

A Study on the Possible Obstructions Amongst Health Care Professionals in the Management of Patients Presenting with Covid-19

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ABSTRACT

Objectives: The objective of this study was to assess the awareness level of HCPs (Health Care Professionals) in Pakistan regarding the management of patients presenting with COVID-19. We assessed awareness levels regarding measures to control infection control as well as available professional and administrative support. We also assessed psychological factors that may act as barriers to effective management of such patients.

Methodology: This study was carried out at Hayatabad Medical Complex Peshawar. The study was carried out online with the utilization of Google Form. After obtaining ethical committee approval, the online link was disseminated to health care professionals utilizing social media.

Results: A total of 213 HCPs participated. The majority of the HCPs were younger than 30 years of age and most were undergoing postgraduate training. The findings displayed gaps in awareness levels regarding basic measures for infection control such as donning & doffing, and understanding of procedures associated with high-risk. Compromises in job training, administrative and professional support were identified. The majority of HCPs exhibited anxiety, having symptoms associated with burnout, with logical reasons in background. Even with such hurdles existing, HCPs remained committed and willing to perform their duties to save humankind.

Conclusion: HCPs in Pakistan require urgent attention for the provision of formal training regarding measures to control infection. There is need for professional as well as administrative support from scientific societies and institutions. Possible options include online teaching modules & webinars. Symptoms of burnout were prevalent and may increase over time. These perspectives warrant additional support from the various committees of occupational health.

Keywords: Healthcare Professionals, Measures, Support, High-Risk COVID Symptoms, Institutions, Webinar.

INTRODUCTION

Coronavirus, also known as COVID-19, originated from Wuhan, China in December of 2019, and this virus affected almost more than two hundred countries. According to the World Health Organization (WHO), there are more than 3,700,000 confirmed cases of this infection which are increasing day by day with a death toll of more than more than 0.27 million. As of 8 May of 2020, there were more than twenty-two thousand confirmed patients of COVID-19 with more than six hundred deaths, with the proportion of patients increasing day by day [1]. HCPs of recent era have never seen this type of pandemic before; hence they were not prepared well to tackle it. Literature from high-income countries displayed that there is a significant psychological impact of the pandemic on HCPs resulting in feelings of depression, anxiety and inability to sleep [2]. The symptoms of this disease have direct correlation with the risk of getting the infection as well as improper protection from the contamination [3].

Countries with low-middle income such as Pakistan, are not able to afford the severe contagion measures because of socioeconomic reasons. The social setup of our society, beliefs of religion and educational background are significantly different from high-income countries. There is increased exposure of the HCPs to both symptomatic & asymptomatic carriers. The gravity of this infection is more severe in Pakistan because of the limited health care facilities and the available expertise. PPEs (Personal Protective Equipment) are the mandatory need but effective management requires the implementation of planning as well as effective processes [4]. This study was carried out to evaluate the issues being faced by HCPs in this pandemic. Our objective was to assess awareness levels among HCPs about infection control measures. This was followed by the assessment of the teaching & training in context of measures for the control of infection and the provision of professional as well as administrative support. We also evaluated the psychological impact of this infection on HCPs, which can be an important obstruction for the proper management of the patients suffering from COVID-19.

METHODOLOGY

This study was carried out at Hayatabad Medical Complex Peshawar. We conducted this study with the utilization of the online google form. This survey included information about age, gender, marital status and correlation with any comorbid condition. Other data included status of health care job, administrative setup, and their specialty, years of experience, their city and Province. We also collected the information about administrative support such as resource availability within the department for the control of infection, training about doffing & donning, PPEs, availability of the shower, hand washing and sanitizer facilities. We also assessed the knowledge of HCPs about the measures to control the infection such as information about the proper use of PPEs and information about aerosol generating high-risk measures. We also evaluated the role played by social media and web resources for the updating the HCPs. There were also questions containing information regarding feelings of burnout, anxiety and performance at work.

The distribution of the survey form was carried out with the use of Google Link. This task was carried out with the utilization of the social media. We also requested the contacts of Individuals for the dissemination of the link, so that there can be maximum involvement of HCPs. Every participant gave their consent before the filling of form. We collected the responses anonymously and there was no disclosure of the identity of individual. We exported the responses of the subjects from excel to SPSS V. 20 for statistical analysis. We compiled all these responses in bar charts and tables. We used close-ended questions. We represented the results in percentages and frequencies. Because of the large information size, we presented the supplementary figures and tables separately.

RESULTS

There was participation of a total of 213 HCPs in this research work. Table-1 shows the demographic characteristics of the participants. Most of the participants (50.0%) were present in the age group with less than 30 years of age.

