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Re-visiting the Front Line health Workers' (FLWs) attending suspected or confirmed COVID-19 patients in Bangladesh: how far has the situation improved in a month since the last survey?

Summary of findings

- Initially, a Rapid telephone survey was conducted during 9 – 14 April 2020 to elicit the perceptions of the FLWs who were directly involved with the management of suspected or confirmed COVID-19 cases in different public and private healthcare facilities in Bangladesh.
- Re-interview was conducted during 5-11 May 2020 with 50 respondents (out of 60 originally interviewed) on the relevant issues. Beside PPE and training, we also asked about how far their recommendations were addressed subsequently
- Overall, 24% of the respondents still did not receive PPE at the time of re-interview in May 2020. Compared to the earlier survey in April 2020, there has been some improvement in the supply of personal protective equipment, especially among the paramedics. However, the situation didn't improve much with respect to the quality of the PPE supplied and its proper use due to lack of training, according to the FLWs. In fact, there are still occurrences of new COVID-19 infection among all categories of the FLWs, reported almost regularly in the media.
- There has been some improvement in arranging accommodation, food, and transport for the doctors but not to the extent necessary, and not for the other FLWs.

- More than two months into the epidemic (since the identification of the first case of COVID-19 on 9 March 2020), and still there is inadequate training on COVID-19 disease and its management, as well as the use of PPE, especially for the nurse/midwives and the paramedics.
- These factors together did little to alleviate the mental health disturbances of different categories of the FLWs, especially for the doctors which in itself is going to be a big public health problem, now and post-COVID-19.

Conclusion:

The issues raised in the study such as the quantity and appropriate quality of PPEs supplied, trainings on COV ID-19 and use of PPE, measures to ease mental health of the FLWs etc. needs urgent attention from the policy-makers and programme implementers in order to have a grip on the current situation until it is too late.

