Original Article

Health State and Barriers to the Provision of Health Services among Forcibly Displaced Myanmar Nationals in Bangladesh

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Abstract

Background: Forcibly displaced Myanmar nationals (FDMNs) are one of the most persecuted minorities groups, suffering from an abundance of health issues. They are exposed to a wide range of stressful events that are associated with adverse health consequences, which leads to decreased life expectancy due to increased morbidity and mortality. Materials and Methods: A descriptive cross-sectional survey among conveniently selected 203 healthcare workers (HCWs) to assess the health state and barriers to the provision of health services to FDMNs in the Kutupalong and Balukhali camps at Ukhiya Upazilla, Cox's Bazar. Data were collected by face-to-face interviews by using a semi-structured questionnaire. Results: The mean age of the HCW was 29.2±3.6 years and mean service duration was 5.8 ± 4.1 months. Most of the health facilities provided treatment for CDs (62.5%) and NCDs (80.0%). About one-third of the facilities had no laboratory facilities for diagnosing CDs (32.2%) and NCDs (40.0%). More than half of HCCs (55.0%) were maintain sterilization processes, such as boiling (90.9%), chemical components (45.5%) and an autoclave machine (13.6%). One-fourth of the HCWs (25.6%) get training during their joining times and above two-thirds of the HCWs (69.5%) received training after joining their service. The most frequently cited challenges faced during the provision of health services were transportation barriers (96.4%), language barriers (87.2%), scarcity of drugs (67.5%), vague disease histories (60.9%), unfavorable weather (59.4%) and electricity problems (44.7%). Conclusion: This study suggests that an organized primary healthcare service, specially designed for communicable and non-communicable disease prevention and management is necessary to improve health condition of FDMNs.

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Introduction

Bangladesh witnessed a high influx of the Forcibly Displaced Myanmar Nationals (FDMNs), an ethnic minority group of the Northern Rakhine State of Myanmar, who fled their homeland following an alarming escalation of violence¹. Around 621,000 FDMNs were driven into Cox's Bazar, Bangladesh, until 18th November 2017, among which 340,000 arrived at Kutupalong expansion site and 235,000 arrived in other settlements and camps². In the face of this emergency humanitarian plight, collaborative efforts from the Government of Bangladesh, the United Nations and non-government organizations resulted in the provision of some basic privileges for the displaced population³. Despite the combined endeavors, the disadvantaged community must reside in areas lacking adequate housing, safe drinking water, and proper sanitation, thereby heightening their susceptibility to various infectious illnesses^{4,5}. Additionally, witnessing violence, loss of family members and property has also contributed to the prevalence of severe psychological stresses⁶⁻⁸. In a study conducted by Ismail et al., it was revealed that 29.7% of the study populations are suffering from disease of the respiratory system, and 26.9% disease of the gastrointestinal from and hepatobiliary system. Among these, COPD (20%) is the most common, followed by chronic liver disease (13.1%), pulmonary TB (5.5%), communityacquired pneumonia (4.1%), and hepatocellular carcinoma (3.4%)^{9,10}. Accidental injury, injury due to falls or electrocution, or injury due to snakebites also presented in 10.4% of the population^{11,12}.

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The health problems of this vulnerable population have a widespread extension, such as poor water and sanitation facilities, which have contributed to different water-borne disease outbreaks such as cholera, bloody diarrhoea, typhoid and hepatitis-E^{13,14}. Low vaccination coverage is another contributing factor for increasing prevalence of communicable diseases¹⁵. In addition, the female populations of this community are subjected to sexual and reproductive health-related issues encompassing menstrual hygiene, safe abortion, aseptic delivery services, and safe contraception advice¹⁶. Non-communicable diseases (NCDs) such as anaemia and malnutrition are also a growing concern in the shelters of the FDMNs¹⁷. In such crisis settings, water, sanitation, nutrition, and access to health services has proved crucial for the affected population¹⁸. The distribution of the available health services by healthcare workers to the FDMNs is being hampered by multiple barriers, like poor access to refugee camps, population density, and difficulties in maintaining health equity¹⁹. These difficulties are further accentuated by adverse weather conditions coupled with a scarcity of both manpower and resources².

