

Editorial

COVID-19 and Its Consequences among Medical Workers

Sukhendu Dey¹, Sandipan Pal², Apurba Ratan Ghosh¹, and Palas Samanta^{3*}

¹Department of Environmental Science, The University of Burdwan, India

²Department of Environmental Science, AKPC Mahavidyalaya, India

³Department of Environmental Science, Sukanta Mahavidyalaya, University of North Bengal, India

DEAR EDITORS,

The COVID-19 (coronavirus disease) was first reported in Wuhan, PRC China and spread globally. The rapid spreading of COVID-19 disease, since its first outbreak in India, has forced many people to admit into the hospital; simultaneously, affected different aspects of people's lives including front-line workers such as medical workers. COVID-19 pandemic also triggered a wide variety of mental and psychological problems (namely panic disorder, irritability, anxiety, muscle aches, tiredness and depression) as well as generalized anxiety disorder (GAD) symptoms. Present study is the first nationwide report of COVID-19 associated consequences among medical workers during COVID-19 epidemic with particular emphasis on mental and psychological distress.

The COVID-19 (coronavirus disease), which is characterized by a series of unidentified pneumonia, was caused by β -coronavirus and was first reported in late December 2019 in Wuhan (Hubei Province) of PRC China. Initially it was named as novel coronavirus pneumonia, NCP by PRC Centers for Disease Control experts [1]. Simultaneously, the World Health Organization (WHO) named the disease as 2019-nCoV (2019-novel coronavirus) on 12 January 2020. Later on, WHO declared the disease officially as COVID-19 (coronavirus disease 2019) on 11 February 2020. COVID-19 pandemic is one of the most rapid spreading diseases in 21st century. It has arisen a series of symptoms and posed the threat to human civilization. As a result, firstly, the most notable clinical symptoms of COVID-19 are fever, dry cough, body pain, head ache, dyspnea, viral infection in lung and respiratory failure.

Different Asian country *viz.*, India still now facing the issue of spreading the COVID-19 transmission in over-populated areas. Till March 15, India recorded 1,14,09,831 covid cases and 1,58,856 deaths. The large-scale transmission among public health imposed the continuous pressure on India government and also the frontline worker *viz.*, doctor, nurse, pharmacist, student, sweepers, guards, analyst, technician and medical representative. This epidemic not only risks caused the death of populations from viral infection but also posed tremendous psychological pressure to the frontline worker in India and also the rest of the world [2,3]. Additionally, the tremendous transmission of the COVID-19 epidemic has posed threats to people's psychology and

*Corresponding author

Palas Samanta, Department of Environmental Science, Sukanta Mahavidyalaya, University of North Bengal, India, Tel and fax: +918327220799; email: samanta.palas2010@gmail.com

Submitted: 15 March 2021

Accepted: 18 March 2021

Published: 20 March 2021

ISSN: 2333-7141

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mental health including students. But the front-line workers are providing their best service beyond the regulated service time during the COVID-19 pandemic situation. Accordingly, they are simultaneously expected to disturb their normal psychological and mental health. Therefore, the major purpose of this study is to investigate the impact of COVID-19 pandemic situation on frontline worker mainly medical workers work there won work place in the COVID-19 pandemic situation. Finally, integration of frontline worker COVID-19 outbreaks (preventive and adaptive measures), is another prime objective of this study.

This study is the first survey-based study on psychological distress and mental health status in the medical sector frontline workers during the tumultuous time of the COVID-19 pandemic. A well-structured online questionnaire-based survey method was adopted to obtain the data from the medical sector frontline workers. Additionally, randomized double blind methodology was followed for this pilot study. The questionnaire (google feedback form) was composed of 24 questions considering the above-mentioned objectives. The survey form was distributed among all age group people through mail, WhatsApp and telegram. Data collection was beginning from September 14, 2020. SPSS v26 (IBM Corp) was used to analyze the obtained data.

This study received a total of 48 valid responses from 36 states and union territories of India. Among the respondents, 77.1%, were males and 22.9% were females mainly dominated by pharmacist (29.2%), followed by doctors (22.9%), and nurses (22.9%). Most of the respondents are worked in state-level hospitals (33.3%), followed by private practitioner (25%), and district-level hospitals (20.8%), predominantly West Bengal origin (85.4%). Additionally, the most of the participants (56.3%), were aged between 18 and 30 years. Those who were aged between 31 and 45 years made up 22.9% of the participants. The participants who were between 46 and 60 years and above 61 years older made up only 10.4% each of the participants. The participants were divided into five categories based on their scientific qualification. The most common scientific qualification was a UG or equivalent [B.A., B.Sc., B. Com or B. Tech, Diploma, (52.1%)], followed by PG or equivalent [M.A., M.Sc., M.Com or M. Tech, (29.2%)], while the least responses were

acquired from Ph. D level (2.1%).

