A CROSS-SECTIONAL STUDY TO ASSESS THE KNOWLEDGE, PERCEPTION AND PREVENTIVE BEHAVIOR OF SELECTED UNDERGRADUATE NURSING STUDENTS OF KASHMIR TOWARDS COVID-19 WITH A VIEW TO PROVIDE A STRUCTURED TEACHING PROGRAM.

Ms. Asmat Parveen[1], Ms. Anjum Khursheed[2] , Ms. Rumysa Yousuf[3]* , Mr. Muzzammil Ishaq[4]   Mr. Shakir Ud Din Nala[4], Mr. Mohammad Alyas Shah[4], Ms. Aasiya Nabi[4] , Ms. Jamsheeda Farooq[4]

1. Associate Professor /Principal, Department of Nursing, Islamic University of Sciences and Technology Awantipora.

2. Assistant Professor, Department of Nursing, Islamic University of Sciences and Technology Awantipora.

3*. Tutor, Department of Nursing, Islamic University of Sciences and Technology Awantipora and corresponding author, rumysay288@gmail.com.

3. B.Sc. nursing students, Islamic university of Sciences and Technology Awantipora.

ABSTRACT:-

Covid-19 is a highly infectious disease caused by a newly discovered (novel) corona virus-2. Corona virus belongs to a family Coronaviridae. Corona virus was first identified as an outbreak in China and it was then declared as a pandemic by WHO on 11 March 2020. Due to this pandemic large number of people died across the globe and till now many variants of this disease are still emerging day by day which pressurizes WHO and the health care system of the world to stop the pandemic as soon as possible . The present study was conducted to assess the knowledge , perception and preventive behaviour of selected undergraduate Nursing students of Kashmir (Ramzana College and Bibi Halima College of Nursing) towards Covid-19 with a view to provide a structured teaching programme .

Methods of data collection procedure: A cross sectional study was selected to assess the knowledge , perception and preventive behaviour of selected Nursing students of Kashmir towards Covid-19 . A total number

of 60 students from 1st year, 2nd year and 3rd year B.Sc. Nursing students where selected by using random sampling technique . A structured questionnaire consisting of 36 questions was prepared to assess the knowledge of students towards Covid-19, a structured questionnaire consisting of 11 questions was used to assess the perception of students towards Covid-19 and a 5 point rating scale was used to assess the preventive behaviour of selected students towards Covid-19.**Results:** Majority of the students 48(80%) had moderate knowledge regarding Covid-19 , 6 (10%) had adequate knowledge towards Covid-19, 6 (10%) had inadequate knowledge towards Covid-19 . Regarding perception revealed 3 (5%) had strongly positive perception of Covid-19 , 14 (23.3%) had positive attitude towards Covid-19 , 30 (50%) show neutral attitude towards Covid-19 , 9(15%) had negative attitude towards Covid-19 and 4(6.67%) show strongly negative attitude towards Covid-19 . Regarding the preventive behaviour of students towards Covid-19 , Majority 51 (85%) show neutral preventive behaviour towards Covid-19 , 7(11.67%) show good preventive behaviour towards Covid-19 and 2 (3.33%) does not show any preventive measures towards Covid-19 . Overall students show moderate knowledge towards Covid-19 and neutral perception and preventive behaviour towards Covid-19. **Conclusion:** This study helped the Nursing students to gain knowledge about the newly discovered Covid-19 disease, its causes, signs and symptoms and how to prevent oneself from this infectious disease. The structured teaching programme provided to the students helped them and their families to apply it in their practical life to stop the further transmission and dreadful effect of Corona virus disease on their day to day life to eradicate this virus from the globe as early as possible .

Keywords:- Knowledge , perception , preventive behaviour , Nursing perception , selected Nursing students .

INTRODUCTION

COVID-19 is a highly infectious disease caused by a newly discovered Coronavirus, named SARS-CoV-2. SARS-CoV-2 belongs to the family Coronaviridae. Historically the viruses belonging to this family have caused several infections in mammals, including Severe Acute Respiratory Syndrome (SARS-CoV) outbreak in 2002-2004 in Foshan, China and Middle East Respiratory Syndrome (MERS-CoV) which was first identified in Saudi Arabia in 2012.[1]Coronavirus belongs to a vast family of viruses that cause pulmonary infections ranging from mild (common cold) to fatal (Severe Acute Respiratory Syndrome, Middle East Respiratory Syndrome, COVID-19).[3]

SARS-CoV-2 is thought to have a zoonotic Origin. 96% of genome resembles to the other bat coronavirus samples. The structural proteins of SARS-CoV-2 include membrane(M), envelop protein€, nucleocapsid protein(N) and spike protein(S).On 31 December, 2019 World Health Organization (WHO) received information of cases of pneumonia of unknown cause from Wuhan City in China. A novel Coronavirus (SARS-CoV-2) was identified as the cause by Chinese authorities on 7 January, 2020.[4]

The WHO declared the COVID-19 outbreak as Public Health Emergency on 30 January, 2020 and a pandemic on 11 March, 2020.[5] The virus spread world wide within months, leading to millions of infections. Till date over 18.1 Crore confirmed cases and over 39.3 lakh deaths have been reported Worldwide and over 3.03 Crore confirmed cases and over 3.97 lakh deaths have been reported in India.[6][7]

The researchers being themselves Undergraduate nursing students perceived fear, stress, obsessions during the outbreak of the disease. The lockdown confined people to their homes, schools and colleges were closed, quarantine facilities were given to the COVID positive patients. This stressful situation of COVID-19 changed their behavior patterns, like frequent hand washing, wearing a mask, avoiding social gatherings, etc.As experiencing a pandemic is new to almost every student nurse, there is a need to enhance the health related behavior, attitude and practices of student nurses regarding the prevention and control of COVID-19. This can be achieved by providing the nursing students with health information and knowledge through various sources and means.

MATERIAL & METHODS

The cross sectional study design and descriptive approach was approved by Institutional Ethical Committee of (IUST/IEC-/21) Islamic University Of Science &Technology Awantipora and was used for this study. The Sample Size was 60 students. The duration of data collection was one week from 27th -Nov.-2021. Classroom was used to collect the data from Students and purpose of study was informed. Consent was taken from the students and semi-structured questionnaire was used to collect the responses from students via pen-paper test. The no. of demographic variables were 7and Chi- Square test was done to determine the association between Score levels and Selected demographic variables.