There are very few studies focusing on the challenges faced by health professionals serving in the communities of the FDMNs in Bangladesh, and hence, the current study has attempted to shed light on this vital issue and emphasize the importance of the successful collaboration of the national and international stakeholders to provide a healthy environment to the vulnerable population.

Materials and Methods

Study design and settings: This study was designed and implemented as a cross-sectional study to assess the health state and barriers to the provision of health services to Forcibly Displaced Myanmar Nationals. The study was done from January to December of 2018 in the purposively selected two camps named 'Kutupalong' and 'Balukhali' camps at Ukhiya Upazilla of Cox's Bazar 4700, Bangladesh. Data collection tools and techniques: The participants were conveniently selected as 203 HCWs (Doctors, Nurses, Midwives and Laboratory technologists), aged ≥ 18 years working in camps, irrespective of gender during the interview time. A pre-tested semistructured questionnaire was used for data collection through face-to-face interviews after obtaining informed written consent from each participant. Data analysis: The questionnaire was checked and cleaned after the completion of data collection. All data were computed and analyzed through SPSS Version 23. Descriptive statistics such as mean, standard deviation and percentage were computed for the continuous variables of the participants. The results were presented in the forms of tables and figures. Ethical aspects: Informed consent was

obtained from each participant. The study was conducted in accordance with the Declaration of Helsinki and ethical approval for the study was provided by the 'Institutional Review Board' (IRB) of the National Institute of Preventive and Social Medicine (NIPSOM), Dhaka 1212, Bangladesh. (Reference: NIPSOM/IRB/2018/471).

Results

Table-I outlines the socio-demographic characteristics of HCWs. The mean age of the HCW was 29.2±3.6 years. Most of them were male (54.7%) and completed their graduation (91.6%). The mean service duration was 5.8±4.1 months and mean average monthly income was 90,000.6±30,000.3 Taka. Table-II describes the information regarding health services. Nearly twothirds (63.5%) of the health facilities provided emergency healthcare. Most of the health facilities had observation beds (82.5%), and a few had admission beds (10.0%) and operation facilities (7.5%). Almost all healthcare centers provided antenatal and postnatal care services (92.5%), but less than half of the facilities (42.5%) provided delivery services. Most of the health facilities provided treatment for CDs (62.5%) and NCDs (80.0%). About one-third of the facilities had no laboratory facilities for diagnosing CDs (32.2%) and NCDs (40.0%). The facilities of the healthcare centers (HCCs) are depicted in table-III. The mean patient waiting time was 7.5±2.0 minutes. Most of the HCWs (85.7%) consult about taking medicine. Two-thirds of the HCCs (77.3%) were found clean. Most of the HCCs were semi-pacca (92.6%) and only a few were kaccha (2.0%). Most of the HCCs had a safe drinking water supply (92.5%) and tube wells were the main source of water (91.9%). The main sources of power supply in the HCCs were generators (50.0%) and solar systems (40.0%), but one-tenth (10.0%) of HCCs had no power supply. More than half of HCCs (55.0%) were maintain sterilization processes, such as boiling (90.9%), chemical components (45.5%) and an autoclave machine (13.6%).

Table-IV describes the challenges that are faced by HCWs. The mean of daily working hours was 6.5 ± 2.8 hours. One-fourth of the HCWs (25.6%) get training during their joining times. Above two-thirds of the HCWs (69.5%) received training after joining their service, such as training on EPI (69.5%), sanitation (53.9%), MCH (48.2%) and family planning (36.9%). The most frequently cited challenges faced during the provision of health services were transportation barriers (96.4%), language barriers (87.2%), scarcity of drugs (67.5%), vague disease histories (60.9%), unfavorable weather (59.4%) and electricity problems (44.7%). Figure-1 shows the key suggestions regarding improvement of health services in FDMNs camp.

