Original Research Article

Use of personal protective equipment's for prevention of Covid-19 infection among Students of selected nursing college of Kashmir

ABSTRACT

Background: Covid19 has affected people all over the world especially health care workers who are constantly exposed to this virus while providing services to their clients. They need to be up to-date regarding infection prevention measures like the use of personal protective equipment's.

Aim: To assess the pre-test and Post-test knowledge and Practice score related to use of personal protective equipment's. To find association of knowledge & practice with selected demographic variables.

Methods: A pre-experimental one group pre-test post-test design was adopted for the study. 60 B.Sc. Nursing students from SMMCNMT, IUST, Awantipora, Kashmir and Institute of Nursing, South Campus, University of Kashmir were selected by Convenient Sampling technique. A standardized questionnaire and observational checklist was used to collect the data. Descriptive & Inferential statistics was used to analyze the data.

Results: Study reveals that 6.7% of the subjects had inadequate knowledge, 93.3% subjects had moderate knowledge while only 0% subjects had adequate knowledge during Pre-test. Pretest practice score revealed that 8.3% of subjects had poor practice, 78.3% of subjects had average practice and 13.3% of subjects had good practice regarding the use of PPE's. Post-test knowledge score revealed that 0% subjects had inadequate knowledge, 13.3% subjects had moderate knowledge and 86.7% subjects had adequate knowledge regarding the use of PPE's. Post-test practice score revealed that 0% subjects had poor practice, 15% subjects had average practice and 85% subjects had good practice regarding the use of PPE's.

This indicates that the mean post-test knowledge scores i.e. 23.47(78.20%) is higher than the mean pretest knowledge scores i.e. 13.72(45.7%). The mean posttest practice scores i.e. 9.93(82.80) is higher than the mean pretest practice scores i.e. 6.88(57.40).

Conclusion: The results revealed that Instructional Module was highly effective as there was significant increase in the post-test knowledge and practice scores among the B.Sc. Nursing students of SMMCNMT, IUST Awantipora, Kashmir and Institute of Nursing, South Campus, University of Kashmir.

Keywords: Impact, Instructional Module, Personal Protective Equipment's

Introduction:

Covid-19 is a severe respiratory syndrome that is caused by Coronavirus 2 (SARS-COV-2). It was first recognized in Wuhan, China in Dec. 2019 & was declared a pandemic by WHO on 11th March 2020(1). Since the inception of this pandemic globally, more than 17,000 health care workers have lost their lives due to Covid-19 and its associated complications (2)(3). To disintegrate the spread of the virus, international recommendations principally focused on the appropriate use of personal protective equipment (PPEs)(4)(5).

Firstly transmission of Covid-19 to health care workers likely occurred in Solano County, California in February 2020. At that moment, PPE precautions were not yet settled, so none of the health care workers wore PPE for Covid 19 protection. As a consequence of that, 121 health care workers were having a high, medium, or low risk of infection (6). So it is clear that health care workers are at the highest risk of exposure to Covid-19 while dealing with patients affected by Covid-19 in all the health care settings (7). The way they have to care for their patients involves close contact with blood and body fluids. So, they need appropriate protection to protect themselves from such hazards and this protection is provided only by Personal Protective Equipment's (8). World Health Organization defines Personal Protective Equipment's as that equipment's that prevent and minimize the exposure of various biological, chemical radiological, electrical, and mechanical hazards. Personal Protective Equipment's protect health care workers from pathogens and hospital-acquired infections (HAI) at health care settings (9).

By caring for Covid-19 patients, health care workers act as frontline warriors in this pandemic. They are involved in the collection of Covid samples, carrying invasive and non-invasive procedures, dealing closely with Covid positive patients, and are at high risk of getting Covid-19 infection. Many protocols and guidelines for the prevention of Covid 19 infection are put forward by various international organizations and regulatory bodies like the Centre for Disease

Control and Prevention (CDC), World Health Organization (WHO), European Agency for Safety and Health, Ministry of Health and Family Welfare (MoHFW) like Hand washing, use of alcohol-based sanitizers, maintenance of social distance and use of Personal protective equipment's. The use of Personal protective equipment's is one of the most essential elements for the prevention and control of Covid-19 infection (10).

