Covid-19 Pandemic and The Healthcare Workers' Rights and Responsibilities

Almas Fasih Khattak ¹, Samina Khan ², Farrukh Ansar ³, Bakhtiar Khan ⁴, Madiha Khattak ⁵ and Muhammad Noman Khan Wazir⁶

¹Department of Community Medicine, Northwest School of Medicine, Peshawar, ²Royal Alexandra Hospital, Edmonton, Canada, ^{3,4}Northwest School of Medicine, Peshawar, ⁵ Department of Physiology, Khyber Medical College, Peshawar, ⁶Department of Psychiatry, Northwest General Hospital & Research Centre, Peshawar

ABSTRACT

Background: The Covid 19 Pandemic has wreaked havoc around the world and continues to do so with changing variants and social dynamics. Millions have died as a result including the frontline healthcare workers (HCWs). We aimed to conduct a survey on the rights and responsibilities of HCWs in their respective healthcare facilities in the wake of COVID-19 pandemic crises.

Objectives: The current study was designed to determine the level of satisfaction of healthcare workers with their rights ensured at their respective healthcare facilities they were serving.

Methods: A structured questionnaire regarding the rights and responsibilities of HCWs was designed based on World Health Organization's guidelines to collect data. A 5-point Likert scale was used to rate the individual items on the rights and responsibilities scales. Data was collected through online platform of Google Docs. Completed 547 responses from 26 countries were analysed. SPSS version 24 was used for data entry and analyses. **Results:** Almost 60% of the participants responded no or that they did not know about their right to compensation, rehabilitation, and curative services in case they were infected with COVID-19. The healthcare workers showed overall lower mean scores for the individual items on the rights scale indicating that they were not satisfied with their rights as healthcare workers at their respective facilities. HCWs showed higher mean scores for the individual items on the responsibilities scale showing that the healthcare workers were aware of and were imparting their duties diligently as healthcare workers in their respective facilities.

Conclusion: The findings of the current study indicate that healthcare workers have been found diligent and accountable in imparting their services against the COVID-19 pandemic, however most of them felt deprived of their work rights. Prompt action is needed for provision and assurance of rights of the HCWs as it will bring about a better and effective response against pandemic crises.

Keywords: COVID-19, Pandemic, Healthcare workers, Public Health, Rights, Responsibilities, Compensation

Introduction

COVID-19 pandemic has caused global healthcare and economic crises and still, there seems no permanent solution. More than 5.39 million people have lost their lives battling this lethal virus and yet the death toll continues to rise. 1,2

CORRESPONDENCE AUTHOR Almas Fasih Khattak

Assistant Professor, Assistant Director Research, Department of Community Medicine, Northwest School of Medicine, Peshawar, Pakistan (Phase 5, Hayatabad, Peshawar, Pakistan (ZIP-25100) Email: almasfasih@gmail.com Epidemiologists are expecting another surge of cases because of neglecting the preventive strategies, abandonment of social distancing and complex immune response against this virus.³ In these times, Healthcare Workers (HCWs) are the forefront warriors against this pandemic. Thousands of HCWs are selflessly providing their services to the community at the cost of their lives. In the beginning of the pandemic, the Amnesty International had uncovered that at least 7000 HCWs have lost their lives fighting globally.⁴ The World this pandemic Health Organization (WHO) in its recent report has estimated between 80,000 to 180,000 health and care workers could have lost their lives due to COVID 19.5 HCWs are standing firm amidst the COVID-19 not only with a high risk of getting infected but also bearing with mental stress, hectic shifts, burnouts, unavailability of protective gears and equipment, verbal and physical abuse by attendants and constant dread of transmitting the virus to their families.6 It has been reported that in China, 3.8% of the total positive cases of COVID-19 were doctors, nurses, paramedics and supporting staff.7 Similarly, in Italy and Spain the infection rate among HCWs were 9% and 14% respectively.8 In the USA, more than 1000 deaths of HCWs were reported till July 2020 due to COVID-19, while 55% among them were physicians. By mid 2021, the number rose to almost 4000.9 A comparable pattern was also observed in the subcontinent region where hundreds of HCWs have lost their lives; surprisingly it was also revealed that the case fatality rate of COVID-19 among HCWs was approximately ten times greater than the general population.¹⁰