Character	istics	Frequency (n)	Percentage (%)	
Age groups (years)	20-30	161	79.3	
	31-40	27	13.3	
	>40	15	7.4	
	Mean±SD	29.	29.2±3.6	
Candan	Male	111	54.7	
Gender	Female	92	45.3	
Education	Below graduation	6	3.0	
	Graduation	186	91.6	
	Post-graduation	11	5.4	
Service's duration (months)	≤ 6	138	68.0	
	>6	65	32.0	
	Mean±SD	5.8±4.1		
	Consultants	13	6.4	
Designation	Medical officers	132	65.0	
	Nurses	46	22.7	
	Medical technologists	12	5.9	
Monthly incomes (BDT)	≤60,000	60	29.6	
	>60,000	143	70.4	
	Mean±SD	90,000.6±30,000.3		

Table-I: Socio-demographic characteristics of HCWs (n=203)

Table-II: Health services related information of the healthcare centers (HCCs)

Services in health facilities		Frequency (n)	Percentage (%)
Emergency medical corresponding $(n=40)$	Yes	25	63.5
Emergency medical care services (n=40)	No	15	36.5
	Observation beds	33	82.5
Available facilities in health centers (n=40)	Admission beds	4	10.0
	Yes No Observation beds Admission beds Operation facilities Antenatal services Delivery services Postnatal services *N Available Partially available Yes No Available Partially available Partially available	3	7.5
	Antenatal services	37	92.5
MCH convices in the facilities $(n=40)$	Delivery services	17	42.5
MCH services in the facilities (n=40)	Postnatal services	37	92.5
	Delivery services 17 Postnatal services 37 *Multiple response Available 5 Partially available 22	Aultiple responses	
	Available	5	12.5
Laboratory facilities for diagnosing CDs (n=40)	Partially available	22	55.0
	Not available	13	32.2
Treatment facilities for CD_{2} ($n=40$)	Yes	37	92.5
realment facilities for CDs (n=40)	No	3	7.5
	Available	4	10.0
Laboratory facilities for diagnosing NCDs (n=40)	Partially available	20	50.0
	Not available	16	40.0
Therefore f_{1} = $\frac{1}{2}$	Yes	32	80.0
realment facilities for NCDs (n=40)	No	8	20.0

Table-III: Facilities of the healthcare centers (HCCs)

Responses		Frequency (n)	Percentage (%)
Patient's waiting times in minutes (n=203)	<5	43	21.2
	5-10	142	70.0
	11-15	12	5.9
	>15	6	2.9
	Mean±SD	7.5±2.0	
Counseling about taking medicine (n=203)	Counsel	174	85.7
	Do not counsel	29	14.3
Health centers by cleanliness (n=40)	Good	31	77.3
	Average	9	22.7

Responses		Frequency (n)	Percentage (%)
Health centers by housing condition (n=40)	Pacca	1	2.0
	Semi pacca	37	92.6
	Kaccha	1	2.0
	Tent	1	3.4
Provision of safe drinking water supply	Yes	37	92.5
(n=40)	No	3	7.5
	Piped water	6	16.2
Sources of water in the health care centers	Tube well	34	91.9
(n=37)	Bottled water	3	8.1
	*Multi	lultiple responses	
	Generator	20	50.0
Health centers by power supply (n=40)	Solar system	16	40.0
	No power supply	4	10.0
Availability of sterilization processes in	Present	22	55.0
the facilities (n=40)	Absent	18	45.0
Availability of sterilization processes in the facilities (n=22)	Autoclave	3	13.6
	Chemical sterilization	10	45.5
	Boiling	20	90.9
	*Multiple responses		

Table-IV: Healthcare barriers in the healthcare centers (HCCs)