PPE helps to secure that health care workers are safe from various hazards that they encounter in their working environment. PPE prevents health care workers from different environmental threats but no equipment is appropriate for all individuals, risks and threats: preferably, equipment must be selected and properly used according to setting and the level of threat or risk. It involves a selection of appropriate personal protective equipment according to the threat, proper sequence of donning and doffing, and proper disposal (11).

To overcome staff shortage in hospitals, on May 2021 central Government decided to rope in final year medical and nursing students for Covid-19 duty. Here arises the need of training programs for donning and doffing of Personal protective equipment's to protect these students from opportunistic infections(12).

Objectives: To assess the pre-test and Post-test knowledge and Practice score related to use of personal protective equipment's. To find association of knowledge & practice with selected demographic variables

Material & Methods:
Quantitative pre-experimental one group pre-test post-test research design was used in this study. 60 B.Sc. nursing students were selected by Stratified random sampling technique from Syed Mantaqi Memorial college of Nursing & Medical Technology, IUST Awantipora and Institute of Nursing South Campus, University of Kashmir. Data was collected in the month of November, 2021 from Institute of Nursing, south campus, university of Kashmir and in December 2021 from Syed Mantaqi Memorial College of nursing, IUST, Awantipora.
A standardized questionnaire of 30 questions & observation checklist of six items was used to collect data regarding use of personal protective equipment's for the prevention of Covid-19 infection.
.

Categorization of knowledge score

Knowledge	Score
Good	21-30
Average	11-20
Poor	0-10

Each correct answer was given a score of 1 mark & 0 for wrong answer

Categorization of practice score

Practice	Score
Good	8-12
Average	4-8
Poor	0-4

Each correct step was given a score of 1 mark & 0 for wrong step.

The tool used for data collection was semi-standardized (13) and was validated by Dr. Tajali N Shora, Assistant Professor, Department of Community Medicine, Govt. Medical College, Anantnag.

☐ Ms. Rubeena Hakak, Associate Professor, Department of Microbiology, Govt. Medical College Anantnag.

☐ Ms. Asmat Parveen, Principal Syed Mantaqi Memorial College of Nursing & Medical Tech. IUST Awantipora. Ethical clearance was obtained from institutional ethics committee of Islamic university of science & technology, Awantipora Pulwama, under protocol number RP 031/2021. The collected data was summarized & tabulated by descriptive statistics such as mean, mean percentage, standard deviation, correlation & inferential statistics. Data analysis was done by Aneja coaching & Data analysis centre, NH1, Sahnewal Ludhiana-141120, 98884-07254.

Result and Discussion

The results were discussed under following sections.

Section A: Demographic variables.

Demographic Variables	Category	Frequency	Percentage
Age in years	Up to 18 Years	0	0.0%
	19-22 Years	60	100.0%
	23 Years or Above	0	0.0%
Gender	Male	25	41.7%
	Female	35	58.3%

Domicile	Rural	39	65.0%
	Urban	21	35.0%
Class	BSc Nursing 1st year	20	33.3%
	BSc Nursing 2nd year	20	33.3%
	BSc Nursing 3rd year	20	33.3%
Occupation of Father	Health worker	16	26.7%
	Businessman	24	40.0%
	Any other occupation	20	33.3%
Occupation of Mother	Health worker	23	38.3%
	Businesswoman	4	6.7%
	Any other occupation	33	55.0%
Previous Source of information	Family	16	26.7%
	Teachers	29	48.3%
	Health personnel	10	16.7%
	Electronic media	5	8.3%

Table 1: Frequency distribution of socio demographic variables

SECTION B:

Pre-test and Post-test knowledge & practice of subjects regarding personal protective equipment's for the prevention of Covid-19 infection.

Table 2: Pre-test level of knowledge of subjects regarding personal protective equipment's.