Respondent said that most of them are lived with parents (54.2%), while 33.3% respondents are staying outside predominantly in urban areas (60.4%), followed by rural (25%), and semi-urban areas (14.6%). Most of the respondents (72.9%), said that COVID pandemic increased the workload but they strongly agreed that COVID-19 did not hampered the treatment to patients, only 9 participants agreed that COVID-19 hampered the other patients. Although medical workers (52.1%), are maintaining COVID protective measure such as use of masks, washing hands with sanitizer, *etc.* as well as maintaining good personal hygiene (76.1%), such as taking adequate meal, cleanness *etc.*, most of the respondents are feared about self-infection of COVID-19 (70.8%), and death incidence (about 22.9% respondents), as half of the respondents (45.8%), are faced COVID-19 patients during their service. Apart from these, the most of the respondents (85.4%), are feeling mental stress, psychological distress (86.7%), and even are experienced with at least one symptoms of the generalized anxiety disorder (GAD). In particularly, tiredness, irritability, muscle aches and tension, and sleeping problem are predominant, although they are taking enough sleep (about 70.8% respondents). Moreover, half of the respondents (56.4%), said that they are also experienced with acute stress symptoms such as headache, sweating, nausea, stomach pain and palpitations. Further, these problems may be associated with their place of residence or whether they living with parents or acquittance got COVID-19 infection. Likely, Cao et al. [4], reported similar findings in college students. In this regard, WHO has published a thirty-one-point guidance for mitigating mental stress and psychological distress [5]. WHO recommended guidelines to safeguard the mental health of the population according to different age groups with a special emphasis on children, women and service providers, suggesting measures to mitigate anxiety, stigma and depression *etc.* [5]. Nevertheless, according to WHO, the main aspect of mitigating mental health consequences during COVID 19 pandemic is the lack of mental health professionals, counselors, practitioners, and health-care facilities where one can approach for such help [5]. Consequently, country like India it will be a real big challenge where only 0.07 psychologists, 0.29 psychiatrists, and 0.36 paid mental health workers are available per 100,000 people [6].

Accordingly, the respondents are asked what they are doing to get rid of these mental and psychological problems? The respondents said that they are either watching TV or reading his/her favorite book or newspaper or talking enough with family members to tackle these problems. In addition to this, they (93.8% respondents), agreed that COVID-19 pandemic greatly impacted the normal daily normal such as facing transportation problem every day to join the duty (67.4% respondents), subjected to violent crimes such as assault *etc.* Further, the most of the respondents (83.2%), worried about the waste production and subsequent management strategy of COVID waste as they require special treatment before disposal, otherwise there is possibility of further infection. Additionally, the most of the

respondents (84.3%), mentioned that there is huge discrepancy about appropriate preventing strategy by higher authority.

Therefore, establishing as well as providing counseling services to the medical sector workers are urgently needed to get rid from these mental health and psychological distress [7]. Accordingly, the government should implement emergency psychological crisis interventions to reduce the stress level on medical sector front-line worker. The findings of the present study recommend the following suggestions for future interventions: (1) much emphasis on vulnerable groups such as the young, the elderly, women and migrant workers; (2) more strengthened and improved health service system to tackle such type of pandemic in near future; (3) establishment of nationwide strategic management planning followed by telemedicine delivery for psychological and mental first aid during pandemic/disaster situations and (4) government should adopt a comprehensive crisis prevention and intervention system to reduce mental health associated psychological problems. Finally, one can hope that both State and Central government will gain knowledge from this pandemic and recognize mental health conditions of medical worker as priority one as they are the backbone during such kind of pandemic situation considering the public health preparedness.

ACKNOWLEDGEMENTS

Authors like to thank Dept. of Environmental Science of Sukanta Mahavidyalaya, AKPC Mahavidyalaya and The University of Burdwan for allowing working from home under lockdown period.

AUTHORS CONTRIBUTION

Conceptualization: PS, SP; Software analysis and Writing - draft preparation: PS, SD; Writing - review & editing: PS, ARG.

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Cite this article

Dey S, Pal S, Ghosh AR, Samanta P (2021) COVID-19 and Its Consequences among Medical Workers. *JSM Environ Sci Ecol* 9(1): 1073.