Maximum Score was 36 and Minimum Score was 0 in terms of knowledge, Maximum Score was 11 and Minimum Score was 0 in terms of perception,70 was max. score and 0 was min. score in terms of preventive behaviour. Validity was established by expert opinion and modification was made as per their suggestion, language Validity was established by a qualified person. Formal permission from Institutional Ethical Committee IUST Awantipora. The obtained data was organized in a statistical way to summarize result was visualized scientifically.

RESULTS:

Socio demographic variables of students.

Note: Number of students (n) = 60

Table 1 Frequency and percentage distribution of socio demographic variables.

S. No	Demographic Variables	Frequency (f)	Percentage (%)
1	**Age group (years)**		
	18-21	32	53.3
	21-25	28	46.7
2	**Gender**		
	Male	22	36.7
	Female	38	63.3
3	**Domicile**		
	Rural	38	63.3
	Urban	22	36.7

4	**Class**		
	1st year	20	33.3
	2nd year	23	38.3
	3rd year	17	28.3
5	**Source of Information**		
	Internet	41	68.3
	Other	19	31.7
6	**Mother's Occupation**		
	Health worker	14	23.3
	Other	46	76.7
7	**Father's Occupation**		
	Health worker	15	25.0
	Other	45	75.0

Table1. Reveals that among all the participants (60), 32(53.3%) belonged to the age group 18-21 years and the remaining 28(46.7%) belonged to the age group 21-25 years, 22(36.7%) participants were male students and 38(63.3%) participants were female students. Majority or participants 38(63.3%) reside in rural areas whereas remaining 22(36.7%) reside in urban areas. 20(33.3%) participants were studying in B.Sc. nursing 1st year, 23(38.3%) in 2nd year and the remaining 17(28.3%) were studying in 3rd year. Mainly the source of information for subjects 41(68.3%) was internet and the remaining 19(31.7%) was from sources other than the internet. The mothers of 14(23.3%) were health workers and the remaining 46(76.7%) were having occupation other than health worker. Mainly the fathers occupation of subjects 45(75%) was other than the health worker and the remaining 15(25%) were health workers.
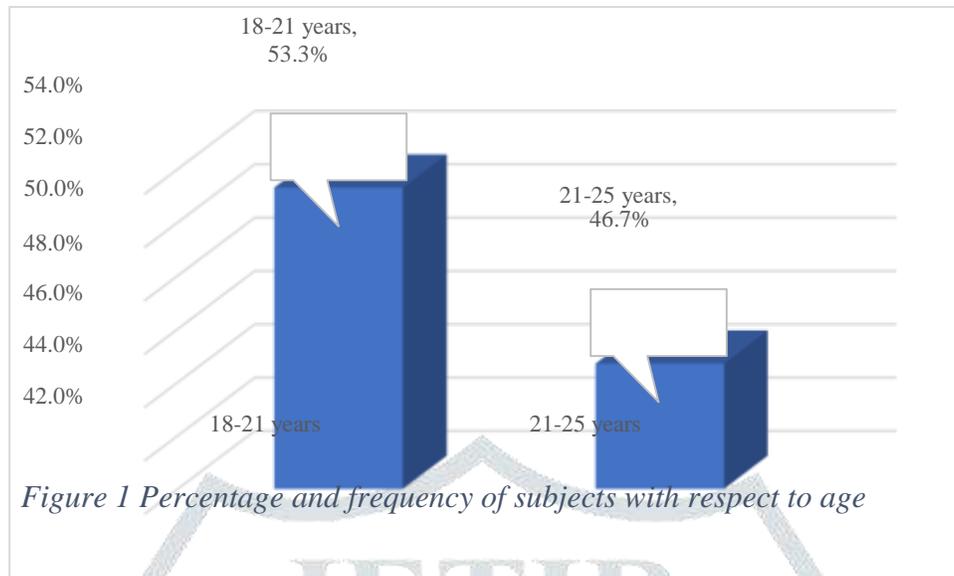
Age group (years)

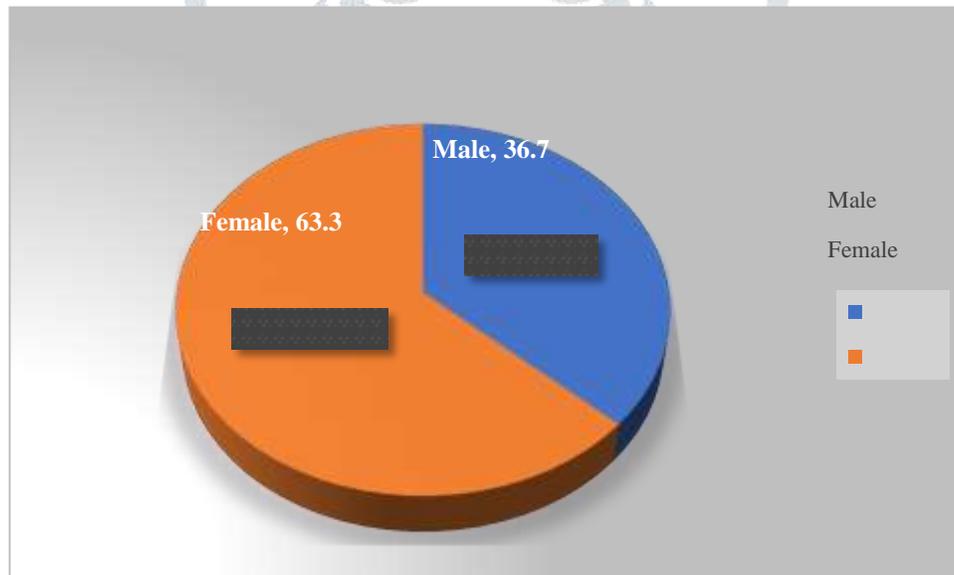*Figure 1 Percentage and frequency of subjects with respect to age*

