Original Article

Post Traumatic Stress Disorder among the Forcibly Displaced Rohingya Population from Myanmar Nationals in Bangladesh

Alam MF[1], Jahan SS[2], Amin MN[3], Tasnim S[4], Halim KS[5], *Nurunnabi M[6]

Abstract

Forcibly Displaced Myanmar Nationals (FDMN's) specially Rohingya population considered as a maltreated minority. They suffered physical brutality that conse- quences are physical, sexual and psychological trauma. This community based cross-sectional study was carried out to ascertain the prevalence rate and associated factors of post traumatic stress disorder (PTSD) among the 363 adult Rohingyas in the Kutupalong and Nayapara refugee camps, Cox's Bazar, Bangladesh by a semi-structured questionnaire through face-to-face interviews during the study period of June 2018 to November 2018. Among the 363 study participants, 60.33% had probable PTSD. The prevalence of PTSD was found higher in female (64.7%) in comparison to male (53.52%) and a statistically significant association (P=0.03) found between sex and PTSD. Married people had a higher prevalence of PTSD (64.62%) in compared to unmarried people and a significant association (P=0.003) found with the presence of PTSD. The prevalence of PTSD was very high (72.55%) among the respondents those faced sexual exploitation. Among the exploitations related variables, having previous experience of sexual exploitations were found statistically significant associated (P=0.039) with PTSD. Hypertension had a statistically significant association (P=0.02) with PTSD and the prevalence of PTSD among Hypertensive patients was 71.79%. Probable PTSD was highly prevalent among the Rohingya population in Bangladesh. Measures should be taken by trained healthcare professionals and mental healthcare providers.

Keywords: *PTSD, Rohingya FDMN, sexual exploitations, medical conditions, Cox's Bazar, Bangladesh.*

INTRODUCTION

Forced displacement or forced immigration is the coerced movement of a person away from home or region. In some cases, the forced immigrant may become a refugee, as the term has a certain definition.[1-2] Refugee crisis is an emerging global problem, United Nations High Commissioner for Refugees (UNHCR) reporting an intense increase of forcibly displaced populations from 59.5 million in 2014 to 65.3 million in 2015.[3] About 10 million stateless people and 1.5 million people who are refugees in addition to being stateless.[4,5]

UNHCR reported, an estimated 389,000 Rohingyas had fled since the last spell of violence exploded in Northern Rakhine state on August 25, 2017.[5] Kutupalong and Nayapara refugee camp are two government-run refugee camps in the Cox's Bazar area of southern Bangladesh have around 77,000 FDMN's, and it is increasing with time.[5,6] These enormous outflows of refugees were followed by huge deportation to Burma. Repatriation has been considered the desired solution to the refugee crisis. Since the influx of Rohingya over international borders has never ceased, and it has not ascertained a definite solution. The root causes of this unprecedented evacuation are not effectually resolved for this crisis.[6]

Rohingya FDMN's considered as a persecuted minority in the world. The majority is not considered to be citizens by the Myanmar Government, and live in a statelessness condition.[7] They have been fleeing Myanmar in huge numbers, often to nearby developing countries- specially in Bangladesh to avoid conflict and persecution.[8] Compatibly, the refugee crisis in Bangladesh has reached critical levels, with the number of unregistered Rohingya population estimated 200,000 to 500,000.[9]

1. Dr. Md. Fayshal Alam, Resident Medical Officer, Friendship Hospital, Sathkhira.
2. Dr. Syeda Saberin Jahan, Medical Officer, Department of Intensive Care Unit, Sylhet Women's Medical College (SWMC), Sylhet.
3. Dr. Mohammad Nurul Amin, Assistant Professor, Department of Endocrinology, Mugda Medical College Hospital, Dhaka.
4. Dr. Sinthia Tasmin, Resident Medical Officer, 20 Bed Hospital, Donarchor, Daudkandi, Cumilla.
5. Dr. Kazi Shafiqul Halim, Professor, Department of Epidemiology, National Institute of Preventive and Social Medicine (NIPSOM), Dhaka.
6. *Dr. Mohammad Nurunnabi, Assistant Professor, Department of Community Medicine, SWMC, Sylhet. Email: nur.somch@gmail.com. Call: 0 1717870559