HCWs have always acted as a strong wall against pandemics and health emergencies. Unfortunately, in past, HCWs were criticized for not performing their responsibilities properly and strict laws were enforced upon them.¹¹ During these hard times, there is still a lot of perceived stigmas related to the rights and responsibilities of the HCWs.¹² Besides the responsibilities of HCWs, there are certain rights which ensure the protection of the lives and employment of workers performing duties in health care settings. World Health Organization constitution 1946 provides a progression of laws which ensures the provision of the highest attainable standard of health care facilities and job security for HCWs who risk their lives for saving others.¹³ Unfortunately, the provision of rights to HCWs across the globe is still a challenge. Various surveys from different countries revealed that in peak times of COVID-19 pandemic, majority of health care staff was not adequately provided with personal protection equipment.14

The proper knowledge and execution of rights and responsibilities of HCWs can no doubt establish a better and safe working environment which ensures the highest attainable level of safety and care to the patient. Provision of rights to HCWs increases their satisfaction level and lessens the psychological stress and employment uncertainty which are assuredly associated with their empathy, productivity, efficiency, and performance.

Objectives

The current study was designed to determine the level of satisfaction of healthcare workers with their rights ensured at their respective healthcare facilities they were serving. The study also embarked upon to determine healthcare workers' responsibilities during arduous times of COVID-19 pandemic across the globe.

Material and Methods

A descriptive cross-sectional survey was designed to study the rights and responsibilities of HCWs in managing the COVID-19 pandemic at their respective facilities. Ethical approval (Ref No: NwGH/EC/03) was obtained from the Ethics Committee of Northwest General Hospital and Research Centre, Peshawar Pakistan. Data was collected anonymously using the online survey platform Google Docs with clear statement regarding privacy and confidentiality of the participants, and with researchers' contact details. The online link to the survey was shared with the target population via emails and verified pages and groups of healthcare professionals on social media. During the data collection period, several reminders were sent to the potential participants. A consent statement "I am willingly participating in this study and give my consent for the use of the information I provide for scientific purposes" was posted in the beginning of the survey with 'yes' and 'no' options. Those who said 'no' to this statement, their subsequent responses were deemed ineligible for the final analysis.

The data was collected on a structured instrument designed specifically in the wake of COVID-19 pandemic, using World Health Organization's guidelines for the rights and responsibilities of healthcare professionals around the world. The instrument comprised of three parts. Part one included the demographic and basic COVID-19 related information of the participating healthcare professionals. Information such as, age, gender, daily working hours, working experience and the number of COVID-19 cases in their respective provinces and healthcare facilities they were working in. Part 2 consisted of 10 items on the rights of healthcare professionals in their respective facilities and workplaces in the wake of COVID-19 pandemic. A 5point Likert scale of satisfaction was used to rate each item rated as (Very satisfied= Score of 5, Satisfied= Score of 4, Neutral= Score of 3, Dissatisfied= Score of 2, Very dissatisfied= Score of 1). Part 3 comprised of seven items on the responsibilities of healthcare professionals to manage COVID-19 pandemic in their respective facilities. Again a 5-point Likert scale was used to rate each item as (Strongly agree=score of 5,

Agree= score of 4, Neutral= score of 3, Disagree= score of 2, and Strongly disagree= score of 1).

We received 550 responses from 26 countries in this online survey. Only three participants said no to the consent statement for voluntary participation, hence, we excluded their responses, and 547 responses were left for final analysis. Data was extracted from the google forms through a CSV (Comma Separated Value) file, which was subsequently exported to SPSS version 24, and the variables adjusted for appropriate application of statistical tests. The demographic and specific COVID-19 related variables were analyzed through descriptive statistics and frequency tables generated.