Gender

Figure 2 percentage distribution of subjects with respect to gender
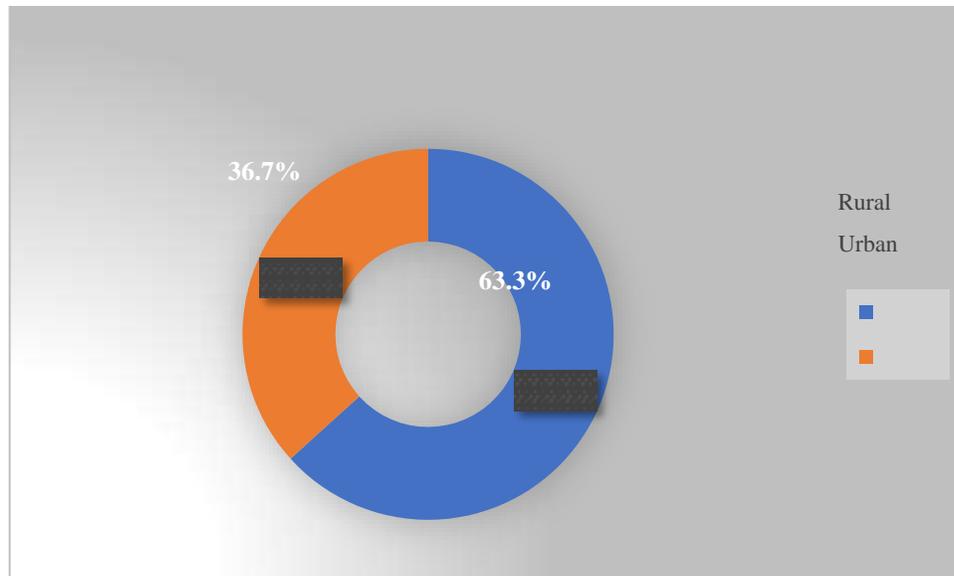
Domicile

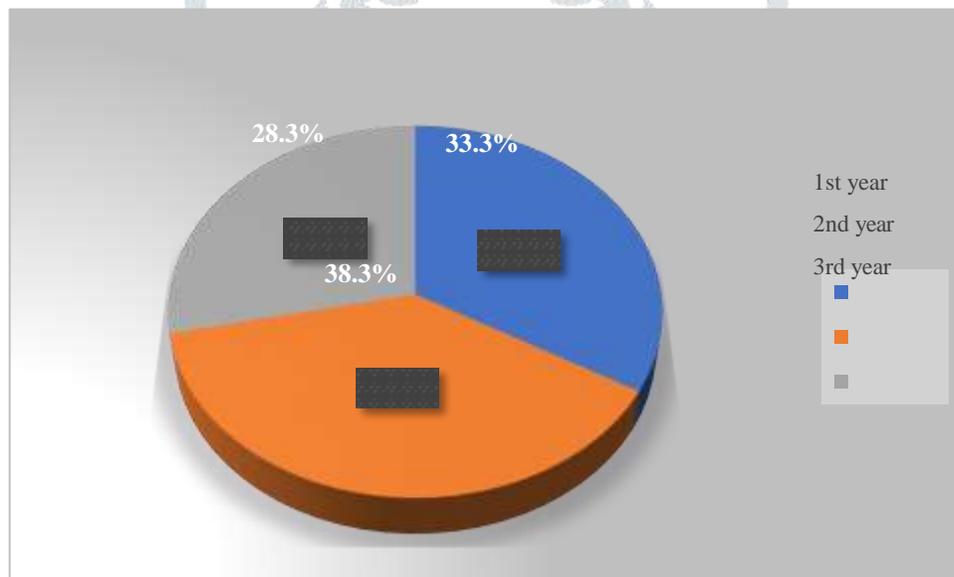*Figure 3 percentage distribution of subjects with respect to their domicile*

Class

Figure 4 percentage distribution of subjects with respect to their standards/classes
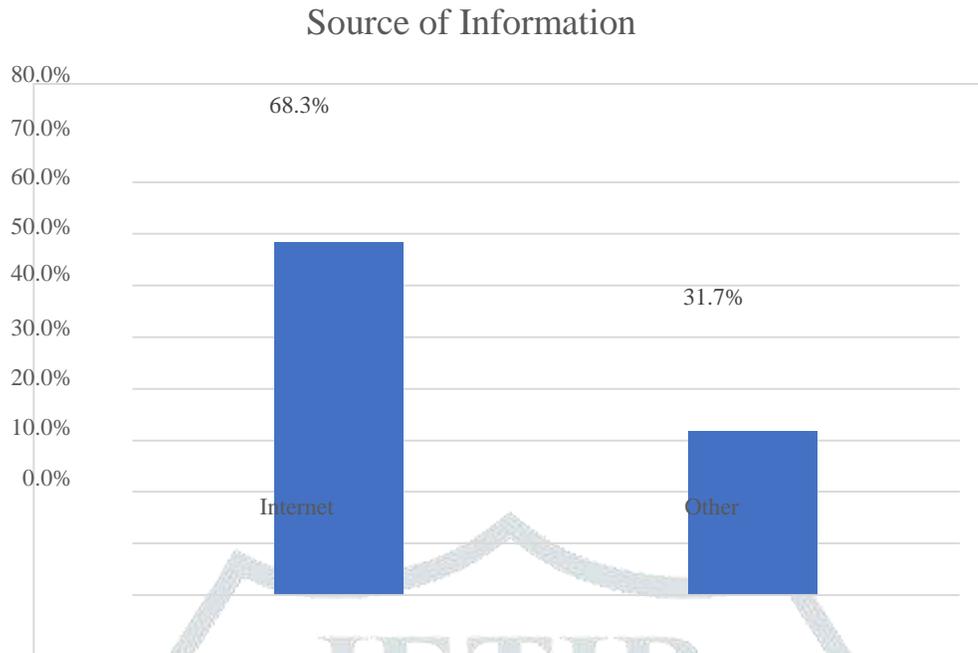
Source of Information

