

Assessment of Quality of Infection Prevention and Control in PHCs of Hyderabad in the Context of COVID 19 - A Mixed Method Analysis Study

Dr Misha Gorantla

Assistant Professor, Department of Community Medicine, Osmania Medical College, Hyderabad

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ABSTRACT

Introduction: Quality of infection prevention and control (IPC) followed in PHCs during COVID 19 pandemic has direct impact on its spread. Mental health needs of front line workers cannot be ignored.

Objectives:

To assess the quality of infection control in PHCs

To get an insight into the experience of frontline workers on fighting COVID.

Methods

Design- Cross-sectional mixed method study.

Setting- 15 PHCs around Osmania medical college, Hyderabad.

Data collection- Was done from PHCs using WHO's 'Protocol for assessment of potential risk factors for COVID-19 among health workers in a health care setting'.

The qualitative aspect involved 8 in-depth interviews and 4 FGDs in frontline workers.

Results: Total of 14 PHCs had good WASH services. One PHC did not even have tap with running water. None of the PHCs followed WHO recommendations of regular hand hygiene audits, IPC audits, surveillance of nosocomial infections, and triage stations at the entrance.

All frontline workers felt discriminated and overburdened during pandemic.

Conclusion: There is a need to improve IPC practices in PHCs through regular inspections. Psychological domain of front line workers cannot be ignored.

Key words: COVID 19, WASH services, FGD, In depth interview

INTRODUCTION

The initial cases of novel coronavirus (2019-nCoV)-infected pneumonia (NCIP) occurred in Wuhan, Hubei Province, China, in December 2019 and January 2020. ⁽¹⁾ The coronavirus disease (COVID-19), which is caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), has resulted in an unprecedented global health crisis. ⁽¹⁾ As of July 2022 India has 132457 active cases and has witnessed 525519 deaths due to covid 19. ⁽²⁾

The quality of infection prevention and control being followed in PHCs during the COVID 19 pandemic has a direct impact on its spread. Effective infection prevention

and control is central to providing high quality health care for patients and a safe working environment for those that work in healthcare setting. ⁽³⁾ It is important to minimize the risk of spread of infection to patients and staff in hospital by implementing good infection control programme.

In this study, we have tried to assess the quality of infection control in PHCs so that healthcare centers do not become spreaders of virus.

As COVID-19 has progressed around the world, we have heard repeatedly about the mental health burden faced by frontline healthcare workers globally as they have

worked to treat patients affected by the virus. Media representations have described frontline healthcare workers “on their knees” in response to the crisis, leading to forewarning of an ensuing mental health epidemic amongst the healthcare workforce. (4,5)

The present study attempts to gain an understanding into the experience of ASHAs and ANMs on fighting COVID. In the present world-wide scenario of continued COVID waves, this study becomes all the more relevant. Also, the lessons learnt can be applied to other emerging diseases such as monkey pox etc.

Objectives

1. To assess the quality of infection control in PHCs
2. To get an insight into the experience of ASHAs and ANMs on fighting COVID.

METHODOLOGY

This is a cross-sectional mixed method study i.e. both quantitative as well as qualitative designs have been employed. A total of 15 PHCs around a medical college in Hyderabad were chosen. Institution ethics committee clearance was obtained prior to the commencement of the study. The quantitative aspect involves collection of data from these PHCs using WHO’s ‘Protocol for assessment of potential risk factors for COVID-19 among health workers in a health care setting’. Form 4 in the protocol deals with Health care facility infection prevention and control assessment. (6) It contains questions on infection prevention and control programme followed in the PHC, surveillance system for nosocomial infections, health worker staffing, WASH services and materials etc. The qualitative aspect involves 8 in depth interviews and 4 (focus group discussions) FGDs among COVID recovered ASHAs and ANMs in the PHC to gain insight into

RESULTS

A total of 15 PHCs were visited in our study.

the experience of ASHAs and ANMs on fighting COVID. Prior permission to conduct the study was taken from the medical officer of the PHC. The researcher tape-recorded all the interviews and FGDs with the informed consent of the participants. 5 – 6 study participants from similar backgrounds were chosen to participate in each FGDs. It was led by a moderator in a loosely structured discussion of various topics such as their experience in the middle of the uncertainty of COVID, battles on personal front etc. A note taker attended all FGDs. The FGDs lasted from 45 to 50 minutes. Care was taken to avoid domination of any one particular participant and all were encouraged to contribute to the discussion. In depth interviews were also conducted in total privacy. They comprised of several open-ended questions. This was done to explore individual’s perspectives and ideas on their battle with COVID 19 pandemic and their lesson from this battle at a time when this was a totally novel phenomenon. Detailed information was gathered. Each interview lasted 45 minutes on an average. The interviews and FGDs were continued until data saturation i.e. until we began to see similarity in responses with consecutive FGDs/in depth interviews. This was achieved after 8 in depth interviews and 4 FGDs.

