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Research Paper

Prevalence of covid-19 awareness among physiotherapy students of punjab pakistan

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ABSTRACT

Covid-19 pandemic has become a major concern for the health care professionals. Purpose of this research was to estimate the extent of awareness of covid-19 disease and relevan precautionary measures among physiotherapy students in Punjab Pakistan It was an observational cross-sectional study. It was performed in ten months in Punjab Pakistan. After the approval of synopsis this study was completed in anticipated time of three months. Non-probability convenient sampling technique was used. A total of 384 physiotherapy students were included in this study.Raosoft and SPSS were used as tools.It is the high time to spread awareness among all physiotherapy students by conducting training programs. Prevalence of Covid-19 Awareness Among Physiotherapy Students of Punjab Pakistan was 71.2%. This shows a good level of awareness of Covid19 among Physiotherapy students.

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1. INTRODUCTION

Everyone who survived 2020 certainly is aware of Coronavirus also known as COVID-19 . At the end of 2019 a cyclone of disease appeared and spread from Wuhan city China [1]. Coronavirus just made everyone follow a social distancing regimen Corona virus is thought to be a zoonotic originated virus

that's why the gap should be maintained between humans, animals and households to avoidsuch pandemic [2].

COVID-19 is a deadly virus for patients having less immunity. It affects almost everyone exposed to cough droplets of a patient but children, old people and immunocompromised patients are more vulnerable. Mainmode of transmission is close contact. That's why social distance is the most reliable way of avoiding this disease.. Mostly it is associated with dry cough, lethargy and fever .

Less commonly patients also reported the symptoms of body pain, redness of eyes ,sore throat,diarrhea and headache .Corona virus usually causes Acute Respiratory Distress Syndrome in affected people. COVID-19 could be asymptomatic. Asymptomatic patients are dangerous as they do not feel any symptoms but act as a source of Covid-19 in other people [3].

As Physiotherapy students also come in direct contact with Covid-19 patient to enhance their performance so awareness among them is so important. Causative agent is SARS_ COV_ 2 , name given to 2019 nCOV by International committee on Taxonomy of Viruses. New strain was discovered in 2019 Previous strains of this virus do not affect human population but new strain does [4]. Beforehand, the extreme intense respiratory disorder. Covid (MERS-CoV) influenced people. Episodes of respiratory sickness brought by these infections appear to have started in creatures prior to getting into different hosts. MERS-CoV previously was discovered to get sent by camels, while SARS-CoV thought to be communicated through civet felines among people. SARS- CoV-2 appears to begin through bats and cases reportedly abundant from Wuhan, proposing a creature to-individual spread via market. Infection at that point spreaded external areas of Hubei and in this manner, to the remaining world by means of human based transmission. A few nations have revealed local area spread. WHO announced Covid infection as pandemic.

People have previously been influenced by the severe acute respiratory syndrome Covid (SARS-CoV) and the Middle East respiratory syndrome Covid (MERS-CoV). Such respiratory illnesses appeared to begin in critters prior spreading to other hosts, such as human. MERS-CoV revealed to get transferred in human by arabian camels. SARS-CoV discovered to be transmitted from camels to people. Human transmission causes the worldwide spread of this virus.WHO declared it as pandemic on March, 2020March 11, 2020 [5], [6].

Medical care workers are the most vulnerable to infection as a result of this form of transfer. Separated from weight of the expanded duty hours, emotional pressure, anxiety, and tiredness, highly infectious SARS_CoV_2 illness is also a concern for medical care system. Purpose of this study is to determine how familiar people are with COVID-19 illness [7]. With this method of transmission, medical care laborers are among the most noteworthy danger of being tainted. The profoundly infectious SARS-CoV-2 infection is an extra risk for the medical care framework separated from burden of broadened duty hours, mental pressure, and exhaustion . Goal of investigation is to survey familiarity with COVID19 sickness and connected disease control that rehearses in medical care experts in the Indian medical care situation. This was a poll based study adjusted from ebb and flow between time rules and data for medical care work force by US-Centers to CDC and WHO.

As no study had been conducted in Punjab, Pakistan up till now so we need to identify the COVID-19 awareness among physiotherapy students.The study will give awareness about the extent of knowledge of physiotherapy students about covid-19 pandemic.