Response	es	Frequency (n)	Percentage (%)
	6	92	45.3
	8	79	38.9
Daily working nours (n=203)	>8	32	15.8
	Mean±SD	6.5	±2.8
Training during joining the service	Yes	52	25.6
(n=203)	No	151	74.4
Received training after joining	Yes	141	69.5
(n=203)	No	63	30.5
	EPI	98	69.5
	МСН	68	48.2
	Family planning	52	36.9
$T_{\text{max}} = f_{\text{max}} = (n - 1.41)$	Sanitation	76	53.9
Types of training (n=141)	Nutrition	49	34.8
	CDs	33	23.4
	NCDs	16	11.3
	*Multiple responses		
$\mathbf{A}_{1} = \mathbf{i} + i$	Adequate	68	33.5
Availability of equipment (n=203)	Inadequate	135	66.5
Availability of diagnostic facilities	Available	16	7.9
(n=203)	Partially available	112	55.2
	Not available	75	36.9
	Immunization services	137	67.5
Availability of immunization, family	Family planning services	112	59.1
planning, ambulance and blood bank services (n=203)	Ambulance services	145	71.4
	Blood bank	31	15.3
	*Multiple responses		
	Transportation barriers	190	96.4
Challenges faced during provision of services (n=203)	Language barriers	177	87.2
	Scarcity of drugs	133	67.5
	Vague disease history	120	60.9
	Unfavorable weather	117	59.4
	Electricity problem	88	44.7
	*Multiple responses		



Figure-1: Key suggestions regarding improvement of health services in FDMNs camp

Discussion

This study has attempted to focus on the challenges faced by healthcare workers against the backdrop of the vulnerable health states of the FDMNs in Bangladesh. It has been found in this study that the majority of the participants were males (54.7%) and the mean duration of their employment was 5.8±4.1 months. In a similar study conducted in the United States of America, the dominance of the male gender was also observed among the health service providers, where 57% participants were male²⁰. On the contrary, in the same study, the mean employment time was 10.5 years, which is quite higher than the current study²¹. This contrast can be attributed to the shorter duration of placement of such health camps in Bangladesh compared to the USA, leading to a shorter history of working with the FDMNs. In the present study, 80% of the healthcare facilities were found to provide treatment for non-communicable diseases, which is similar to the findings in Lebanon, where only the primary health care centers are responsible for the treatment of these diseases²².

In the case of maternal health services, 92.5% healthcare centers were seen to provide antenatal services, and this facility is in accordance with the recommendations of the World Health Organization (WHO) for frequent antenatal visits. However, only 42.5% of hospitals had adequate privileges for child delivery, and this finding is similar to an international study encompassing ten countries where it was demonstrated that the refugee camps had basic obstetric services and complicated cases required referral to district or regional hospitals²³. One of the main challenges faced by healthcare workers in FDMNs' camps in Bangladesh was the language barrier (87.6%) as seen in camps in Vietnam and the USA, which posed a threat to utilization of health services by the target population too²¹. Another significant factor revealed in this study was a lack of transport facilities (96.4%) and inaccessibility to different locations of the health facilities, similar to studies in India²⁴. Poor sanitation, unfavorable weather conditions, and long waiting times were also recurrent issues in multiple health camps for displaced populations²⁵.

Therefore, relief resources are too few, and humanitarian aid efforts are too important to ignore them. Despite the barriers, the facilitating factors show a scope for improvement in these services. It is essential to intervene, and increasing accessibility to essential health services and education are indispensable to improving the quality of health among Rohingya refugees.

Conclusion

This study emphasizes the need for a robust primary organized health care approach, into multidisciplinary and incorporating teams innovative roles for healthcare professionals, to be integrated with community health services. Utilizing digital technology and implementing well-designed incentives can implement effective collaboration and coordination between primary health care and hospital services, utilizing team-based healthcare, is essential. This collaboration should involve governmental agencies, businesses and communitybased organizations to develop policies and practices that foster healthy environments.

Recommendations

It was recommended that a holistic approach be taken between the various international organizations and the host country, Bangladesh. We strongly recommend context-specific strategies, which were:

- 1. The registration process could be made simpler, cheaper, and available to all migrants.
- 2. Specific outreach services, like translation services, home visits, targeted health education, and counseling, could be provided by health facilities in certain areas.
- 3. Provision of adequate medicine and investigation facilities.
- 4. The capacity building of service providers through the provision of systematic training on specific need-based issues can be beneficial.

- 5. Support and strengthen the ability of individuals, families, and refugee communities to improve their health and wellbeing outcomes.
- 6. The private sector and international communities must collaborate to assist the refugees in their dire condition for the improvement of their health status.

Conflict of interest

The authors declared that they have no conflict of interest.

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