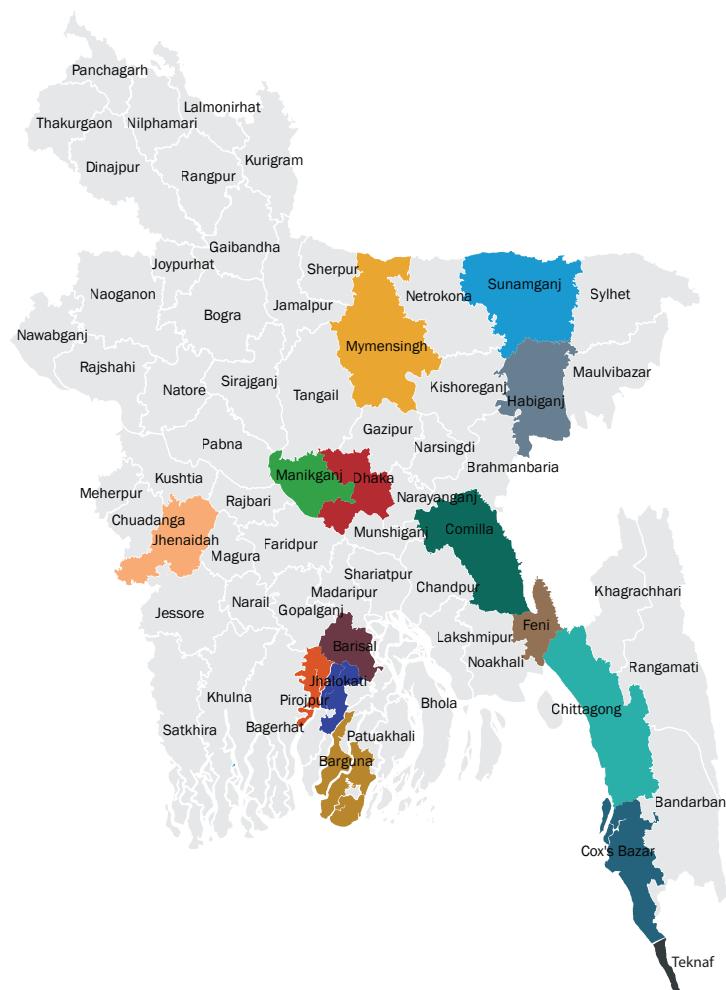
1. Background and method

Initially, a Rapid telephone survey was conducted during 9 – 14 April, 2020 to elicit the perceptions of the FLWs who were directly involved with the management of suspected or confirmed COVID-19 cases in different public and private healthcare facilities in Bangladesh. At that time the FLWs mentioned about substantial

lack of PPE and other preventive amenities, poor quality of the PPEs supplied, lack of adequate training on COVID-19 prevention and management and proper use of the PPEs, mental health problems and burn outs from long and arduous duty hours without sufficient rest and constant weariness of spreading the virus to family members etc. At that time they made some recommendations for urgent procurement of sufficient number of quality PPEs and training for its proper use, arrangement of accommodations and food at a place near to their work station so that they can get rid of constant weariness of infecting their near and dear ones, roster duty for the attending staff for adequate rest and time to charge up physically and mentally etc. Extensive dissemination activities were undertaken to inform the relevant authorities about the study findings and FLWs' recommendations. Around a month has passed since the study and we thought it will be interesting to see whether, and to what extent, the authorities have addressed these recommendations to improve the work environment. So, we re-interviewed 46 respondents (out of 60 originally interviewed) working at 43 health facilities in 14 districts (Fig 1). This re-survey was done during 5-11 May 2020. We present the findings below and discuss its implications.

Due to constraints in time and resources and also, under lock-down condition, a telephone interview method was found to be most appropriate just like the original survey. This method is increasingly used in healthcare service research as it allows data to be collected from diverse geographical localities, is time and cost-effective compared to face-to-face interview, better response rate than postal surveys, and better completion of information. [2]

Fig.1: Location of study participants.



A purposive sample of doctors, nurses and other FLWS was taken leveraging our past engagement with them in relation to some on-going and past studies. A structured close ended questionnaire was used which was pre-tested. Beside PPE and training, we asked them on different aspects of their recommendations such as provision of food, transport and accommodation to prevent infecting the family members of the FLWs.

Quantitative data were entered in a pre-designed google form, curated and made ready for analysis by the statistician in the team. This method of data management was necessary to accommodate the researchers working from home at different locations in Dhaka city. An analysis plan was made to extract the tables for the report.

2. Results

In all, we could reach 46 respondents who agreed to be interviewed. Most of the respondents were from public sector facilities in the peri-urban/rural areas (43%) followed by those in the urban facilities (33%), majority being doctors (39%) followed by different categories of paramedics (35%) (Table 1). Forty-three percent of the FLWs worked in the OPDs while 37% worked in both OPD and in-patients.