*For correspondence

The Rohingya situation in Bangladesh becomes one of the most protracted in the world, with more than twenty years of continuous camp settlements. Due to unstructured refugee policies in Bangladesh and politicization of the refugee situation, integration of Rohingyas becomes a challenge. The Government declared national policy for managing the Myanmar refugees in 2014. Whether residing in camp or non-camp areas, the Rohingya FDMN's have been issued to the miserable living conditions marked by scarcity of basic needs, exposure to various types of violence, restricted movement, local aggression, and various forms of discernment.[10]

However, these victims of this forced migrant often suffer from physical brutality, those results in physical, sexual and psychological trauma. Due to their vulnerability, they run the health risk of sexually transmitted diseases, hepatitis, tuberculosis and other communicable diseases; unwanted pregnancy, teen pregnancy, forced abortion and abortion-related complications; rape and other physical exploitation. There are also several mental and emotional health conditions such as nightmares, insomnia, alcohol and drug abuse, suicidal ideation and attempt, even suicide and homicide.

MATERIAL AND METHODS

Study design

A community based cross sectional study was carried out to ascertain the prevalence rate and associated factors of PTSD among the Forcibly Displaced Rohingya population from Myanmar nationals in Bangladesh. The study sample was selected purposively who satisfied the inclusion criteria of the study during the period of June 2018 to November 2018. Suffering from any severe physical or psychological diseases before force migration were excluded from the study.

Study places

Total 363 adult Rohingya peoples (≥18 years) were selected, living in the Kutupalong and Nayapara refugee camps, Cox's Bazar, Bangladesh.

Data collection

A pre-tested semi-structured questionnaire was used for data collection through face-to-face interviews after obtaining informed written consent from each participant.

Data analysis

The data were checked and cleaned followed by making a template, categorizing data, coding and recoding into IBM SPSS v23. The analysis was carried out by using both descriptive and inferential statistics, and presented with frequency tables and chart.

Ethical approval

The study was approved by the North South University Ethical Review Committee (NSU-ERC).

RESULTS

Table I shows, presents the socio-demographic state of the Rohingya population. Among 363 Rohingya around two-third (60.88%) were female and three-fourth (76.4%) were married. The study participants were between 18-60 years old, whereas more than half (52.07%) were aged 40 years or higher. Most of them (67.91%) were learned the Quran from informal Arabic schools and only 8.76% of Rohingya people were received formal education through school. Among the study participants around two-third (62.26%) had more than 6 members in their household. When they were staying in Myanmar, regarding occupation most of them (42.42%) was homemaker and more than 95% had a permanent residence and about their average monthly family income, 53.99% had less than 500 USD.

Table 1: Socio-demographic state of the Rohingya population (n=363)

Variables		n(%)
Age	≥40 years	189 (52.07)
	<40 years	174 (47.93)
Sex	Female	221 (60.88)
	Male	142 (39.12)
Marital status	Married	277 (76.40)
	Others	86 (23.60)
Education	No education	85 (23.33)
	Arabic (Quran)	246 (67.91)
	Formal education	32 (8.76)
Past occupation	Agriculture	102 (28.10)
	Business	58 (15.98)
	Homemaker	154 (42.42)
	Others	49 (13.50)
Current household members	≤6 members	137 (37.74)
	>6 members	226 (62.26)
Had permanent residence	Yes	345 (95.04)
	No	18 (4.96)
Past average monthly family income	≥500 USD	167 (46.01)
	<500 USD	196 (53.99)

Table II Shows, demonstrates the exploitations faced by Rohingya FDMN's before entry in the Bangladesh. The prevalence of sexual exploitations was 16.8% and physical exploitations were 14.05%. Other types of exploitations like threat, economic and land-house related damage were also faced by 28.65% of participants.

