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Willingness of emergency and medicine department doctors to work during surge of COVID-19 patients, Patan Hospital, Nepal

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Abstract

Introduction: With the current COVID-19 pandemic, Patan Hospital, Patan Academy of Health Sciences (PAHS), is responding with its incident action plan which also has provision of the response in case of surge. This study aim to find out the willingness of doctors to work during the surge of COVID-19 and may help in further planning.

Method: A cross-sectional descriptive study was conducted at Patan Hospital, PAHS, Nepal in April 2020. Questionnaires were circulated to the doctors via Google form to the doctors working in the emergency and medicine department. Ethical approval was obtained. Data were analyzed descriptively.

Result: Out of total 73 participants, 59 (80.8%) knew about the surge plan of COVID-19 and 54 (73.9%) were willing to work during the surge. Their major motivation was the professional obligation 56 (76.7%), whereas 61(83.6%) fear about their family getting infected. More than 50% of the participants were ready to stay in-house and work in a sub-optimal environment with a feeling of making a significant contribution to the community.

Conclusion: When the number of cases of COVID-19 peaks and the surge plan gets activated, the majority of doctors surveyed were found willing to work even in sub optimal environments.

Keyword: COVID-19, doctors willingness, emergency, surge

Introduction

Coronavirus disease 2019 (COVID-19) is thought to have higher mortality than seasonal influenza, even as wide variation is reported. The World Health Organization (WHO) estimates global mortality at 3.4%.¹ Moreover, infection and mortality in health care workers has been reported.² Therefore, it requires great motivation to work in such scenarios. The health needs created by the coronavirus pandemic go well beyond the capacity even in high economy country like of America.³ It is also likely to affect the availability of the medical workforce, since doctors and nurses are already becoming ill or quarantined.⁵

Patan Hospital, Patan Academy of Health Sciences (PAHS), is responding with its incident action plan which also has provision of the response in case of surge of COVID-19 patients in the hospital. Patan hospital is a designated COVID-19 hospital, the department of general practice and emergency medicine will be working in its full capacity. So, it is essential for planning to understand the willingness of front liners to work during the surge of COVID-19 patients. This study analyze the willingness of doctors to work during the surge of COVID-19 patients.

Method

This cross sectional descriptive study conducted at Patan Hospital, PAHS, Nepal in April 2020 to find out the willingness of front liners to work during the surge of COVID-19. All medical officers, residents and faculties working in emergency and medicine department were included in survey. As data collection was done online, those responding were considered as having given consent for the study. Participants were given 24 hours to fill up the form, a second reminder was given after 24 hours, and those not responding after the second reminder was excluded from the study. The study proceeded upon ethical clearance from IRC-PAHS (drs2004271368). As

we did not find a standard validated questionnaire (Google scholar, PubMed search), we developed a questionnaire, its content was done by the researcher group. Questionnaire was prepared with its response in four Likert scales. Result of the study was presented in proportion.

Result

Out 98 doctors approached 73 (73.4%) responded. Out of the total response, 59 (80.8%) participants knew about the surge plan but the rest did not know about the surge plan.

Participants were asked if they were willing to work during the surge, to which 54 (73.9%) are willing to work during the surge of COVID-19, Figure 1. And 53 (72.6%) in ready to work in sub-optimal situation, 41 (56.2%) prepared to stay in hospital during surge, Table 1.

Their major motivation is the professional obligation 56 (76.7%) and 7 (9.6%) said that they will work as it is compulsion from institution, while 2 (2.7%) said that it is the remuneration that they are getting and 7 (9.6%) had other reasons like: 'ethics and duty', 'desperate time, desperate measures', 'interest', 'passion for the field', 'self-respect, patriotism', 'this is the time for which we have studied', 'we doctors are made for this', Figure 2.

Doctors however worry most 61 (83.6%) about their family getting infection from them during the surge and then to the transmission to other patients from them 27 (37%). Two respondents had some reasons other than listed, however it was not specified, Figure 3.

