

COVID-19: Attitudes of Health Care Professionals: A Multi-National Perspective

ABSTRACT

The COVID-19 pandemic exposed health care workers to unique challenges facing a previously unknown virulent disease. A balance was needed between personal health and fulfilling professional duties. Previous research identified barriers in the willingness and ability of health care professionals to work in a hypothetical pandemic scenario. Our aim was to identify if such barriers existed amongst a largely Asian health care work force in delivering their professional responsibilities at the initial phase of COVID-19 pandemic. **Methods:** A GDPR compliant survey of 28 questions was designed using Microsoft forms. Social media (WhatsApp and Facebook messenger group) and professional emails were used to contact health care workers internationally. Data were analysed using Microsoft Excel and SPSS24. **Results:** 334 responded; 188 doctors (56.3%) and 90 nurses (26.9%). 236 participants lived in south Asia (70.7%) and 81 in Europe (24.3%). 215 out of 334 (64.4%) were Indians, 60 (18%) Bangladeshi and 41 (12.3%) Caucasian. A positive association between obesity (perceived) and fear of COVID-19 infection was found (OR 1.77 (95% CI 1.06, 2.98)). We didn't find any association between ages of the participants, country of residence, ethnicity or comorbidities with worry of being infected by COVID-19. Our respondents mostly remained satisfied with their profession. Only 37 out of 334 (11%) said they wished they were in a different profession. **Conclusion:** Contrary to predictive data, health care workers showed a more balanced approach in dealing with the COVID-19 pandemic from the very early days of the pandemic according to real time data. ¹MRCPCH, Consultant Respiratory Paediatrician, Kings College Hospital, London

Key words: Pandemic, Health care worker, Impact, Covid-19

Shrabani Chakraborty¹ *Sulagna Chakrabarti², Nilanjan Ghosh³, Subrata Das⁴, Biswajoy Roy⁵, Arindam Ghosh⁶, Toma Dey⁷, Probir Sarkar⁸, Gary Connett⁹

² MRCPsych, Consultant Psychiatrist in Paediatric and Adolescence, Kings College Hospital, London ³Assistant Prof in Paediatrics, RG Kar Medical College and Hospital, Kolkata, India

⁴MS, Associate Prof in G&O, ESIC Medical College, Kolkata, India ⁵MCh, Principal Medical Officer, Ordinance factory hospital, India ⁶MBBS, Medical Officer, West Bengal Health Services ⁷MSc, Senior lecturer, R G Kar College of nursing, Kolkata, India ⁸Associate Professor and Deputy Director, Dhaka Sishu Hospital (Children's Hospital), Dhaka, Bangladesh ⁹FRCPCH, Prof in Paediatric Respiratory Medicine, University Hospital Southampton, UK

Correspondence Address:

Dr Shrabani Chakraborty

10 Cleeve Hill, London SE23 3DD

Email: shrabanichakraborty@nhs.net, drshrabani@outlook.com

Received: 04.01. 2022 Revised: 07.03. 2022

Accepted: 09.04. 2022 Published: 02.06. 2022.

ACCESS THIS ARTICLE ONLINE

Website :
www.jpsw.co.in

DOI:
<https://doi.org/10.55242/JPSW.2022.3103>



How to cite: How to cite: Chakraborty S., *Chakrabarti S , Ghosh N, Das S, Roy B, Ghosh A, Dey T, Sarkar P, Connett G (2022). COVID-19: Attitudes of Health Care Professionals: A Multi-National Perspective . Journal of Psychosocial Wellbeing, 3(1):7-13.