Table II: Exploitations faced by the Rohingya population before entering in Bangladesh (n=363)

Exploitations faced		n(%)
Sexual	Yes	61 (16.81)
	No	302 (83.19)
Physical	Yes	51 (14.05)
	No	312 (85.95)
Others	Yes	104 (28.65)
	No	259 (71.35)

Table III Shows, represents the distribution of physical factors of the Rohingya population. The prevalence of Hypertension (21.49%) was higher than Diabetes mellitus (9.37%) among the study participants and prevalence of physical disabilities were found in only 3.3% of participants. Three-fourth (74.38%) participants reported that they received medical supports as required.

Table III : Physical factors of the Rohingya population (n=363)

Physical factors		n(%)
Diabetes mellitus	Yes	34 (9.37)
	No	329 (90.63)
Hypertension	Yes	78 (21.49)
	No	285 (78.51)
Physical disabilities	Yes	12 (3.30)
	No	351 (96.70)
Getting medical supports	Yes	270 (74.38)
	No	93 (25.62)

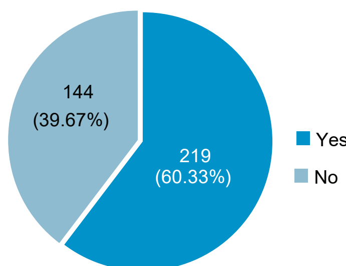

Figure 1: Prevalence of PTSD among the Rohingya population (n=363)

Figure 1 Shows, illustrates the prevalence of PTSD among Rohingya communities in Bangladesh. Among the 363 study participants, three-fifth (60.33%) had probable PTSD.

Table IV Shows, interprets the prevalence of PTSD varies in different characteristics of the study participants. The prevalence of PTSD was found higher in females (64.7%) in comparison to males (53.52%) and a statistically significant association (P=0.03) found between sex and PTSD. The statistical association between age (P=0.27) and education (P=0.88) with PTSD were not revealed, though the prevalence of PTSD was higher among the individuals who are less than 40 years old. People those had a formal education showed a lower prevalence of PTSD (56.25%) in compared to other educational categories. Marital status was found significantly associated (P=0.003) with the presence of PTSD. Married people had a higher prevalence of PTSD (64.62%) in comparison to unmarried peoples. Past occupation (P=0.25), permanent residence (P=0.36), current number of household members (P=0.104) and past average monthly family income (P=0.12) did not reveal any statistically associated with PTSD.

Exploitations related variables having previous experience of sexual exploitations were found statistically significant associated (P=0.039) with PTSD. The prevalence of PTSD was very high (72.55%) among the respondents those faced sexual exploitations. The prevalence of PTSD was also high among the participants those faced physical exploitations (72.55%) and other exploitations (67.31), however here statistically significant associations were not observed. Regarding the disease and medical conditions related variables considered, Hypertension had a statistically significant association (P=0.02) with PTSD and the prevalence of PTSD among hypertensive patients was 71.79%. Those have diabetes and did not get regular medical support to have also a higher prevalence of PTSD. Diabetes mellitus (P=0.36), physical disabilities (P=0.88) and getting medical supports (P=0.23) did not reveal any statistically significant association with PTSD.

Table IV: Probable PTSD prevalence by characteristics of the Rohingya FDMN's and their associations

