Descriptive Study To Assess The Level Of Knowledge And Anxiety Regarding Covid-19 Pandemic Among Staff Nurses In Selected Hospital Of Vaniyamkulam Panchayath

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ABSTRACT

BACKGROUND OF THE STUDY

Coronavirus disease 2019 (Covid-19) is defined as illness caused by a novel coronavirus called severe acute respiratory syndrome. Coronavirus 2 (SARS - Cov - 2; formerly called 2019- ncov), which has first identified amid on outbreak of respiratory illness causes in Wuhan city. On March 11, 2000, the WHO declared Covid-19 a global pandemic (David J Cennimo,MD, FAAP, FACP, FIDSA, AAHIVS,Associate Professor of Medicine and Pediatrics, Adult and Pediatric infectious diseases, Rufagus New Jessay Medical School).

Globally, there is a record over 218 million cases of coronavirus disease 2019(Covid-19) with over 4 million deaths and 5 billion totally vaccinated as of the time the study. In India, a record of an estimate of 1 million cases and over 30000 deaths exist and number is still increasing (John Hopkin University Coronavirus Resource Centre,2011).

Kerala reported its first case of covid -19 on January 27, 2020, a 20 year old female presented to Emergency department in General Hospital, Thrissur, Kerala, with a one day history of dry cough and sore throat . Kerala have recorded....cases with over....deaths at the time of the\ study (Kerala Centre For Disease Control 2022).

OBJECTIVES

- Assess the knowledge of staff nurses regarding Covid-19 pandemic.
- Assess the level of anxiety among staff nurses regarding Covid-19 pandemic.
- Find out the association of knowledge among staff nurses regarding Covid-19 pandemic and selected demographic variables.
- Find out the association of anxiety among staff nurses regarding Covid-19 pandemic and selected demographic variables.

HYPOTHESIS

- H_1 :There will be significant association between level of knowledge with selected demographic variables.
- H_2 : There will be significant association between level of anxiety with selected demographic variables.

METHODOLOGY

The research design is used for this present study is non-experimental descriptive research design. The tools used for the study was a structured knowledge questionnaire to assess the level of knowledge regarding Covid-19 among staff nurses and a standardized scale (Generalized Anxiety Disorder Scale,GAD-7) is used to assess the level of anxiety among staff nurses towards Covid-19. The study was conducted by two days on 17th&21st December of 2021. Study conducted among staff nurses in PKDIMS, Vaniyamkulam, Ottapalam ,Palakkad District. Non-probability convenient sampling technique is used for the study. Total samples: 60. and 10 pilot study samples.

RESULTS

The mean value of level of knowledge was 6.65 (47%) and standard deviation is 2.13.

The mean value of anxiety is 3.35 and standard deviation is 9.95.

INTERPRETATION AND CONCLUSION

The findings of study would help the staff nurses to develop some more knowledge and reducing the level of anxiety regarding Covid-19 and its various aspects.

KEYWORDS

Covid-19, Anxiety, Knowledge , GAD-7 , Staff nurses.

INTRODUCTION

BACKGROUND OF THE STUDY

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Globally, there is a record over 218 million cases of coronavirus disease 2019(Covid-19) with over 4 million deaths and 5 billion totally vaccinated as of the time the study. In India, a record of an estimate of 1 million cases and over 30000 deaths exist and number is still increasing (John Hopkin University Coronavirus Resource Centre,2011).[2]

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A cross –sectional study to assess the stress , anxiety and depression among health care workers facing Covid-19 pandemic in Egypt.a total of 262 samples were selected. This was an As on 30 June 2020 Kerala had sent 171846 samples for testing. In addition, more than 46689 samples were taken from high risk groups like health care workers as part of this sentinel surveillance ensured out in all 14 districts in the state to check the prevalence of disease in a community or population (Responding to Covid-19 learnings from Kerala, WHO).[4]

NEED FOR THE STUDY

The Coronavirus disease 2019(Covid-19) pandemic has deeply alter social and working environments in several ways. Social distancing policies, mandatory lockdowns, isolation periods and anxiety of being sick. Along with the suspension of productive activity, loss of income and fear of the future, jointly influence the mental health of citizens and workers. Workplace aspects can play a crucial role on moderating or worsening mental health of people facing this pandemic scenario. The purpose of the study is deepen the psychological aspect linked to workplace factors, following the epidemic rise of Covid-19, inorder to address upcoming psychological critical issues in the workplaces. This study sets the basis for a better understanding of the psychological conditions of workers during the pandemic, integrating individual and social perspectives, and providing insight into possible individual, social and occupational approaches to the psychological pandemic. [5].