Results

Healthcare Professionals' Demographic Characteristics and Basic Information:

Healthcare workers from 26 different countries participated in this study. Most of the participants were from Pakistan, Canada, USA, Qatar, UK, and Australia. Detailed geographical distribution of the participants is shown in Figure 1. The minimum age reported was 22 years and maximum 80 years while most of the HCWs were between 31 and 50 years of age (74.4%). Most were female and doctors by profession (60.1% and 68.9% respectively). Majority of the participants had daily working hours between 5 and 10 hours (72%). Important Baseline characteristics are shown in Table 1. When asked if the HCWs had the right to compensation, rehabilitation, and curative services in case they were infected with COVID-19 following exposure at their workplaces, almost 60% responded no or that they do not know.

 Table 1: Baseline characteristics of the Healthcare

 Workers around the world

	N= (547)			
Characteristics	Frequency (N)	Percent (%)		
Gender				
Female	329	60.1		
Male	213	38.9		
Work Experience (Mean: 12.05, SD: 8.34)				
Less than 5 years	127	23.2		
5-10 years	168	30.7		
11-20 years	184	33.6		
More than 20 years	68	12.4		
Daily Working Hours (Mean: 8.91, SD: 2.50)				
<5 hours	21	3.8		
5-10 hours	394	72.1		
>10 hours	132	24.1		
Number of COVID-19 cases in our hospital				
Less than 10	286	52.3		
10-20	93	17		
More than 20	168	30.7		

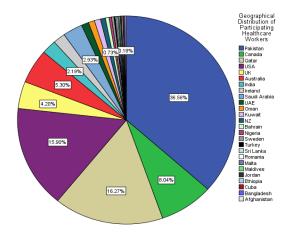


Figure 1: Geographical Distribution of Participating Healthcare Workers

Rights and Responsibilities of Healthcare Professionals amidst Covid-19 Pandemic:

The overall satisfaction and agreement of healthcare professionals with their rights and responsibilities as healthcare workers at their respective healthcare facilities are shown in Table 2 and Table 3 respectively. We analysed the individual items on rights and responsibilities scales with highest and lowest mean scores. On the individual scale for rights, majority of the HCPs were satisfied with the "allocated number of working hours with breaks ensured at their facilities" and "the advice to workers on self-assessment, symptoms reporting and staying home when ill at their facility" (mean 3.48 and 3.46 respectively). However, they were dissatisfied with "the provision of adequate IPC and PPE supplies in sufficient quantity to staff caring for suspected or confirmed COVID-19 patients at their facilities" (mean 2.95). They were also neither satisfied nor dissatisfied with 'the provision of access to mental health and counselling resources at their facilities' (mean 3.00). On the responsibilities scale, majority of the HCPs

agreed or strongly agreed with the statements "I maintain patient privacy and confidentiality" and "I treat patients with respect, compassion and dignity," (mean 4.62 each). All the individual items scored above 4 on a 5-point Likert scale.

Table 2: Healthcare Workers Level of Satisfaction with their Rights as Healthcare Workers at their Respective
Facilities

Survey Items	Ν	Minimum	Maximum	Mean	SD
How satisfied are you with all the necessary preventive and protective measures taken at your facility to minimize transmission risk of COVID-19 to healthcare workers?	547	1	5	3.14	1.140
How satisfied are you with the provision of information, instruction and training on occupational safety and health at your facility?	547	1	5	3.22	1.191
How satisfied are you with the provision of refresher training on infection prevention and control (IPC) at your facility?	547	1	5	3.08	1.153
At your healthcare facility, how satisfied are you with the provision of instructions on use, putting on, taking off and disposal of personal protective equipment (PPE)?	547	1	5	3.24	1.207
How satisfied are you with the provision of adequate IPC and PPE supplies (masks, gloves, goggles, gowns, hand sanitizer, soap and water, cleaning supplies) in sufficient quantity to staff caring for suspected or confirmed COVID- 19 patients at your facility.	547	1	5	2.95	1.267
How satisfied are you with the provision of appropriate security measures for personal safety at your facility?	547	1	5	3.23	1.128
At your healthcare facility, how satisfied are you with a blame-free environment for workers to report on incidents, such as exposures to blood or bodily fluids from the respiratory system or to cases of violence, and to adopt measures for immediate follow-up, including support to victims?	547	1	5	3.24	1.137
How satisfied are you with the advice to workers on self- assessment, symptom reporting and staying home when ill at your facility?	547	1	5	3.46	1.093
How satisfied are you with the allocated number of working hours with breaks ensured at your facility?	547	1	5	3.48	1.090
How satisfied are you at the provision of access to mental health and counselling resources at your facility?	547	1	5	3.00	1.159