INTRODUCTION

Working in health care has associated health risks. Health care professionals are expected to understand such risks and follow guidelines to stay as safe as possible. Infectious diseases are the most common problem (Nienhaus et. al, 2012). During a pandemic caused by a previously unknown disease, the risks are significant as there is limited information to ensure safe practice at work. In 2009, a qualitative study of NHS healthcare workers' attitudes to work during a hypothetical influenza pandemic, identified that lack of willingness and ability to work were barriers to effective service delivery at such times (Ives et. al, 2009). The study anticipated that some staff member, who are physically able to work, might not be willing to do so. In real life, a reluctance to treat or even touch HIV positive patient was common when the disease first emerged as a new epidemic. Such prejudices persist even today amongst some poorly informed healthcare professionals and might result in unwillingness to work amongst health care workers during a pandemic, epidemic or when dealing with a lesser known infectious disease (Umeh et. al, 2008).

The World Health Organization declared COVID-19 infection as a Public Health Emergency of International Concern on 13th of March 2020. Since then we have gone through multiple waves of the pandemic peaks over the last 2 years. An adequate level of staffing was crucial to maintain patient care at such a time. Increased risk of SARS-CoV-2 infection among a group of health-care workers (Nguyen et. al, 2020) were identified very early in the pandemic with an anticipated impacts on staffing levels. This resulted in redeployment of clinical staff to frontline positions and the recruitment of less experienced staff to the workforce. Balancing these new professional commitments with personal health risks and the risks of transmitting infection to vulnerable family members was difficult. Stress and conflicts causing significant mental health problems were also reported amongst health care workers looking after COVID-19 patients (Da et. al, 2021) All these issues were compounded by conflicting advice about safe practice within the work place (Sud et. al, 2020).

There are several reasons were identified in the past why a health care professional might not engage positively in response to a pandemic as suggested by the 2009 study (Ives et. al, 2009). These include uncertainty about individual vulnerability, lack of prophylactic medications and the absence of disease modifying treatments. Attitudes towards such challenges might also depend on the health care economies within which professionals are working. In our study we aimed to assess these factors in south Asian health care workers both living in their native lands and in the developed world. Inclusion of other ethnicities working in the developed world enabled us to make further comparisons.

Methods

The social networking platforms Facebook messenger and WhatsApp messenger were used to approach Health Care Professionals (HCP) in three different countries; UK, India and Bangladesh between 23rd May and 3rd July 2020. The health care Professionals included doctors, nurses and allied health care workers including medical technologists, physiotherapist and dieticians. As individuals were approached via established professional groups on the social network platform, a small number of HCPs working in America and Australia were also captured. Doctors were also approached via personal emails from their professional group such as, for example, the Bangladesh paediatric doctors group.

An anonymous survey questionnaire was developed using Microsoft Forms which is GDPR compliant. We checked with Health Research Authority UK regarding the need for ethical approval and NHS R&D involvement. Though some of the participants were working in the NHS at the time of completing the questionnaire, as they were not approached via their trust or NHS email, no additional approvals were required. The survey consisted of 28 questions including 6 demographic questions, 4 COVID-19 specific questions, 8 health questions related to COVID-19, 4 social questions, 5 questions exploring psychological aspects and 1 question relating to future vaccine development. Results were analysed using SPSS24 and Microsoft Excel.

Supplementary submission: Questionnaire

What is your profession?	Doctor Nurse Allied medical
If you are a doctor, what describes you best?	I am a physician looking after adults mainly and also admit patients I am a Paediatrician I am a GP/ practice privately without any patient admission I am a surgeon/ Gynaecologist I am Intensive care doctor/ anaesthetist I am a lab based doctor I am a radiologist and also involved in procedures Psychiatrist Other
Are you or were you directly involved with COVID19 patient care like working in ITU or a COVID centre?	Yes/ No
Have you continued/ did you continue to see patients (Non COVID) during the epidemic?	Yes/ No
Do you live with a vulnerable adult like people > 70 years or adults with medical conditions	Yes/No
Have you avoided contact with them so that you don't make them ill with COVID19?	Yes/ No/ Not applicable
Do you have children at home?	Yes/ No
Have you avoided contact with your children during the epidemic in fear of spreading the disease?	Yes/ No/ Not applicable
How worried are/ were you to get the disease yourself: 1= least, 5= very worried	1-5
How worried are you/ were you about bringing the disease home: 1=least 5=very worried	1-5
How often are you/ were you thinking of COVID as impending doom? 1=not at all, 5= all the time	1-5
Have you been tested for COVID for any reason?	Yes/ No
What was the reason for the test?	Contact with a SARS -COV-2 positive patient/ relative of a patient Contact with a friend/ family member positive for SARS-COV-2 I had symptoms suggestive of COVID19

