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ORIGINAL ARTICLE **OPEN ACCESS**

To Assess The Effectiveness of Self Instructional Module (SIM) On knowledge And Skill Regarding Prevention Of HIV/AIDS Among General Nursing And Midwifery Students

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ABS TRAC T

The study was conductedto assess theeffectiveness of Self Instructional Module (SIM) on knowledge and skill regarding prevention ofHIV/AIDS amongGeneral Nursing and Midwifery students of Ancillary Medical Training School ,Shireenbagh, Kashmir.**Methodology**:-Aquantitativeapproachwithpre-experimentalonegrouppre-test post-test design was used to conduct the study. Sample comprised60General Nursing and Midwiferyfulfilling the Inclusion criteria by using simple random sampling technique.Data was collected using structured questionnaireto assess the knowledge regarding prevention of HIV/AIDS and Observational checklist to assess skill onPersonal protective equipments. Pre-test was conducted to assess the existing knowledge and skill of the study subjects by structured Questionnaire and observational checklist followed bySelf Instructional Module (SIM)and demonstration .Post test was conducted on 7th day by using same structured. Questionnaire and observational checklist. The data collected were analysed by descriptive & inferential statistics. **Results:**Out of 60 subjects majority(78.3%) were in theage group of above 20 years , (66.7%)werefromrural area,38 .(63.3%)were from nuclear family, (40.0%)were secondary parental education.Overallmean post-test knowledge score (28.38±3.46) was greater than mean pre-test knowledge score of studysubjects (14.63±4.17).Mean difference of 13.75at (p value <0.001)which indicates a there is significant difference between pre-test and post–test mean knowledge scores and Overallmean post-test skillscores (18.15±1.97) wasgreaterthanmeanpre-testskillscoresofsubjects(6.52±2.51).Meandifferenceof 11.63at(pvalue<0.001)whichindicatesathereissignificant differencebetweenpre- test and post–test mean skill scores. There was no significant associationbetweenpre- test knowledgeandskill scoreswiththeirdemographicvariables(age, ,habitat,Type of family , education of parents).**Conclusion**:The study showed that there was a significant improvement in the knowledge scores after the administration of Self Instructional Module (SIM) and demonstration.Hence it can be concluded that the Self Instructional Module (SIM) and demonstration was effective in improving the knowledge and skillof General Nursing and Midwifery studentsregarding prevention ofHIV/AIDS.

Key Words: *Knowledge, General Nursing and Midwifery students (GNM),Human immunodeficiency virus(HIV), AIDS (acquired immune deficiency syndrome),skill, personal protective equipments.*

BACKGROUND OF THE STUDY:

AIDS is an acronym of "acquired immune deficiency syndrome" which is a fatal disease described variously as modern plague ,modern scourge, devastating disease, insidious microbiological bomb. It has emerged as an unprecedented pandemic cutting across all international boundaries,socio-economic, age, race and gender[1]. Humanimmunodeficiency virus(HIV) was first discovered in 1986 in South Africa and it was mainly among migrant mineworkers from Malawi that this discovery was made· Following this discovery, then apartheid government proposed that all migrant mineworkers recruited from Malawi should be tested for the prevalence of HIV as part of

industrial attempts to control the possible spread of the disease[2.]Acquired immunodeficiency syndrome (AIDS) has risen from a limited disease to a major health problem in the United States. The diagnosis of new cases continues to increase dramatically[3].

In 1986, Dr. Suniti Solomon diagnosed the first HIV case in the city of Chennai, in a female sex worker. HIV then spreadquicklyamong sex workers[4.]It wasnoted that contactwith foreign visitorshadplayed a rolein initialinfections among sex workers, and as HIV screening centers were set up across the country there were calls for visitors to be screened for HIV. Gradually, these calls subsided as more attention was paid to ensuring that HIV screening was carried out in blood banks[5,6].

In 1987 a National AIDS Control Program was launched to co-ordinate national responses. Its activities covered surveillance, blood screening, and health education[5].By the end of 1987, out of 52,907 who had been tested, around 135 people were found to be HIV positive and 14 had AIDS. Most of these initial cases had occurred through heterosexual sex[7.]At the beginning of the 1990s, as infection rates continued to rise, responses were strengthened. In 1992 the government set up NACO (the NationalAIDS Control Organization), to oversee the formulation of policies, prevention work and control programmes relating to HIV and AIDS[8].In the same year, the government launched a Strategic Plan for HIV prevention.This plan established the administrative and technical basis for programme management and also set up StateAIDS bodies in 25 states and 7 union territories. It was able to make a number of important improvements in HIV prevention such as improving blood safety [9].HIV istransmittedin many ways, suchasanal,vaginalor oralsex,bloodtransfusion,contaminatedneedles,exchangebetweenmotherandbaby duringpregnancy,childbirth,breastfeedingand also it can be transmitted by any contact of a mucous or the blood stream with abodily fluidthat, has the virus in it; such as the blood, or breast milk of infected person[10].Although treatmentsforHIV/AIDScanslowthecourseofthedisease,thereisnoknowncureorHIVvaccine.According toresearchstudiesconducted revealedthat,antiretroviraltreatmentcanreducebothdeathsandnewinfectionsfrom HIV/AIDS, but these drugs are expensive and themedicationsarenot available in all countries.Due to the difficulty in treating HIV infection, preventing infection is a key aim in controlling the AIDS[11].Prevention is divided into primary, secondary and tertiary prevention.Primary prevention means preventing the rise of illness and secondary prevention aims at preventing further development of a disease.Tertiary prevention focuses on rehabilitation[12].

The universal precautions recommended by the US Centers for Diseases Control Atlanta, for prevention of HIV (human immunodeficiency virus) to health care workers[13.] Centers for Diseases Control recommendations state the following:

Gloves– Use when touching blood, body fluids, secretions, excretions, contaminateditems; for touching mucus membranes and non intact skin.

Gowns– Use during procedures and patient care activities when contact of clothing/ exposed skin with blood/body fluids, secretions, or excretions is anticipated.

Masks–Use during patient care activities likely to generate splashes or sprays of blood, body fluids, secretions, or excretions[14].

Studies carried outin theearlynineties showed thatnursingstudentshad lowscores ofknowledge withrespect toHIV and AIDS[15],[16]. A study carried out in Turkey was found that the majority of nursing students had moderate scores of HIV/AIDS knowledge[17]**.**

YangchenDolmaDecember(2015)[17] conductedcrosssectional studyinLeh districttoassesstheawarenessabout HIV/AIDS among health workers in this part of the world.Atotal of 75 health workers participated in the study. The study revealed misconception regarding transmission of disease by some routes. Knowledge about prevention and treatment part was also low. We recommend intervention like ongoing training programme to sensitize the health worker. This would help to instill positive attitude and lesser discrimination in patient care as well as less stress and safer practices among them while dealing with such patients. Moreover the risk of occupational hazard will be minimized.

STATEMENT OF THE PROBLEM:-

"AStudytoassesstheeffectivenessofSelfInstructional Module(SIM)on knowledgeandskillregardingprevention ofHIV/AIDS amongGeneral Nursing and Midwifery students of Ancillary Medical Training School ,Shireenbagh,Kashmir".

OBJECTIVES OF THE STUDY:-

1. Toassessthepre-testknowledgescoresregardingpreventionofHIV/AIDSamongGeneralNursingand Midwiferystudents.
2. Toassessthepost-testknowledgescoresregardingpreventionofHIV/AIDSamongGeneralNursingand Midwiferystudents.
3. To compare the pre-test and post–test knowledge scoresregarding prevention of HIV /AIDS among General Nursing and Midwiferystude. 4

4. To assess the pre-test skill scores regarding personal protective equipments among General Nursing and Midwifery students.
5. To assess the post- test skill scores regarding personal protective equipments among General Nursing and Midwifery students .
6. To compare the pre-test and post–test skill scores regarding personal protective equipments among General Nursing and Midwifery students .
7. Tofindtheassociation between pre-test knowledge scores regardingprevention ofHIV/AIDS amongGeneral Nursing and Midwifery students with their demographic variables (age, habitat, type offamily, education of parent) .
8. To find the association between pre–test skill scores regarding personalprotectiveequipments among General Nursing and Midwifery students with their demographic variables (age, habitat, type of family, education of parents).

HYPOTHESIS:

H-1 There is significant increase in the mean post-test knowledge scores as compared to mean pre-test knowledge scores regarding prevention of HIV/AIDS among General Nursing and Midwifery students at 0.05 level of significance.