Figure 5 percentage distribution of subjects with respect to the source of information they perceived from
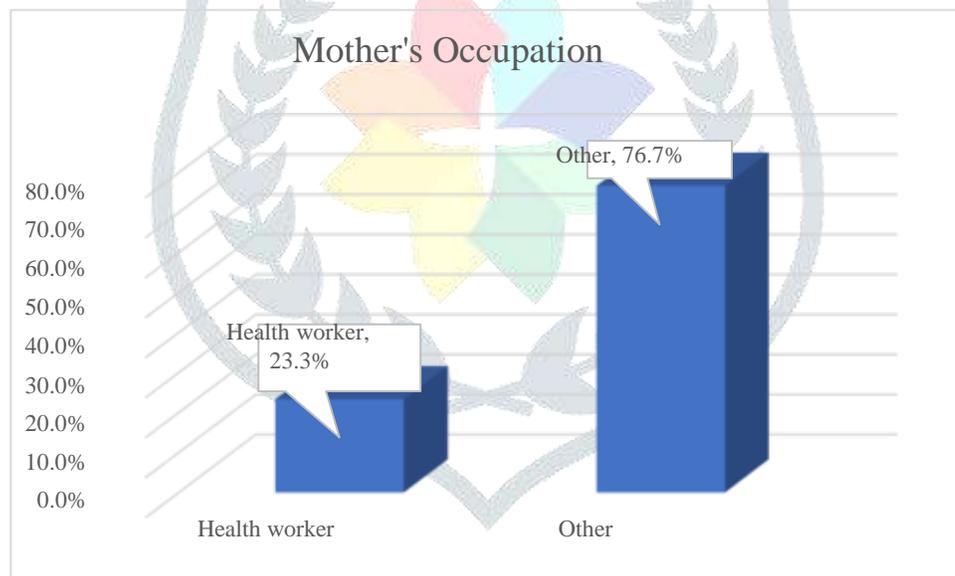
Mother's Occupation

Figure 6 percentage distribution of subjects with respect to their mother's occupation
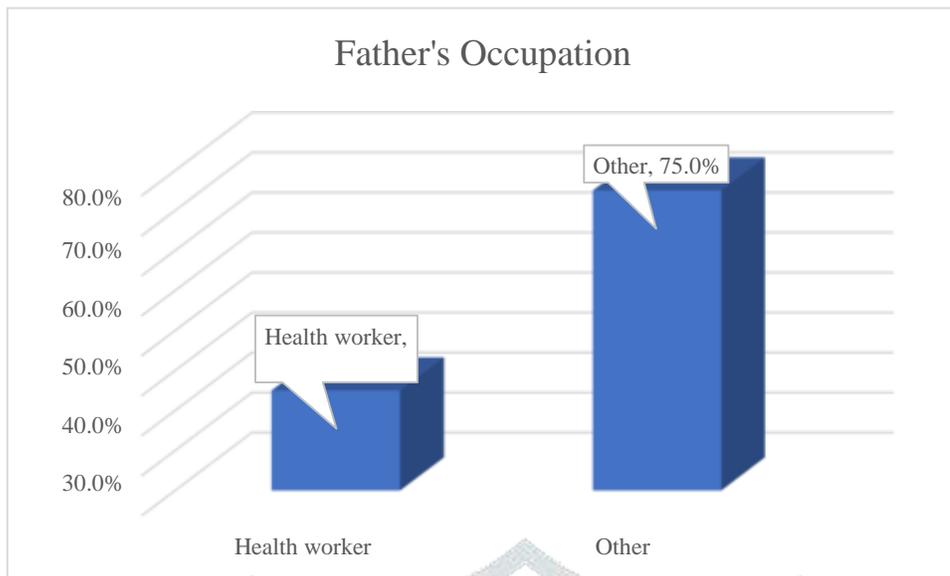
Figure 7 percentage distribution of subjects with respect to their father's occupation

Table1. Reveals that among all the participants (60), 32(53.3%) belonged to the age group 18-21 years and the remaining 28(46.7%) belonged to the age group 21-25 years, 22(36.7%) participants were male students and 38(63.3%) participants were female students. Majority or participants 38(63.3%) reside in rural areas whereas remaining 22(36.7%) reside in urban areas. 20(33.3%) participants were studying in B.Sc. nursing 1st year, 23(38.3%) in 2nd year and the remaining 17(28.3%) were studying in 3rd year. Mainly the source of information for subjects 41(68.3%) was internet and the remaining 19(31.7%) was from sources other than the internet. The mothers of 14(23.3%) were health workers and the remaining 46(76.7%) were having occupation other than health worker. Mainly the fathers occupation of subjects 45(75%) was other than the health worker and the remaining 15(25%) were health workers.

Table 2 Mean, mean percentage and standard deviation of knowledge scores of subjects regarding covid-19

Mean	Mean Percentage	Max Score	Min Score	S.D
22.18	61.62	36.00	18.00	3.09

Knowledge

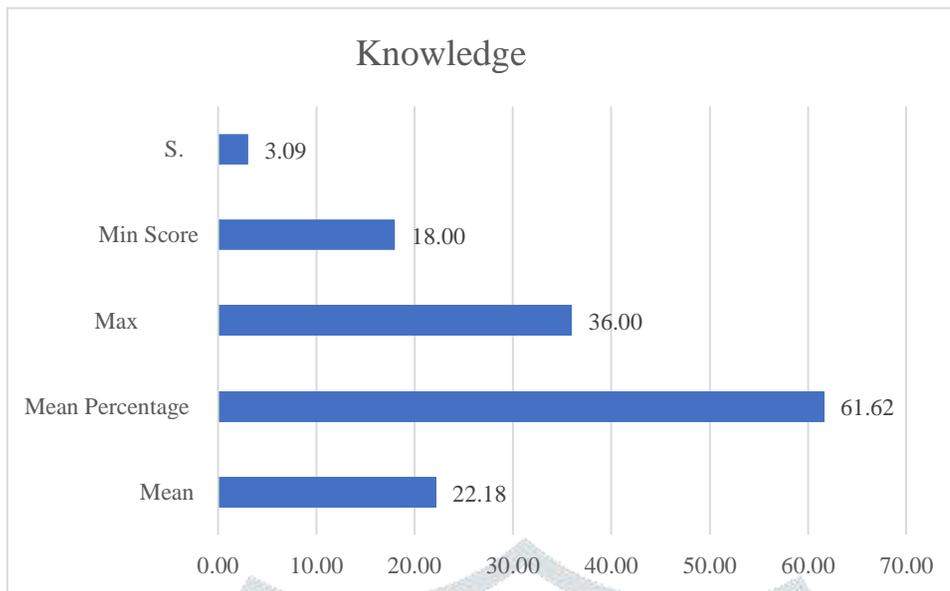| Category	Value
S.	3.09
Min Score	18.00
Max	36.00
Mean Percentage	61.62
Mean	22.18