Health and social care workers have carried a heavy burden during the Covid-19 crisis and in the challenges to control the virus, have directly faced its consequences. Supporting their psychological well-being continuous , therefore , to be a priority this rapid review was carried out to establish whether there are any identifiable risk factors for adverse mental health outcomes amongst health and social care workers during the Covid-19 crisis.[6]

OBJECTIVES

- Assess the knowledge of staff nurses regarding Covid-19 pandemic.
- Assess the level of anxiety among staff nurses regarding Covid-19 pandemic.
- Find out the association of knowledge among staff nurses regarding Covid-19 pandemic and selected demographic variables.

HYPOTHESIS

H_1 : There will be significant association between level of knowledge with selected demographic variables.

H_2 : There will be significant association between level of anxiety with selected demographic variables.

OPERATIONAL DEFINITIONS

- Anxiety : Anxiety is an emotion characterized by feelings of tension, worried thoughts and physical change like increased blood pressure.
- Anxiety among staff nurses : Anxiety is an emotion experienced among staff nurses who are directly involved in managing the affected patients during pandemic.
- Covid-19 : Coronavirus disease(Covid-19) is an infectious disease caused by SARS-Cov-2 virus.
- Knowledge : Understanding of information regarding Covid-19 among staff nurses.

ASSUMPTION

- Researchers assumed staff nurses of selected area may be having poor knowledge regarding Covid-19.
- They may be having anxiety towards Covid-19.

REVIEW OF LITERATURE

A cross sectional study was conducted at a University in Oman and Philippines. A total of 325 samples were selected. A multilinear regression analyses and four standardized scales were used to collect the data. The results shown that , Of the 325 nurses in the study ,123 (37.8%) were found to have dysfunctional levels of anxiety. Nurse characteristics were not associated with Covid-19 anxiety. The study concluded that , resilient nurses and those who perceived higher organizational and social support were more likely to report lower anxiety related to Covid-19.[7]

A descriptive cross sectional study was conducted on assessing the knowledge and attitude of community health workers towards the prevention of Covid-19 virus in Nepal. A total of 650 invitations were send and among them 420 responded and among them only 399 samples were selected . A semi-structured , self-administered questionnaire in google form were used to collect the data. The results shown that , 380 (95.2%) employed participants thought that wearing PPE will reduce the chances of getting Covid-19 , majority of participants 80.5% (321) responded that Covid-19 will successfully be controlled and staffs receiving excellent support from palika had high knowledge level. Logistic regression analysis revealed that the odds of knowledge level was two times higher (AOR=1.913 at 95% CI: 1.266 -2.891) compared to female participants . The study concluded that , health workers are knowledgeable about Covid-19 and are proactively practicing the preventive measures to minimize the spread of infection.[8]

A online cross sectional , descriptive study was conducted on determining the knowledge , attitude and practices of healthcare workers toward Covid-19 in Makerere University Teaching Hospitals (MUTHs) in Uganda. A total of 136 samples were selected. A pre-validated questionnaire and Bloom's cut–off of 80% were used to collect data . The results shown that , 69% (94) had sufficient knowledge , 21% (29) had positive attitude and 74% (101) had good practices toward Covid-19.The study concluded that, continued professional education is advised among healthcare workers in Uganda to improve knowledge averting negative attitudes and promoting positive preventive and therapeutic practices .[9]

METHODOLOGY
RESEARCH APPROACH

The quantitative approach is adopted for the study .

RESEARCH DESIGN

The research design used for this present study is non –experimental descriptive research design .