H-2 There is significant increase in the mean post test skill scores as compared to mean pre-test skill scores regarding personal protective equipments among General Nursing and Midwifery students at 0.05 level ofsignificance.

H_3 There is significant association of pre–test knowledge scores regarding prevention of HIV/AIDS among General Nursing and Midwifery withtheirdemographic variables (age, habitat ,type of family ,educationof parents)at a 0.05level of significance.

H_4 There is significant association of skill scores regarding personal protective equipment's among General Nursing and Midwifery students with theirdemographic variables (age, habitat, type of family ,education of parents) at a 0.05 level of significance.

ASSUMPTIONS:

- StudentsunderstudymayhavesomeknowledgeregardingHIV/AIDSbeforeselfinstructionalmodule.
- Self-instructionmodulehelpstoimprovetheknowledgeofstudentsregarding HIV/AIDSinthe-posttest.
- AppropriateknowledgeregardingHIV/AIDSpreventstheincidenceofHIV/AIDS.
- Studentsmayhavesomeskillbeforedemonstrationofpersonalprotectiveequipments.
- Demonstrationhelpstoimprovetheskillofstudentsregardingpersonalprotectiveequipments.

DELIMITATIONS:

The study is limited to

- GNM2ndyearstudentswhoarestudyingatAncillaryMedicalTrainingSchool,Shireenbagh,Kashmir".
- 6weeks only.
- Samplesize60.

METHODOLOGY:

"Research methodology is a way to systematically solve the research problem. It may be understood as a science of studying how research is done scientifically[78]."

The present study aimed to assess 'The Effectiveness of Self Instructional Module (SIM) on knowledge and skill regarding prevention of HIV/AIDS among General Nursing and Midwifery (GNM) Students of Ancillary Medical Training (AMT) School Shireenbagh, Kashmir."

RESEARCH APPROACH:

The research approach is the umbrella that covers the basic procedure for conducting research. Research approach is the basic procedure for the research enquiry. The research approach helps the researcher to determine what data to collectand how to analyze it[19].Inview of the nature of the problemunderstudy and to accomplishthe objectives of the study quantitative approach was found to be appropriate to determine the effectiveness of Self InstructionalModule (SIM) on knowledge and skill regarding prevention of HIV/AIDS among General Nursing and Midwifery students of Ancillary Medical Training schoolShireenbagh, Kashmir."

RESEARCHDESIGN:

Pre-experimental one group pre-test post- test design was adopted for this study. The pre-test was carried out for assessing knowledge of GNM students on prevention of HIV/AIDS by structured questionnaire and skill on personal protective equipments measured by observational checklist on Day 1st and on the same day Intervention was given in the form of Self Instructional Module (SIM) on knowledge regarding prevention of HIV/AIDS and demonstration of Skill on personal protective equipments. Post test was conducted on the 7th dayfollowing the pre-test.

VARIABLESUNDERSTUDY:

Variablesarequalities,propertiesor characteristicsofpersons,thingsorsituationthatchangeor vary[19]. The selected variables of the present study are:

- Independentvariable:
  TheindependentvariablesofthepresentstudywereSelfInstructionalModuleonpreventionofHIV/AIDSand demonstration onpersonal protective equipments.
- Dependentvariable:
  ThedependentvariablesofthepresentstudywereknowledgeregardingpreventionofHIV/AIDSandskillon personal protective equipments.
- Demographicvariables:Age,habitat,typeoffamily,educationofparents.

RESEARCHSETTING:

Setting is a physical location and condition in which data collection takes place[78].The study was conducted atAncillary Medical Training School, Shireenbagh, Srinagar Kashmir. Which is located about 10 kms from Mader-e- Meherban Institute of Nursing Science and Research. Settings were selected for the studyon the basis of feasibilityof conducting the study and availability of sample. The total accessible population of students was 100.

STUDYPOPULATION:

Population is the entire, set of individuals or objects having some common characteristics[78]. In this study the target population comprised ofGNMStudentsandaccessiblepopulation wasGNM2nd year Students, StudyingatAncillary Medical Training School Shireenbagh, Srinagar, Kashmir.

SAMPLEANDSAMPLING TECHNIQUE:

Sampleandsamplesize:

Asampleisasubsetofpopulation,selectedtoparticipateinastudy[19].

In this study sample consisted of 60 GNM 2nd year students who were selected at Ancillary medical training school shireenbagh, Srinagar,Kashmir.

SamplingTechnique:

Samplingtechnique definestheprocess of selecting representative elementsof the population with which to conducta study. [20]

In this study simple random sampling technique was used to select the sample. Simple random sampling is the most basic and common type of sampling methodused in quantitative and scientific research. The main benefitof the simple random sample is that each member of the population has an equal chance of being chosen for the study. The lottery method of creating a simple random sample is exactly what it sounds like. A researcher randomly picks numbers, with each number corresponding to a subject ..

SAMPLINGCRITERIA:

The researcher specifies the characteristics of the population by detailing inclusion & exclusion criteria in the study. Inclusion criteria are characteristics that each sample element must possess to be included in the sample. Exclusion criteria are characteristics that a participant maypossess that could confound the results of the study.[19]

Inclusioncriteria:

GNM2ndyearstudentswhowere:

- Willingtoparticipateinthestudy.
- Availableatthetimeofdatacollection.

Exclusioncriteria:

Studyexcludesthestudents:GNM2ndyearstudentswhowere:

- Notwillingtoparticipateinthestudy.
- Not availableatthetimeofdatacollection.

DATACOLLECTIONINSTRUMENT:

In the present study, data collection instrument used was structured questionnaire to assess the knowledge regarding prevention of HIV/AIDS and Observational checklist to assess skill on Personal protective equipments.

Descriptionofthetool.

Datacollectiontoolwasdividedintotwoparts:

Part I:Structured Questionnaire

PartII:ObservationalChecklist

Part I: Structured questionnaire comprised two sections:

Section A: Deals with demographic data related to the GNM students. It includes: Age, habitat, type of family, education of parents.

Section B: Deals with the knowledge regarding prevention of HIV/AIDS. It comprised of 37 items. Part II:Observational Checklist was used to assess skill regardingpersonal protective equipments. It comprised of 20 items.

ANALYSIS

The analysis and interpretation of data this study is based on the data collected through structured questionnaire regarding prevention of HIV/AIDS and observational checklist for personal equipments .The sample consisted of 60 GNM students at Ancillary Medical Training School.

The results were computed by using descriptive and inferential statistics based on objectives and hypotheses of the study.

Descriptivestatistics:-

- Frequencyandpercentagewasusedtodescribethesamplecharacteristics.
- Mean, S.D, Median, Maximum, Minimum, and Range was used to assess the knowledge and Skill of study subjects.

Inferentialstatistics:-

Paired‘t‘test was used to compare pre-test & post-test knowledge and skill scores.

Independent ’t’test and ANOVA was used to determine the association of pre-test knowledge and skill scores with their demographic variables.

ORGANIZATION AND PRESENTATION OF DATA:

The collected data was edited, tabulated, analysed, interpreted and findings obtained were presented in the form of tables and diagrams which were represented under the following sections. Description of demographic variables of study subjects age, habitat ,type of family , education of parents. Section II: This section deals with: Description of pre–test and post –test Knowledge scores of study subjects regarding Prevention of HIV /AIDS. Comparison of pre-test and post-test knowledge scores of study subjects regarding Prevention of HIV /AIDS. Comparison of pre-test and post-test skill scores of study subjects regarding personal protective equipments. Association between pre-test knowledge scores regarding prevention of HIV/AIDS with their demographic variables (age, habitat ,Type of family , education of parents.) Association between pre-test skill scores regarding personal protective equipments with their demographic variables (age habitat ,type of family , education of parents). DESCRIPTION OF DEMOGRAPHIC VARIABLES OF STUDY SUBJECTS:(AGE, EDUCATION, HABITAT, TYPE OF FAMILY, AND EDUCATION OF PARENTS).

Frequency and percentage distribution of study subjects with respect to age.