Table 1 Characteristics of the respondents

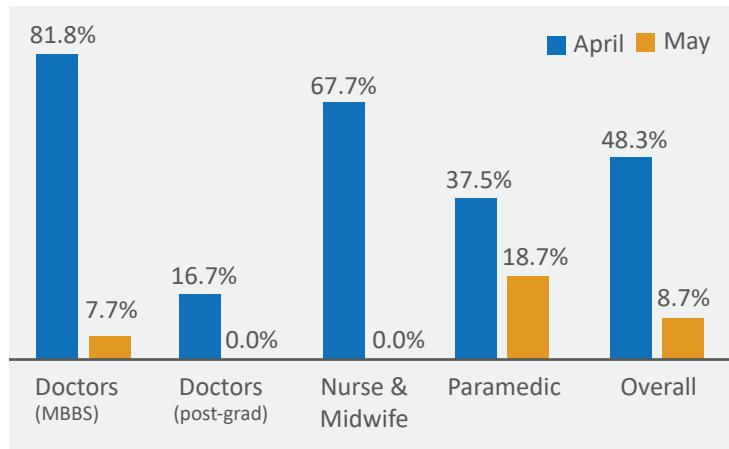
	Characteristics	% (n)
Facility type	Public facility in Urban area (Hospital, International airport)	32.6 (15)
	Public facility in Rural area (Upazila health complex, Union sub centre)	43.5 (20)
	For profit Private facility	2.2 (1)
	Not for profit private facility (NGO)	21.7 (10)
Type of respondents	Doctors (MBBS)	28.3 (13)
	Doctors (post-graduate)	10.9 (5)
	Nurses (All types)/ Midwives	26.1 (12)
	Para-medics (SACMOs, FWV, Lab technician etc.)	34.8 (16)
Years of service	<1 year	4.4 (2)
	1 – 5 year	19.6 (9)
	>5 year	76.1 (35)
Place of duty*	Both outpatient and in-door	37.0 (17)
	In-door	19.6 (9)
	Out-patient department (OPD)	43.5 (20)
	Emergency	8.7 (4)

*Multiple response considered

Data disaggregated by the four original categories of FLWs are presented in Table 2. In the intervening period, only additional 9% received any training on COVID-19, paramedics more than other cadres (Fig. 2). During this intervening period, 20% received additional training on proper use of PPE supplied (Fig. 3). Similar to the original survey, the source of these training was either hospital authorities or self-training from following DGHS website, National and WHO guidelines, and various sources in the web.

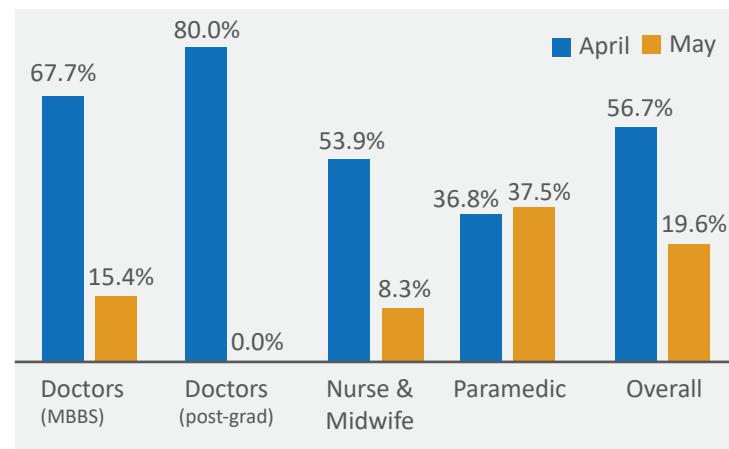
Received training on management of Covid 19

Fig.2: Comparison of FLWs (by cadre and overall) receiving training on Covid-19 and its management by month



Received training on PPE

Fig. 3: Comparison of FLWs (by cadre and overall) receiving training on PPE by month



During this time, 76% of the respondents reported to have received PPE, the proportion being greater for the paramedics (87.5%) than the others, and much greater than the earlier study (58%). However, only 56% of the respondents were found to be satisfied with the quality of the PPE, and only 33% of the nurses/midwives. This 76% includes those who got PPE previously along with receiving new PPE as well as those who did not receive PPE previously, but received it within this intervening period (Fig.4).