		Probable PTSD		Chi-square (χ^2)	P value
		Yes (n=219)	No (n=144)		
Age	≥40 years	103 (54.50)	86 (45.50)	1.22	0.27
	<40 years	116 (66.67)	58 (33.33)		
Sex	Female	143 (64.70)	78 (35.30)	4.52	0.03*
	Male	76 (53.52)	66 (46.48)		
Marital status	Married	179 (64.62)	98 (35.38)	8.99	0.003*
	Others	40 (46.51)	46 (53.49)		
Education	No education	52 (61.68)	33 (38.82)	0.25	0.88
	Arabic (Quran)	149 (60.57)	97 (39.43)		
	Formal education	18 (56.25)	14 (43.75)		
Past occupation	Agriculture	64 (62.75)	38 (37.25)	3.28	0.35
	Business	39 (67.24)	19 (32.78)		
	Homemaker	91 (59.09)	63 (40.91)		
	Others	25 (51.02)	24 (48.98)		
Current household members	≤6 members	90 (65.69)	47 (34.31)	2.64	0.104
	>6 members	129 (57.08)	97 (42.92)		
Had permanent residence	Yes	210 (60.87)	135 (39.13)	0.84	0.36
	No	9 (50.00)	9 (50.00)		
Past average monthly family income	≥500 USD	108 (64.67)	59 (35.33)	2.43	0.12
	<500 USD	111 (56.63)	85 (43.37)		
Sexual exploitations	Yes	44 (72.13)	17 (27.87)	4.27	0.039*
	No	175 (57.95)	127 (42.05)		
Physical exploitations	Yes	37 (72.55)	14 (27.45)	3.70	0.054
	No	182 (58.33)	130 (41.67)		
Other exploitations	Yes	70 (67.31)	34 (32.69)	2.96	0.08
	No	149 (57.53)	110 (42.47)		
Diabetes mellitus	Yes	23 (67.65)	11 (32.35)	0.84	0.36
	No	196 (59.57)	133 (40.43)		
Hypertension	Yes	56 (71.79)	22 (28.21)	5.45	0.02*
	No	163 (57.19)	122 (42.81)		
Physical disabilities	Yes	7 (58.33)	5 (41.67)	0.02	0.88
	No	212 (60.40)	139 (39.60)		
Getting medical supports	Yes	158 (58.52)	112 (41.48)	1.44	0.23
	No	61 (65.59)	32 (34.41)		

*Statistically significant

DISCUSSION

PTSD is one of the most important psychopathological public health concerns experiencing after any major form of trauma or disaster. In this study, it was revealed that some types of exploitation had a negative impact on exposed individuals' mental health in terms of housing, income, jobs and family problems etc. A number of people met the criteria for post-trauma stress symptomatology found this study. Among the 363 participants, 60.33% had probable PTSD. Our finding is almost similar with study findings 48% in South Sudan, 75.6% in Rana Plaza building collapse victims in Bangladesh, 57% in Saudi Arabia, 83.7% in Croatia, Germany and UK, 59.4% in Fukushima nuclear disaster, Japan.[11-17,23,32-34] However, our study was inconsistent from the findings of studies on people exposed to natural disasters, such as 36.3% among earth quack victims in Kerman, 35.4% Syrian refugees in Lebanon, 34.9% in Turkey and 34.3% among the bombing victims of Oklahoma City, USA.[18-24] The reason of difference is using of different instruments and cut-off points to measure PTSD, exposures to multiple trauma, study design, and nature and magnitude of the occurrence.

When staying in Myanmar females was mostly (42.42%) were homemakers and more than 95% of the participants had a permanent residence. The greater likelihood of PTSD among womean than men in our work was similar to the reports of other studies, because females experience sexual assaults and child sexual abuse more than males.[19,25-29] Hence, being exposed to such trauma involves more risk than other trauma in causing PTSD.[8,23,28,30]

The prevalence of sexual exploitation was 16.8% and physical exploitations were 14.05%. The prevalence of PTSD was found higher in female (64.7%) in compared to male (53.52%) participants. A statistically significant association found between sex and PTSD (P=0.03). Statistically significant association between age, education and PTSD were not revealed though the prevalence of PTSD was higher among the individuals those are less than 40 years old. People who had a formal education showed lower prevalence of PTSD (56.25%) in compared to other educational categories.[8,31-32] Marital status was found significantly associated with the presence of PTSD (P=0.003). Married people had a higher prevalence of PTSD (64.62%) compared to unmarried people. This finding is similar to the studies.[23,30,33-34]

Exploitations related variables having previous experience of sexual exploitations were found statistically significant associated (P=0.039) with PTSD. The prevalence of PTSD was very high (72.55%) among the respondents those faced sexual exploitations. Some studies, also found a relevant association.[23,33-35]