Results

Table 1: Demographic data

	Indian	Bangladesh i	Caucasia n	Mixed/ any other / Afro Caribbean	Sri Lankan	Total	% of total
Male	84	36	14	8	2	144	43.10%
Female	131	29	27	1	2	190	56.90%
Doctors	110	55	12	6	4	187	56%
Nurses	68	0	18	2	0	88	26.30%
Other professionals	3	2	11	1	0	17	5%
Lives in developed world	43	3	41	7	3	97	29%
Lives in developing world	172	62	0	2	1	237	71%
Age 20-30 years	41	6	3	2	0	52	15.50%
Age 30-40 years	41	12	12	3	0	120	35.90%
Age 40-50 years	92	17	17	3	2	131	39%
Age 50-60 years	30	16	6	1	1	54	16%
Age >60 years	11	14	3	0	1	29	8.70%
	215	65	41	9	4	334	

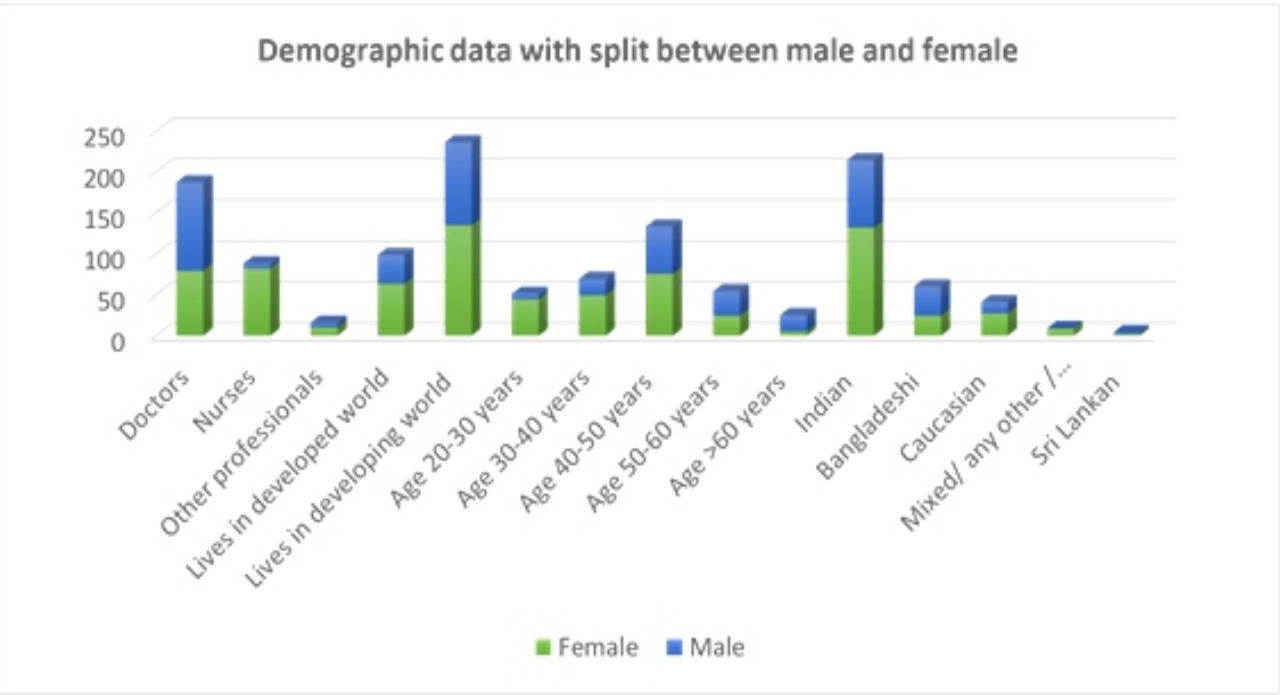


Figure 1:

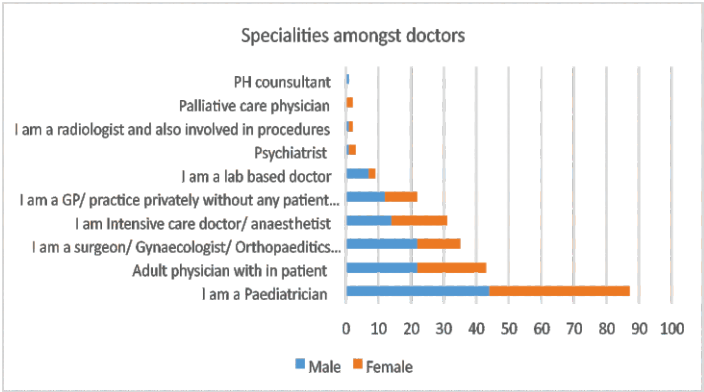
There were 334 respondents who completed the questionnaire within the time frame. The average time to complete the questionnaire as calculated by Microsoft Forms was two minute thirty five seconds (Mode, the mean being seven minutes forty four seconds). We excluded participants who were retired or not involved in direct clinical care. The demographic data (table 1 and figure 1) showed a majority of respondents as female and living in developing countries (India and Bangladesh). The majority were speciality doctors (figure 2). One hundred and fifteen of the respondents (34.4%) stated they were directly involved with COVID-19 patient care. Two hundred and sixty-five people (79.3%) stated that they had continued to consult non COVID patients face to face during the pandemic.

Three hundred and twenty-three people answered the question relating to adequacy of knowledge in continuing to work during the pandemic on a scale of 1 to 5; 1 being no knowledge and 5 being 'know everything'. The mean was 3.8 with a standard deviation of 1.19. Answers to the question where they were getting most of the information and knowledge about COVID-19 produced a varied response. The majority (42.8%) said they were getting information from either news channels, websites or Government agencies such as the Ministry Of Health and Family Welfare, WHO, CDC and UNICEF. Twenty-nine percent stated that they were reading high impact journals such as the Lancet for information. Though there have been plenty of Webinars, only 11% were using these for ongoing learning.

Table 2: Medication used for COVID 'prophylaxis'

	living in developed world	living in India/ Bangladesh	total
Yes, Hydroxychloroquine	0	64	64
I am taking a vitamin D supplement only	23	26	49
Yes, Azithromycin prophylactic dose	0	3	3
I am taking a combination of medications mentioned above	0	6	6
Don't want to disclose	0	3	3
No, I am taking nothing	73 (76% of total)	135 (57% of total)	208
Total	96	237	333

Figure 2: Specialities amongst doctors



Researcher asked personal health questions about co-morbidities known to be associated with more severe COVID-19 disease⁷ and analysed numbers according to age group (figure 3). Most health care workers did not report any comorbidities. Thirty-seven percent answered yes to being over-weight. We asked if professionals were being tested for COVID-19, the indication, the result, what they thought whilst waiting for the result and how they thought they might be treated if positive. At the time of survey 24.6% (82) said they had been tested for SARS-COV-2 virus. The main reason for being tested was either being in contact with a test positive patient, or being symptomatic (both 43.5%). In answer to the question what they thought would happen if they had contracted the infection, 61.1% said they thought they would be sick but would get better without the need for ITU admission. 1.8% expressed an anticipation of death due to COVID-19. Only 15 respondents said they had tested positive (18% of those who said they were tested). When asked where they would like to be treated, most (31%) opted for home isolation. We asked about the use of 'prophylactic' medication. Forty-three percent of those from India/ Bangladesh were taking some sort of treatment whereas only 24% of health care professionals from the developed world were on treatment (table 2).