Table 3: Healthcare Workers Level of Agreement with their Responsibilities as Healthcare Workers to Manage Covid-19 Pandemic at their Respective Facilities

Survey Items	Ν	Minimum	Maximum	Mean	SD
I follow established occupational safety and health	547	1	5	4.17	.796
procedures, avoid exposing others to health and safety risks					
and participate in employer-provided occupational safety					
and health training					
I use provided protocols to assess, triage and treat patients	547	1	5	4.18	.758
I treat patients with respect, compassion and dignity	547	3	5	4.62	.543
I maintain patient privacy and confidentiality	547	2	5	4.62	.589
I swiftly follow established public health reporting	547	1	5	4.34	.738
procedures of suspect and confirmed cases					
I provide or reinforce accurate infection prevention and	547	1	5	4.27	.672
control and public health information, including to					
concerned people who have neither symptoms nor risk					
I put on, use, take off and dispose of personal protective	547	1	5	4.23	.833
equipment properly					

Discussion

Our study findings showed lower mean scores for individual items on satisfaction scale indicating that majority of the HCWs are not satisfied with the rights provided at their healthcare facilities to protect themselves from getting infected with COVID-19. On the contrary, they are well cognizant of their responsibilities to manage COVID-19 pandemic effectively at their workplaces, shown by higher scores on the agreement scale items. Unfortunately, in the current study, 31% of the HCWs reported that their workplace does not offer any type of compensation, rehabilitation and curative services if infected with COVID-19 during work. 28% of the HCWs reported that they have no idea whether their employers will provide health coverage to them in case of any unfortunate incident or not. There are numerous reports which show that even after the death of many COVID-19 fighting warriors, their families are still not compensated as promised, which is a clear violation of the rights of HCWs .15 Economic catastrophes are immense globally as a result of COVID-19 and many HCWs have lost their jobs as a consequence of falling prey to the virus while caring for their patients. It is high time that HCWs compensation systems are established at organizations level to protect them from economic fallouts so that they are better able to provide care and respond vigorously to the pandemic.16,17

In our study HCWs performed well on the responsibility scale with high mean scores. A KAP study from Pakistan showed that HCWs had very good knowledge, practices and awareness regarding their responsibilities during COVID-19 pandemic.18 An Indian study likewise revealed that HCWs especially surgeons were fully aware of their responsibilities during the pandemic and they adjusted their practices and policies as per international guidelines immediately.19 A Chinese investigation additionally supports our results by showing a high level of knowledge regarding the responsibilities of HCWs during COVID-19.20 Various investigations into the pandemic have given evidence that HCWs had appropriate knowledge about their responsibilities, and were up to date with the most recent guidelines which are extremely significant in effective management of the novel coronavirus.^{21, 22}

HCWs globally have shown great commitment towards recognition of their responsibilities to save communities in the extremely challenging times of a catastrophic global pandemic. However, surprisingly, more than half of the HCWs reported they did not have, or they did not know if they had, the right to compensation, rehabilitation and curative services if they were infected with COVID-19 following exposure at their workplaces. Effective and strategized mitigation of these challenges is of utmost importance to suffice the frontline workers' well-being in the frequently changing global health dynamics amidst the deadliest COVID-19 outbreaks.

