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Work Related Problems Experienced By Community Health Workers during COVID-19 Pandemic

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ABSTRACT

Background: Community Health Workers (CHWs) play a pivotal role in delivering essential healthcare services, particularly in resource-constrained settings. The outbreak of the COVID-19 pandemic posed unprecedented challenges for CHWs, amplifying the complexity of their work and exposing them to various occupational hazards.

Objective: The study intended to assess the work related problems experienced by community health workers during COVID-19 pandemic.

Methodology: A descriptive cross-sectional study was conducted among 361 Community Health Workers by face-to-face interview using a pretested semi-structured questionnaire from January 2021 to December 2021 at six Upazila health complex's in Pabna District. Data were collected by convenience sampling technique. Statistical Package for Social Science (SPSS) version 23 was used to enter and analyze data.

Results: A total 361 of respondents, 55.4% were female and the mean age of the respondents was 39±0.854 years. Here, 50.7% (183) protect themselves in pandemic situation by given special attention to hand hygiene, 12.7% (46) said PPE is interference with verbal communication. Majority 48.2% (174) respondents were always wear personal protection equipment (PPE) during procedure. Most of the respondents 53.5% (193) had not feeling of fear during their work.

Conclusion: The study revealed a range of difficulties, including prolonged work hours in personal protective equipment (PPE), vision problems related to face shields and goggles, and communication barriers due to PPE.

KEYWORDS: Community Health Workers, Work related problems, Community, Experienced.

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INTRODUCTION

The global outbreak of the COVID-19 pandemic has not only strained healthcare systems but has also accentuated the indispensable role of Community Health Workers (CHWs) in public health. CHWs, as frontline healthcare providers, play a crucial role in delivering essential health services, particularly in resource-constrained settings. Their responsibilities range from preventive care to health education and monitoring, making them an essential link between communities and formal healthcare structures (World Health Organization, 2020). The work of CHWs during public health crises is not a new phenomenon, but the unique nature of the COVID-19 pandemic has presented unparalleled challenges. Previous studies have highlighted the pivotal role CHWs play in health promotion, disease prevention, and community engagement (Perry et al., 2021). SARS (Severe Acute Respiratory Syndrome) is a condition that affects the lungs. Corona Virus 2 (COVID-19) is a new corona virus that first appeared in China in 2019. On the 1st of February 2020, 512 Bangladeshi citizens were deported from Wuhan, China, and quarantined for 14 days. Eight of them were isolated right away, and three more were isolated later after exhibiting symptoms. During the first week of

February, the virus began to spread to other Chinese provinces, and the number of affected people in Wuhan, China, increased dramatically, as reported in many other nations around the world. Students from Wuhan universities were recalled by the Bangladeshi government and confined to a government-provided quarantine shelter for a few weeks (Hossain *et al.,* 2020). Unlike other emergencies, this pandemic poses some central challenges for the CHWs' work. Due to the highly contagious risk and poor knowledge about the dynamics of the disease. (Lotta *et al*., 2020).

The outbreak started in Bangladesh in 2000, it was severe in 2019, and still the threat is ongoing. It was estimated that more than 100,000 patients were hospitalized with in 2020, with 164 deaths the lack of a comprehensive awareness program, preparedness for the outbreak, and a supportive clinical management framework increased the severity of the mortality rates in the country. (sunward *et al*.,2020). In prior crises, such as H1N1 and ZIKA it was critical to primary health care. Inside the homes of patients, activities are advised in close interaction with patients and their surroundings. CHWs are put in high-risk circumstances because of this trait (M. Fernandez 2020). The advent of the COVID-19 pandemic has not only presented unprecedented challenges to healthcare systems worldwide but has also significantly impacted the roles and responsibilities of Community Health Workers (CHWs). Often regarded as the linchpin of community-based healthcare, CHWs play a crucial role in delivering essential health services, promoting preventive measures, and bridging the gap between communities and formal healthcare systems (Smith & Jones, 2020). The pandemic, with its multifaceted implications, has brought forth a myriad of work-related problems for CHWs, influencing their ability to effectively carry out their duties.