2. RELATED WORK

1. Akhtar Ali et.al conducted a cross-sectional study in healthcare management students of Zia Uddin University Karachi from March to April 2020. A questionnaire was formulated to record the knowledge attitudes and practice of people about COVID19 in the public of Sindh. They concluded that almost 76% population (53.5 %males and 46.8% females) show much awareness regarding the Pandemic In its outbreak and basic knowledge about it. Most of them were satisfied by the preventive measures taken by Sindh government.

2. Pranav D Modi et.al conducted a questionnaire based survey on the awareness among the health care students and professionals related to COVID 19 in Mumbai. Sample size was 1562, Out of which 71.2% responded with correct answers, maximum correct number of responses had been from students. More than 3/4th responders showed knowlege of measures i.e. cough etiquette, respiratory hygiene and separate ventilated room for suspected COVID patient in waiting+ area, however only 45.4% know how to use a mask correctly and only 52.5% know how to wash their hands when they are heavily contaminated.
3. Beatriz Minghelli et. al conducted a cross sectional survey to determine the impact of pandemic on their service provision of Portuguese physiotherapists. Sample includes 619 therapists of Portugal. According to survey , services of 453(73.2%) therapists has disrupted because of the pandemic and 166(26.8%) therapists carry on their work as before. Mask use (20.3%), Hand washing (21.5%), glove use (19.3%) and material disinfection (19.3%) are main precautionary measures that were opted by the therapists who carry on their work as before.
4. Aynalem YA.et.al. conducted a Cross sectional study via survey in 2020 to see the knowledge attitude and practice about covid19 and its psychological effects seen in students and also in studies.which concluded that students have a moderate knowledge, positive attitude and good practice towards pandemic.
5. Ruba M. jaber et al conducted a cross sectional study between 19 & 22 of march to access public awareness towards covid19. Awareness reportedly was moderate. Mode of transmission was unknown. Moreover, treatment was also not known to population.
6. Rhea vivek et.al conducted a Cross sectional study to see awareness of covid19 among undergraduate dental students in india. Which shows that they have good knowledge of covid19 except few diseases domains including mode of Transimission.

3. METHODOLOGY

The study was a cross-sectional study and was completed in an estimated period of 10 months.Design of Study was Observational-Cross-sectional-study
Sample size was 384. Sample size was collected by using RAOSOFT calculator

Formula: x = Z(c/100)2r(100-r)

n = N x/((N-1)E2 + x)

E = Sqrt[(N - n)x/n(N-1)]).

Non-probability convenient sampling technique was used. Study Setting were Gujranwala institute of rehabilitation sciences, Royal group of college, Elite college of emerging sciences, Superior University Lahore, University of Lahore, University of Mnanagement and Technology, Sialkot college of Physical Therapy, Allama Iqbal medical college and Rashid Latif medical college. For sample collection tool questionnaire was designed based on current data for the healthcare providers published through US-centers CDC in March 7, 2020.Inclusion criteria was all physiotherapy students of Punjab,Pakistan. Group of students were between 18 to 28 years.Both genders are included.While exclusion was made on two points:All students other than physiotherapy students.Students suffering from severe COVID 19 illness. Analysis of data was done by SPSS-21. Data was demonstrated by pi frequency distribution in forms of bar charts and graphs.

4. RESULTS AND DISSCUTION

It was reported that out of 384 subjects, 321(83.6%) reported correct answers. 45.4% students showed remarkable awareness of exact steps in mask application. 54.5% knew preferred hygiene of hand using washing of hands having visible soil. Measures for control of infection was known by 3/4 responders that includes triage, cough etiquette, hygiene of cough and respiration. Moreover, having separate isolated room for people at risk of covid-19. and 63(16.4%) subjects considered vaccination to be effective.