Data was analyzed using MS excel for the quantitative aspect and Colaizzi’s seven-step method (7) for the qualitative aspect. Data from the focus group discussions and in-depth interviews was transcribed into English, verbatim i.e. in exactly the same words as they were intended. This was followed by familiarization with data, identifying significant statements, formulating meanings, clustering themes, developing an exhaustive description, producing the fundamental structure and seeking verification of the fundamental structure.

Table 1- Distribution of PHCs based on their infection prevention and control (IPC) related practices.

Health care facility information	Number (n)	Percentage (%)
Presence of WASH services and materials	14	93
Presence of IPC programme and team	0	0
IPC guidelines for health workers	4	27
IPC guidelines for standard and additional (transmission-based) precautions	2	13
Regular IPC training for health workers (at least once a year)	3	20
Availability of personal protective equipment (PPE)	14	94
PPE available in sufficient quantity	13	87
Availability of alcohol-based hand rub	15	100
Availability of soap and water	14	93
Does the PHC conduct regular (at least once a year) hand hygiene audits	0	0
Does the PHC conduct other IPC audits	0	0
Presence of surveillance system for nosocomial infections in patients	0	0
Presence of surveillance system for nosocomial infections in health workers	0	0
Does the PHC screen staff on arrival for symptoms of infection	0	0
Does the PHC alert all health workers if a COVID-19-infected patient is being cared for within the health care facility	9	60
Presence of well-equipped triage station	0	0
Is suspected COVID-19 patient isolated	13	87
Is medical mask fitted to patients with suspected COVID- 19 infection	15	100
Is health worker staffing levels adequate for the patient workload	9	60

Out of the total of 15 PHCs visited, none of them had a IPC [programme & team or at least an IPC focal point. While most of them (93%) had availability of WASH services, presence of soap and water and availability of PPE, none of them any IPC audits or hand hygiene audits. All of the PHCs had availability of alcohol hand rub and masks for suspected COVID patients, none had a triage station for patients as recommended by WHO. None of the PHCs had a

surveillance system for nosocomial infections in health workers or patients. 4 of the PHCs had established IPC guidelines for health workers and 3 PHCs conducted regular IPC training for health workers (at least once a year).

The qualitative aspect involves 8 in depth interviews and 4 (focus group discussions) FGDs among COVID recovered ASHAs and ANMs in the PHC visited.

Table 2 Showing the themes, subthemes and codes obtained from response analysis of study subjects during FGDs and in-depth interviews.