Figure 8 Knowledge Score of Subjects
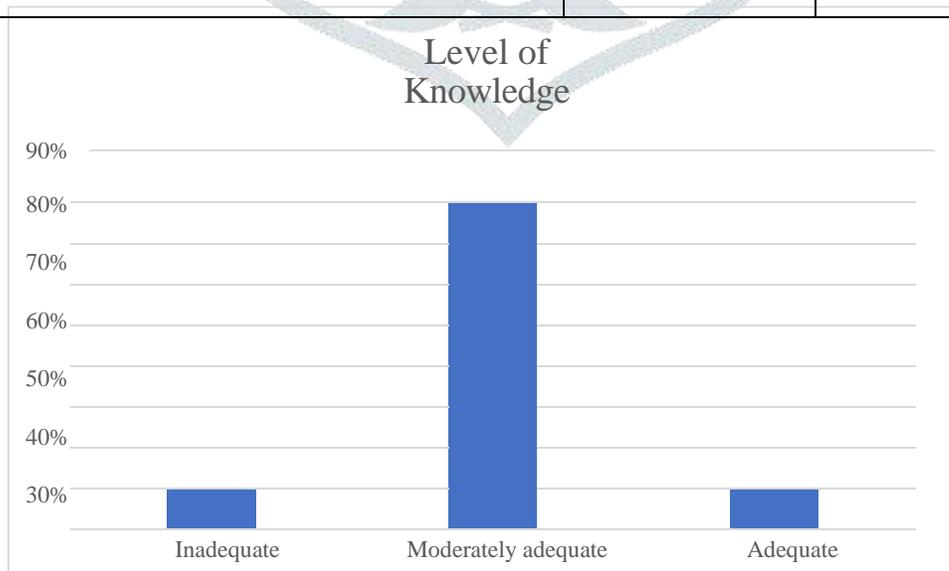
Table 3 Frequency and percentage distribution of knowledge of subjects regarding covid-19

Level of Knowledge	frequency (f)	Percentage (%)
Adequate ≥ 75%	6	10
Moderately adequate 50% – 75%	48	80
Inadequate ≤ 50%	6	10

Level of Knowledge

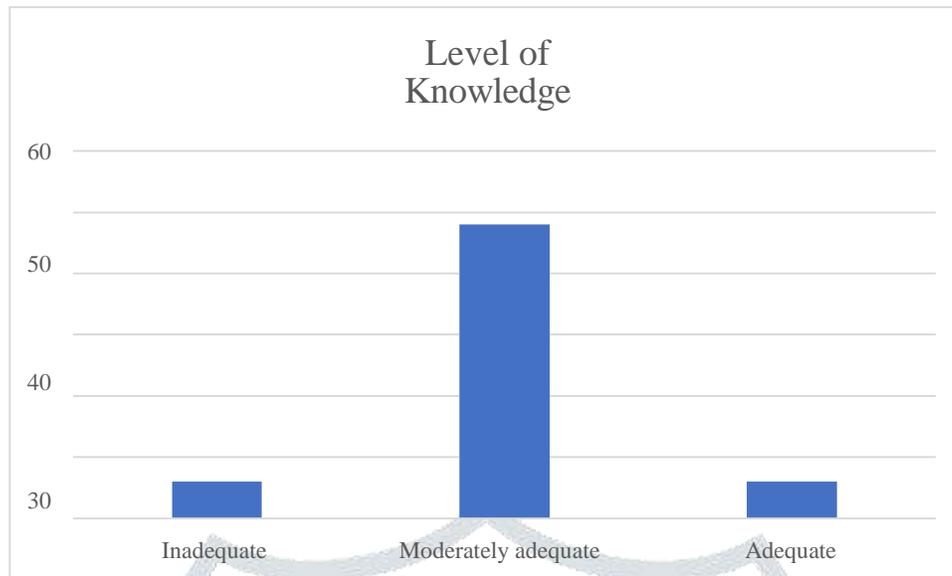| Category	Value
Inadequate	30%
Moderately adequate	80%
Adequate	30%

Figure 9&10; percentage and frequency distribution of knowledge of subjects towards COVID-19

Table 4; Association of knowledge score of subjects with socio-demographic variables

Variables		Association of Knowledge scores with selected socio-demographic variables							
		Adequate	Moderate	Inadequate	Chi Test	P Value	df	Table Value	Result
Age	18-21	3	25	4	0.476	0.1276		3.841	NS*
	21-25	3	23	2			1		
Gender	Male	3	19	3	0.42	0.1521		3.841	NS*
	Female	3	29	3			1		
Domicile	Rural	2	31	5	3.38	0.0643		3.841	NS*
	Urban	4	17	1			1		
	1st year	0	20	0					NS*
	2nd year	4	15	4		0.015			

Class	3rd year	2	13	2	8	4	2	5.991	
Source of Information	Internet	4	32	5	0.697	0.0937	1	3.841	NS*
	Other	2	16	1					
Mother's Occupation	Health worker	1	11	2	0.484	0.1156	1	3.841	NS*
	Other	5	37	4					
Father's Occupation	Health worker	3	10	2	3.11	0.0692	1	3.841	NS*
	Other	3	38	4					

*Not significant |Two tailed chi test at 0.05 level of significance.

Table 5; Mean %age, max score, min score, SD, max possible score of perception of subjects.

Mean %age	Max Score	Min Score	SD	Maximum Possible Score
60.15	10.00	2.00	1.47	11.00

	Mean Percentage	Max Score	Min Score	SD	Maximum Possible Score
Series1	60.15	10.00	2.00	1.47	11.00

Figure 11; Mean %age ,min score, max score, SD, max possible score of perception of subjects