Received PPE

Fig 4: Comparison of FLWs (overall) receiving PPE by time

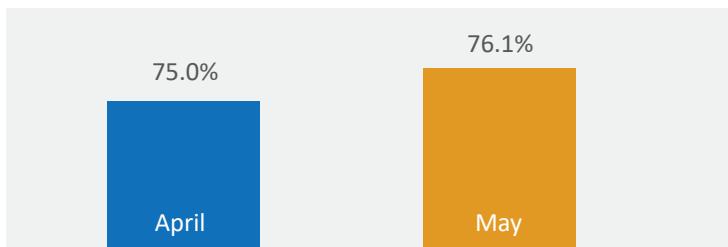


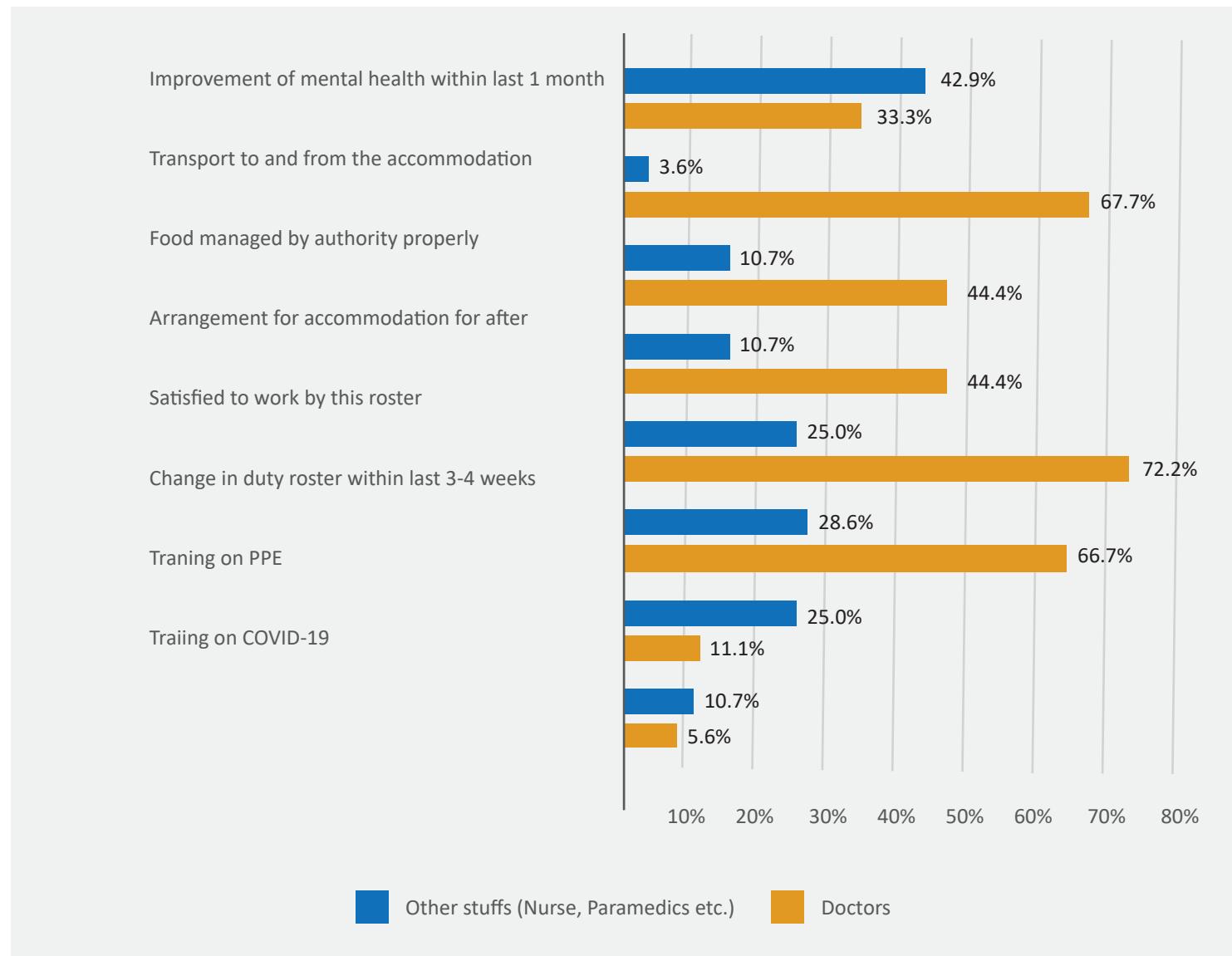
Fig 4: Comparison of FLWs (overall) receiving PPE by time