N=60

Age	Frequency	Percentage (%)
Upto20	13	21.7
Above20	47	78.3
Total	60	100.0

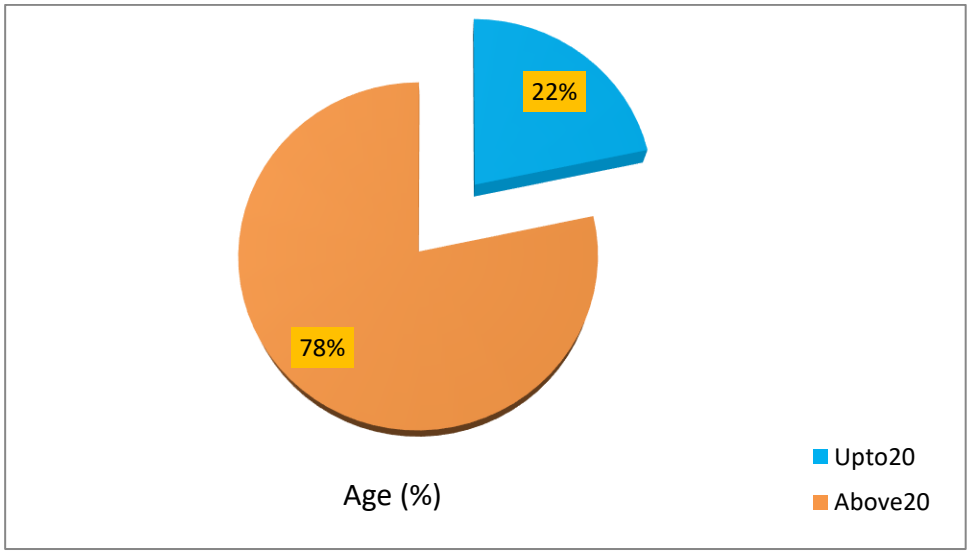


Figure 1: Pie Graph Showing percentage distribution of Study subjects with respect to age.

The data presented in Table1-and Figure -1shows that most of study subjects i.e 47 (78.3%) belongs to the age group of above 20and 13 (21.7%) belongs to the age group of up to 20 .

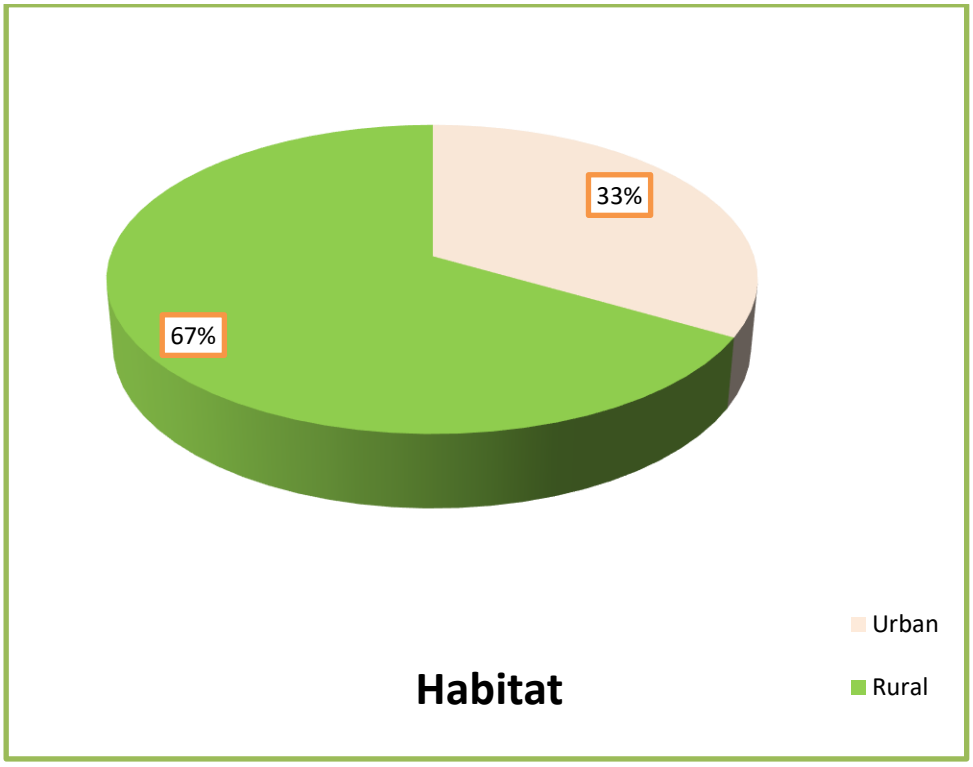


Figure 2: Pie Graph Showing percentage distribution of Study subjects with respect to habitat

The data presented in Table 2 and Figure 2 shows that most of study subjects i.e. 40 (67%) belongs to the rural and only (33.3%) of study subjects belongs to urban.

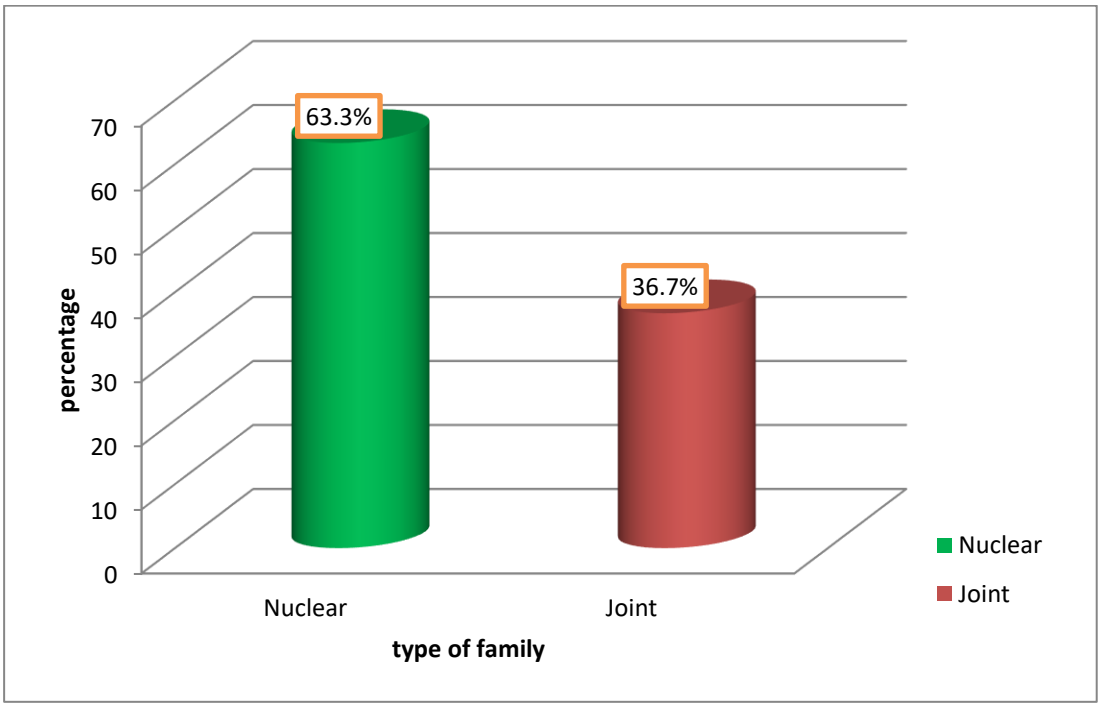


Figure 3: cylinderical Graph Showing the percentage distribution of Study subjects with respect to type of family.

The data presented in Table 3 and figure 3 shows that most of study subjects i.e.38 .(63.3%)were from nuclear family and only 22 (36.7%) of study subjects were from joint family.