DEPENDENT VARIABLES:

• Knowledge and anxiety level towards Covid-19

DEMOGRAPHIC VARIABLES: Gender, Age, Marital group, Job experience, Working Department, Primary source of information

SETTING OF THE STUDY

The present study was conducted in PKDIMS ,Vaniyamkulam.

POPULATION

In this study the target population consisted of the staff nurse working in selected hospital at Vaniyamkulam panchayath and the accessible population were the staff nurses available in PKDIMS at the time of data collection

SAMPLE

The sample for this study includes the staff nurses working at PKDIMS, Vaniyamkulam. Sample size: 60

. **SAMPLING TECHNIQUE**

Non-probability convenient sampling technique is used for this study .

•**Inclusion criteria**

Staff nurses in PKDIMS who are willing to participate in the study .

•**Exclusion criteria**

Those who are not present at the time of study.

DEVELOPMENT AND SELECTION OF TOOL

A structured knowledge questionnaire is used to assess the level of knowledge regarding Covid-19 among staff nurses and a standardized scale (GAD-7 Scale) is used to assess the level of anxiety among staff nurses towards Covid-19 .

DESCRIPTION OF THE TOOL

The tool consist of three sections :-

SECTION - A

It deals with demographic variables , which includes Age , Gender , Marital status , Job experience , Department they work and Primary source of information regarding Covid-19

SECTION –B

This section consist of structured questionnaire to assess the nurses knowledge on Covid-19 . It consist of 14 multiple choice questions with single correct answer . A score value of '1' is awarded to each correct response and '0' score for the wrong and unanswered response. The maximum score on knowledge questionnaire is 14 . The level of knowledge is categorized based on the percentage of score obtained . The knowledge score is classified as follows :-

SCORING KEY:

Level of knowledge	Range	Percentage of score
Poor	0-5	0-35
Average	6-10	36-71
Very good	11-14	72-100

SECTION – C

This includes Generalized anxiety disorder (GAD-7) Scale , scoring range from 0 – 3 and having 7 questions .Generalized Anxiety Disorder -7 is a self -reported questionnaire for screening and severity measuring of generalized anxiety disorder . The GAD-7 was developed Dr.Robert L .Spitzer , Janet B.W Williams ,Kurt Kroenke and colleagues and published on 2006 .The GAD-7 represents an anxiety measure based on seven items which are scored from zero to three . The whole scale score can range from 0 to 21 and cut off scores for mild , moderate and severe anxiety symptoms are 5, 10 and 15 respectively. A score of 10 or greater on the GAD-7 represents a reasonable cut point for identifying cases of GAD.

Level of anxiety	Range	Percentage of score
Minimal	0-4	0-19
Mild	5-9	20-42
Moderate	10-14	43-66
Severe	15-21	67-100

PILOT STUDY

. The pilot study was conducted on 10 samples in PKDIMS, Vaniyamkulam Panchayat.

PLAN FOR DATA ANALYSIS

The data obtained is analyzed on the basis of the objectives of the study using descriptive and inferential statistics .

ANALYSIS AND INTERPRETATION

ORGANISATION OF STUDY FINDINGS

Section 1:Demographic characteristics of staff nurses.

Table 1: Frequency and percentage distribution of staff nurse

(N=60)

VARIABLES	FREQUENCY	PERCENTAGE
Gender		
Male	01	1.6%
Female	59	98.3%
Age		
<30	33	55%

31 – 40	21	35%
>40	6	10%
Marital status		
Single	20	33.3%
Married	40	66.6%
Job experience		
<1	9	15%
1 – 6	26	43%
>6	25	41.6%
Working department		
Emergency room	6	10%
ICU	10	16.6%
Ward	18	30%
Others	26	43.3%
Primary Sources of Information		
News media	49	81.65
Scientific journals & research papers	2	3.3%
Colleagues	3	5%
Seminars & Workshops	0	0%
Internet	6	10%
Others	0	0%

Table 1: The data presented in Table-1 shows the distribution of staff nurses according to their Gender, Age , Marital status , Job experience, Working department, Primary sources of information. A significant majority (98.3%) of sample for the study were females; a majority of samples (55%) were over 30 years of age , about two-third of the sample (66.6%) were married, nearly half of the sample (43%) have an experience of less than 6 years and (43.3%) was working in Other departments than emergency room and about more than three-quarter (81.6%) of sample has choosen news media as the primary source of information.