Themes	Subthemes	Codes	Frequency of the codes mentioned by participants
Discrimination	From family	Guilt over spreading it at home	(P1)1/2, (P5)1/2, (P6)1/2, (P7)1/1, (P8)1/2, (P9)1/1, (P13)1/1, (P16)1/1, (P20)1/1, (P28)1/1
		Feeling rejected	(P2)1/2, (P7)1/1, (P8)1/2, (P10)1/2, (P14)1/2, (P17)1/1, (P21)1/2, (P28)1/1
	From neighbors	Were asked to vacate rented houses	(P2)1/2, (P3)1/2, (P5)1/1, (P13)1/2, (P18)1/1, (P24)1/1
		Photos made viral on social media	(P8)1/2, (P10)1/2, (P14)1/2
	From society at large	Avoided even after getting better	(P1)1/1, (P2)1/2, (P3)1/2, (P8)1/2, (P7)1/1, (P9)1/2, (P10)1/2, (P11)1/2, (P14)1/1, (P16)1/1, (P24)1/1
		Private hospitals refused to admit. Even if they admitted didn't give documentation	(P1)1/1, (P2)1/2, (P9)1/1
Problems of contract workers	Regarding salary	Not on time	(P6)1/1, (P18)1/1, (P23)1/1
		Low pay compared to regular staff	(P2)1/2, (P7)1/1, (P8)1/2, (P9)1/2, (P10)1/2, (P11)1/2, (P12)1/2, (P13)1/2, (P14)1/2, (P15)1/1, (P17)1/1, (P18)1/1, (P19)1/1, (P20)1/1, (P21)1/2, (P22)1/1, (P23)1/1, (P24)1/1, (P25)1/1, (P26)1/1, (P27)1/1, (P28)1/1, (P29)1/1, (P30)1/1, (P31)1/1, (P32)1/1, (P33)1/1, (P34)1/1, (P35)1/1, (P36)1/1, (P37)1/1, (P38)1/1, (P39)1/1, (P40)1/1, (P41)1/1, (P42)1/1, (P43)1/1, (P44)1/1, (P45)1/1, (P46)1/1, (P47)1/1, (P48)1/1, (P49)1/1, (P50)1/1, (P51)1/1, (P52)1/1, (P53)1/1, (P54)1/1, (P55)1/1, (P56)1/1, (P57)1/1, (P58)1/1, (P59)1/1, (P60)1/1, (P61)1/1, (P62)1/1, (P63)1/1, (P64)1/1, (P65)1/1, (P66)1/1, (P67)1/1, (P68)1/1, (P69)1/1, (P70)1/1, (P71)1/1, (P72)1/1, (P73)1/1, (P74)1/1, (P75)1/1, (P76)1/1, (P77)1/1, (P78)1/1, (P79)1/1, (P80)1/1, (P81)1/1, (P82)1/1, (P83)1/1, (P84)1/1, (P85)1/1, (P86)1/1, (P87)1/1, (P88)1/1, (P89)1/1, (P90)1/1, (P91)1/1, (P92)1/1, (P93)1/1, (P94)1/1, (P95)1/1, (P96)1/1, (P97)1/1, (P98)1/1, (P99)1/1, (P100)1/1
System related	Overburdened	Nothing out of pocket	(P1)1/1, (P4)1/2, (P9)1/1, (P23)1/1
		Feeling of insecurity/abandonment	(P1)1/1, (P2)1/2, (P3)1/2, (P4)1/2, (P5)1/1, (P6)1/1, (P7)1/1, (P8)1/2, (P9)1/2, (P10)1/2, (P11)1/2, (P12)1/2, (P13)1/2, (P14)1/2, (P15)1/1, (P16)1/1, (P17)1/1, (P18)1/1, (P19)1/1, (P20)1/1, (P21)1/2, (P22)1/1, (P23)1/1, (P24)1/1, (P25)1/1, (P26)1/1, (P27)1/1, (P28)1/1, (P29)1/1, (P30)1/1, (P31)1/1, (P32)1/1, (P33)1/1, (P34)1/1, (P35)1/1, (P36)1/1, (P37)1/1, (P38)1/1, (P39)1/1, (P40)1/1, (P41)1/1, (P42)1/1, (P43)1/1, (P44)1/1, (P45)1/1, (P46)1/1, (P47)1/1, (P48)1/1, (P49)1/1, (P50)1/1, (P51)1/1, (P52)1/1, (P53)1/1, (P54)1/1, (P55)1/1, (P56)1/1, (P57)1/1, (P58)1/1, (P59)1/1, (P60)1/1, (P61)1/1, (P62)1/1, (P63)1/1, (P64)1/1, (P65)1/1, (P66)1/1, (P67)1/1, (P68)1/1, (P69)1/1, (P70)1/1, (P71)1/1, (P72)1/1, (P73)1/1, (P74)1/1, (P75)1/1, (P76)1/1, (P77)1/1, (P78)1/1, (P79)1/1, (P80)1/1, (P81)1/1, (P82)1/1, (P83)1/1, (P84)1/1, (P85)1/1, (P86)1/1, (P87)1/1, (P88)1/1, (P89)1/1, (P90)1/1, (P91)1/1, (P92)1/1, (P93)1/1, (P94)1/1, (P95)1/1, (P96)1/1, (P97)1/1, (P98)1/1, (P99)1/1, (P100)1/1
	Out of pocket spending for official tasks	(P2)1/2, (P4)1/2, (P10)1/2, (P20)1/1	