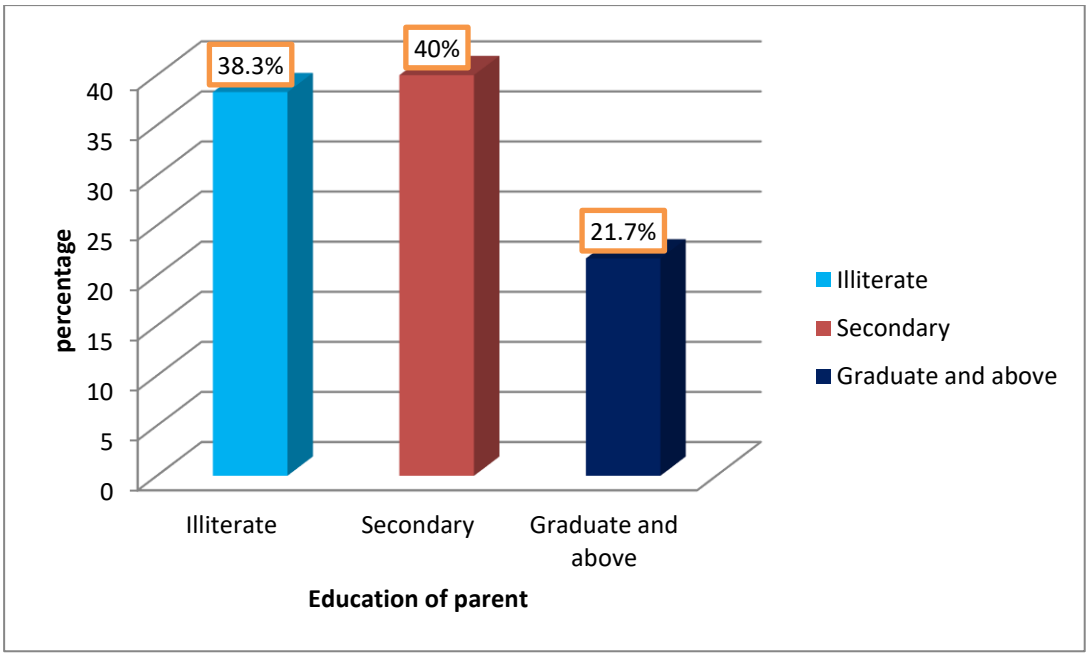
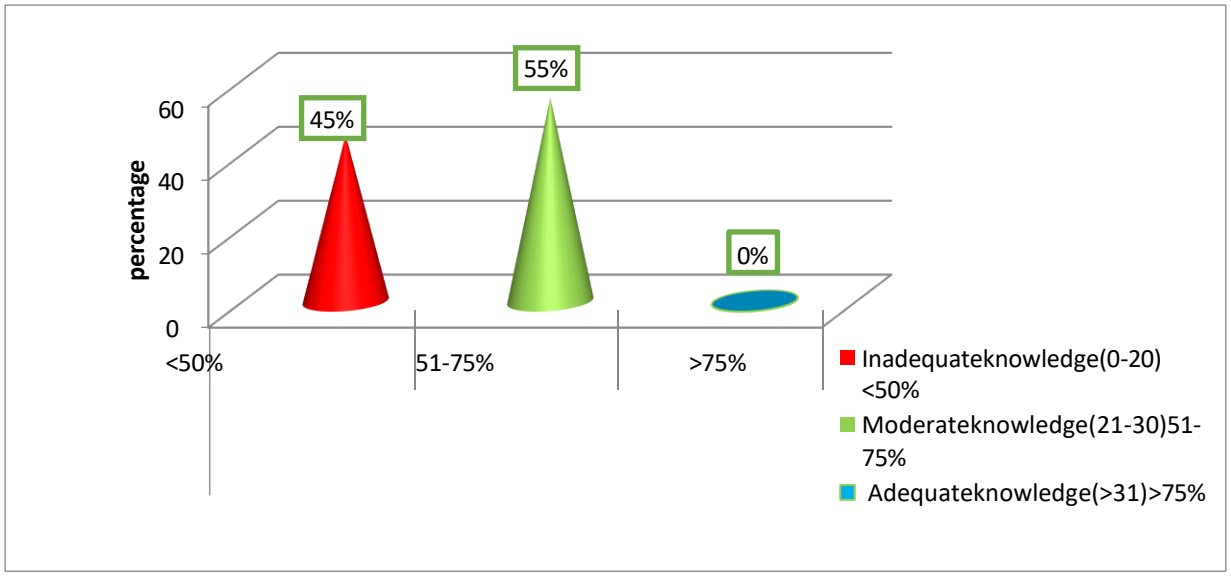


Figure 4: Bar Graph Showing Percentage distribution of Study subjects with respect to education of parent.

The data presented in Table 4, Figure 4 shows that most of study subjects 24(40.0%)**w**ere secondary, 23 (38.3%)were illiterate and only 13(21.7%) were graduate and above.

DESCRIPTIONOFPRE-TESTANDPOST–TESTKNOWLEDGESCORESOFSTUDYSUBJECTS REGARDING PREVENTION OF HIV /AIDS.



Inadequate knowledge(0-20)	Moderate knowledge(21-30)	Adequate knowledge(>31)

knowledge

Figure5:ConeGraph ShowingFrequencyand percentagedistribution OfStudysubjectsbyPre-Test Knowledge scores.
The data presented in Table 5and Figure 5 showsthat inpre-testknowledge scores out of 60 studysubjectsmost 33(55%)hadmoderateknowledge,27 (45%)hadinadequateknowledgeandnoneofstudysubjects(0%)hadadequate knowledge

N=60

Post-testknowledgescores	ScorePercentage	Frequency	Percentage
Inadequateknowledge(0-20)	<50%	01	1.66
Moderateknowledge(21-30)	51-75%	10	16.64
Adequateknowledge(>31)	>75%	49	81.70
Total		60	100

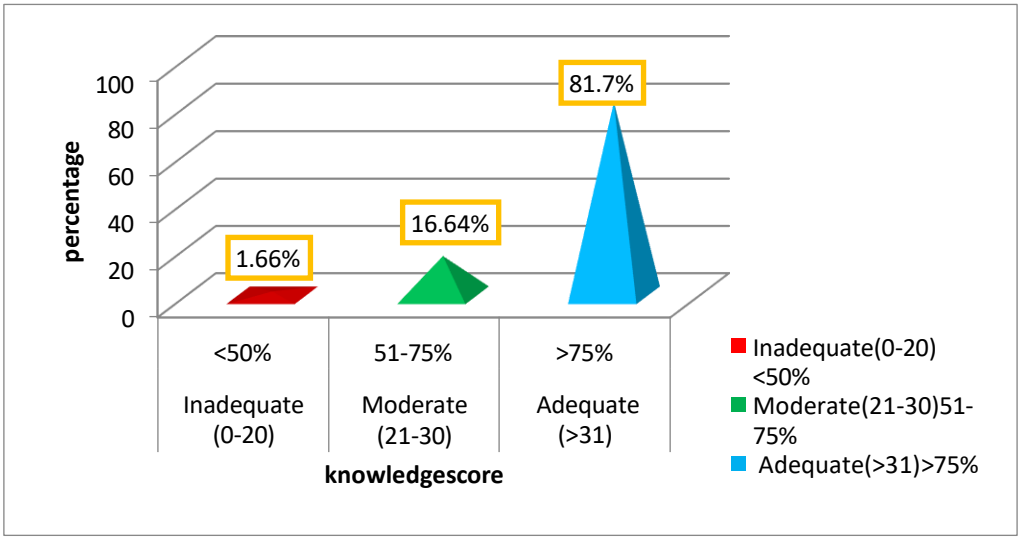


Figure6: ConeGraphShowingFrequencyDistributionofSubjectsbypost-TestKnowledgeScores.

The data presented in Table 6, and Figure 6 shows that in post-test knowledge scores out of 60 study subjects majority49(81.70%)hadadequateknowledge , 10(16.64%) hadmoderateKnowledge whileas one of thesubjects was found with inadequate knowledge scores

Table 7: Frequency and percentage distribution of study subjectswith respect to pre-test and post—test knowledge scores regardingprevention of HIV/AIDS.

Knowledgescores	Pre-testknowledgescores		Post-testknowledgescores	
	Frequency	Percentage	Frequency	Percentage
Inadequateknowledge(0-20)	27	45	01	1.66
Moderateknowledge(21-30)	33	55	10	16.64
Adequateknowledge(>31)	0	0	49	81.70

N=60

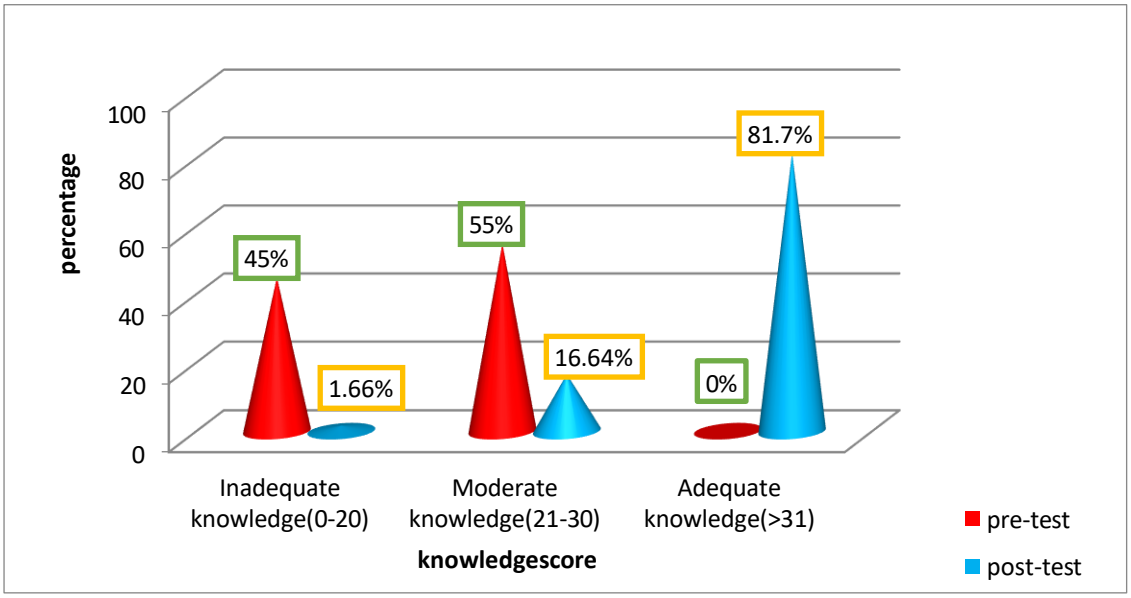


Figure 7: Cone Graph Showingpercentage distribution ofStudy subjects by Pre-testandpost –test Knowledge scores.