Section 2: Description of knowledge score

Table2: Mean, Median and Standard Deviation.

(N=60)

Mean	Median	SD
6.65	7	2.13

Table -2 :The data presented in Table 2, shows that the mean score of knowledge is 6.65, Median is 7 and Standard deviation is 2.13 from 60 samples.

Section 3: Description of anxiety score

Table 3: Mean, Median and Standard Deviation

(N=60)

Mean	Median	SD
3.35	3	9.95

Table-3 :The data presented in Table -3. shows that the Mean score of anxiety is 3.35 , Median is 3 and the Standard deviation is 9.95 from the 60 samples.

Table 4: Frequency and percentage distribution of staff nurse according to level of knowledge   (N=60)

Variable	Frequency	Percentage
Poor	17	28
Average	39	65
Very good	4	7

Table-4: The data presented in Table 4, shows more than two-third (65%) of the samples have average level of knowledge regarding Covid-19 and a significantly minority (6.6%) has very good knowledge.

Table 5: Frequency and percentage distribution of staff nurse according to level of anxiety

(N=60)

Variable	Frequency	Percentage
Minimal	42	70
Mild	15	25
Moderate	2	3
Severe	1	2

Table-5:Data presented in Table 5, shows three-quarter (70%) of the samples have the minimal level of anxiety, 25% had mild level, 3% had moderate level and only 2% had severe level of anxiety regarding Covid-19.

Table 6: Association between level of knowledge with demographic variables. (N=60)

Variables	Level of knowledge			Chisquare test value	df	p-value
	Poor **(0 -5)**	**Average** **(6 -10)**	**Very good** **(11 -15)**			
Gender						
Male	00	01	00	0.546	2	4.30
Female	17	38	04			
Age						
<30	11	20	02	3.439	4	2.78
31 – 40	06	14	01			
>40	00	05	01			
Marital status						

Single	04	15	01	1.318	2	4.30
Married	13	24	03			
Job experience						
<1	04	05	00	3.183	4	2.78
1 – 6	07	18	01			
>6	06	16	03			
Working department						
Emergency room	01	05	00	7.902	6	2.45
ICU	06	03	01			
Ward	02	15	01			
Others	08	16	02			
Primary sources of information						
News media	14	34	01	21.323	10	2.23
Scientific journals	01	01	00			
Colleagues	01	02	00			
Seminars	00	00	00			
Internet	00	03	03			
Others	00	00	00			

Table-6 :The data presented in Table 6, shows that the level of knowledge with selected demographic variables that is ; Gender (X ^{2} = 0.546 , p-value =4.30)*, Age (X^2 = 3.439 , pvalue=2.78), marital status (X^2 = 1.318, p-value= 4.30)*, Job experience (X^2 = 3.183, pvalue=2.78), working department (X^2 =7.902 ,p –value =2.45) , primary sources of information (X^2 = 21.323 , p-value=2.23) at 0.05 level of significance. The calculated value is less than the p-value of gender and marital status so we accept the null hypothesis ,i.e. there is no association. And the calculated value is more than the p-value of age, job experience ,working department and primary source of information, so the null hypothesis is rejected ;i.e. there is association between these demographic variables and knowledge.

RESULTS

The following conclusions are made based on the above findings:

- Majority of the sample for the study were married female nurses with job experience less than 6 years in other departments than emergency room and falls under 30 years of age.
- The primary source of information for a majority of samples was through the news medium (81.6%).
- The present study revealed that a majority of staff nurses working in PKDIMS is having an average knowledge Covid-19 (65%) and only 6.6% of staff nurses had very good knowledge . Nearly three- fourth (70%) of the samples depicted minimal anxiety towards the Covid-19 pandemic. And only 1.6% showed severe anxiety. The study reports revealed that there is a negative correlation between knowledge and anxiety among the staff nurses.

- The descriptive and inferential statistics were used for the analysis of data. The analysis was carried out on the basis of objectives and hypothesis of the study.
- The distribution of staff nurses according to their gender shows majority are females 59 (

98.3).

