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Research Paper

KNOWLEDGE, ATTITUDES AND PRACTICES OF SARS-COV-2(COVID-19) AMONG NURSES AT PUBLIC SECTOR, PAKISTAN

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Abstract

Coronavirus is the cause of disease in humans. The epidemic in china become pandemic globally. Nurses are in direct contact with patients. Knowledge is important to safeguard patients from Sars-cov-2 as well as for their self-protection. Purpose of this study is to evaluate the Knowledge, Attitudes and Practices of Sars-cov-2 among nurses at Public sector in Pakistan**.** The design of study was descriptive cross sectional. The sampling technique for data collection was systematic random sampling with a sample size of 384. The Study period was from January 2020 to June 2020**.** Data Analysis was through SPSS software version 22. Descriptive as well as inferential statistics were applied on data. Regarding gender about 75.7 percent of the respondents were female and rest 24.3 percent were male. The 49% responded correctly that COVID-19 is a communicable disease. The 60.7% responded correctly that COVID-19 is classified into Mild, Moderate and Severe cases. The 81% responded that Criteria for diagnosis of COVID-19 patient is travel history. The nurses have moderate knowledge, positive attitude and encouraging practices related to COVID 19 in Pakistan. Keeping in view the shortage of investigation among nurses the current study was steered. However, alike research may be directed in all Pakistan**.**

Key words: Knowledge, Attitude, Practices, Nurses, Sars-cov-2, Gujrat.

INTRODUCTION

Coronavirus belongs to family Corona viridae that contains coronaviruses that are the infectious cause of disease in humans(Singhal, 2020). Coronaviruses are classified into Middle east respiratory syndrome, Severe acute respiratory syndrome and common cold. ("Chapter 24 - Coronaviridae," 2017) .Expected, infested, and death ratio has overlapped the preceding epidemics best by the viruses from the same family, such as SARS-CoV and MERS-CoV(T. M. Khan, 2020). It is value citing that usually, it is supposed that SARS and MERS were deadly, but the present statistics have altered the situation in favor of COVID-19.The outbreak of COVID-19 was noticed in Wuhan, Hubei,

China in 2019 December that resulted in isolation of sars-cov-2 infection (Zhu et al., 2020). The epidemic in china become pandemic globally. Pakistan, presence as a bordering Islamic republic to China and Iran made vulnerable host for Sars-cov-2(N. Khan, 2020). Pakistan also shared 438-kilometer-long border with China. Pakistan and China enjoyed good diplomatic, economic relations, educational and cultural exchange programs with China since 21 May 1951.Religous travelers from Iran were also considered suspected cases for infection. The country was not imagining such a quick epidemic of Sars-cov-2(Ali, 2020). Pakistan announced first cases with COVID-19 in Feburary,2020 (Chaudhary, 2020).The passengers from outside the country brought infection to Pakistan(Shabbir, 2020).The symptoms of COVID-19 are fever, sore throat, flue, shortness of breath,bodyaches that are presentable in the carrier during 2 to 14 days of exposure . There are no vaccines and targeted treatment available.(Singhal, 2020). Globally specialists focus on new COVID-19 medications and immunizations preparations, and several pharmaceutical corporations have designed anti-viral drugs maybe use for COVID-19(Adhikari et al., 2020). With COVID-19 stated cases with more than 10 million everywhere in biosphere and remaining to increase, the experts moving onward with inoculations and treatments to measured down the contagion and moderate the damage(Worldometers.info, 2020).

The topographical position of Islamic Republic of Pakistan, with the nonstop rises in the sum of CVOID-19 positive cases prerequisite a high level of action, plans and organization(Organization, 2020). Pakistan on June 28 2020 reported confirmed cases of 203,000, recovered patients of 92,600 and expiries of 4,120(Pakistan, 2020). The figure below represents total cases, active cases, recovered cases and deaths due to COVID-19 in Pakistan.

World health organization advised that infected states should take preventive measures to limit additional viral spread(WHO, 2020). The measures include initial investigation, surveillance, suspected cases quarantine, self-isolation and clinical management of infected persons(Virk, 2020). The Ministery of national health services and regulation in collaboration with National institute of health has devised protocols for Sars-cov-2 prevention, recognition and management(Nafees & Khan). The health care professionals training involved the use of facemasks and personal protective equipment, the

management of supposed cases in isolation units, techniques for sample collection, and self-protection(Max Roser, 2020).