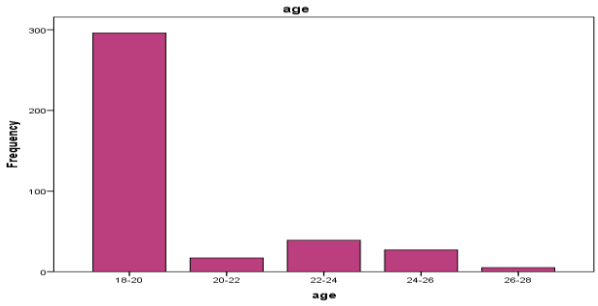

Figure 1. Frequencies/Percentage Distribution of Age

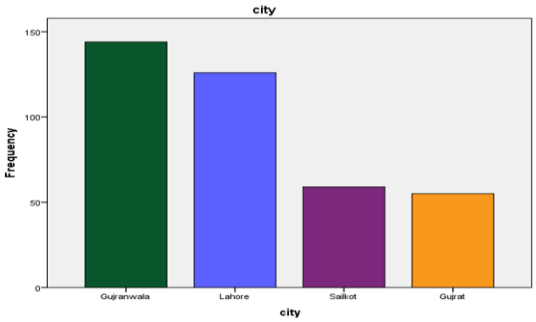

Figure 2. City Distribution

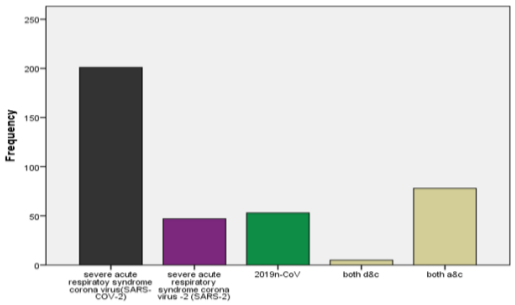

Figure 3. Frequency of Virus Causing Infection

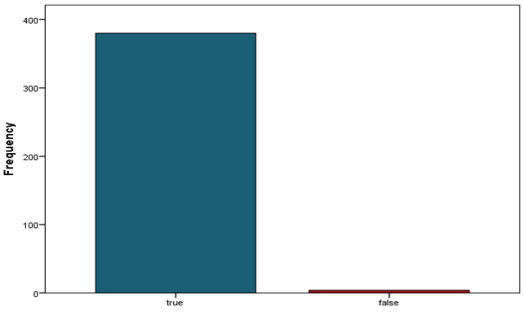

Figure 4. Frequency Distribution of First Report of COVID Cases from WUHAN

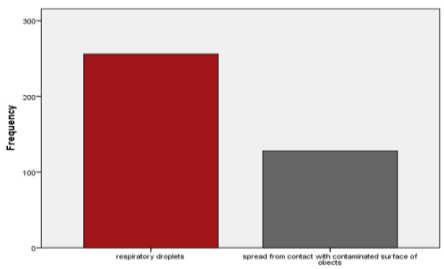

Figure 5. Frequency Distribution of Mode of Transmission

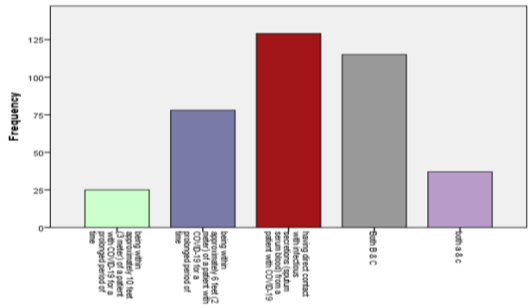

Figure 6. Frequency Distribution of Close Contact

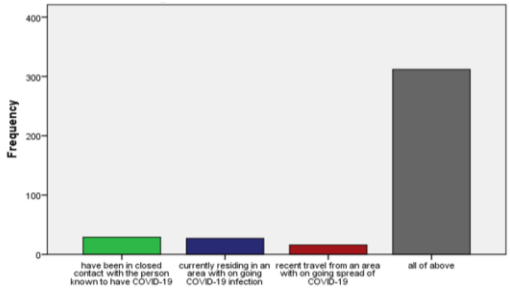

Figure 7. Frequency Distribution of Reported Sign and Symoptoms

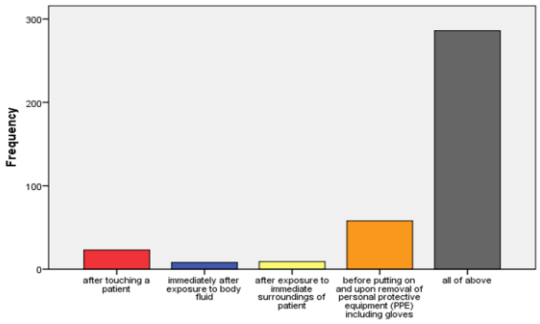

Figure 8. Frequency Distribution of Hand Hygiene

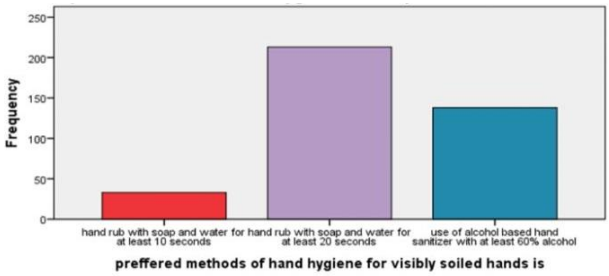

Figure 9. Frequency Distribution of Hand Hygiene Methods

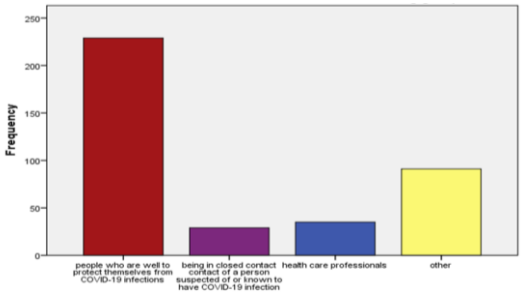

Figure 10. Frequency Distribution of Face Mask Usage

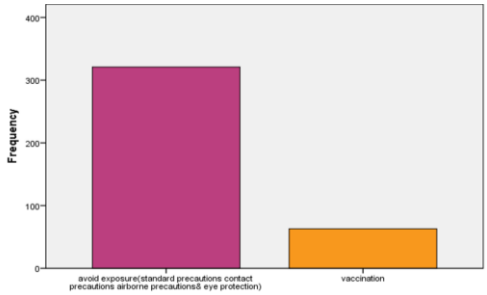

Figure 11. Frequency Distribution of Effective Prevention Method

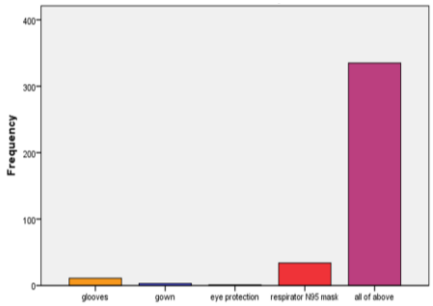

Figure 12. Frequency Distribution of PPE Usage

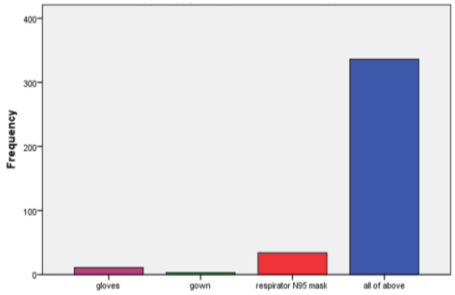

Figure 13. Frequency Frequency Distribution of PPE Usage by HCP

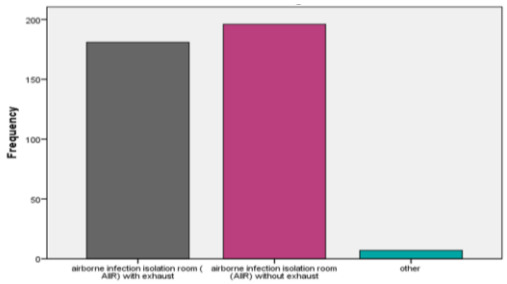

Figure 14. Frequency Frequency Distribution of Isolation of COVID Patients

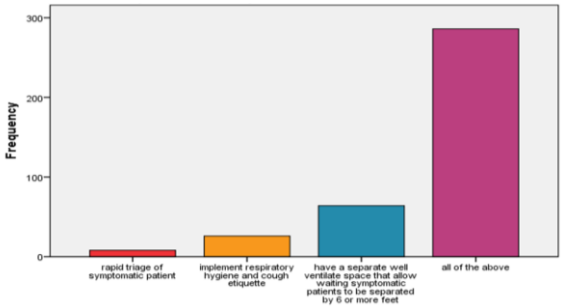

Figure 15. Frequency Frequency Distribution of Control Measures

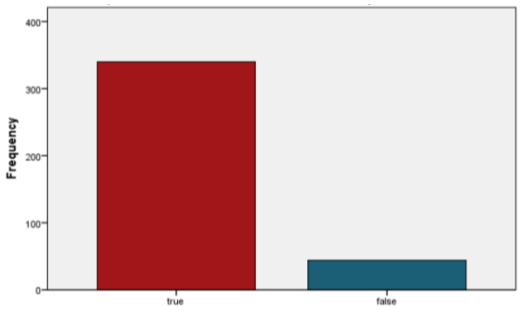

Figure 16. Frequency Frequency Distribution of Clinical Management

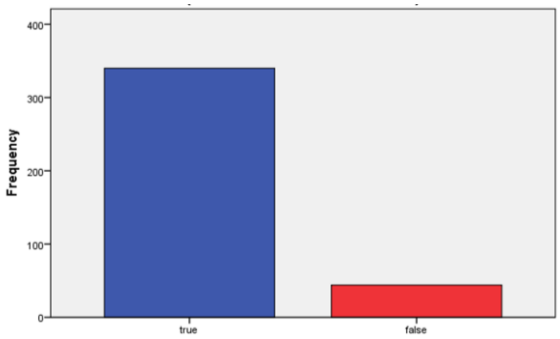