Thirty-five (47.9%) of participants said that their family member is ready to cope with the stress of them going to work during the surge of COVID-19. Forty-one (56.2%) participants have discussed with their family, of them getting severe infection in the line of duty. Thirty-five (47.9%) said that having a surge plan in hospital make them feel safe, Figure 4.

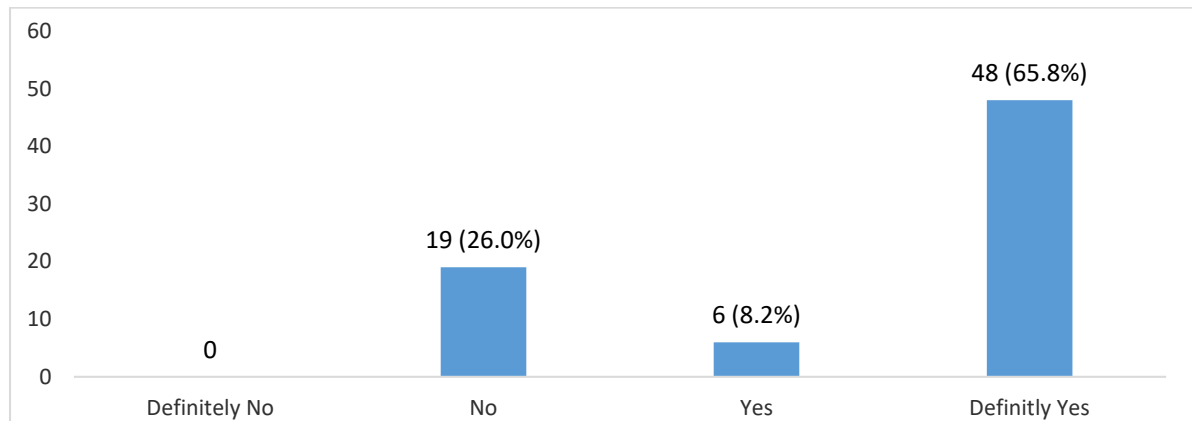


Figure 1. Willingness of doctors in Patan Hospital to work during the surge of covid-19 patients (N=73)

Table 1. Willingness the doctors in Patan Hospital to work under various situation during the surge of covid-19 patients (N=73)

Questionnaire	Definitely yes	yes	No	Definitely No
Are you prepared to stay in hospital during surge of COVID19	19 (26%)	41 (56.2%)	13 (17.8%)	0
Are you ready to work in an SUB optimal environment (food, shelter) during COVID19 surge?	5 (6.8%)	53 (72.6%)	15 (20.5%)	0
Do you believe that you will make a significant contribution to the hospital if there is a surge of COVID19?	22 (31.1%)	47 (64.4%)	4 (5.5%)	0