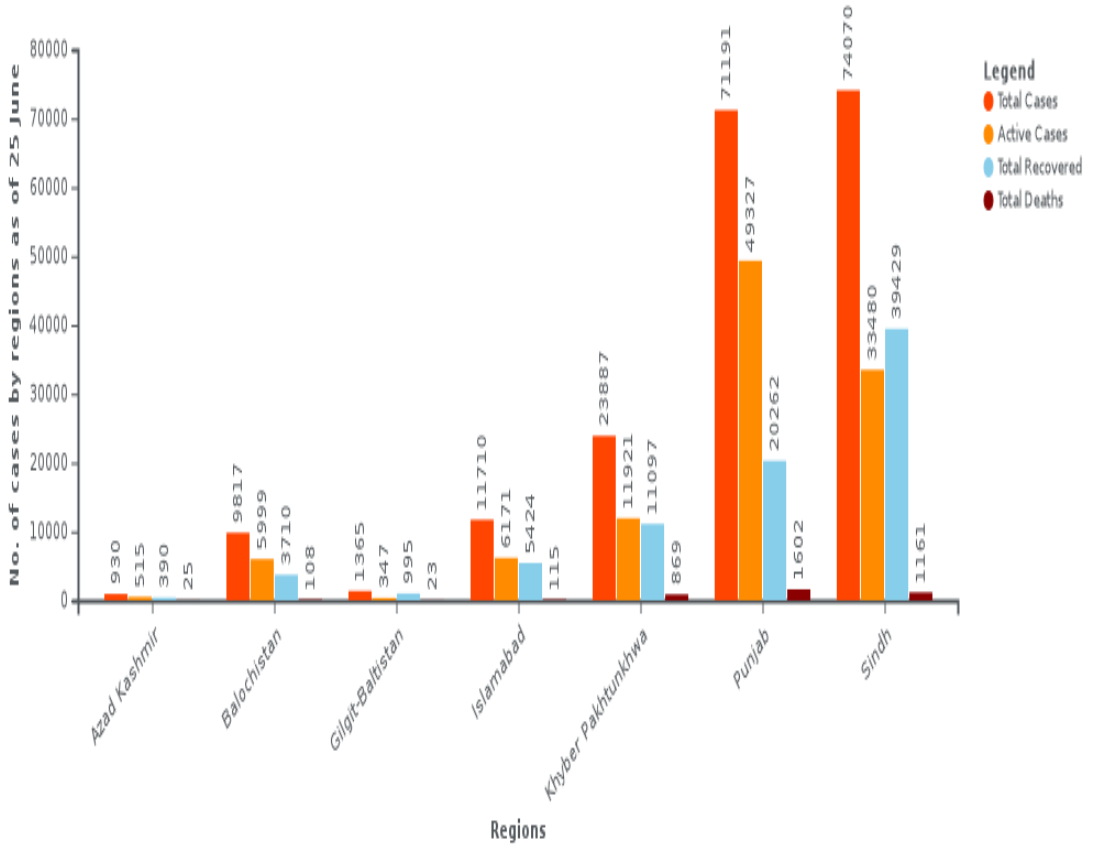

Figure 1: COVID-19 regional wise cases in Pakistan

Health care professionals are fighting at front line in COVID-19 treatment and prevention. Many health care professionals lost their lives in corona pandemic. Their knowledge about communicable nature of corona, mild, moderate and severe stages, symptoms, incubation period, asymptomatic phase, test advisory and interpretation, donning and doffing procedure and use of precautionary measure is essential to defend Pakistan from COVID-19(Ahmed J, (June 10, 2020)).The knowledge, attitude and practices of nursing professionals regarding COVID-19 needs to be accessed.

LITERATURE REVIEW

A self-controlled approved survey was utilized to evaluate information, disposition and practice among human services laborers (HCWs) in Pakistan with respect to coronavirus sickness 2019 (COVID-19). Discoveries indicated that HCWs have great information (93.2%, N=386), an uplifting demeanor [mean 8.43 (standard deviation 1.78)] and great practice (88.7%, N=367) in regards to COVID-19. HCWs saw that