Table 6;Frequency and percentage distribution of subjects regarding covid-19

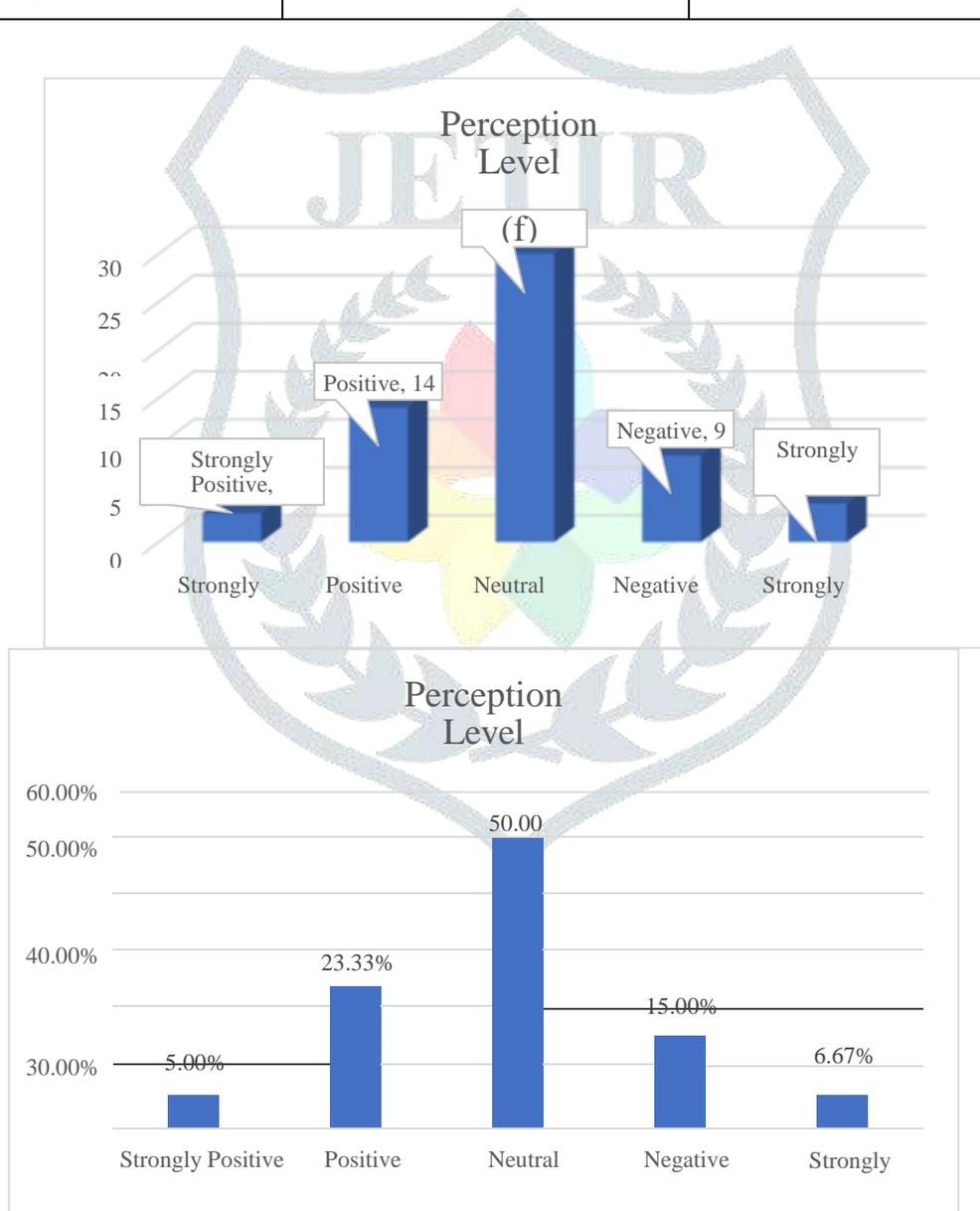| Perception Level	Perception Level (f)	Perception Level (%)
Strongly Positive (> 80)	3	5.00
Positive (67 – 80)	14	23.33
Neutral (54 – 67)	30	50.00
Negative (40 – 54)	9	15.00
Strongly Negative (≤ 40)	4	6.67

Figure 12&13; Frequency & Percentage distribution of perception score of subjects

Table 7; Association of perception level of subjects with socio-demographic variables

Variables		Association of Perception Level with selected socio-demographic variables									
		Strongly Positive	Positive	Neutral	Negative	Strongly Negative	Chi Test	P Value	df	T Value	Result
Age	18-21	2	10	15	4	1	3.43	0.0591	1	3.841	NS*
	21-25	1	4	15	5	3					
Gender	Male	1	4	10	6	1	2.41	0.1571	1	3.841	NS*
	Female	2	10	20	3	3					
Domicile	Rural	3	11	13	7	4	11.5	0.00126	1	3.841	NS*
	Urban	0	3	17	2	0					
Class	1st year	0	6	9	4	1	5.14	0.0356	2	5.991	NS*
	2nd year	2	5	11	4	1					
	3rd year	1	3	10	1	2					
Source of Information	Internet	2	11	21	6	1	3.97	0.0421	1	3.841	NS*
	Other	1	3	9	3	3					
Mother's Occupation	Health worker	1	5	6	1	1	2.25	0.1956	1	3.841	NS*
	Other	2	9	24	8	3					
Father's Occupation	Health worker	1	5	7	1	1	1.94	0.3253	1	3.841	NS*
	Other	2	9	23	8	3					

*NS: Not Significant.

Two tailed chi square test at 0.05 level of significance

INFERENCES: The above table shows that there is no significant association between selected demographic variables (Age, gender, domicile, class, source of information, Occupation of mother and father) and perception of students towards covid-19. **Hence hypothesis H2 which states that**

"there is a significant association between perception score and demographic variables of subjects" is rejected.

Research hypothesis H02, which states that "there is no significant association between perception of students towards covid-19 and socio-demographic variables of subjects" is accepted.

Table 8,Fig 14;Mean,Mean percentage, Min & max score, SD, Max possible score of preventive behavior of subjects.