Healthcare system of any nation is as strong as its healthcare workers. Importance of HCWs was recognized by the World Health Organization by declaring the decade (2006-2015) as the *"The decade of the human resources for health."*²⁵ Experts have anticipated that constructing an environment where rights of the workers are safeguarded, and desired respect, benefits, privileges and social security are awarded, HCWs are properly trained to know their responsibilities, can result in most strongest and efficient healthcare framework. ²⁶

The biological, social and economic determinants of COVID-19 have impacted both men and women differently influencing their individual coping mechanisms and collective preparedness plans for COVID -19 accordingly. The basic rights of HCWs such as, access to information and health services, required testing and socioeconomic determinants all have differently impacted both women's and men's care-seeking behaviours throughout this pandemic.^{27, 28, 29}

Further progressing through the pandemic, globally horrific results have emerged with thousands of HCWs including female doctors and nurses losing their lives to COVID-19 while safeguarding others. To protect the health of HCWs catering to COVID-19 infected cases at facilities, it is imperative that equitable access to their basic healthcare rights is provided. Services such as essential training on infection prevention and control, protective measures including PPEs, hygiene practices, occupational safety and security measures are crucial in current circumstances to protect our HCWs as well as their patients and families.^{30,31}

Healthcare system is perceived as one the most hazardous industry where workers are at risk of communicable diseases, psychological and emotional disorders, lifelong disability and even death. Provision and protection of the rights of healthcare professionals (who are also labelled as most talented minds), should be the topmost priority of governments all over the globe and the policy of universal healthcare should be implemented. Global data has revealed that the majority of the doctors, nurses, paramedics and supporting staff are aware of their obligations and responsibilities which can be alluded as *good medical practice*. However, the perception of HCWs towards their basic rights is not positive which is a matter of concern and can collapse the global health system in long run. The present results provide a baseline for authorities that provision and assurance of rights of the HCWs is the need of the day for a better and effective response against pandemic crises.

Limitation

The major limitation to our study was that data was collected online and the nature of self-reported data could have biases and authenticity issues. Also, it was a cross-sectional survey limiting our ability to generalize our findings. Moreover, although it was a global survey, however, we were unable to collect equal distribution of information from representing countries as well as from different strata of the HCWs. In our next project, we anticipate conducting a qualitative analysis of HCWs perception regarding their rights and responsibilities in the wake of a global pandemic to get a deeper insight into their roles as responsible healthcare workers.

Conclusion

Healthcare workers around the world have been the only front liners against the COVID-19 attacks. They must be provided with due rights to compensation, rehabilitation and curative services should they infected with COVID-19. become Moreover, healthcare workers have been extremely diligent and hold themselves utterly accountable in imparting their services as an integral force against the COVID pandemic. However, their satisfaction with the rights they enjoy as healthcare workers against COVID is sadly depressing. The trend has been more evident in female health workers compared to males. Healthcare organizations, facilities and companies need to be more explicable in apprising all the workers regarding their healthcare rights. Failing to do so, unfortunately, will lead to poor quality of care and adverse outcomes for all including, HCWs, patients and organizations.

Acknowledgement: The authors are greatly thankful to all the healthcare workers who participated in this survey from around the world. **Disclaimer:** None