Pre-test knowledge	Score level	Frequency	Percentage
Inadequate	1-10	4	6.7%
Moderate	11-20	56	93.3%
Adequate	21-30	0	0%

Maximum Score=30 Minimum Score=0

Table 3: Pre-test practice related to use of personal protective equipment's for the prevention of Covid-19 infection.

Pre-test practice	Score level	Frequency	Percentage
Poor	1-4	5	8.3%

Average	5-8	47	78.3%
Good	9-12	8	13.3%

Table 4: Post-test knowledge related to use of personal protective equipment's for the prevention of Covid19 infection.

Post-test knowledge	Score level	Frequency	Percentage
Inadequate	1-10	0	0%
Moderate	11-20	8	13.3%
Adequate	21-30	52	86.7%

Table 5: Post-test practice related to use of personal protective equipment's for the prevention of Covid19 infection.

Post-test practice	Score level	Frequency	Percentage
Poor	1-4	0	0%
Average	5-8	9	15%
Good	9-12	52	85%

SECTION C:

Effectiveness of self-Instructional Module on knowledge of subjects regarding personal protective equipment's

Table 6: Comparison of pre-test & post-test knowledge of subjects.

n=60

Paired T Test	Mean± S.D.	Mean%	Range	Mean Diff.	Paired T Test	P value	Table Value at 0.05

PRETEST KNOWLEDGE	13.72±2.034	45.70	10-19				
				9.750	45.402 *Sig	<0.001	2.00
POSTTEST KNOWLEDGE	23.47±2.652	78.20	19-29				

** Significance Level 0.05   Maximum=30 Minimum=0

Table 7: Comparison of pre-test & post-test practice scores:

N=60

Paired t-test	Mean+-SD	Mean%	Range	Mean diff. value	Paired T test	P value	Table at 0.05
Pre-test Practice	6.88+-1.541	57.50	3-10				
				3.050	27.722*sig	<0.001	2.00
Post-test Practice	9.93+-1.528	82.80	6-12				

**Significance level 0.05. Maximum score=12, Minimum score=0.

SECTION D:

This section deals with the association of knowledge & practice scores with demographic variables.

Table 8: Association of pre-test & post-test knowledge score with socio- demographic variables.

Association of Pretest Knowledge Scores with Selected Socio-Demographic Variables.									
Variables	**Opts**	**ADEQUATE**	Moderate	Inadequate	**Chi Test**	**P Value**	**df**	**Table Value**	**Result**
Age in years	Up to 18 Years		0	0	NA				
	19-22 Years		56	4					
	23 Years or Above		0	0					
Gender	Male		23	2	0.122	0.726	1	3.841	Not Significant
	Female		33	2					
Domicile	Rural		37	2	0.424	0.51	1	3.84	Not

	Urban		19	2		5		1	Significant
Class	BSc Nursing 1st year		17	3	3.750	0.153	2	5.991	Not Significant
	BSc Nursing 2nd year		19	1					
	BSc Nursing 3rd year		20	0					
Occupation of Father	Health worker		16	0	3.616	0.164	2	5.991	Not Significant
	Businessman		23	1					
	Any other occupation		17	3					
Occupation of Mother	Health worker		23	0	3.506	0.173	2	5.991	Not Significant
	Businesswoman		4	0					
	Any other occupation		29	4					
Previous Source of information	Family		16	0	2.752	0.431	3	7.815	Not Significant
	Teachers		27	2					
	Health personnel		9	1					
	Electronic media		4	1					

There is no significance association between the pre-test level of knowledge scores and socio demographic variables (Age, gender, domicile, class, occupation of father, occupation of mother, previous source of information). The calculated chi-square values were less than the table value at the 0.05 level of significance

Table 9:

Association of Post-test Knowledge Scores with Selected Socio-Demographic Variables.									
Variables	**Opts**	**ADEQUATE**	**MODER**	**INADEQ''**	**Chi Test**	**P Value**	**df**	**Table Value**	**Result**
Age in years	Up to 18 Years	0	0		NA				
	19-22 Years	52	8						
	23 Years or Above	0	0						
Gender	Male	21	4		0.264	0.608	1	3.841	Not Significant
	Female	31	4						
Domicile	Rural	33	6		0.406	0.524	1	3.841	Not Significant
	Urban	19	2						
Class	BSc Nursing 1st year	15	5		5.481	0.065	2	5.991	Not Significant

	BSc Nursing 2nd year	17	3						
	BSc Nursing 3rd year	20	0						
Occupation of Father	Health worker	16	0						
	Businessman	20	4		3.462	0.177	2	5.991	Not Significant
	Any other occupation	16	4						
Occupation of Mother	Health worker	21	2						
	Businesswoman	4	0		1.715	0.424	2	5.991	Not Significant
	Any other occupation	27	6						
Previous Source of information	Family	16	0						
	Teachers	24	5						
	Health personnel	8	2		3.422	0.331	3	7.815	Not Significant
	Electronic media	4	1						

There is no significance association between the post-test level of scores and Socio demographic variables (Age, gender, domicile, class, occupation of father, occupation of mother, previous source of information). The calculated chi-square values were less than the table value at the 0.05 level of significance

D2: Association of pre-test & post-test practice scores with selected socio- demographic variables.

Table 10:

Association of Pre- test PRACTICE Scores with Selected Socio-Demographic Variables.									
Variables	**Opts**	**POOR**	**AVERAGE**	**GOOD**	**Chi Test**	**P Value**	**df**	**Table Value**	**Result**
Age in years	Up to 18 Years	0	0	0	NA				
	19-22 Years	5	47	8					
	23 Years or Above	0	0	0					
Gender	Male	3	19	3	0.778	0.678	2	5.991	Not Significant
	Female	2	28	5					
Domicile	Rural	2	34	3	5.146	0.076	2	5.991	Not Significant
	Urban	3	13	5					
Class	BSc Nursing 1st year	3	14	3	2.148	0.709	4	9.488	Not Significant
	BSc Nursing	1	16	3					

		POOR	AVERAGE	GOOD	Chi Test	P Value	df	Table Value	Result
	2nd year								
	BSc Nursing 3rd year	1	17	2					
Occupation of Father	Health worker	2	12	2					
	Businessman	2	19	3	0.694	0.952	4	9.488	Not Significant
	Any other occupation	1	16	3					
Occupation of Mother	Health worker	1	19	3					
	Businesswoman	1	3	0	2.498	0.645	4	9.488	Not Significant
	Any other occupation	3	25	5					
Previous Source of information	Family	2	13	1					
	Teachers	3	21	5					
	Health personnel	0	9	1	3.231	0.779	6	12.592	Not Significant
	Electronic media	0	4	1					

Table shows that there is no significance association between the pre-test practice level of scores and socio demographic variables (Age, Gender, Domicile, Class, Occupation of father, Occupation of mother, Previous source of information). The calculated chi-square values were less than the table value at the 0.05 level of significance.

Table 11:

Association of Post-test PRACTICE Scores with Selected Socio-Demographic Variables.									
Variables	**Opts**	**POOR**	**AVERAGE**	**GOOD**	**Chi Test**	**P Value**	**df**	**Table Value**	**Result**

Age in years	Up to 18 Years	0	0	0	NA				
	19-22 Years	0	9	51					
	23 Years or Above	0	0	0					
Gender	Male	0	6	19	2.723	0.099	1	3.841	Not Significant
	Female	0	3	32					
Domicile	Rural	0	5	34	0.415	0.519	1	3.841	Not Significant
	Urban	0	4	17					
Class	BSc Nursing 1st year	0	5	15	3.137	0.208	2	5.991	Not Significant
	BSc Nursing 2nd year	0	1	19					
	BSc Nursing 3rd year	0	3	17					
Occupation of Father	Health worker	0	3	13	0.294	0.863	2	5.991	Not Significant
	Businessman	0	3	21					
	Any other occupation	0	3	17					
Occupation of Mother	Health worker	0	3	20	0.383	0.826	2	5.991	Not Significant
	Businesswoman	0	1	3					
	Any other occupation	0	5	28					
Previous Source of information	Family	0	2	14	1.271	0.736	3	7.815	Not Significant
	Teachers	0	5	24					
	Health personnel	0	2	8					
	Electronic media	0	0	5					