Intable7andfig7 shows disturabtion ofsubjects withrespecttotheir pre-test andpost –test knowledge scores.The pre-test shows out of 60 study subjectsmost33(55%) had moderate knowledge,27 (45%)had inadequate knowledge andnoneof studysubjects(0%)had adequate knowledge before self instrustionalmodule.Whereas in . post testi.e majority 49(81.70%) of the study subjectshadadequate knowledge , 10(16.64%) had moderate knowledge while as one of the subjects was found with inadequateknowledge scores afterself instrustional module.

COMPARISONOF MEAN PRE-TEST AND MEAN POST-TEST KNOWLEDGE SCORES OF STUDY SUBJECTS REGARDING PREVENTION OF HIV/AIDS:

To test the statistical difference between mean pre-test and mean post-test knowledge scores null hypothesis was framed.

H_{01}:There isno significant increase in themean post-test knowledge scores as compared to mean pre-test knowledge scores regarding prevention of HIV/AIDS among GNM students at 0.05 levelof significance.

Table 8:Comparisonofoverallpre-testandpost–testmeanKnowledgescoresofstudysubjects.

N=60

Knowledge scores	Mean	Standard Deviation	Mean Difference	Pvalue	Remarks
Pre-test	14.63	4.17	13.75	<0.001(s*)	Significant
Post-test	28.38	3.46			

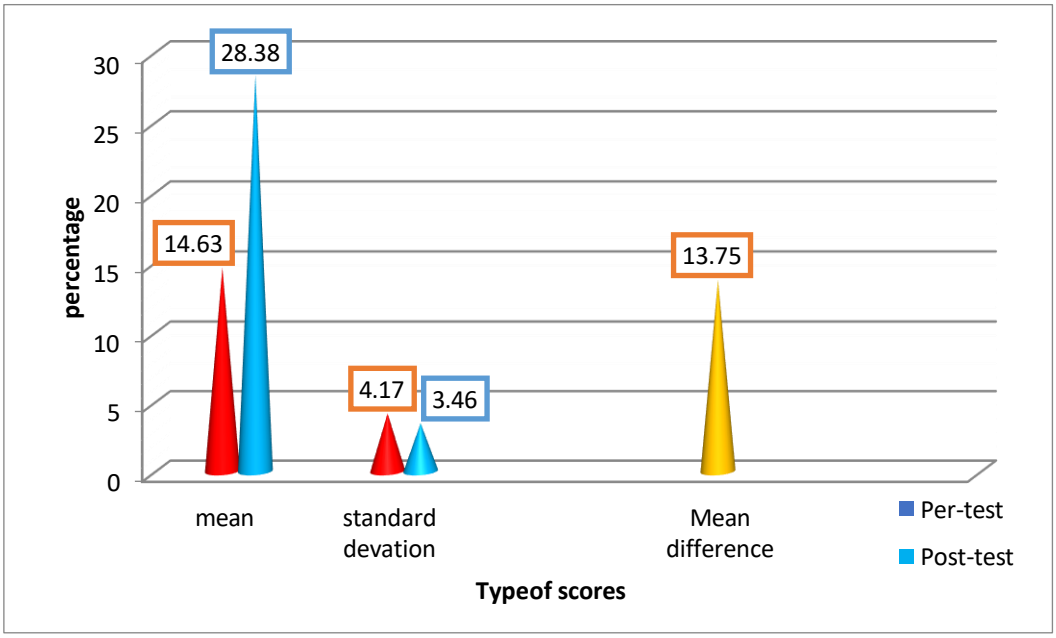


Figure 8:Bar Graph ShowingThe Comparison Between Mean, Standard Deviation Mean Difference OfPre-test and Post-test Knowledge Scores OfStudySubjects.

The data inthetable8andfigure 8shows Comparison betweenpre-testandpost –test mean Knowledge scores of study subjects regarding prevention of HIV /AIDS. It is evident from the table that mean post test knowledge scores (28.38±3.46) of the study subjects onprevention of HIV/AIDS is significantly higher than that of the mean pre test knowledge scores(14.63±4.17) at 0.05 level of significance.

Hencenullhypothesis(H_0)isrejected andtheresearch hypothesis (H_1)is accepted which statesthatthereissignificant increase in the mean post-test knowledge scores ascompared to mean pre-test knowledge regarding prevention of HIV/AIDS at $p \leq 0.005$ level of significance, which shows that Self Instructional Module was effective in improvingthe knowledge of study subjects regarding prevention of HIV /AIDS

DESCRIPTIVE STATISTICS OF KNOWLEDGE SCORES OF STUDYSUBJECTS REGARDING PREVENTION OF HIV /AIDS.

Meanmedian,rangeandstandarddeviationofpre-testandpost-testknowledgescores.

Table 9: Comparison between the mean pre-test and Post –test knowledge scores ofstudy subjects regarding prevention of HIV/AIDS:

N=60

Knowledge scores	Mean	Median	Standard deviation	Min. level	Max. level	Range
Pretest	14.63	14.00	4.17	7	26	19
Posttest	28.38	29.00	11.96	15	34	19

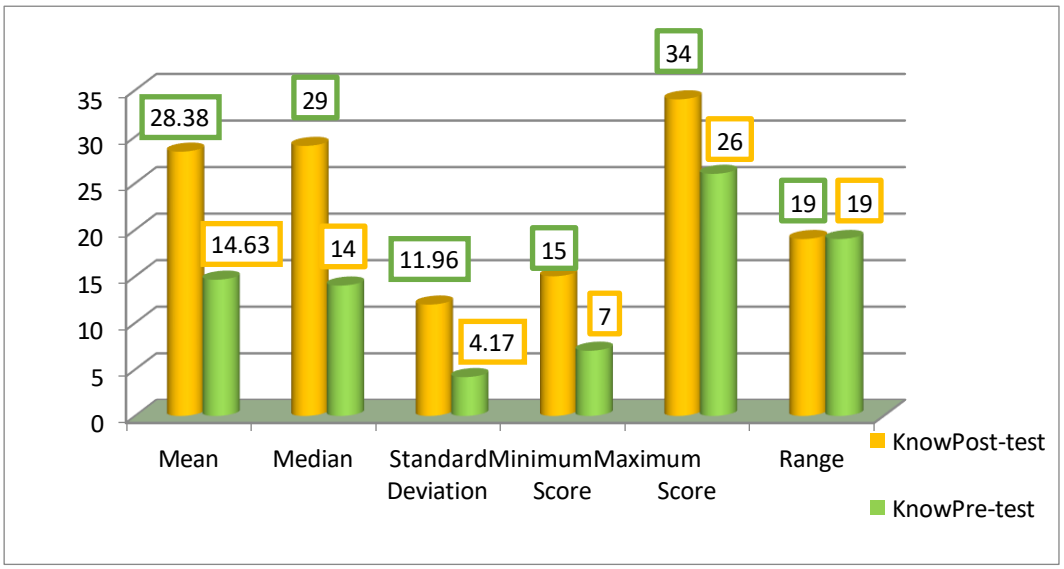


Figure 9: Cylindrical graph showing mean, median,range and standard deviation of pre-test and post-test knowledge scores ofstudy subjects.