The safety of CHWs has become a paramount issue as they navigate the frontline of healthcare delivery, often with inadequate personal protective equipment (PPE) and heightened exposure risks (Brown & Michelow, 2020). In alignment with this research objective, a review of existing literature will be conducted, incorporating firsthand accounts and experiences shared by CHWs. This approach will provide a holistic understanding of the obstacles encountered by CHWs during the pandemic, contributing valuable insights to the broader discourse on optimizing community-based healthcare delivery during times of crisis. The aim of the study was to assess the work related problems experienced by community health workers during COVID-19 pandemic.

MATERIALS AND METHODS

Study Design: A descriptive cross-sectional study was designed to conduct this research.

Study Population: Study population were the Community Health Workers, who had been working at least 6 months at the above mention at Six Upazila Health Complex's, Community Clinic, and Family Welfare Clinic in the District of Pabna, during COVID-19 Pandemic. The designated health workers were mention bellow-

Upazila health complex:	Service providers:
Health Inspector (HI)	Health Assistant (HA)
Assistant Health Inspector (AHI)	Community Health Care Provider (CHCP)
Sanitary Inspector (SI)	Family Welfare Assistant (FWA)
Family welfare Visitor (FWV)	Family Planning Inspector (FPI)

Study place: The study was conducted at six (6) Upazila Health Complexs, in the District of Pabna. Name of the Upazila Health Complexs were as follows:

Upazila Health Complex Bhanggura	Upazila Health Complex Faridpur
Upazila Health Complex Chatmohore	Upazila Health Complex Shatiea
Upazila Health Complex Atgoriea	Upazila Health Complex Berea

Study Period: This study was conducted over a period of one year starting from January to December 2021.

Sampling Technique: The convenient method of sampling was used and sample size was 361.

Data Collection Instrument: pre-tested semi-structured questionnaire was used to collect data.

Data Collection Technique: At the beginning of data collection, permission from the concerned authority of the Upazila Health Complex was taken. Maintaining all formalities data was collected through telephone interview by using pre-tested semi-structured questionnaire. Before preceding the data collection, the detail of the study was explicitly explained to each eligible respondents and informed consent was taken verbally.

Data processing: Initially data **was** checked for completeness and correctness in order to exclude missing or inconsistent data then entered into the computer using Statistical Package for Social Sciences (SPSS).

Data Analysis

Data will be analyzed by using the statistical software namely SPSS (Statistical Package for Social Sciences).

Ethical implications

- Permission of concerned authority of the hospital was taken.
- Objectives of the study explained in brief to the respondents.
- Informed consent taken from each and every respondent before collection of data.
- Privacy and confidentiality was ensured and maintained strictly.

- Respondents have the right to withdraw themselves from the study any time during data collection period.
- They assured that there would be no physical and mental harm to them during the study as there is no invasive procedure applied.

RESULTS

Table 1: Socio-demographic characteristics of the respondents (n = 361)

Age group (in complete years)	**Frequency (f)**	**Percentage (%)**
20-29 Years	49	13.6
30-39 Years	184	51.o
40-49 Years	86	23.8
Above 50 years	42	11.6
Mean ±SD = 39±0.854		
Gender		
Male	161	44.6
Female	200	55.4
Current position of the respondents		
Health assistant	107	29.6
Sanitary Inspector	2	.6
Family welfare assistant	70	19.4
Community health care provider	122	33.8
Family welfare visitor	42	11.6
Assistant health inspector	6	1.7
Health inspector	8	2.2
Family planning inspector	4	1.1
Educational qualification		
S.S.C	17	4.7
H.S.C	92	25.5
Graduate	293	66.2
Master's	13	3.6
Working place		
Ward level	174	48.2
Community Clinic	76	21.1
Upazila Health Complex	61	16.9
Family welfare Clinic	50	13.9
Total length of service		
<5 Years	6	1.7
6-10 Years	11	3.0
11-15 Years	45	12.5
16-20 Years	48	13.3
>20 Years	251	69.5
Monthly Family Income of the respondents		
<20000-30000/=	189	52.4
40000-50000/=	125	34.6
60000-70000/=	37	10.2
>80000	10	2.8
Total	361	100.0

Table 1 shows, more than half 51.0% (184) respondents were 30-39 years age group, the mean age of the respondents was 39±0.854 years. Among 361 respondents 55.4% (200) female and res of them 44.6% (161) were male and from them, 33.8% (122) were Community health care provider, 29.6% (107) Health assistant, 19.4% (70) Family welfare assistant, 11.6% (42) Family welfare Visitor, 1.7%(6) Assistant health inspector, 1.1%(4) Family planning inspector and 6% (2) Sanitary Inspector. Most of the respondent's 66.2% (293) educational qualification was Graduate. Among 361 respondents, most of the respondent's 48.2% (174) work in ward level, 21.1% (76) in community Clinic, 16.9% (61) in Upazila Health Complex and 13.9%

(50) in Family welfare Clinic. Out of 361 respondents, most of the respondent's 69.5% (251) length of service were >20 years and maximum of the respondents monthly income were <20000-30000/=.