restricted contamination control material (50.7%, N=210) and helpless information in regards to transmission (40.6%, N=168) were the significant hindrances to disease control. Relapse investigation showed that drug specialists were bound to exhibit great practice than different HCWs (chances proportion 2.247, 95% certainty span 1.11–4.55, P=0.025). This examination found that HCWs in Pakistan have great information, however there are holes in explicit parts of information and practice that warrant consideration(Saqlain et al., 2020). An approved (Cronbach alpha= 0.077) self-managed poll contained five segments (Demographics, wellspring of data, information, disposition, and practice) was utilized for information assortment. Strategic relapse was applied to discover potential variables related with great information, mentality, and practice by utilizing SPSS rendition 21. Of complete 393 members, 71.5% (n=281) had great information, 44% (n=175) had inspirational disposition and 57.3% (n=225) had great work on in regards to COVID-19. Internet based life (45.29%, n=178) was accounted for as the primary source to look for data with respect to COVID-19. Results uncovered that the time of ≥26 years, Ph.D. degree level, and great information were the considerable determinants (P<0.05) of a decent mentality. Essentially, people group drug specialist who had an encounter of >5 years, hold a Ph.D. degree, great information and great mentality had higher chances of good practice contrasted with reference classifications (P<0.05). The discoveries exhibited that most of network drug specialists had great information, yet had a helpless disposition and practice towards the COVID-19. This examination likewise featured the uniqueness in certain parts of information, mentality, and practice that must be tended to in future instructive, mindfulness, and guiding projects(Muhammad et al., 2020).

A cross sectional examination was directed by regulating a very much organized survey involving three areas including information, mentality and practice among social insurance experts in different emergency clinics and centers, over a term of two months 'Feb-March' 2020. The information from 810 members were gathered physically just as through online study enrolled on www.surveys.google.com, utilizing an approved survey. The survey included three segments evaluating information, mindfulness and practice of members. The expressive examination was done for socioeconomics and subordinate factors with factual program for sociologies. Spearman test was utilized to recognize any connection between the human services proficient reaction concerning their sexual orientation and level of training. A p-estimation of < 0.05 was considered

measurably significant. More than half (57.2%) of the human services experts were working in an emergency clinic setting. Fifty two percent of human services experts had mindfulness and 72% were rehearsing satisfactory measures to battle COVID-19. The greater part (81.9%) accepted that the sign and manifestations are like a typical influenza and the fundamental layers of populace that could be influenced by COVID-19 are older (79%). Seventy three percent of members didn't go to any talk, workshop or course on COVID-19 for mindfulness reason. Sixty seven percent of medicinal services experts were rehearsing widespread precautionary measure for disease control and 57.4% were utilizing sodium hypochlorite as a surface disinfectant in dental medical procedures. There was no critical relationship ($p > 0.05$) between the medicinal services experts' reactions with sexual orientation and their training level.

PROBLEM STATEMENT AND JUSTIFICATION

Nurses are in direct contact with patients. Nurses as professionals are not limited to administrating and dispensing medicines. They are directly involved in patient education and counselling that resulted in improved patient compliance. There uptodate knowledge is important to safeguard patients from Sars-cov-2 as well as for their self-protection. Therefore, a research investigation is needed to evaluate the Knowledge, Attitudes and Practices of Sars-cov-2 (covid-19) among nurses at Aziz Bhatti shaheed hospital, Gujrat, Pakistan

PURPOSE OF THE STUDY

To identify gaps in knowledge and practices of nurses and suggest measures to improve their awareness, attitude and practices related to Sars-cov-2.

THEORETICAL FRAMEWORK

Health belief model provides understanding of change in health associated behavior. The two basic factors that are involved in behavioral modification are that nurses feel endangered by the Sars-cov-2 and nurses must believe that the benefits of awareness and prevention are more than not adopting.

OBJECTIVES OF THE STUDY

1: To assess knowledge of Sars-cov-2 (covid-19) among nurses at public sector of Pakistan

2: To evaluate attitude of Sars-cov-2 (covid-19) among nurses at public sector of Pakistan

3: To judge practices of Sars-cov-2 (covid-19) among nurses at public sector of Pakistan

METHODOLOGY

This was a descriptive cross-sectional study conducted among nurses at public sector of Pakistan**.** Systematic random sampling method was used for data collection. Assuming Knowledge prevalence in Pakistan to be 50% with an allowable error of 5% and 95% Confidence limits $n = Z^2*P (1-P) / d^2=384$**.** A self-designed tool was used**.** The study collected data was computed with the help of SPSS version 22. Inferential Statistics such as Chi square distribution was used to assess the association between knowledge and practices. Approval of the research study was taken by the Institutional Review Board of the University of Lahore and written informed consent was taken from study participants. Privacy and confidentiality of the data was ensured.