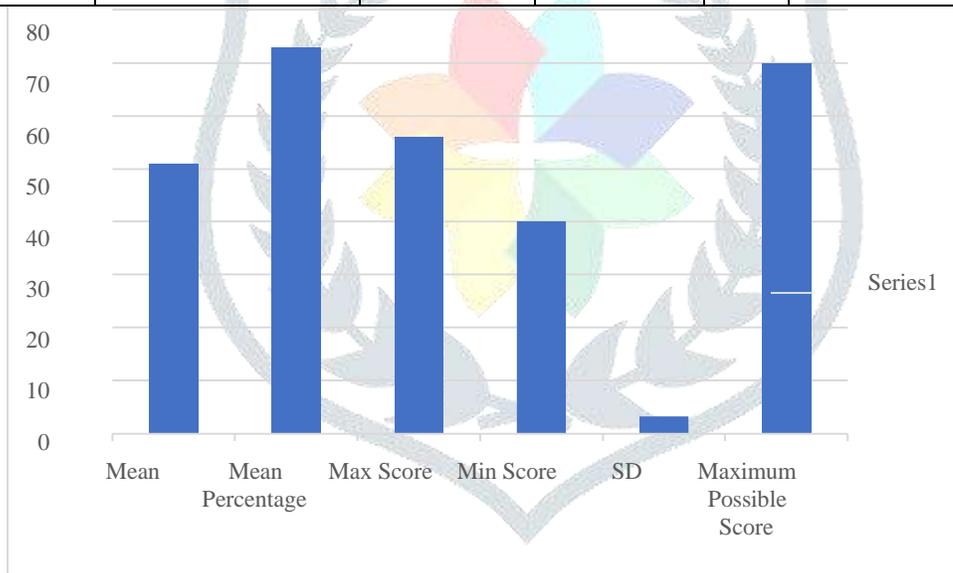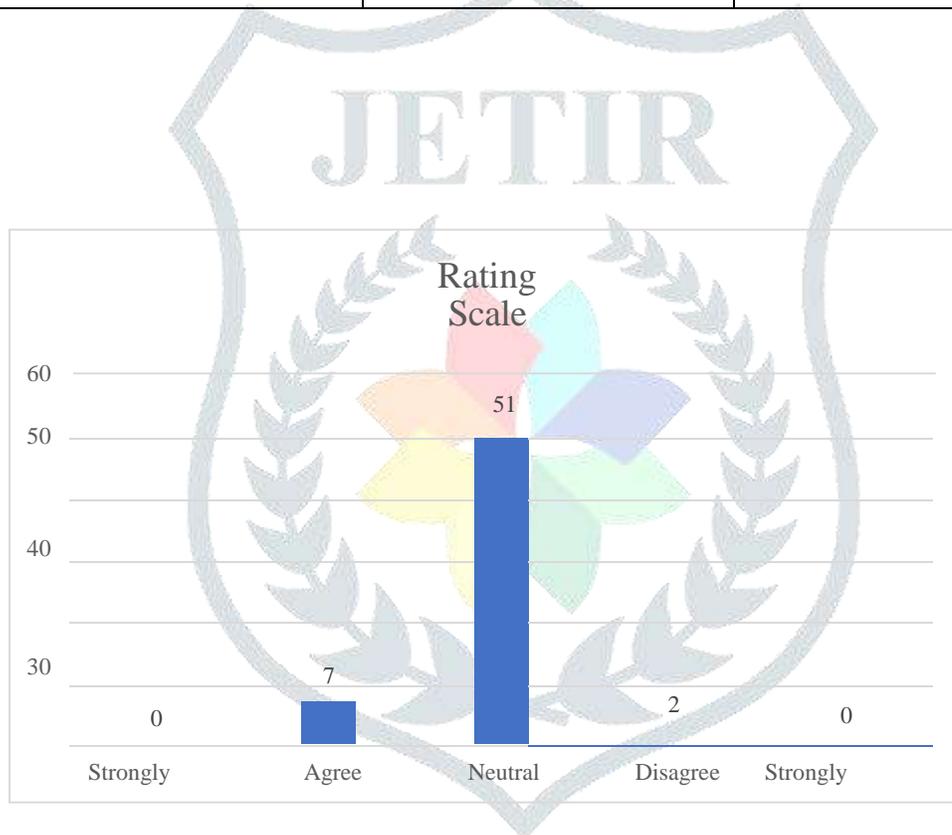| Mean	Mean Percentage	Max Score	Min Score	SD	Maximum Possible Score
51.0	72.79	56	40	3.31	70

Table 9 Frequency and percentage distribution of preventive behavior of subjects regarding covid-19.

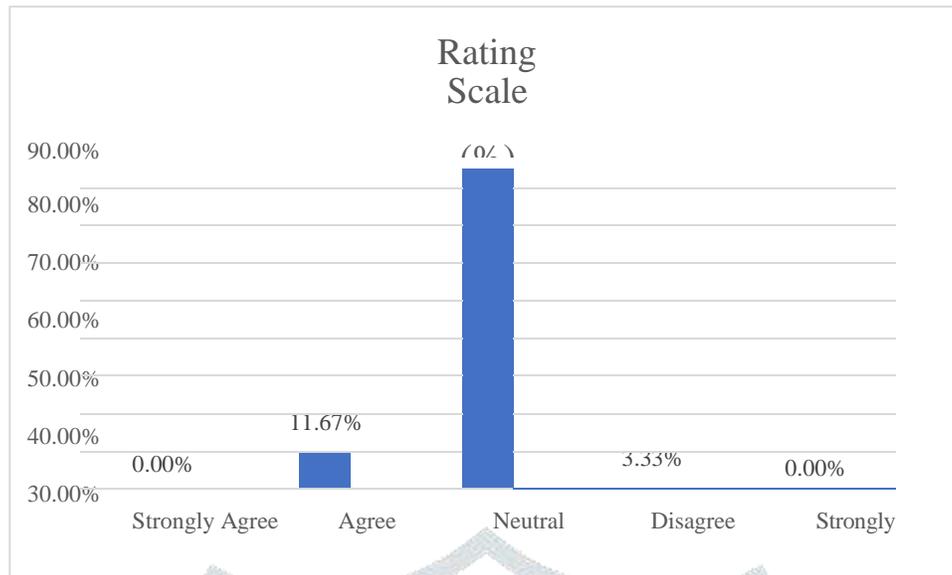| Rating Scale	Rating Scale (f)	Rating Scale (%)
Strongly Agree (100)	0	0.00
Agree (≥ 80, < 100)	7	11.67
Neutral (≥ 60, < 80)	51	85.00
Disagree (≥ 40, < 60)	2	3.33
Strongly Disagree (< 40)	0	0.00