		Types of health care professional % (n)				
		Doctors (MBBS)	Doctors (post-grad)	Nurses and Midwives	Paramedics	All
No. of respondents		13	5	12	16	46
Any change in your duty roster within last 3-4 weeks						
Yes	69.2 (9)	60.0 (3)	33.3 (4)	25 (4)	43.5 (20)	
No	30.8 (4)	40.0 (2)	50.0 (6)	56.3 (9)	45.7 (21)	
I don't have any duty roster	-	-	16.7 (2)	18.7 (3)	10.9 (5)	
Satisfied to work by this roster						
Yes	69.2 (9)	80.0 (4)	33.3 (4)	18.8 (3)	43.5 (20)	
No	30.8 (4)	20.0 (1)	-	6.2 (1)	2.2 (1)	
Not applicable	-	-	66.7 (8)	75 (12)	54.4 (25)	
Arrangement for your accommodation for after duty/quarantine period						
Yes	46.2 (6)	40.0 (2)	8.3 (1)	12.5 (2)	23.9 (11)	
No	53.9 (7)	40.0 (2)	33.3 (4)	56.3 (9)	47.8 (22)	
Not applicable	-	20.0 (1)	58.3 (7)	31.2 (5)	28.3 (13)	
Food is being managed by the authority properly now						
Yes	30.8 (4)	80.0 (4)	8.3 (1)	12.5 (2)	23.9 (11)	
No	69.2 (9)	20.0 (1)	33.3 (4)	50.0 (8)	45.7 (21)	
Not applicable	-	-	58.3 (7)	37.5 (6)	30.4 (14)	
Transport to and from the accommodation is being managed by the authority properly now						
Yes	61.5 (8)	80.0 (4)	8.3 (1)	56.2 (9)	28.3 (13)	
No	38.5 (5)	20.0 (1)	33.3 (4)	43.8 (7)	39.1 (18)	
Not applicable	-	-	58.3 (7)	-	32.6 (15)	
Improvement in your mental health within last 1 month considering above mentioned initiatives						
Yes	38.5 (5)	20.0 (1)	25.0 (3)	56.3 (9)	39.1 (18)	
No	61.5 (8)	80.0 (4)	75.0 (9)	43.7 (7)	60.9 (28)	

Only in case of 43% of the respondents, duty roster was changed, mostly for the doctors (above 60%) (Table 2). Doctors, especially the post-graduates (80%), were satisfied with the change but not the other categories. Accommodation at or near workplace was arranged for only around 24% respondents, while the proportion being only 8 – 12% for the paramedics and nurse/midwives. Less than 50% of the doctors received accommodation in this way. The same situation is observed for food and what was interesting to note that the postgraduate doctors (80%) were much advantaged in this regard compared to simple medical graduates (31%)! The latter divide was also observed in case of arrangement of transport (80% vs 61.5%). The improvement in mental health status was poor for most categories (around 1/3rd of the respondents) except the paramedics (56%).

Finally, we did a comparison between the doctors and other FLWs on the above issues (Fig. 5). Substantial difference were observed with respect to training (on COVID-19 and use of PPE) (proportionately, others received more training than the doctors), change in duty roster and satisfaction with the change (both were greater for the doctors), arrangement of accommodation and food and transport (greater for doctors), and improvement of mental health status (lesser for doctors).

Comparison between the doctors and other FLWs



Conclusion

The findings, at this stage of the epidemic, is lamentable but not unexpected given the problem with leadership and management from the very beginning to tackle the problem effectively and efficiently in coordination with other sectors and stakeholders including public health experts. The issues raised in the study such as quantity and quality of PPEs supplied, trainings, measures to ease mental health of the FLWs etc. needs urgent attention from the policy-makers and programme implementers until it is too late.

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