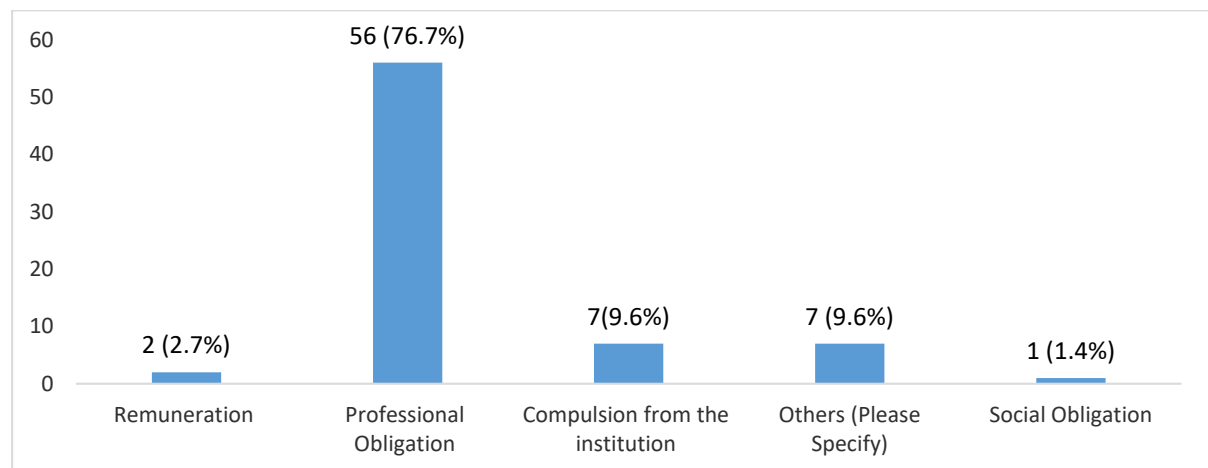


Figure 2. Motivation of the doctors in Patan Hospital to work during the surge of covid-19 patients (N=73)

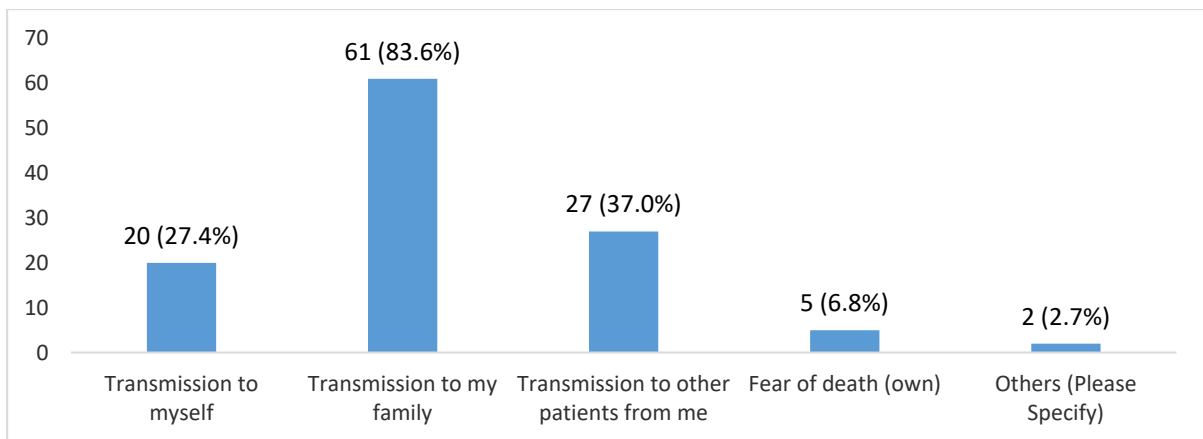


Figure 3. Factors that worry the doctors in Patan Hospital the most to work during the surge of covid-19 patients, (N=73)

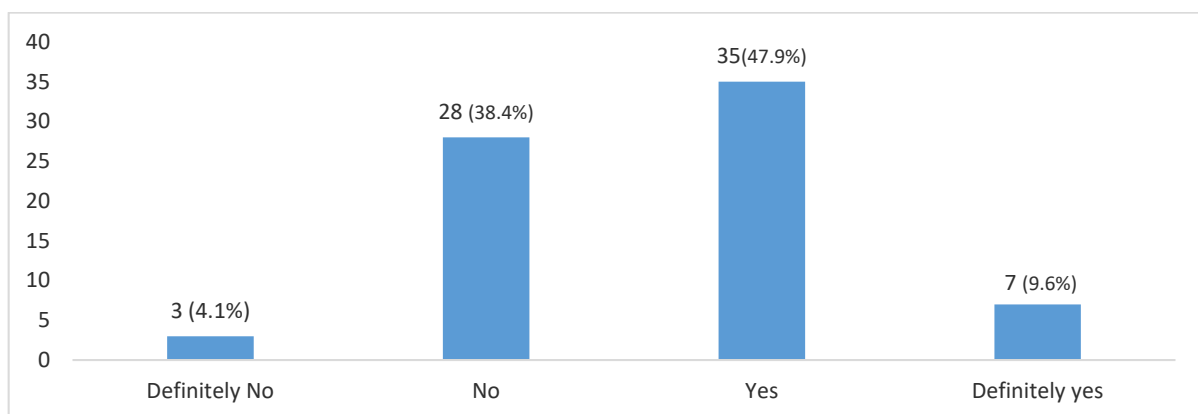


Figure 4. Perception of safety assurance of doctors in Patan Hospital by having surge plan in the hospital (N=73)