The data presentedin table 9 and figure 9 shows that themean post-test knowledge scores(28.38±11.96) obtained by study subjects higher than themean pre -test knowledge scores (14.63±4.17). The median, minimum, and maximum post-test knowledge scores (29.00),(15),(34) was higher than the pre-test knowledge scores(14),(7),(26) of study subjects respectively.

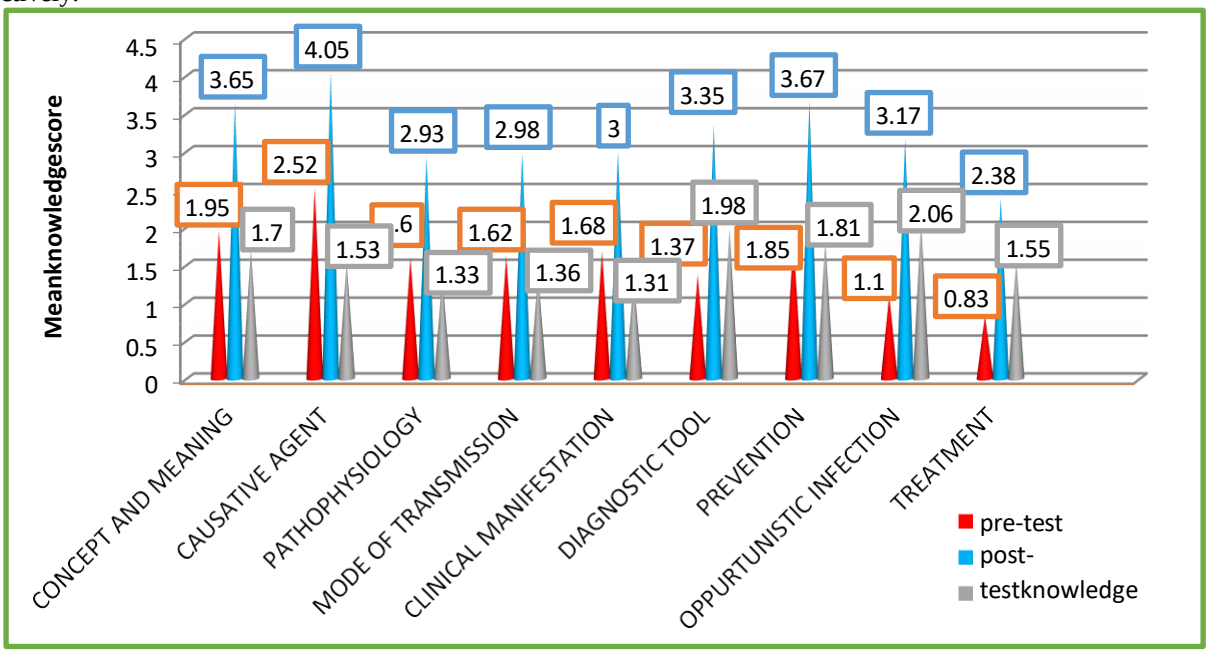


Figure10:Areawisecomparisonofpre-testandpost–testknowledgescores

Figure10showthemean and standarddeviation ofpre-testknowledgescoresin variousareas.It can beseen fromthe table that the mean and SD in the area of concept and meaning was1.95±.964 respectively. The level in the area of causative agent was2.52±.930, in the area of Path physiologywas 1.60±.887, in the area of mode of transmission was 1.62±.715, in the area of clinical manifestationwas1.68±.676, in the area of diagnostic tool 1.37±.88, in the area of Prevention 1.85±.88, in the area of opportunistic infection1.10±.68 and in the area of Treatment 83±.76. The overall mean and standard deviation was 14.52and7.372. After the implementation of Self Instructional Module mean knowledge in each area increased significantly and standard deviation decreased. It is depicted from the table that mean, and standard deviation in the area of causative agent was 3.65±.971, in the area of Path physiologywas 2.93±.936, in the area of mode of transmission was 2.98±.748, in thearea of clinical manifestation was 3.00±.759 , in theareaofdiagnostictool3.35±.70,intheareaofPrevention3.67±1.06,intheareaofopportunisticinfection 3.17±.90intheareaofTreatment2.38±.78respectively.

P-value came out<0.001 which indicated thatthereishigh significant difference between pre-test and post-test section wise mean knowledge score. Therefore, Self Instructional Module increased the knowledge of subjects regarding prevention of HIV/

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Comparisonofpre-testandpost-testskillscoresofstudysubjectsregardingpersonalprotective equipments

N=60

Skillscores	Pre-test		Post-test	
	Frequency	Percentage	Frequency	Percentage
poor(0-7)	40	33.3	0	0
moderate(8-14)	20	66.7	2	3.33
good(15-21)	0	0	58	96.66

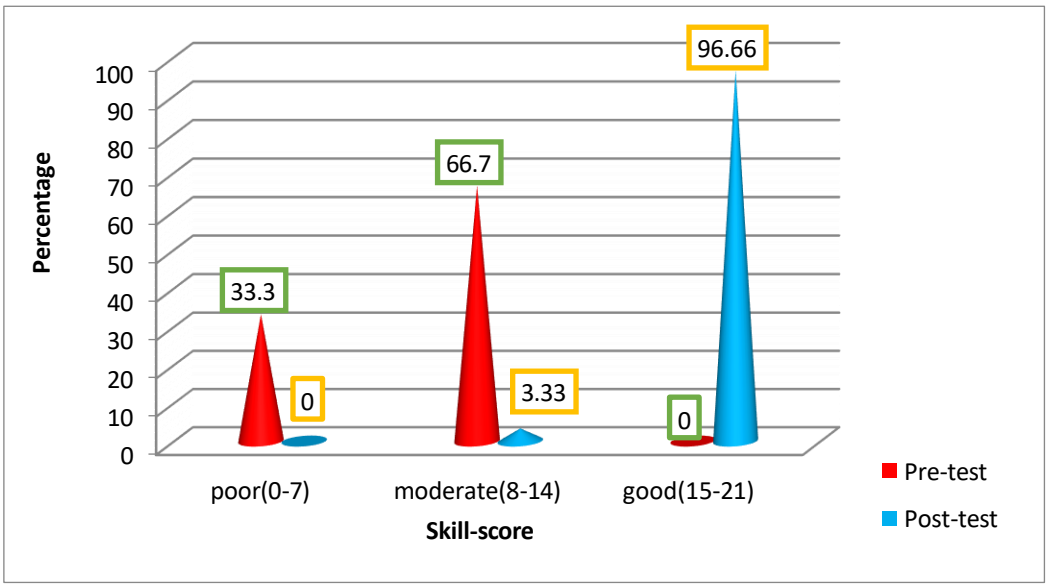

Figure11:Conegraph Showingpre-testandpost–testskillscoresofstudy subjects.

In table 11and fig11shows disturabtion of subjects with respectto their pre-test and post –test skill scores.The pre-test shows out of 60 study subjectsmost 20 (66.7%)had, moderate skill40(133.3%) hadpoor skill,noneofthesubjectshadgoodskill scores,beforedemonstration.Whereas inpost-test majority58 (96.7%)had, good skill2(3.3%) had moderateskill,none ofthe subjects had poor skill scores. after demonstration.

COMPARISONOFMEANPRE-TEST ANDPOST-TEST SKILL SCORES OF STUDY SUBJECTS REGARDING PERSONAL PROTECTIVE EQUIPMENTS.

S.No	Skillscores	Mean/standard deviation	Mean difference	PValue
1	Pre–Test	6.52±2.51	11.63	<0.001(s*)
	Post-test	18.15±1.97		

Totestthestatisticaldifference betweenmeanpre-test and meanpost-test skillscoresnullhypothesis was framed.