Figure 15&16; Frequency & percentage distribution of Preventive behaviour of subjects
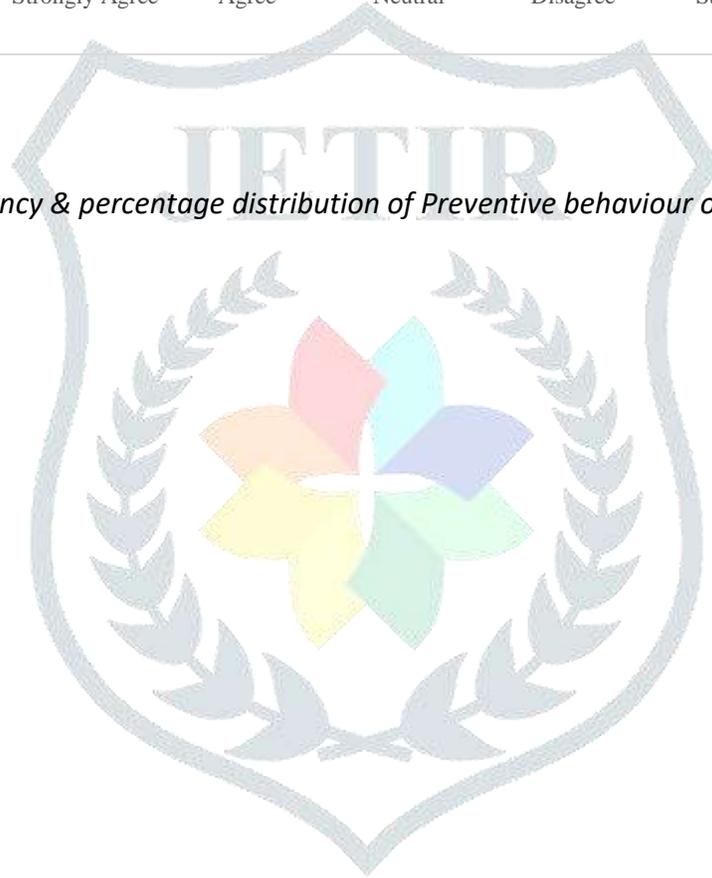
Table 10 Association of preventive behaviour of subjects with socio-demographic variables.

Variables		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Chi Test	P Value	df	T Value	Result
Age	18-21	0	7	23	2	0	9.27	0.009	1	3.841	NS*
	21-25	0	0	28	0	0					
Gender	Male	0	3	19	0	0	1.185	0.3567	1	3.841	NS*
	Female	0	4	32	2	0					
Domicile	Rural	0	4	33	1	0	0.34	0.5676	1	3.841	NS*
	Urban	0	3	18	1	0					
Class	1st year	0	3	17	0	0	1.235	0.7654	2	5.991	NS*
	2nd year	0	2	19	2	0					
	3rd year	0	2	15	0	0					
Source of Information	Internet	0	7	32	2	0	4.998	0.02275	1	3.841	NS*
	Other	0	0	19	0	0					
Mother's Occupation	Health worker	0	2	11	1	0	0.9	0.4168	1	3.841	NS*
	Other	0	5	40	1	0					
Father's Occupation	Health worker	0	1	14	0	0	1.41	0.3125	1	3.841	NS*
	Other	0	6	37	2	0					

*Not significant Two tailed chi square test at 0.05 level of significance

DISCUSSION:-

Majority of the subjects studied i.e ,60 (100%) were in the age group of 18-21 (32=53.3%) and 21- 25 years(28=46.7%).Maximum number of subjects were 1st year students(33.3%), 2nd year students(38.3%) and the remaining were 3rd year students (28.3%). Majority of the study subjects i.e 36.7% (22) were male students and 63.3% (38) were female subjects .63.3% of subjects studied were from the rural area and the 36.7% of subjects were from urban areas. Source of information to study subjects regarding Covid-19 include ;Media(68.3%) and other (31.7%). In majority of the study subjects the occupation of

the mother was 14 (23.3%) and other was 46 (76.7%).In majority of the study subjects the occupation of the father was 15 (25%) and other was 45 (75%). The results shows that >80% students have strongly positive perception, 67-80%have positive perception, 54-67% have neutral perception, 40-54% have negative perception and <40%have strongly negative perception. 100%have strongly agree behaviour, 80%have agree behaviour ,60%have neutral behaviour, 40% have disagree behaviour and 20% have strongly disagree behavior. The results showed that most of the students were having moderately adequate knowledge about the COVID 19 disease.

Implications of the study:

Nurse can use the instructional strategy as an effective tool for imparting the knowledge, perception and preventive behaviour among undergraduate nursing students.

Conclusion

Based on the analysis, the following inferences were drawn the majority of nursing students had moderately adequate knowledge about covid 19 and half of the students had positive perception towards covid 19.

REFERENCES

REFERENCES:

1. Human Coronavirus Types. Cdc.gov. 2021 [cited 2021 Jun 28]. Available from: https://www.cdc.gov/coronavirus/types.html

2. CDC. Symptoms of COVID-19. Cdc.gov. 2021 [cited 2021 Jun 28]. Available from: https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html

3. CDC. Symptoms of COVID-19. Cdc.gov. 2021 [cited 2021 Jun 28]. Available from: https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html

4. Coronavirus disease (COVID-19). Who.int. [cited 2021 Jun 28]. Available from: https://www.who.int/emergencies/diseases/novel-coronavirus-2019/question-and-answers- hub/q-a-detail/coronavirus-disease-covid-19

5. WHO Director-General's opening remarks at the media briefing on COVID-19 – 11 March 2020. Who.int. [cited 2021 Jun 28]. Available from: https://www.who.int/director-general/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on- covid-19 ------------- 11-march-2020

6. WHO Coronavirus (COVID-19) Dashboard. Who.int. [cited 2021 Jun 28]. Available from: https://covid19.who.int/

7. CDC. Coronavirus Disease 2019 (COVID-19). Cdc.gov. 2021 [cited 2021 Jun 28]. Available from: https://www.cdc.gov/coronavirus/2019-nCoV/index.html

8. Albaqawi HM, Alquwez N, Balay-Odao E, Bajet JB, Alabdulaziz H, Alsolami F, Tumala RB, Alsharari AF, Tork HMM, Felemban EM, Cruz JP. Nursing Students' Perceptions, Knowledge, and Preventive Behaviors Toward COVID-19: A Multi-University Study. Front Public Health. 2020 Dec 23;8:573390. Doi: http://doi.org/10.3389/fpubh.2020.573390. PMID: 33425830; PMCID: PMC7786242.

9. Aslan, H., & Pekince, H. (2021). Nursing students' views on the COVID-19 pandemic and their percieved stress levels. Perspectives in psychiatric care, 57(2), 695–701. https://doi.org/10.1111/ppc.12597

10. AbdHasan (2021) Knowledge, Attitudes and Practices of King Abdulaziz Undergraduate Nursing towards Novel Corona Virus (COVID 19). Health Sci J. 15 No. 1: 786. https://www.hsj.gr/medicine/knowledge-attitudes-and-practices-ofking-abdulaziz-undergraduate-nursingtowards-novel-corona-virus-covid-19.php?aid=34943