Table shows that there is no significance association between the post-test practice level of scores and socio demographic variables (age, gender, domicile, class, occupation of father, occupation mother and previous source of information). The calculated chi-square values were less than the table value at the 0.05 level of significance.

DISCUSSION:

The present study was intended to evaluate the impact of Self-Instructional Module on knowledge & practice related to use of personal protective equipment's for the prevention of covid19 infection among the students of selected nursing colleges of Kashmir.

Data was collected by using standardized questionnaire & observation checklist from 60 B.Sc. Nursing students (30 from Syed Mantaqi Memorial college of Nursing, Awantipora & 30 from Institute of Nursing, South campus, University of Kashmir)

Major Findings of the Study:

The findings of present study have been discussed according to the objectives as follows;

Objective 1; To assess the pre-test knowledge and Practice score related to use of personal protective equipment's for the prevention of covid19 infection among the students of selected nursing colleges of Kashmir.

In pre-test knowledge, 6.7% of students had inadequate knowledge, 93.3% had moderate knowledge & no student had adequate knowledge. In the pre-test practice, 5 (8.3%) of students had poor practice, 47(78.3%) of students had average practice & 8 (13.3%) of students had good practice.

Finding of the study were supported by (14).

Objective 3: To assess the post-test knowledge and practic score related to use of personal protective equipment's for the prevention of covid19 infection among the students of selected nursing colleges of Kashmir.

In post-test knowledge 0 (0%) students had inadequate knowledge, 8(13.3%) of students had moderate knowledge & 52 (86.7%) of students had adequate knowledge.

In post-test practice 0(0%) of students had poor practice, 9(15%) of students had average practice & 51(85%) of students had good practice. The overall post-test practice mean was 9.93 with mean% of 82.80% & standard deviation of 1.528. The highest score obtained was 12 & lowest score was 6. Findings of the study were supported by (8)

Objective 5: To evaluate the effectiveness of self-instructional module on knowledge & practice of students related to personal protective equipment's.

Findings related to self-instructional module of knowledge regarding use of personal protective equipment's for the prevention of covid19 infection among students of selected nursing colleges of Kashmir depicts that improvement mean% 32.50% with t value 45.402 at $p < 0.05$ level of significance which shows there is enhancement of self-instructional module.

Findings related to self-instructional module of practice regarding use of personal protective equipment's for the prevention of covid19 infection among students of selected nursing colleges of Kashmir depicts that improvement mean% 25.4% with t value 27.722 at $p < 0.01$.

Based on the results it accepts the hypothesis H1- which states that "there is significant difference between pre-test & post-test level of knowledge and practice scores".

The findings were supported by the study conducted by (15)

Objective 6: To find association between pre-test & post-test knowledge & practice with selected demographic variables (age, gender. domicile, class, occupation of father, occupation of mother, previous source of information) on using personal protective equipment's among students of selected nursing colleges of Kashmir.

Hypothesis H2 which states "there will be a significant association between post-test level of knowledge & practice scores and demographic variables" is rejected as there is no significant association between post-test level of knowledge & practice score and selected demographic variables (age, gender, domicile, class, occupation of father, occupation of mother, previous source of information

CONCLUSION:

The present study assessed the impact of self-instructional module on knowledge and practice related to use of personal protective equipment's for prevention of Covid-19 infection among students of selected nursing colleges of Kashmir

The findings of the study revealed that, that overall pre-test knowledge score shows

93.3%of study subjects had moderate knowledge and 67% of study subjects had

inadequate knowledge and 0% of study subjects had adequate knowledge

The overall pre-test practice score shows that 78.3% study subjects had average practice,

23.3% of study subjects had good practice and 83% of study subjects had poor practice

After, pre-test the self-instructional module was provided to the study subjects, in order to

enhance their knowledge and practice related to use of personal protective equipments for

prevention of Covid 19 infection.