	Lockdown time voos	Travel to patients homes	(P1)1/1, (P2)1/2, (P3)1/2, (P4)1/2, (P5)1/1, (P6)1/1, (P7)1/1, (P8)1/2, (P9)1/2, (P10)1/2, (P11)1/2, (P12)1/2, (P13)1/2, (P14)1/2, (P15)1/1, (P16)1/1, (P17)1/1, (P18)1/1, (P19)1/1, (P20)1/1, (P21)1/2, (P22)1/1, (P23)1/1, (P24)1/1, (P25)1/1, (P26)1/1, (P27)1/1, (P28)1/1, (P29)1/1, (P30)1/1, (P31)1/1, (P32)1/1, (P33)1/1, (P34)1/1, (P35)1/1, (P36)1/1, (P37)1/1, (P38)1/1, (P39)1/1, (P40)1/1, (P41)1/1, (P42)1/1, (P43)1/1, (P44)1/1, (P45)1/1, (P46)1/1, (P47)1/1, (P48)1/1, (P49)1/1, (P50)1/1, (P51)1/1, (P52)1/1, (P53)1/1, (P54)1/1, (P55)1/1, (P56)1/1, (P57)1/1, (P58)1/1, (P59)1/1, (P60)1/1, (P61)1/1, (P62)1/1, (P63)1/1, (P64)1/1, (P65)1/1, (P66)1/1, (P67)1/1, (P68)1/1, (P69)1/1, (P70)1/1, (P71)1/1, (P72)1/1, (P73)1/1, (P74)1/1, (P75)1/1, (P76)1/1, (P77)1/1, (P78)1/1, (P79)1/1, (P80)1/1, (P81)1/1, (P82)1/1, (P83)1/1, (P84)1/1, (P85)1/1, (P86)1/1, (P87)1/1, (P88)1/1, (P89)1/1, (P90)1/1, (P91)1/1, (P92)1/1, (P93)1/1, (P94)1/1, (P95)1/1, (P96)1/1, (P97)1/1, (P98)1/1, (P99)1/1, (P100)1/1
Lessons learnt	Medical	Paying challans	(P4)1/2, (P10)1/2, (P12)1/2, (P27)1/1
		Lack of transport (no own vehicles)	(P6)1/1, (P7)1/1, (P10)1/2, (P23)1/1
	life	Concepts like hand washing, hygiene are longer theoretical	(P1)1/1, (P4)1/2, (P9)1/1, (P11)1/2, (P14)1/2, (P18)1/1, (P24)1/1, (P28)1/1
New concepts like mask & social distancing decreased other diseases such as cold and coughs		(P1)1/1, (P2)1/2, (P3)1/2, (P4)1/2, (P5)1/1, (P6)1/1, (P7)1/1, (P8)1/2, (P9)1/2, (P10)1/2, (P11)1/2, (P12)1/2, (P13)1/2, (P14)1/2, (P15)1/1, (P16)1/1, (P17)1/1, (P18)1/1, (P19)1/1, (P20)1/1, (P21)1/2, (P22)1/1, (P23)1/1, (P24)1/1, (P25)1/1, (P26)1/1, (P27)1/1, (P28)1/1, (P29)1/1, (P30)1/1, (P31)1/1, (P32)1/1, (P33)1/1, (P34)1/1, (P35)1/1, (P36)1/1, (P37)1/1, (P38)1/1, (P39)1/1, (P40)1/1, (P41)1/1, (P42)1/1, (P43)1/1, (P44)1/1, (P45)1/1, (P46)1/1, (P47)1/1, (P48)1/1, (P49)1/1, (P50)1/1, (P51)1/1, (P52)1/1, (P53)1/1, (P54)1/1, (P55)1/1, (P56)1/1, (P57)1/1, (P58)1/1, (P59)1/1, (P60)1/1, (P61)1/1, (P62)1/1, (P63)1/1, (P64)1/1, (P65)1/1, (P66)1/1, (P67)1/1, (P68)1/1, (P69)1/1, (P70)1/1, (P71)1/1, (P72)1/1, (P73)1/1, (P74)1/1, (P75)1/1, (P76)1/1, (P77)1/1, (P78)1/1, (P79)1/1, (P80)1/1, (P81)1/1, (P82)1/1, (P83)1/1, (P84)1/1, (P85)1/1, (P86)1/1, (P87)1/1, (P88)1/1, (P89)1/1, (P90)1/1, (P91)1/1, (P92)1/1, (P93)1/1, (P94)1/1, (P95)1/1, (P96)1/1, (P97)1/1, (P98)1/1, (P99)1/1, (P100)1/1	
		Fight your battles alones. Relationships are superficial after a point.	(P5)1/1, (P7)1/1, (P19)1/1
		Be empathetic to patients and not ignore the psychological dimension	(P1)1/1, (P2)1/2, (P3)1/2, (P4)1/2, (P5)1/1, (P6)1/1, (P7)1/1, (P8)1/2, (P9)1/2, (P10)1/2, (P11)1/2, (P12)1/2, (P13)1/2, (P14)1/2, (P15)1/1, (P16)1/1, (P17)1/1, (P18)1/1, (P19)1/1, (P20)1/1, (P21)1/2, (P22)1/1, (P23)1/1, (P24)1/1, (P25)1/1, (P26)1/1, (P27)1/1, (P28)1/1, (P29)1/1, (P30)1/1, (P31)1/1, (P32)1/1, (P33)1/1, (P34)1/1, (P35)1/1, (P36)1/1, (P37)1/1, (P38)1/1, (P39)1/1, (P40)1/1, (P41)1/1, (P42)1/1, (P43)1/1, (P44)1/1, (P45)1/1, (P46)1/1, (P47)1/1, (P48)1/1, (P49)1/1, (P50)1/1, (P51)1/1, (P52)1/1, (P53)1/1, (P54)1/1, (P55)1/1, (P56)1/1, (P57)1/1, (P58)1/1, (P59)1/1, (P60)1/1, (P61)1/1, (P62)1/1, (P63)1/1, (P64)1/1, (P65)1/1, (P66)1/1, (P67)1/1, (P68)1/1, (P69)1/1, (P70)1/1, (P71)1/1, (P72)1/1, (P73)1/1, (P74)1/1, (P75)1/1, (P76)1/1, (P77)1/1, (P78)1/1, (P79)1/1, (P80)1/1, (P81)1/1, (P82)1/1, (P83)1/1, (P84)1/1, (P85)1/1, (P86)1/1, (P87)1/1, (P88)1/1, (P89)1/1, (P90)1/1, (P91)1/1, (P92)1/1, (P93)1/1, (P94)1/1, (P95)1/1, (P96)1/1, (P97)1/1, (P98)1/1, (P99)1/1, (P100)1/1