Conflict of interest: The authors do not declare any conflict of interest

Funding disclosure: This research survey did not receive funding from any source

References

- Roy D, Tripathy S, Kar SK, Sharma N, Verma SK, Kaushal V. Study of knowledge, attitude, anxiety & perceived mental healthcare need in Indian population during COVID-19 pandemic. Asian J Psychiatr. 2020;51:102083
- 51. WHO Coronavirus Disease (COVID-19) Dashboard, 2020 (cited 4 December 2020). Available from: URL: https://covid19.who.int/
- 52. Hussein O. Second wave of Covid-19 is determined by immune mechanism. Medical Hypotheses 2020; 144: 110238
- 53. Global: Amnesty analysis reveals over 7,000 health workers have died from COVID-19 | Amnesty International, 2020 (cited 7 October 2020). Available from: URL: https://www.amnesty.org/en/latest/news/2020/09/a mnesty-analysis-7000-health-workers-have-died-fromcovid19/
- 54. World Health Organization: Health and Care Workers Deaths during COVID 19, 2021(cited 5 June 2021). Available from: URL: https://www.who.int/news/item/20-10-2021-healthand-care-worker-deaths-during-covid-19
- 55. Gan WH, Lim JW, Koh D. Preventing Intra-hospital Infection and Transmission of Coronavirus Disease 2019 in Health-care Workers. Saf Health Work 2020; 11(2): 241-43
- 56. Wu Z, McGoogan JM. Characteristics of and Important Lessons from the Coronavirus Disease 2019 (COVID-19) Outbreak in China: Summary of a Report of 72314 Cases from the Chinese Center for Disease Control and Prevention. JAMA, 2020; 323(13): 1239–42
- 57. Nava S, Tonelli R, Clini EM. An Italian sacrifice to the COVID-19 epidemic. Eur Respir J. 2020 11;55(6):2001445
- 58. Among Healthcare Workers, Family and Primary Care Doctors May Have Been Most at Risk of Dying from COVID-19 – PR News. 2020 (cited 7 October 2020). Available from: URL: https://www.pennmedicine.org/news/newsreleases/2020/july/among-healthcare-workers-familyprimary-care-doctors-most-at-risk-of-dying-fromcovid19
- 59. Kapoor A, Krishan, Kapoor M. Covid-19 related deaths among doctors in India. medRxiv 2020. (cited 7 October 2020) Available from: URL: medRxiv 2020, https://www.medrxiv.org/content/10.1101/2020.09.28 .20202796v1
- 60. Huber SJ, Wynia MK. When pestilence prevails...physician responsibilities in epidemics. Am J Bioeth 2004; 4(1): 5–11

- 61. COVID-19: Rights and Obligations of Healthcare Professionals in a Pandemic - CTL Strategies 2020. (cited 7 October 2020) Available from: URL: https://www.ctlstrategies.com/latest/blog/covid-19rights-and-obligations-of-healthcare-professionals/
- 62. Human rights and health 2020. (cited 7 October 2020) Available from: URL: https://www.who.int/newsroom/fact-sheets/detail/human-rights-and-health
- 63. Nguyen LH, Drew DA, Graham MS, et al. Risk of COVID-19 among front-line health-care workers and the general community: a prospective cohort study. Lancet Public Health 2020; 5: 475–83
- 64. They died treating Covid patients, families await compensation - Times of India 2020. (cited 7 October 2020) Available from: URL: https://timesofindia.indiatimes.com/india/they-diedtreating-covid-patients-families-awaitcompensation/articleshow/77756573.cms
- 65. Should COVID-19 Be Covered By Workers' Compensation? Some Considerations | RAND 2020. (cited 7 October 2020) Available from: URL: https://www.rand.org/blog/2020/08/should-covid-19-be-covered-by-workers-compensation.html
- 66. How to increase compensation for health workers during COVID-19 2020. (cited 8 December 2020) Available from: URL: https://blogs.worldbank.org/governance/how-
- increase-compensation-health-workers-during-covid-19
 67. Hussain I, Majeed A, Imran I, Ullah M, Hashmi FK, Saeed H, Chaudhry MO, Rasool MF. Knowledge, Attitude, and Practices toward COVID-19 in Primary Healthcare Providers: A Cross-Sectional Study from Three Tertiary Care Hospitals of Peshawar, Pakistan. J Community Health. 2020; 6:1-9
- Vaish A, Jain VK, Iyengar KP, Vaishya R. COVID 19: Current Knowledge and Best Practices for Orthopaedic Surgeons. Indian J Orthop. 2020;54(6):917-18
- 69. Zhang M, Zhou M, Tang F, Wang Y, Nie H, Zhang L, You G. Knowledge, attitude, and practice regarding COVID-19 among healthcare workers in Henan, China. J Hosp Infect. 2020; 105(2):183-87
- Olum R, Chekwech G, Wekha G, Nassozi DR, Bongomin F. Coronavirus Disease-2019: Knowledge, Attitude, and Practices of Health Care Workers at Makerere University Teaching Hospitals, Uganda. Front Public Health. 2020 30; 8:181.
- 71. Temsah MH, Alhuzaimi AN, Alamro N, et al. Knowledge, Attitudes, and Practices of Healthcare Workers during the Early COVID-19 Pandemic in a Main, Academic Tertiary Care Centre in Saudi Arabia. Epidemiol Infect. 2020; 148 (Epub ahead of print).
- 72. Morand A, Fabre A, Minodier P, Boutin A, Vanel N, Bosdure E, Fournier N.E. COVID-19 virus and children: What do we know? Archives de Pediatrie 2020; 27: 117– 118.