RESULTS

Table: 1 Chi square Distribution

Characteristics	**Gender**		**Age**	
	χ^2	significance	χ^2	significance
Knowledge				
COVID-19 is a communicable disease	0.275	0.60	0.339	0.84
COVID-19 is classified into Mild, Moderate and Severe cases	0.223	0.63	0.913	0.63
COVID-19 cases may be asymptomatic	0.275	0.60	0.339	0.84
Fever is a symptom of COVID-19	1.709	0.19	0.384	0.82
Cough is a symptom of COVID-19	0.275	0.60	0.339	0.84
Flue is a symptom of COVID-19	1.709	0.19	0.384	0.82
Myalgia is a symptom of COVID-19	1.709	0.19	0.384	0.82
Sore throat is a symptom of COVID-19	1.709	0.19	0.384	0.82
Shortness of breath is a symptom of COVID-19	3.19	0.07	6.44	0.04*

Bitter taste of mouth is a symptom of COVID-19	4.90	0.02*	1.81	0.40
Diarrhea a symptom of COVID-19	2.35	0.12	0.10	0.94
Transmission of COVID-19 by contact route	0.275	0.60	0.33	0.84
Transmission of COVID-19 by bloodborne route	2.53	0.11	1.10	0.57
Diagnostic test for COVID-19	2.35	0.12	0.10	0.94
Criteria for diagnosis of COVID-19 patient is symptoms of respiratory disease	2.35	0.12	0.10	0.94
Criteria for diagnosis of COVID-19 patient is travel history	2.35	0.12	0.10	0.94
Criteria for diagnosis of COVID-19 patient is contact history with infected individual	8.64	0.003	5.24	0.07
Personal protective equipment needed for treatment of COVID-19 patient	0.275	0.60	0.33	0.84
Trained in Donning and Doffing procedure of PPE	2.350	0.12	0.10	0.94
Knowledge about the supportive treatment for COVID 19 Patients	0.275	0.60	0.33	0.84

Note: * indicates the significance level at 0.05

The chi square statistics was applied to test the significance of age and gender on knowledge, attitude and practices of nurses. The result of study revealed that all variables except Shortness of breath is a symptom of COVID-19 with respect to age ,bitter taste of mouth is a symptom of COVID-19 with respect to gender and Use of personal protective equipment when dealing with COVID 19 suspected cases with respect to age and gender were non-significant in respect of gender and age of nurses.

Table: Influence of Age and gender on Knowledge, of nurses

Characteristics	**Gender** χ^2 significance		**Age** χ^2 significance	
Attitude				
Do you feel that every citizen should adopt precautionary measures against COVID-19	0.124	0.725	1.92	0.38
Do you think that every health care professional should be aware about statistic related to COVID-19	0.46	0.831	1.66	0.43
Do you agree that with the use of personal protective equipment and fumigation in hospital the nursing staff will remain safe from COVID-19	0.49	0.826	0.31	0.85
Practices				
Frequent Hand washing for 20 seconds	0.88	0.34	0.82	0.66
Use of hand sanitizer	1.70	0.19	1.85	0.39
Maintain social distancing with colleagues and patient relatives	0.23	0.63	0.23	0.89
Use of face mask while travelling	2.1	0.14	3.09	0.21
Use of personal protective equipment when dealing with COVID 19 suspected cases	10.28	0.001*	7.81	0.02*
Practice all steps of donning and doffing procedure	0.24	0.62	0.23	0.89

Note: * indicates the significance level at 0.05.

DISCUSSION

The demographic characteristics of the nurses indicated that all nurses replied were from the teaching hospital of Gujrat. The purpose of our research investigation was to assess the knowledge, attitude and practices of nurses related to COVID-19. Nurses have a dynamic COVID 19 duty hours to interconnect patient doctor

relationship. Regarding gender about 75.7 percent of the respondents were female and rest 24.3 percent were male. Majority of the respondents were in young age followed by middle and old age. The nurses have moderate knowledge, positive attitude and encouraging practices related to COVID 19 in Pakistan. Similar results were reported by other health care professionals' surveys(Ahmed et al., 2020; Ferdous, Islam, Sikder, Mosaddek, & Zegarra-Valdivia, 2020; Saqlain et al., 2020). There are distinguished gaps in the principal evidence among nurses especially in treatment measures.

RECOMMENDATION

- Keeping in view the shortage of investigation among nurses the current study was steered. However, alike research may be directed in all Pakistan
- Training of nurses for uptodate knowledge, attitude and practices.

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