Null Hypothesis (H_{02}):- There is no significant increase in themean post test skill scores as compared to mean pre-test skill scores regarding personal protective equipments among GNM students at 0.05 level of significance)

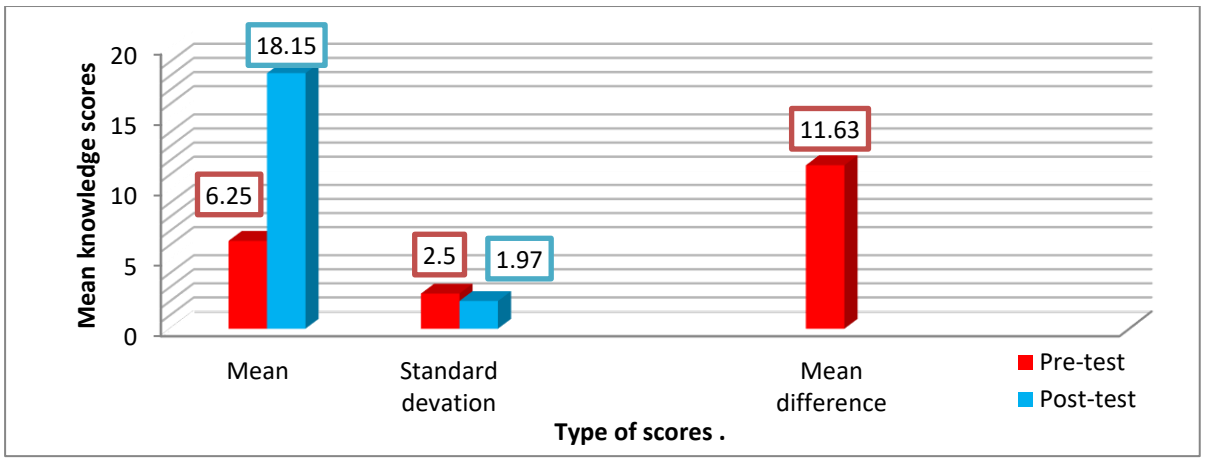

Figure 12: Showing the Comparison between Mean, Standard Deviation Mean Difference of Pre-Test and Post-Test skill Scores of studySubjects.

The data in the table 12 and figure 12 shows that the mean post test skill scores (18.15±1.97) of the studysubjectsonpersonalprotective equipments issignificantly higher thanthat ofthe meanpre test skill scores (6.52±2.51) at 0.05 level of significance.

Hence nullhypothesis (H_{02}) is rejected andthe research hypothesis (H_2) is accepted whichstatesthat thereissignificant increase in the mean post-test skill scores as compared to mean Pre-test skill scoresregardingpersonalprotective equipmentsamongGNMstudentsat 0.05 levelofsignificance ,whichshowstheeffectivenessofdemonstration.

DESCRIPTIVESTATISTICSOFSKILLSCORESOFSTUDYSUBJECTSREGARDING PERSONALPROTECTIVE EQUIPMENTS.MEAN, MEDIAN STANDARD DEVIATION AND RANGE OF PRE AND POST-TEST SKILL SCORES

Skill scores	Mean	Median	Standard deviation	Minimum level	Maximum level	Range
Pre-test	**6.52**	**6.00**	**2.51**	**1**	**12**	**11**
Post-test	**18.15**	**18.00**	**1.97**	**12**	**21**	**9**

Table 13: Mean, Median, Standard Deviation, Range of Pre and Post-Test Skill scores of study

subjects regarding on personal protective equipments among study subjects.

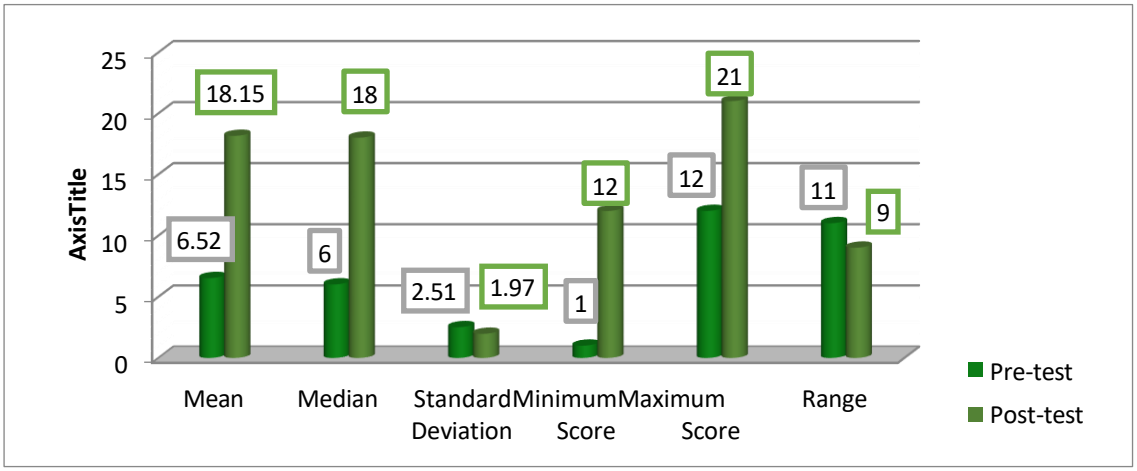

Figure:13 : Cylindrical graph showing Mean, Median,minimum, maximum range and Standard Deviation of Pre and Post-Test Skill scores of study subjects.

Data presented in Table13 and figure 13 shows mean post-test skill scores obtained by studysubjects (18.15±1.97) was higher than mean pre-test skill scores (6.52±2.51).The median of the pre- test Skill scores of study subjects was (6.00), which got enhanced to (18.00) during post-test. The minimum pre-test knowledge scores of study subjects was (1)and maximum pre-test level was(12).Similarly minimumpost-test knowledge scoresofstudysubjects was (12) and maxim

post-

DISCUSSION

Findingsofthestudy

Thefindingsofthestudyarediscussedinaccordancewiththeasunder:

Descriptionofthedemographicvariablesofsubjects:

Thissectiondealswiththe frequency andpercentagedistributionofsubjectswithrespectto(age,habitat,typeof family ,education of parents) .

Outof 60 study subjects majority i.e 47 (78.3%)belongs to the age group of above 20 years and 13 (21.7%)belongs to the age group of up to 20 years ..

Outof60studysubjectsmosti.e40(66.7%)belongstotheruralandonly(33.3%)ofsubjectsbelongsto urban area.

Out of 60 study subjects mosti.e.38 (63.3%) were from nuclear family andonly 22 (36.7%) of subjects were from joint family.

Outof60studysubjectsmostofsubject'si.e24(40.0%)weresecondary,23 (38.3%)were illiterate and only 13(21.7%) were graduate and above.

DescriptionofpreͲtestandpostͲtestKnowledgescoresofstudysubjectsregardingPrevention ofHIV /AIDS.

Objective 1: To assess the pre-test knowledge scores regarding prevention of HIV/AIDS among General Nursing and Midwiferystudents.

In the present study, thepre-testknowledge score out of 60 study subjects showedmost 33(55%) had moderate knowledge, 27 (45%) had inadequate knowledge and none of study subjects(0%) had adequate knowledge

The findings of this study were supported by a study conducted by KamathNeetha, Udayakiran N (.2016) [21]Effectiveness of participatory learning activity (PLA) cum lecture method on knowledge of nursing students in HIV/AIDS. The findings of the study showed that prior to administration of intervention 60.5% of subjects had inadequate knowledge scores, 35.5% of subjects had moderate and only 4% of subjects had adequateknowledge scores.

The findings of this study were alsosupported by a study conducted by Raisa Susan et all (2014).[22] To assess effectiveness of structured teaching programme onknowledge regarding HIV/AIDS. The finding of this study showed that prior to the

administration of intervention, the, majority 85.0% have inadequate knowledge ,15.0% of students have moderateknowledge, and non of(0%) none of the subject s had adequate knowledge.

Objective2.Toassessthepost-test knowledgescoresregardingprevention of HIV/AIDSamongGeneral Nursingand Midwiferystudents.

In the present study, post-test knowledge scores out of 60 study subjectsshowedthat majority 49(81.70%) of the subjects had adequate knowledge scores, 10(16.64%) had moderate knowledge scores while as 1(1.66%) of the subjects was found with inadequateKnowledge scores.

The findings of this study were supported by an evaluative study conducted by Angel Rajakumari .G(2013) [23] To assess the effectiveness of structured teaching programme on knowledge regarding of HIV/AIDSamong Nursing StudentsinChandana School ofnursing,suryapet,Telugana,India.Findingsshowedafterinterventionthemajorityof them, 57(95%) had adequate knowledge on HIV/AIDS, 3(5%) had moderatelyadequate knowledgeand(0%) none of them had inadequate knowledge.

Comparisonofpre-testandpost-testknowledgescoresofstudysubjectsregardingPreventionofHIV /AIDS.

Objective 3:To compare the pre-test and post–test knowledge scores regarding prevention of HIV /AIDS among General Nursing and Midwifery students.

In the present study while comparing the pre-test and post-test knowledge scores of study subjectsregarding prevention of HIV/AIDS. Themean post-test Knowledge scores obtained bystudysubjects (28.38±3.46) was higher than mean pre-test knowledge scores of studysubjects (14.63±4.17). at 0.05 level of significance. With the intervention 81.70 %subjects were found tohave adequate knowledge ,16.64% subjects had moderate knowledge and 1.66% subjects wear having inadequate knowledge .with p-value(<0.001) This gives an inference that intervention.i.e.,Self-Instructional Module was effective in improving the knowledge scores of students regarding prevention of HIV /AID.