Discussion

Our study has shown that more than 90% of the doctors working in the frontline are ready to work if there is a surge of patients. A study done among the family physicians during the influenza pandemic showed that more than 50% physicians may be available and willing to continue to work through the pandemic.⁵ These are the times when the healthcare workers have to work past their potential in order to meet the high demand of the sick person. So the doctors had to have some motivating factors to keep up their enthusiasm. A study done in Japan during the H1N1 pandemic in 2009 showed that providing protection factors to doctors, giving financial support to the deceased doctor's family are some of the motivating factors for them to work.⁶ However, in our study 79.1 %

of the doctors take professional obligation to work during these pandemics. The disease outbreak can also cause colleagues and families to sicken or die, and in some cases the doctor himself might be the one to transmit the disease. As seen with our study, 83.6% of the doctors fear that they might take the disease home and transmit to their families. These scenarios challenge the physicians duty to care. Similar study showed the perceived barrier to work like prioritising the wellbeing of family members, trust and goodwill towards the health system.⁷ On further asking the participants about their willingness to work in this surge, more than 50% of the participants are ready to stay in-house and even work in sub optimal condition with a positive feeling that it will pose a significant contribution towards the

community. Having a surge plan makes most of the doctors (56.8%) feel safe.

Conclusion

Health care workers play a key role in the response of the pandemic. To know their willingness towards working in these situations is also essential for planning. Our study shows that more than 70% of the doctors are willing to work in surge even in sub optimal environments provided to them. Having a surge plan in the hospital make most of the doctors feel safe, however they fear that they might transmit the disease to their family members.

Acknowledgement

I would like to thank all the doctors who have helped in completion of the research by giving their valuable time to fill the questionnaire. I offer my sincere appreciation to the medical officers of Emergency department who helped us in reminding the residents and faculties to fill the form.

Conflict of Interest

None

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None

Author Contribution

Both authors equally contributed in all the process of manuscript preparation.

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Supplement

Questionnaire:

1. Do you know about the surge plan for COVID-19?
1=definitely no, 2=No, 3=yes, 4=definitely yes
2. Are you willing to work if there is surge?
1=definitely no, 2=No, 3=yes, 4= definitely yes
3. What is your motivation to work in the surge? (Can choose more than one)

- a. Remuneration
 - b. Professional Obligation
 - c. Compulsion from the institution
 - d. Others (Please Specify)
4. What do you worry most regarding the surge? (Can choose more than one)
 - a. Transmission to myself
 - b. Transmission to my family
 - c. Transmission to other patients from me
 - d. Fear of own Death
 - e. Others (Please Specify)
 5. Is your family ready to cope with the stress of you going to work if there is surge?
1=definitely no, 2=No, 3=yes, 4= definitely yes
 6. Are you prepared to stay in hospital during surge?
1=definitely no, 2=No, 3=yes, 4= definitely yes
 7. Have you ever discussed about you getting severe infection with your family?
1=definitely no, 2=No, 3=yes, 4= definitely yes
 8. Does having surge plan in hospital make you feel safe?
1=definitely no, 2=No, 3=yes, 4= definitely yes
 9. Are you ready to work in sub-optimal environment (food, shelter) during COVID-19 surge?
1=definitely no, 2=No, 3=yes, 4= definitely yes
 10. Do you believe that you will make a significant contribution working during surge of COVID19?
1=definitely no, 2=No, 3=yes, 4= definitely yes