Table 2: Information related to work- related challenges of the community health workers (n = 361)

Protect yourself in pandemic situation	**Frequency (f)**	**Percentage (%)**
Properly donning PPE	98	27.1
Washing cloth	52	14.4
Eating food reach in vitamin and protein	28	7.8
Special attention to hand hygiene	183	50.7
Facing difficulty during care		
Problems with PPE supply	61	16.9
Having to work long hours with PPE	153	42.4
Dry mouth associated with N-95 mask	41	11.4
Vision problems by using face shield in goggles	106	29.4
Facing problems with available information		
Mask your of obscure lip movements and facial expression	43	11.9
Bonnet worn over the head cover the ears	51	14.1
PPE is interference with verbal communication	46	12.7
PPE is more permeable to sound and masks lip movements	221	61.2
Total	**361**	**100.0**

Table 2 shows that, out of 361 respondent's majority of the respondent's 50.7% (183) protect themselves in pandemic situation by given special attention to hand hygiene, 27.1% (98) properly donning PPE, 14.4% (52) washing cloth, 7.8% (28) eating food reach in vitamin and protein. Majority of the respondents facing difficulty in care like 42.4% (153) having to work long hours with PPE, 29.4% (106) having vision problems by using face shield in goggles, 16.9% (61) problems with PPE supply and 11.4% (41) respondents were dry mouth by using N-95 mask. Majority 61.2% (221) of the respondents facing problems with available information like PPE is more permeable to sound and masks lip movement, 14.1% (51) bonnet worn over the head cover the ears, 12.7% (46) said PPE is interference with verbal communication and 11.9% (43) said mask obscure lip movements and facial expression.

Table 3: Information related to personal measure of the community health worker's safety practice (n =361)

Wear personal protection equipment (PPE) during procedure	**Frequency(f)**	**Percentage (%)**
Never	55	15.2
Some times	64	17.7
Often	68	18.8
Always	174	48.2
Use hand sanitizer		
Never	22	6.1
Some times	25	6.9
Often	54	15.0
Always	260	72.0
Vaccine taken		
Yes	337	93.4
No	24	6.6
Maintain social distance		
Yes	349	96.7
No	12	3.3
Total	**361**	**100.0**

Table 3 shows the majority 48.2% (174) respondents were always wear personal protection equipment (PPE) during procedure, 72% (260) respondents always used hand sanitizer, about 93.4% (337) respondents taken vaccine and 96.7% (349) respondents maintained social distance

Table 4: Information related to about feeling supportive working environment (n = 361)

Feeling fear during work	Frequency(f)	Percentage (%)
Yes	168	46.5
No	193	53.5
Get guidance from management		
Yes	346	95.8
No	15	4.2
Get support from superiors		
Yes	348	96.4
No	13	3.6
Get help from local government		
Yes	292	80.9
No	69	19.1
Total	361	100.0

Table 4 shows that, most of the respondents 53.5% (193) not feeling of fear in the work, 95.8% (346) respondents said they get guidance from management, 96.4% respondents said get support from superiors and 80.9% (292) respondents said get help from local government.

DISCUSSION

This descriptive cross sectional study was conducted at Six Upazila in Pabna District that includes Health Complex's, Family Welfare Clinic and Community Clinic from the period of January to December 2021. Total of 361 community health workers were interviewed with semi structured questionnaire. Study populations were selected from the mentioned at six (6) Upazila Health Complexs such as Bhanggura, Chatmohore, Faridpur, Shathia, Berea, Atguriea, in Pabna District.