All of the responders contracted COVID on duty. i.e. after visiting COVID affected households and performing contract tracing. Lot of the responses included issues regarding discrimination from own family, neighbors and the society at large. Most of them faced hostility from family members over the possibility of spreading it at home. "They were scared. They made me stand outside and allowed me inside only after taking bath and washing my cloths in hot water" said one of the responders. While another ASHA workers said "our neighbors got to know that I was COVID positive. They avoided us and announced in the whole neighborhood that I had COVID. All complained to the apartment committee that we should vacate the apartment". An ANM said "my mother in law said she is sugar patient so I have to leave the house and go and live with my parents as I might spread it to her. So I left and told everyone in my mother's neighborhood that I was pregnant, that's why I came. Otherwise, they would drive me out of there as well". One ASHA workers said "many in the community were closing doors on our face when we enter their community to do contact tracing. They feared that they would get COVID from us" One lab technician responded "no one at my home was supportive. Even if anyone coughed they blamed me." Many could not find houses for rent due to their profession. They also found difficulty in getting admitted in private hospitals. Another responder said "my photo was taken and was circulated widely in my neighborhood to avoid me as I had COVID. They continued to avoid me even after I got better".

Problems of contact staff members were unique in this pandemic. Unlike the regular staff they did not get salaries on time and did not have earned leaves to take in case any family member fell sick with COVID. One lab technician responded "I was not getting salary and on top of that expenditures were increasing when I and my family got COVID due to the nature of my work. I had to ask my wife to go to her

mother's house with our kids to decrease the expenses." As for insurance, an ASHA worker responded "we only got life insurance i.e. in case we die due to COVID. Not health insurance to cover medical expenses". These problems stood out more prominently for contract staff.

Many system related problems also laid bare during this pandemic. Most significant problem was that of being overburdened. An ANM responded "already we had less staff in our PHC. On top of that this added pandemic meant that we were going home at 9PM almost every day" another ANM said "one time 2 sisters in our PHC fell sick from COVID. The rest of us were heavily overburdened that we didn't even have time to eat. I can never forget those days in my life. Eventually I also got COVID but could not take leave due to heavy workload. Only after my symptoms got worse, I got tested and went on leave". Out of pocket expenses shot up during COVID as there were no public transport and private vehicles were being fined. One ASHA responded "my husband would drop me on the bike and while returning would often get fined as he is not a health worker. Even after saying that he came to drop me, the police were not convinced and would also resort to physical beating for violating lockdown rules". There was also displeasure regarding lack government support. "other than leave, we did not get any other benefit. First 2 months, we got the announced 10% hike in salary. After that even that stopped".