Questions were asked about social factors such as co-habiting with a vulnerable adult or children and whether they avoided being in contact with them. Health care professionals were also asked whether they thought this pandemic as an 'impending doom' and whether they were worried about getting the disease themselves or bringing it home and losing a loved one to the disease. Participants were more worried about bringing the disease home

Table 3: Psychological scores

	(1) [Least worried]	(2)	(3)	(4)	(5) [Very worried]
How worried are/were you about getting the disease yourself:	40	56	102	74	60
How worried are you/were you about bringing the disease home:	25	37	71	68	130
How often are you/were you thinking of COVID as impending doom?	52	60	103	46	55
How likely do you think you would end up losing a loved one for COVID19? (for people in recovery please answer retrospectively)	74	70	98	49	30

Figure 3: Medical conditions associated with severe form of the disease

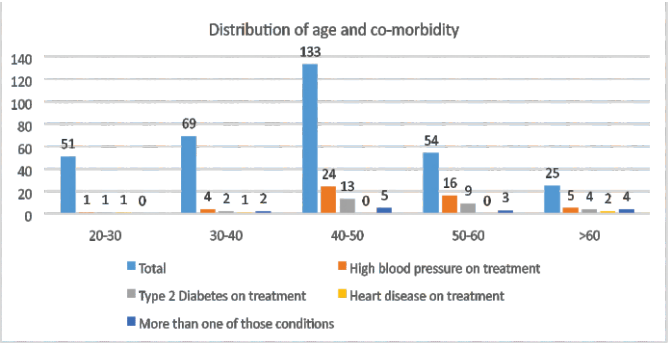
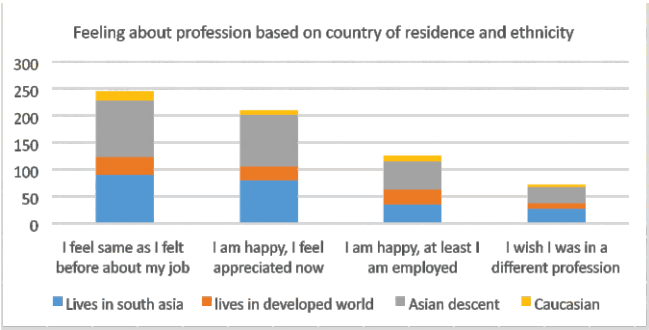


Figure 4: Attitude towards the profession



(Table 3) especially when they were living with a vulnerable adult. Forty-three percent answered yes to co-habiting with a vulnerable adult (including elderly relatives >70 years old) and 133 of the 145 answering yes (91•7%) stated they were avoiding being in contact with them. Sixty-six percent said they had children at home and 31% stated they avoided contact with them. Answering the question about their attitude towards their profession at this difficult and challenging time as a health care worker, respondents generally said they were okay with their profession and very few stated that they wished they were in a different profession. (Figure 4) Finally we asked for opinions about vaccination. The response was mostly positive but realistic (63•8% believed it would come, but take time).

The study explored associations between reported respondent characteristics and scores for the psychological impact of COVID-19 (0 being least

worried and 5 being very worried). We noticed a significant positive association between self-portrayal of being obese and the scale of being worried about getting the disease: OR 1.77 (95% CI 1.06, 2.98). Regression analysis between perception of COVID as impending doom and co-morbidities associated with a severe form of the disease (Hypertension, type 2 IDDM, Heart disease) didn't show a significant association: OR 1.24 (95% CI 0.74, 2.05). We divided the whole cohort into health care workers living in the developed world and developing world and there was no difference between these two groups for psychological impact; OR 0.88 (95% CI 0.52, 1.49). Similarly there were no differences between Caucasian and other ethnic groups within developed countries; OR 0.92 (95% CI 0.4, 2.11). There was no association between psychological impacts and age; Correlation Coefficient -0.0577. Satisfaction amongst health care workers with their profession was high (Figure 4).