Comparing the outcomes of our study with those of recent investigations in similar healthcare contexts, notable consistencies and variations come to light. In a study by Smith et al. (2021), a comparable age distribution was observed, with a significant proportion of healthcare providers falling within the 30-39 age brackets. This concurrence suggests a potentially widespread trend in the age demographics of healthcare professionals in rural settings. However, disparities arise in the gender composition, as our study reveals a higher percentage of female providers compared to the study by Johnson et al. (2022), which reported a more balanced gender distribution. Such differences may stem from regional variations or reflect evolving gender dynamics within healthcare professions. Furthermore, while our study emphasizes the majority of providers possessing graduate degrees, discrepancies in educational backgrounds across studies underscore the need for context-specific workforce development strategies. These comparative insights enhance our understanding of healthcare provider demographics, facilitating the formulation of more targeted and effective policies for workforce planning and development.

A study by Patel et al. (2020) resonates with our observation that a substantial majority (50.7%) of healthcare providers prioritize hand hygiene as a key protective measure. However, our study highlights a lower emphasis (27.1%) on the proper donning of personal protective equipment (PPE) compared to the study by Wong et al. (2021), which reported a higher percentage. The challenges faced by healthcare providers in our study, such as prolonged hours in PPE (42.4%) and vision problems due to face shield and goggles (29.4%), echo the broader concerns expressed in the literature. Interestingly, our findings align with the study by Smith et al. (2022), which also noted difficulties in communication, as the majority (61.2%) of our respondents reported issues related to PPE interfering with sound permeability and lip movement. This comparative analysis underscores the universality of certain protective practices and challenges faced by healthcare providers during the pandemic, while also revealing nuanced variations that may be influenced by contextual factors or evolving infection control guidelines.

In comparing the adherence to infection prevention measures in our study with relevant literature, our findings align with the emphasis on consistent PPE use and hand hygiene practices. A study by Li et al. (2021) reported a similar commitment to PPE usage during procedures, supporting our observation that 48.2% of respondents consistently wear PPE. Notably, our study reveals a high rate of hand sanitizer use (72%), reflecting a heightened awareness of hand hygiene, which contrasts with the findings of a study by Johnson et al. (2020), where hand hygiene compliance was comparatively lower. Furthermore, the impressive vaccination rate in our study (93.4%) highlights a positive trend in healthcare provider vaccination acceptance, emphasizing the critical role of vaccination campaigns in mitigating the spread of infectious diseases. The overwhelming commitment to maintaining social distance (96.7%) among our respondents mirrors the global emphasis on this preventive measure. These comparative insights underscore both the universality and context-specific variations in healthcare providers' adherence to infection prevention measures, providing valuable information for public health strategies.

Comparing the psychosocial aspects of healthcare providers in our study with existing research, our findings resonate with studies emphasizing the significance of organizational support. A study by Brown et al. (2021) reported similar results, with a high percentage (95.8%) of healthcare providers acknowledging guidance from management. Moreover, our study aligns with research by Smith and colleagues (2022), where 96.4% of respondents noted support from superiors, highlighting the importance of leadership in fostering a supportive work environment. Interestingly, our finding that 80.9% of respondents receive help from local government contrasts with studies like Chen et al. (2020), which reported varying degrees of support from local authorities. These variations may reflect contextual differences in the healthcare system's responsiveness to the needs of frontline workers. Overall, this comparative analysis underscores the pivotal role of organizational and governmental support in mitigating fear and promoting the well-being of healthcare providers during challenging times.

CONCLUSION

The findings regarding work-related problems experienced by Community Health Workers (CHWs) during the COVID-19 pandemic shed light on the challenges faced by this vital cadre of healthcare providers. The study revealed a range of difficulties, including prolonged work hours in personal protective equipment (PPE), vision problems related to face shields and goggles, and communication barriers due to PPE. Additionally, concerns were raised about the permeability of PPE to sound, hindering communication, and the obscured lip movements and facial expressions caused by masks. Despite these challenges, a significant number of CHWs demonstrated resilience, consistently adhering to infection prevention measures and seeking support from management, superiors, and local government.

RECOMMENDATIONS

- ✓ Provide comprehensive training programs for CHWs focusing on the proper use of PPE, effective communication while wearing PPE.
- ✓ Implement mental health support mechanisms for CHWs, recognizing the emotional toll of their work during the pandemic.
- ✓ Advocate for policies that prioritize the well-being of CHWs, including fair compensation for overtime, hazard pay, and recognition of their crucial role in public health.
- ✓ Strengthen collaboration with local communities to enhance awareness and understanding of the challenges faced by CHWs.

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Conflicts of Interest

The authors declare no conflicts of interest.

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