The post-test knowledge score revealed that 86.7% of study subjects had adequate

knowledge, 13.3% of study subjects had moderate knowledge and 0% of study subjects

has inadequate knowledge.

The post-test practice score shows that 85% of study subjects had good practice, 15% of

study subjects had adequate practice and 0 % of study subjects had poor practice

Above results revealed that the self-instructional module was very informative and it

would help the study subjects to improve their knowledge and practice related to use of

personal protective equipments for prevention of Covid 19 infection, Hence the selfinstructional

module was competent, convenient, practicable and profitable.

 Lack of adequate personal protective equipment's along with their improper use are the major
contributing factors for increasing the number of Covid-positive cases all over the globe. The
current study assessed the Impact of Instructional module on knowledge & practice related to us
of personal protective equipment's for the prevention of Covid19 infection among the students of
selected nursing colleges of Kashmir.

The results revealed that majority of nursing students had moderate level of knowledge and
average level of practice in the pre-test. After pre-test, Instructional module was provided to
study subjects to enhance their knowledge and practice regarding personal protective
equipment's. In the post-test, both knowledge and practice of subjects was improved as

evidenced by the adequate level of knowledge & good level of practice scores among majority of subjects in the post-test. Comparison of pre-test & post-test revealed that Instructional module was very informative and it helped the study subjects to improve their knowledge and practice related to personal protective equipment's. Hence the Self-Instructional module was competent, convenient, practicable and profitable.

Limitations:

☐ Due to limited time period Samples were selected only from two nursing colleges.

☐ Sample size was limited to 60 participants.

Recommendations:

1. Educational programs should be organized for nursing students and other nursing professionals regarding personal protective equipments for prevention of Covid 19 infection.

2. Special training sessions related to use of personal protective equipments should be organized for nursing students and other nursing professionals.

3. Adequate supply of personal protective equipments should be provided to nursing students during Covid 19 pandemic

4. The research studies on personal protective equipments should be conducted on regular basis

REFRENCES:

1. WHO. Clinical management Clinical management Living guidance COVID-19. 2021B. 2021;(January):16–44.

2. COVID-19: Health worker death toll rises to at least 17000 as organizations call for rapid vaccine rollout - Amnesty International.

3. WHO Director-General's opening remarks at the media briefing on COVID-19 - 11 March 2020.

4.   Guidance for wearing and removing personal protective equipment in healthcare settings for the care of patients with suspected or confirmed COVID-19.

5.   Burrer SL, de Perio MA, Hughes MM, Kuhar DT, Luckhaupt SE, McDaniel CJ, et al. Characteristics of Health Care Personnel with COVID-19 — United States, February 12–April 9, 2020. MMWR Morb Mortal Wkly Rep. 2020 Apr;69(15):477–81.

6.   Heinzerling A, Stuckey MJ, Scheuer T, Xu K, Perkins KM, Resseger H, et al. Transmission of COVID-19 to Health Care Personnel During Exposures to a Hospitalized Patient - Solano County, California, February 2020. MMWR Morb Mortal Wkly Rep. 2020 Apr;69(15):472–6.

7.   Woolley K, Smith R, Arumugam S. Personal Protective Equipment (PPE) Guidelines, adaptations and lessons during the COVID-19 pandemic. Ethics, Med Public Heal. 2020;14:100546.

8.   Personal protective equipment for COVID-19.

9.   Health product policy and standards.

10. COVID-19: Occupational health and safety for health workers: interim guidance, 2 February 2021.

11. Haegdorens F, Franck E, Smith P, Bruyneel A, Monsieurs KG, Van Bogaert P. Sufficient personal protective equipment training can reduce COVID-19 related symptoms in healthcare workers: A prospective cohort study. Int J Nurs Stud. 2021 Feb;126:104132.