- 73. Imran N, Haider II, Iqtadar S, Bhatti MR, Unhappy doctors in Pakistan: What are the causes and what can be done? Pakistan J Med Sci 2011; 27: 244–47
- 74. Report of the Third Global Forum on Human Resources for Health 2020. (cited 7 October 2020) Available from: URL: https://www.who.int/workforcealliance/forum/2013/

https://www.who.int/workforcealliance/forum/2013/ en/

- 75. Levin PJ, Gebbie EN, Qureshi K. Can the health-care system meet the challenge of pandemic flu? Planning, ethical, and workforce considerations. Public Health Rep, 2007; 122(5): 573–578.
- Roditis K, Samara E, Louis K. A survey to assess job satisfaction among junior doctors in Greece. Exronica; 24: 72-96
- 77. Women health workers: Working relentlessly in hospitals and at home 2020. (cited 7 October 2020) Available from: URL: http://www.ilo.org/global/about-theilo/newsroom/news/WCMS_741060/lang-en/index.htm
- 78. The Impact of COVID-19 on Women, marking the twenty-fifth anniversary of the Beijing Platform for 2020. (cited 7 October 2020) Available from: URL: https://www.forbes.com/sites/miltonezrati/2020/03/ 18/heading-off-the-covid-19-recession/#651eba9a28e6
- 79. ADVOCACY BRIEF 3 Government of Sindh Gender and Pandemic PROTECTING WOMEN IN TIMES OF COVID-19. 2020. (cited 7 October 2020) Available from: URL:

https://www.unodc.org/documents/pakistan/Advoca cy_Brief_3_Gender_-COVID-19-Sindh.pdf

- 80. Yaker R. Securing the Safety and Wellbeing of Women Frontline Healthcare Workers in the COVID-19 Response GBV AoR HELPDESK Emergency Support Query. (cited 7 October 2020) Available from: URL: https://www.cnbc.com/2020/03/18/how-thecoronavirus-could-impact-women-in-health-care.html
- Miyamoto Inez. COVID-19 HEALTHCARE WORKERS: 70% ARE WOMEN. Inouye Asia-Pacific Cent Secur Stud 2020; 1–3.

Int.j.pathol.2021;19(3): 151-154

HISTORY		
Date received:	22-09-21	
Date sent for review:	27-10-21	
Date received reviewers comments:	25-11-21	
Date received revised manuscript:	28-12-21	
Date accepted:	26-01-21	

CONTRIBUTION OF AUTHORS		
Author	Contribution	
Almas Fasih Khattak	A,B,C	
Samina Khan	A,B,C	
Farrukh Ansar	B,C	
Bakhtiar Khan	B,C	
Madiha Khattak	B,C	
Muhammad Noman Khan Wazir	B,C	

KEY FOR CONTRIBUTION OF AUTHORS:

- A. Conception/Study/Designing/Planning
- B. Active Participation in Active Methodology
- C. Interpretation/ Analysis and Discussion