Figure 17. Frequency Distribution of Recommended Infection and Prevention Control Measure

Discussion

This research extensively elaborated the awareness of Covid virus in undergraduate physiotherapy students of Punjab Pakistan COVID-19 illness has had a falling impact around the world. The distinguishing proof and separation of a presumed case is the main advance in controlling COVID-19. In any case, in our investigation, not exactly 50% of the responders knew about characterizing a "nearby contact." A"nearby contact" usualy characterized as being inside around 6feet (2meters) around COVID-19 patient for drawn out timeframe or witnessing contact with irresistible emissions of COVID-19 patient. Also, different key definitions were iontroduced by Interim-U.S. Direction of Risks Assessment including Health care Management were provided under CDC[LeBlanc, 2020 #25] . Mindfulness was questionable in subgroups,while the most reduced in nonclinical/regulatory individuals. Despite the fact that this gathering isn't effectively associated with patient administration, high odds of the nonclinical staff in contact with patients eventually in the medical services setting and thus in danger of the contamination [8]. WHO “Five Moments of hand hygiene” defines hand hygiene. Essential techniques for this purpose are hand scouring. CDC suggests liquor hand rub by and large . Be that as it may, the inquiry in study was focussed on hand cleanliness procedure for noticeably grimy hands with cleanser and water for somewhere around 20 sec [9]. Consciousness of the utilization of individual defensive gear (PPE) for suspected/affirmed Coronavirus cases was high among all gatherings of medical services expert people. CDC has provided Break Contamination Counteraction and Control Suggestions for suspected patients or affirmed Covid19 infection (Coronavirus) in Medical services settings regarding PPE . Facemask/N-95 respirator95 ought to be used while going in patient room. The N-95 respirators are like face veil for airborne producing method. Appropriate removal of the pre-owned veils and hand cleanliness are performed. Perfect outfit including goggles or expendable face safeguard and hand gloves are prescribed to go in the room region of patient. In deficiency of outfits, focus should be on vaporized producing methods [10]. Other than monitoring the necessary PPE, know the right arrangement of "doffing and wearing " of PPE. CDC provides grouping of wearing face cover. Over 75% were aware utilization of a facemask or respirator isn't fundamental or suggested for individuals who are well and not in touch with a Coronavirus patient. Overall suggestion from major wellbeing associations is that those in medical services settings or the individuals who are indicative should utilize a cover. Despite the fact that disparities have been noticed for use locally setting, the boundless utilization of veils ought to be

debilitate to protect restricted supplies for medical services settingsThe general level of right solutions for our investigation members was 71.2% with the most elevated level of right reactions from clinical college understudies (74. 10%) , least from the nonclinical/authoritative staff (53. 64%).