On asking what lessons they learnt during this pandemic experience they said that concepts like hand washing etc. are no longer taken lightly. One ANM responded "previously when we used to talk about hand hygiene in the context of other disease, people would not be interested. Now they are asking us to demonstrate and show" another ASHA worker said "due to masks and social distancing, problems like common cold have come down. Upper respiratory tract illnesses have severely decreased even in children. This must be continued even after pandemic". Many of

the responders seemed very disappointed with the pandemic experience. A medical officer said “I learnt that all relationships are superficial. Not my husband nor anyone else in my family cared about me. They were all worried about themselves. I struggled alone at home locked in a room and no one was asking how I was doing. They were busy sanitizing all the things I touched like plates, spoons etc” an ASHA worker said “I learnt that empathy is most important. Even if the person is going to die, we must offer mental strength firstly. Medical treatment is secondary as if he lost mentally, its like death.”

These results show the importance of addressing the mental and psychological aspect of being a health care provider.

DISCUSSION

The Covid 19 pandemic has caused losses of life and livelihood but it has provided opportunities for implementation of basic healthcare infrastructure and practices especially in resource-limited settings.

In the present study it was found that none of the PHCs had an IPC programme or an IPC team. None of the PHCs conducted any IPC audits or hand hygiene audits. In a study done by Argya das et al ⁽⁸⁾ a total of 2552 health care professionals and 548 medical students were trained in IPC through multiple offline/onsite sessions over a period of 15 months during the ongoing pandemic ⁽⁸⁾ The overall compliance to surface disinfection and cleaning increased from 50% to >80% with repeated training, compliance decreased whenever newly recruited HCP were posted. ⁽⁸⁾ Hand hygiene compliance was poor varying from 10 to 40% complete adherence rate. ⁽⁸⁾ Fear psychosis in the pandemic was the greatest facilitator for adopting the IPC practices. ⁽⁸⁾ Continuous wearing of personal protective equipment for long duration, dissatisfaction with the duty rosters as well as continuous posting in high-risk areas were the major obstacles to the implementation of IPC norms ⁽⁸⁾

The present study found that 94% of the PHCs had the availability of PPEs and 94% had availability of soap and water. In a study done by Suneela Garg et al ⁽⁹⁾ in PHCs done across India it was found that N95 masks were available at 26 (50.9%) sites. Infection prevention and control measures were also suboptimal with inadequate facilities for handwashing and hand hygiene reported in 23.5% (n=12) and 27.4% (n=14) of sites, respectively. ⁽⁹⁾

A study done by Al Ahmari et al ⁽¹⁰⁾ in Saudi Arabia which studied the obstacles to IPC measures found that about of half participants (49%) and about one third (34%) believed that lack of training on infection control, is very important o obstacles, while inadequate hand washing facility was considered as very important or important (93%), lack of personal protection equipment was considered as another important obstacles (93%). ⁽¹⁰⁾ About 82% considered the lack of guidelines at primary health care centers as important barriers, while 91% of participants consider non-compliance with conditions of infection control by health care providers as very important and important issue. ⁽¹⁰⁾

A study done by Niuniu Sun et al ⁽¹¹⁾ in China on the psychological experience of caregivers of COVID-19 patients also employed Colaizzi's 7-step method for analysis qualitative data similar to our study. They found that Significant amount of negative emotions in the early stage, coping and psychological adjustment, Growth under pressure and occurrence of positive emotions simultaneously or progressively with negative emotions emerged as the main themes. (11) Fatigue, discomfort, and helplessness caused by high-intensity work and self-protection and Fear of viral infections and concern for patients were commonly reported by the study subjects (11).

A study done by Chakma et al ⁽¹²⁾ found that work related issues such as change in work routine, increase in work load, erratic work timing emerged as a major theme followed by family related issues such as fear of

infecting family members, separation from family, followed by problems of sleep deprivation, stigma. This is in accordance with the findings of our study.

In a study done by Priyanka Dang et al⁽¹³⁾ on psychological experiences of health care workers during the COVID 19 pandemic found that work pressure, shortage of work force, long duty hours while wearing personal protective equipment, uncooperative patients, personal vulnerabilities such as anxiety and depression, Discrimination by colleagues and neighbors emerged as the major themes.⁽¹³⁾ This is in accordance with the findings of our study.

While the IPC practices found in the present study differed in some aspects with other studies but with regard to psychological experience of health care workers results were similar across studies in different regions.

CONCLUSION AND RECOMMENDATIONS

There is also an urgent need for IPC audits to be carried out regularly. This study has shown that mental health of health workers is an unaddressed dimension. Hence counselling services should be made available to frontline health workers free of cost.

Declaration by Authors

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