Regarding the disease and medical conditions related variables considered, Hypertension had a statistically significant association (P=0.02) with PTSD, and the prevalence of PTSD among hypertensive patients was 71.79%. Those have diabetes and did not get regular medical support to have also a higher prevalence of PTSD. Diabetes mellitus (P=0.36), physical disabilities (P=0.88) and getting medical supports (P=0.23) did not reveal any statistically significant association with PTSD. Moreover, experiencing physical injury was also a stronger predictor of PTSD compared with those who had not experienced any such injuries in the incident. The finding is similar to the studies.[29,34-36]

CONCLUSION

The prevalence of PTSD was high in the adult Rohingya population. This study confined that some types of exploitations (sexual exploitation) had a harmful impact on the mental health of affected individuals. It is recommended that a PTSD-focused early regular screening by trained healthcare professionals and linkage with mental healthcare providers. It is necessary to give emphasis to individuals with a family history of mental illness, women and history of mental illness of those who experienced physical trauma during coming to Bangladesh.

REFERENCES

1. Fitzpatrick J. Revitalizing the 1951 refugee convention. Harvard Human Rights Journal. 1996;9:229.
2. Article 1 of the 1954 Stateless Persons Convention; United Nations: Manhattan, NY, USA, 1954.
3. Retrieved from Ending Statelessness; UNHCR (The UN Refugee Agency): Geneva, Switzerland, 2016.
4. Lambert H. The link between statelessness and refugeehood. International Affairs Forum. 2016, 1, 25-27.
5. Refugees U. Rohingya influx strains camp resources in Bangladesh [Internet]. UNHCR. 2017 Available from: http://www.unhcr.org/news/latest/2017/9/59ba9b7b4/rohingya-influx-strains-camp-resources bangladesh.html [Cited 17 September 2020]

6. Retrieved from UN Condemns Myanmar over Plight of Rohingya; BBC News: London, England, 2016.
7. Albert E. The Rohingya migrant crisis. CFR Backgrounder, Council on Foreign Relations. Retrieved January. 2015; 10:2016.
8. Bangladesh Factsheet; UNHCR: Geneva, Switzerland, 2016. [Cited 17 September 2020]
9. Milton AH, Rahman M, Hussain S, Jindal C, Choudhury S, Akter S, Ferdousi S, Mouly TA, Hall J, Efird JT. Trapped in statelessness: Rohingya refugees in Bangladesh. International journal of environmental research and public health. 2017; 14(8):942.
10. Azad A, Jasmin F. Durable solutions to the protracted refugee situation: The case of Rohingyas in Bangladesh. Journal of Indian research. 2013; 1(4): 25-35.
11. Smith M. "All You Can Do is Pray": Crimes Against Humanity and Ethnic Cleansing of Rohingya Muslims in Burma's Arakan State. Human rights watch; 2013.
12. Szep J, Grudgings S. (2013). Preying on the Rohingya (Reuter's special report). Available from: http://graphics.thomsonreuters.com/13/07/Myanmar-Rohingyas.pdf [Cited 20 September 2020]
13. Kiragu E, Rosi AL, Morris T. States of denial: A review of UNHCR's response to the protracted situation of stateless Rohingya refugees in Bangladesh. Policy Development and Evaluation Service, UNHCR. 2011.
14. Knight K. How Bangladesh Aid Restrictions Impact Rohingyas. The New Humanitarian. 2013.
15. United Nations High Commissioner for Refugees (UNHCR) & Action Contre La Faim. (2011). Annual nutrition report: Kutupalong and Nayapara refugee camps, Bangladesh. Available from: https://www.wfp.org/sites/default/files/Annual%20Report%202011.pdf [Cited 20 September 2020]
16. World Food Programme (WFP), Government of the People's Republic of Bangladesh (GOB), & United Nations High Commissioner for Refugees (UNHCR). (2012). Joint assessment mission: Myanmar refugees in Cox's Bazar District, Bangladesh. Available from: http://www.unhcr.org/en-us/protection/health/555c8c459/bangladesh-joint-assessment-mission [Cited 22 September 2020]
17. Barry E. A Bangladeshi town in human trafficking's grip. The New York Times. 2015.
18. United Nations High Commissioner for Refugees (UNHCR). (2016). Separated by the sea. Available from: http://tracks.unhcr.org/2016/02/ separated-by-the-sea/ [Cited 25 September 2020]
19. Parnini SN. The crisis of the Rohingya as a Muslim minority in Myanmar and bilateral relations with Bangladesh. Journal of Muslim minority affairs. 2013; 33(2):281-97.
20. Ullah AA. Rohingya refugees to Bangladesh: Historical exclusions and contemporary marginalization. Journal of immigrant & refugee studies. 2011; 9(2):139-61.
21. United Nations High Commissioner for Refugees (UNHCR). (2007b). Refugee consultations: Bangladesh. Available from: http://www.refworld. org /docid/46f0ec002.html [Cited 27 September 2020]
22. Hall BJ, Murray SM, Galea S, Canetti D, Hobfoll SE. Loss of social resources predicts incident posttraumatic stress disorder during ongoing political violence within the Palestinian Authority. Social psychiatry and psychiatric epidemiology. 2015; 50(4): 561-8.
23. Neuner F, Schauer M, Karunakara U, Klaschik C, Robert C, Elbert T. Psychological trauma and evidence for enhanced vulnerability for posttraumatic stress disorder through previous trauma among West Nile refugees. BMC psychiatry. 2004;4(1):1-7.
24. Miller KE, Rasmussen A. War exposure, daily stressors, and mental health in conflict and post-conflict settings: bridging the divide between trauma-focused and psychosocial frameworks. Social science & medicine. 2010;70(1):7-16.
25. Kirmayer LJ, & Pedersen D. Toward a new architecture for global mental health. Transcultural psychiatry. 2014;51(6), 759-776.
26. Riley A, Varner A, Ventevogel P, Taimur Hasan MM, Welton-Mitchell C. Daily stressors, trauma exposure, and mental health among stateless Rohingya refugees in Bangladesh. Transcultural psychiatry. 2017;54(3): 304-31.