12. Final year medics, nurses to be roped in to fight Covid - The Economic Times.

13. Standard precautions: The role of personal protective equipment | [Internet]. [cited 2022 Jan 30]. Available from: https://openwho.org/courses/IPC-SP-PPE-EN

14. Hossain MA, Rashid MU Bin, Khan MAS, Sayeed S, Kader MA, Hawlader MDH. Healthcare workers' knowledge, attitude, and practice regarding personal protective equipment for the prevention of covid-19. J Multidiscip Healthc. 2021;14:229–38.

15. Pandey S, Poudel S, Gaire A, Poudel R, Subedi P, Gurung J, et al. Knowledge, attitude and reported practice regarding donning and doffing of personal protective equipment

among frontline healthcare workers against COVID-19 in Nepal: A cross-sectional study. PLOS Glob Public Heal [Internet]. 2021;1(11):e0000066. Available from: http://dx.doi.org/10.1371/journal.pgph.0000066

Annexure 4

DATA ANALYSIS CERTIFICATE BY STATISTICIAN

Aneja Coaching and Data Analysis Centre
NH1, Sahnewal (Ludhiana)–141120
M: 98884-07254, M: 98882-07254
E-Mail: anejabk@gmail.com

CERTIFICATE
FROM STATISTICIAN

TO WHOM IT MAY CONCERN

This is to certify that the Statistical Analysis part of the study conducted by

Shahid Manzoo, Arjumand Ashraf, Binshee Bashir, Inabat ramzan, Ekleela hameed

B.Sc Nursing 4th year of Syed Mantaqui Memorial college of nursing and medical technology, Awantipora for research topic "Impact of self instructional module on knowledge and practice related to use of personal protective equipments for the prevention of COVID 19 infection among students of selected nursing colleges of Kashmir."

has carried out by me as a statistician by obtaining structured questionnaire with objectives, Master Data Sheet from the said candidate.

Aneja

Seal & Signature

Cert ID : 9MYMDO-CE001271

Date : 28-DEC-2021

Barjinder Kumar Aneja
MCom,BEd,MSc(IT), PGDSt.
Aneja Coaching and Data Analysis Centre
G.T Road, Sahnewal (Ludhiana)-141120
(M) 98884-07254; E-mail: anejabk@gmail.com

CONTENT VALIDATION CERTIFICATE

This is to certify that, I have validated the tool and self instructional module of group J of syed mantaqui Memorial College of nursing and medical technology, IUST Awantipora and the study topic is as follows:

Impact of Self-instructional module on knowledge and practice related to use of Personal protective equipment's for prevention of Covid - 19 infections among students of selected nursing colleges of Kashmir

Place: SMMCNMT,

Date: 02-09-21

Designation and address: Assoc

Signature:

Principal SMMCNMT, IUST.

CONTENT VALIDATION CERTIFICATE

This is to certify that, I have validated the tool and self instructional module of group J of syed mantaqui Memorial College of nursing and medical technology, IUST Awantipora and the study topic is as follows:

Impact of Self-instructional module on knowledge and practice related to use of Personal protective equipment's for prevention of Covid - 19 infections among students of selected nursing colleges of Kashmir

Place: Anantnag

Date: 24/Aug/2021

Designation and address: — Dr. Tayali N Shora
— Assi Prof. GMC Anantnag
Co-ordinator College of Nusij +
Paramedical Sciences / GMC Ais

Signature:

CONTENT VALIDATION CERTIFICATE

This is to certify that, I have validated the tool and self instructional module of group J of syed mantaqui Memorial College of nursing and medical technology, IUST Awantipora and the study topic is as follows:

Impact of Self-instructional module on knowledge and practice related to use of Personal protective equipment's for prevention of Covid - 19 infections among students of selected nursing colleges of Kashmir

Place: GMC, Anantnag

Date: 23/8/2021

Designation and address:

Signature:

Associate Prof
Department of Microbiology
Govt. Medical College Anantnag