Table-1: Demographic Characteristics of HCPs

Variables	Frequency (%)	
Age Groups	<30 Years	107 (48.4%)
	30-50 Years	82 (40.1%)
	>50 Years	24 (5.1%)
Gender	Male	113(49.4%)
	Female	100 (46.2%)
Marital Status	Married	130 (59.7%)
	Single	83 (36.1%)
Co-morbidities	No known co morbid	95 (69%)
	Association with any medical condition	42 (18.3%)
	HTN	13 (3.4%)
	Diabetes	15 (2.2%)
	Asthma	15 (2.2%)
	Depression	10 (2.7%)
	IHD	6 (1.3%)
	Others	17 (5.6%)

There was equal participation from both genders. Majority of the participants were married (60.0%) and most of the HCPs were present with no association with comorbid condition (69%). Doctors of postgraduate studies filled 31.0% Forms, followed by the consultants (22.0%) and nurses (17.0%). All

Table-2: Occupational Status of HCPs.

Occupational Status	Frequency (%)	
Health Care Job Status	Consultant	97 (22%)
	Medical Officer	60 (13%)
	Nurse	71 (16%)
	Postgraduate Medical Trainee	124 (29.1%)
	Anaesthesia technician	23 (3.7%)
	Others	3 (0.6%)
Specialty	Anesthesiology	146(33.5%)
	Medicine and allied	61(12.7%)
	Obstetrics and Gynecology	12(2.7%)
	Paediatric	22(3.2%)
	Surgery and allied	55(11.2%)
	Intensives	4(1%)
	Radiology	4(1%)
	Others	93(20.5%)
Experience	<5 Years	228(53.5%)
	5-10 Years	83(18.1%)
	11-20 Years	59(12.2%)
	>20 Years	39 (7.3%)
Health Care Setup	Government	159 (36.7%)
	Semi Government	23 (3.4%)
	Private	211(49.4%)
Province	Sindh	296 (70.2%)
	Punjab	56 (11.5%)
	KPK	41(8%)
	Baluchistan	3 (0.5%)
	ICT	9 (2.2%)
	Gilgit Balatistan	4 (1%)

There was adequate knowledge of the HCPs about the measures for the control of infection. Ninety six percent HCPs were aware about the requirement of having N-95 mask for the protection of themselves from aerosols. There was also acceptable knowledge of the participants about the PPEs. Eighty percent HCPs were aware about the requirement of the having gloves, show cover, gown and eye shield for the management of the patients suffering from COVID. However, there was marginal awareness level about the high-risk clinical processes which can be the reason for the cross contamination among staff. The department of the infection control was available for seventy percent of participants. Most of the patients were present with adequate facilities for hand sanitizing (99.0%) and hand washing (84.0%).

DISCUSSION

On the basis of the recently observed professional and administrative support in our country Pakistan, protection of HCPs

from occupational infection exposure may prove difficult and under-resourced. This issue bears important implications and it should be expected that a large amount of the HCPs will get this infection, with a resultant diminishing of an already understaffed profession. In accordance with the Daily DAWN of May 4, 2020, there were a total of 480 HCPs in our country suffering from this infection because of occupational exposure. In current days, the complete focus of the discussion is about the provision of PPEs. But there is relatively little discussion about the basic prerequisites and administrative support needed for effective protection against this infection. The findings of this research work displayed unavailability of shower facilities at most of the places. In the same manner, there was no declaration of the quarantine facilities by most of the health care setups. Red zone for the infection is the hospitals, the prevention of the staff from getting the infection requires a pragmatic approach [5]. There was presence of severe gap in the requirement of formal training for the measures to control the infection especially regarding doffing and donning.

There should be inclusion of courses associated to doffing & donning and monitoring of these practices on priority basis [6]. Professional societies on national basis should work together in reinforcement of the practical guidelines. This effort would be helpful in standardization of the management protocols, hence resulting in an in the improvement of outcomes [7]. There is wide availability of the internet facilities in Pakistan, and our results also depicted that most of the HCPs are utilizing the online resources to update themselves. The incorporation of online training and teaching would be a suitable strategy [8]. There is also need for the implementation of the policies for the control of infection [9]. There are some limitations of this research work such as dissemination of survey form was carried out unofficially with the use of personal contacts by our investigators. We conduct this by the use of social media only. There was general representation of the results and we did not evaluate the awareness level of any particular group or any association with the other variables [10]. There was not impressive proportion of HCPs participating in this study. Nevertheless, these findings bear important implications regarding the lack of resources and awareness among the HCPs of Pakistan, and future nationwide research should be undertaken with the support of national societies and institutions in order to replicate these findings on a larger scale.

CONCLUSION

There is a need of attention for HCPs regarding their formal training about the measures for the control of infection. It is not the responsibility of the individual to provide the hospitals with administrative facilities, occupational support and logistics. Professional societies should support the HCPs in the provision of the practice instructions and protocols of management so that there should be efficient output from these health care providers while maintaining their safety regarding occupational exposures.

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