulkarni	Associate Professor B.V.D.U.C.O.N. Sangli.
4	Mrs. Shaila Mathew	Assistant Professor B.V.D.U.C.O.N. Sangli.
5	Mrs. VijayaKumbhar	Assistant Professor B.V.D.U.C.O.N. Sangli.
6	Mrs. Aprana Kale	Assistant Professor B.V.D.U.C.O.N. Sangli.
7	Mr. AshishGautam	Assistant Professor B.V.D.U.C.O.N. Sangli.
8	Mrs. AnandJahagirdhar	Assistant Professor B.V.D.U.C.O.N. Sangli.
9	Mr. SatishSalvi	Assistant Professor B.V.D.U.C.O.N. Sangli.
10	Mr. BasvantDhudum	Assistant Professor B.V.D.U.C.O.N. Sangli.
11	Mr. Hemant Gupta	Assistant Professor B.V.D.U.C.O.N. Sangli.
12	Mr. Mahesh Patidar	Assistant Professor B.V.D.U.C.O.N. Sangli.
13		Clinical Instructor

	Miss Regina Satvekar	B.V.D.U.C.O.N. Sangli.
14	Mr. Narayan Ghorpade	Clinical Instructor B.V.D.U.C.O.N. Sangli.

CERTIFICATE OF VALIDITY OF DATA COLLECTION TOOL

This is to certify that ---------- working on topic " A STUDY TO ASSESS THE EFFECTIVENESS OF PLANNED TEACHING PROGRAMME ON KNOWLEDGE REGARDING EBOLA VIRUS DISEASE AMONG STAFF NURSES WORKING IN SANGLI-MIRAJ AND KUPWAD CORPORATION AREA."

I Have gone through the content of data collection tool, enclosed here in terms of its relevance and have given my suggestion for the tool.

I have found it to be valid for conducting the research.

NAME -

SIGNATURE -

DESIGNATION -

ADDRESS -

PLACE -

DATE -

Suggestions -