ThefindingsofthestudyweresupportedbyanevaluativestudyconductedbyLakshmivasanthaandLakshmiRaja K. (2012)[24]Conducted"a study to Assess the Effectiveness ofSelf Instructional module (SIM) regarding HIV Prevention among School Teachers in Selected Higher Secondary Schools At VillupuramDistrict,TamilNadu.The findingsshowedthat,afterpre-testingSelfinstructionalmodulehavebeenprovided.Aftersevendaysofintervention, posttest had been conducted themean post-test knowledge scores obtained by subjects (31.38% was greaterthanmeanpre-testKnowledge score of subjects17.66%)(pvalue <0.001).Pre testdatashowedthat52(86.7 %) had inadequate knowledge,8(13.3 %) had moderately adequate knowledge and none of them had adequate knowledge. With theintervention 49(81.7percent)had adequateknowledge,11(18.3 percent)hadmoderatelyadequate knowledge andnone of themhad inadequate knowledge. Self-Instructional Module was highly effective in improving the knowledgeregarding HIV Prevention.

Description of pre-test and post-test skill scores of studysubjects regardingpersonal protective:

Objective 4: To assess the pre-test skill scores regarding personal protective equipments among General Nursing and Midwifery students .

Inthepresentstudy,pre-testskillscoresshowedthatmost31(55.61%)ofthesubjectshadmoderateskill scores,24(40%) had poor skill scores whileas 5 (8.33%) of the subjects was foundwithgood skill scores.

The findingsofthisstudyweresupportedbya study conducted by Sulaiman Ali Al Yousef(2013) [25].Toassessinfection controlamonginternshipnursing students.Thestudywascarried out in KingKhalidHospital at Hafer Al-Batin cityin Kingdom Saudi Arabia at 33nusing students students of College of Applied medical Science,Dammam University. Findings showed that pre-test skill scores among 30nursing students 4 (12.1%) students had Poor skillscore,2(0 60.6%) students had Moderate skill score,9(27.3%) %) students had good skillscores .

Objective 5: To assess the post-test skill scores regarding personal protective equipmentsamong General Nursing and Midwifery students .

In thepresent study,post test skill scores showed that most ofthesubjects hadacquired good skill scores 58(96.66%), 2(3.33%) had moderateskillscore, whileas none (0%) ofthe subjectswas found with poorpost-test skillscore.

The findings of this study were supported by a study conducted by Sulaiman Ali Al Yousef, (2013) .[25]To assess infection control among internship nursing students. The study was carried out in King Khalid Hospital at Hafer Al- Batin city in Kingdom Saudi Arabia at 33nusing students of College of Applied medical Science,DammamUniversity.Findings showed that post -test skillscores among 30nursing students 0.3 (0.3%) had Poor skill score,4(12.16%) had Moderate skillscores 28(84.8%) had goodskillscores.

Section(III.b): Comparison of pre-test and post-testskillscore ofstudy subjects regardingpersonal protective equipments.

Objective 6:To compare the pre-test and post–test skill scores regardingpersonal protective equipments among General Nursing and Midwifery students .

In the present study,while comparing the pre-test and post-test skill scores of subjects regarding personal protective equipments. The meanpost- test skill score of study subjects (18.15±1.97) was higher than mean pre-test skill scoresof study subjects(6.52±2.51).at 0.05 level of significance. With the demonstration 96.66%,acquired good skill scores 3.33%hadmoderateskillscore, whileasnone(0%) ofthesubjects was found with poor post-test skill scores. With p value(<0.001).This gives an inference that demonstration on personal protective equipments was effective in improving the skill scores ofsubjects.

The findings of this study were supported by a study conducted by Al-HussamiandDarawad (2012).[26] On Effectiveness of trainingprograms about the infection control precautions among nursing students at a public university. The findings showed

that in experimental group the mean post test scores 22.89+ 1.41was higherthan mean per–test score 12.41+3.27 at 0.05 level of significance which showed that training program was effective in improving skill of nursing students oninfection control precautions.`.

The findings of the study were also supported a study conducted by Chia–Jung WW, Glenn, Gardner, Anne (2009.)[27]On the effectiveness of educationalprogram in improving undergraduatenursing students understanding and practice of infection control precautions.Thefindingsrevealed that interventional group showed improvement in their knowledge and practice of infection control precautions [F(2, 180) =13.53,P<0.001] and confidence in resolving infection related issues .

Association of pre-test knowledge scores with demographic variables (age, habitat ,type of family education of parents).

Objective 7: To find the association between pre-testknowledge scores regarding prevention of HIV /AIDS among General Nursing And Midwifery Students with demographic variables(age, habitat, type of family, education of parent).

In the present study, it was found that there was nosignificant association between pre-test Knowledge score with demographicvariablesi.e.age,habitat,typefamilyandeducationofparentwithpre-testKnowledgescores(.591, .386,.0.170,.700respectively),p-value>0.005

The findings of the study were supported by a study conducted by KamathNeetha,Udayakiran N (2016)[28.]On Effectiveness of participatory learning activity (PLA) cum lecture method on knowledge of nursing students in HIV/AIDS. The findings of the study showed that that there was no significant association between the pre test knowledge level and demographic variables of nursing students. The finding showed that in pre test knowledge level value of gender(X2 = 0.230> P= 0.631)), type offamily (P=0.474), current resident (P= 0.486), and education(P0.668) was lesser than the table X2 value . This showed that the association between pre test knowledge level and demographic variables was not statistically significant at 0.05 levels.

Thefindingsofthestudyweresupportedbyan evaluativestudyconductedRaisaSusan Mathew, ReshmaV, Sabith M, Sanju M Rajan, Serin Sam and Roshith.K P (2013) [29] To assess effectiveness of structured teaching programme on knowledge regarding prevention HIV/AIDS.The finding of this study showedthere was no significant association between knowledge ofsubjectson preventionofHIV/AIDSandselecteddemographicvariablessuchassex, streamof education, type of family, income per month, place of residence, source of information, stream of education.

Association of pre-test skill scores with demographic variables (age habitat ,type of family , education of parents).

Objective 8: To find the association between pre–test skill scores regarding personal protective equipments among General Nursing and Midwifery students with demographic variables (age, habitat, type of family, education of parents)

Inthepresentstudy,itwasfoundthattherewasnosignificantassociation wasfoundbetween age,habitat,typefamily, education of parents with pre-test skill scores (.779, 098, .472, .986 respectively), p-value >0.005.

The findings of the study were also supported by study conducted by Oliveira Adriana Cristina,Palucci Maria et al (2009)[30.]Cross-sectional study Knowledge and practice regarding standard precautions. The findings of the study showed that no significant association was found between adopting universal precaution measures and demographic variables.

CONCLUSION**:**

The main aim of the study was to assess the effectiveness of Self Instructional Module (SIM) on knowledge and skill regarding prevention ofHIV/AIDS amongGNMstudentsin order to prevent the transmission of HIV/AIDS. Information wasgiven totheGNMstudentsthrough aSelfInstructionalModule(SIM) which includesvariousaspects like Concept andmeaning Causative agent,Pathophysiology,Modesoftransmission, Clinical manifestation, Diagnostic tool ,Prevention Oppurtainastic infection of HIV, Treatment and demonstrationregardingpersonal protective equipments.

Onthebasisoffindingsofthestudyfollowingconclusionsweredrawn:

Pre-test findings revealed that the subjects did not possess adequate knowledge regarding prevention of HIV/AIDS..

TheSelf Instrustional Modulewas found effective in improving the knowledge of subjects regarding prevention of HIV/AIDS. It indicated that subjectshad percieved the importance of intervention and were inetrested in learning as evident from post-test knowledge and skill scores.

MostofthesubjectshadmoderateskilonpersonelprotectiveequipmentSotheir skillneedtobeenhanced

Demonstration was found effective in improving the skill of subjects regardingpersonel protective equipment..

No significant association was found between pre-test knowledge and skill scores regarding prevention of HIV/AIDS with their demographic variables.Which indicated that these variables probably have noeffect on their knowledge and skill .

This indicates thatSelf instrustional Module and demonstration must be implementedin nursing colleges in order to increase the knowledgeand skill of nursing studentsregarding prevention of HIV/AIDS.

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