- The age of staff nurses shows majority 33 (55%) are in <30 years.

- According to their marital status shows majority are married 40 (66.6%)

- According to their working department, majority shows 26 (43.3%) on others.

- Considering the primary sources of information shows majority on 49 (81.6%) on news media.

- The mean value of level of knowledge is 6.65 and standard deviation is 2.13. The mean value of level of anxiety is 3.35 and standard deviation is 9.95.

- The frequency and percentage distribution according to level of knowledge shows the majority 39 (65%) on average.

- The frequency and percentage distribution according to level of anxiety shows the majority 42(70%) have the minimal (0-4) score.

CONCLUSION AND SUMMARY

 Globally, there is a record over 218 million cases of coronavirus disease 2019(Covid-19) with over 4 million deaths and 5 billion totally vaccinated as of the time the study. In India, a record of an estimate of 1 million cases and over 30000 deaths exist and number is still increasing (John Hopkin University Coronavirus Resource Centre,2011).In Kerala also the cases are on rise. Awareness about Covid is needed to minimize the anxiety and associated complications. Nurses should have the thorough knowledge regarding various aspects of health in inorder to provide comprehensive care to the society. The rising tension in nursing is palpable and for many of us , this unprecedented. Our academic programmes will provide a work force with further skills and knowledge to contribute direct and meaningful way.

REFERENCES

1. David J. Cennimo, MD, FACP, FIDSA, AAHIVS Associate professor of Medicine and Pediatrics, Adult and Pediatric infections Diseases, Rudgers New Jersey Medical School; Available from:https://medicine,medscape.com/article/25000114-overview.

2. Johns Hopkins, University and medicine ; Corona virus resource centre Availablefrom:

   https://coronavirus.jhu.edu/map.html

   3.   M.A. Andrews, Binu Areekal, P.V.Santhosh, First confirmed case of covid-19 infection in India; A case report Indian journal of medical research, Wolters kluwer-medknow publicationsAvailablefrom:https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7530459/#:~;text

4. Cui S , Jing Y, Shi Q, Zhang L, Kong D, Qian M, Chu J ; Dove press available from : https://www.dovepress.com/impact-of-covid-19-on-anxiety-stress-andcoping-styles-in-nurses-in-em-peer-reviewed-fulltext-article-RMHP.

5. Hebatalla Mohammed Aly, Nadeer Attia Nemr, Rania Mohammed Kishk, Noha Mohamed Abu bakr Elsaid;stress , anxiety and depression among health care workers facing covid-19 pandemic in Egypt;a cross-sectional online based study.available from : https://bmjopen.bmj.com/content /11/4/e045281

6. Responding to Covid-19-learnings from kerala ,World Health Organization ;South-East Asia

   India   availablefrom:https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-02010070-3

7. Johannes H .De Kock,Helen Ann Latham,ChristopherM.O'Malley;BMCPublic Health, Available from :https://www.who.int/india/news/feature-   stories/detail/responding-to-covid19---learnings-from-kerala.

JOURNALS

8. LeodoroJ.Labrague RN, DM, PhD, Lecturer; Janet Alexis A. De los Santos RN, MAN, PhD, Assistant Professor (2020) COVID-19 Anxiety among front-line nurses :Predictive role of organizational support , personal resilience and social support ,DOI:10.1111/jonm.13121. Available   from:https://www.researchgate.net/publication/343474395_COVID-

19_anxiety_among_frontline_nurses_predictive_role_of_organisational_support_personel_resili ence_and_social_supp ort.

9. .Nader Salari, HabibolahKhazaie, Amin Hosseinian-Far, Behnam Khaledi-Paveh, Mohsen

Kazeminia,   MasoudMohammadi,   ShamarinaShohaimi, AlirezaDaneshkhah&SoudabehEskandari (2020) The prevalence of stress, anxiety and depression within front-line healthcare workers caring for COVID-19 patients : a systematic review   and   meta-regression   ;   available   from :https://human-resources-health.biomedcentral.com/articles/10.1186/s12960-020-00544-1