27. Burkle Jr FM. Acute-phase mental health consequences of disasters: implications for triage and emergency medical services. Annals of emergency medicine. 1996; 28(2):119-28.
28. Gates MA, Holowka DW, Vasterling JJ, Keane TM, Marx BP, Rosen RC. Posttraumatic stress disorder in veterans and military personnel: Epidemiology, screening, and case recognition. Psychological services. 2012;9(4):361.
29. World Health Organization. mhGAP: Mental Health Gap Action Programme: scaling up care for mental, neurological and substance use disorders. Geneva: World Health Organization; 2008.
30. Galea S, Nandi A, Vlahov D. The epidemiology of post-traumatic stress disorder after disasters. Epidemiologic reviews. 2005; 27(1):78-91.
31. Hg L, Heather Graham L. How common is PTSD? National Center for PTSD. 2015:1. National Center for PTSD. 2015:1.
32. Prince M, Patel V, Saxena S, Maj M, Maselko J, Phillips MR, Rahman A. No health without mental health. The lancet. 2007;370(9590):859-77.
33. Kazour F, Zahreddine NR, Maragel MG, Almustafa MA, Soufia M, Haddad R, Richa S. Post-traumatic stress disorder in a sample of Syrian refugees in Lebanon. Comprehensive psychiatry. 2017;72:41-7.
34. Bleich A, Gelkopf M, Solomon Z. Exposure to terrorism, stress-related mental health symptoms, and coping behaviors among a nationally representative sample in Israel. JAMA. 2003;290(5):612-20.
35. Ayuso-Mateos JL. Global Burden of post-traumatic stress disorder in the year 2000: version 1 estimates. World Health Organ 2002.
36. Kaplan BJ. Kaplan and Sadock's synopsis of psychiatry. Behavioral sciences/clinical psychiatry. Tijdschrift voor psychiatrie. 2016; 58(1):78-9.