Discussions

COVID-19 pandemic brought unprecedented challenges to health care workers. In the UK in particular staff faced unanticipated challenges with a disproportionately large number of fatalities amongst the BAME community in particular. In the developing world the situation was more complex and compounded by a lack of uniform health care facilities. Some health care professionals had the flexibility to stop clinical work during the pandemic with a financial compromise and possible negative effects on their professional reputation. We wanted to explore the effect of the COVID-19 pandemic on the mental well-being of health care workers as well as their approach to their professional life. In real life it took less than a year to develop a vaccine against the virus. At the time of the survey however it was a distant dream. Still the respondents showed a positive attitude towards their profession and was willing to fulfil their duties even in an uncertain situation. Obesity was the only factor identified to be associated with adverse impacts on their mental well-being during this time.

This study was unique as it had an international platform involving different ethnicities and age groups. By approaching health care professionals from outside their work settings, we believe we were able to obtain more honest opinions. The survey showed that even when working within completely different infrastructures (India, Bangladesh and UK) opinions and attitudes were broadly similar and positive. There was a greater use of preventative self-medication amongst health care professionals from developing countries whereas in the developed world this was limited to taking Vitamin D in a smaller percentage of people.

One limitation of our study was that as it was carried out between May-July 2020 when different countries were at different stages of the pandemic. It would be interesting to repeat the survey now as the pandemic is almost over in most part of the world. Participation in the study was voluntary and might therefore have been biased towards those who were more likely to respond positively to the questions asked.

Contrary to the outcomes anticipated in the 2009 study which suggested negative attitudes might occur, most health care workers continued working and adjusted to the demands put upon them. These data suggest that health care workers world-wide showed this resilience in facing the COVID-19 pandemic from the very early days of the pandemic irrespective of their country of residence.

References

Nienhaus, A., Kesavachandran, C., Wendeler, D., Haamann, F., & Dulon, M. (2012). Infectious diseases in healthcare workers—an analysis of the standardised data set of a German compensation board. *Journal of Occupational Medicine and Toxicology*, 7(1), 1-7. 10.1186/1745-6673-7-8 PMID: PMC3474162 PMID: 22553942

- Ives, J., Greenfield, S., Parry, J. M., Draper, H., Gratus, C., Petts, J. I., ... & Wilson, S. (2009). Healthcare workers' attitudes to working during pandemic influenza: a qualitative study. *BMC public health*, 9(1), 1-13.
- Umeh, C. N., Essien, E. J., Ezedinachi, E. N., & Ross, M. W. (2008). Knowledge, beliefs and attitudes about HIV/AIDS-related issues, and the sources of knowledge among health care professionals in southern Nigeria. *Journal of the Royal Society for the Promotion of Health*, 128(5), 233-239. PMID: PMC2562902 NIHMSID: NIHMS7286 PMID: 18814404
- Nguyen, L. H., Drew, D. A., Graham, M. S., Joshi, A. D., Guo, C. G., Ma, W., ... & Zhang, F. (2020). Risk of COVID-19 among front-line health-care workers and the general community: a prospective cohort study. *The Lancet Public Health*, 5(9), e475-e483.
- Da Silva, F. C. T., & Neto, M. L. R. (2021). Psychiatric symptomatology associated with depression, anxiety, distress, and insomnia in health professionals working in patients affected by COVID-19: A systematic review with meta-analysis. *Progress in Neuro-Psychopharmacology and Biological Psychiatry*, 104, 110057.
- Sud, S. R. (2020). COVID-19 and keeping clean: a narrative review to ascertain the efficacy of personal protective equipment to safeguard health care workers against SARS-CoV-2. *Hospital Pediatrics*, 10(7), 570-576.
- Guan, W. J., Liang, W. H., Zhao, Y., Liang, H. R., Chen, Z. S., Li, Y. M., ... & He, J. X. (2020). Comorbidity and its impact on 1590 patients with COVID-19 in China: a nationwide analysis. *European Respiratory Journal*, 55(5).