Examination with respect to information and perspectives towards Center East respiratory condition Covid (MERS-CoV) was led on medical care laborers in essential medical services communities and emergency clinics in Najran, Saudi Arabia that showcased a greater part from medical care laborers knew about MERS-CoV and had adequate information in regards to something similar. Doctors and medical caretakers had essentially better information contrasted and other medical care laborers . The consequences of a comparable review completed in medical care laborers in the Realm of Saudi Arabia recommended helpless information about arising irresistible illnesses among members, and announced disease control rehearses were discovered to be problematic.

In South Korea, investigation of medical services laborers proposed a helpless degree of information about methods in transmission of MERS Covid. This move could assist with stopping the deficiency of medical services experts and conceivably give care to an enormous number of individuals. Thus, understudies from different medical care callings were remembered for our investigation. The current circumstance requests pressing advancement of methodologies to forestall disease among high-hazard populaces including pre-openness and post-openness prophylaxis. Different medications are under consideration right now. Hydroxychloroquine wich is an antimalarial show antiviral action in vitro testing. It is effective against SARSCOV-2. It is considered as chemoprophylaxis in medical services laborers. Study of clinical treatment of Coronavirus related pneumonia through hydroxychloroquine is in progress. Additionally, consequences of a similar will taken under consideration intently [11].

5. CONCLUSION

71.2% Healthcare students gave correct answers which shows good level of understanding and awareness of covid19. Undergraduate Medical students gave remaekably correct answers of given questionnaire. This study shows a good awareness of current situation among students. Moreover this study suggests more educational seminars and webinars to further increase the level of awareness of pandemic among students.

Further Study

Awareness among Doctors can be the next topic of interest for authors.

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Author Contributions Statement

Name of Author	C	M	So	Va	Fo	I	R	D	O	E	Vi	Su	P	Fu
Sibgha Anum	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Nida Shabbir	✓			✓	✓			✓	✓		✓		✓	
Zain Ul Abdeen		✓	✓				✓			✓		✓		

C : **C**onceptualization
M : **M**ethodology
So : **So**ftware
Va : **Va**lidation
Fo : **Fo**rmal analysis
I : **I**nvestigation
R : **R**esources
D : **D**ata Curation
O : Writing - **O**riginal Draft
E : Writing - Review & **E**diting
Vi : **Vi**sualization
Su : **Su**pervision
P : **P**roject administration
Fu : **Fu**nding acquisition

Conflict of Interest Statement

The authors declare that there are no conflicts of interest regarding the publication of this paper.

Informed Consent

All participants were informed about the purpose of the study, and their voluntary consent was obtained prior to data collection.

Ethical Approval

The study was conducted in compliance with the ethical principles outlined in the Declaration of Helsinki and approved by the relevant institutional authorities.

Data Availability

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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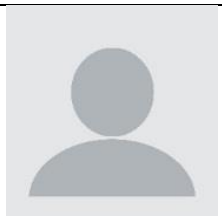
BIOGRAPHIES OF AUTHORS

	**Sibgha Anum,** is affiliated with the Public Health Department, Sechenov Medical University, Moscow, Russia, and also with the Department of Allied Health Sciences, Riphah International University, Lahore, Pakistan. Her research interests include public health, infectious disease awareness, and preventive healthcare strategies. She has contributed to multiple studies focusing on health education and awareness in student populations.
	**Nida Shabbir,** is a researcher in the Department of Allied Health Sciences, Riphah International University, Lahore, Pakistan. She has a keen interest in community health, epidemiology, and disease prevention among youth and healthcare students. She actively participates in projects that focus on awareness, healthcare training, and preventive medicine.
	**Zain Ul Abdeen,** is associated with the Public Health Department, Sechenov Medical University, Moscow, Russia. His academic and research focus lies in epidemiology, health promotion, and preventive measures against infectious diseases. He is particularly interested in conducting cross-sectional studies that assess public knowledge and awareness related to emerging health challenges.