

1
2
3 **Establishing a postgraduate fellowship in humanitarian medicine -**
4 **building capacity and ensuring sustainability for the health sector in**
5 **the Rohingya Crisis**
6
7
8
9

10 Mir Saaduddin Ahmad^{a*} and Kay Mohanna^b
11

12
13 *^aAcademic Medicine, Dr Nizam Medical Centre, Dhaka, Bangladesh; ^bCollege of*
14 *Health, Life and Environmental Science, University of Worcester, Worcester, UK*
15
16

17 *Corresponding author:
18

19 Dr Mir Saaduddin Ahmad
20 Director of Academic Medicine,
21 Level 4, Dr Nizam Medical Centre
22 House A151, Road 4
23 Niketan, Gulshan 1
24 Dhaka-1212,
25 Bangladesh
26 dr.msahmad@gmail.com
27
28
29
30
31
32
33

34 Mir Saaduddin Ahmad is the Training Programme Director for the Postgraduate Fellowship in
35 Migrant and Refugee Health that is run in Cox's Bazar by Doctors Worldwide.
36
37

38 Kay Mohanna is Professor of Values Based Health Professions Education at Worcester
39 University and has deployed to Cox's Bazar as expert faculty for the Doctors Worldwide PGF
40 programme.
41
42

43 **Acknowledgments:**
44

45 The authors would like to acknowledge the Doctors Worldwide Postgraduate Fellowship project
46 team for their efforts in bringing the programme to fruition - Monowara Gani, Georgia Venner,
47 Najeeb Rahman and Sayeed Ahmed.
48
49

50
51 The PGF and associated activities are funded by both Doctors Worldwide and the International
52 Organisation for Migration (IOM) and is free to participants. Faculty donate their time for free
53 and receive travel and other expenses.
54
55
56
57
58
59
60

Establishing a postgraduate fellowship in humanitarian medicine - building capacity and ensuring sustainability for the health sector in the Rohingya Crisis

The Postgraduate Fellowship for Migrant and Refugee Health (PGF) is a 13-week programme of training, mentorship and workplace-based assessment for junior doctors working in the Rohingya migrant camps of Bangladesh. To date, four cohorts of 25 doctors who work in Primary Health Centres run by Non-Governmental Organisations (NGOs) have completed the programme. The PGF was developed and delivered by Doctors Worldwide (DWW), a UK-based international charity which aims to improve the health of communities by working in partnership with international, national and grassroots organisations focusing on health access, health improvement and health emergencies. The doctors working in the camps carry a burden of responsibility often out of proportion to their training, experience and seniority. The isolated nature of the camp health facilities, the paucity of equipment, drugs and facilities and the lack of any senior mentorship mean that clinicians have had to learn new roles and responsibilities on the job. Doctors Worldwide recognised this unique challenge at the start of the crisis in the latter half of 2017 and since 2018 it has successfully run the PGF using an international community of content developers with travelling and local teaching and support.

Keywords: refugee health; postgraduate training; workplace-based assessment; communities of practice

Background

As with many such crises, the forced displacement of Myanmar nationals belonging to the Rakhine state occurred in a part of the world that was not ready to receive an influx of such a large scale. The southeast coastal belt of Bangladesh is known for its natural beauty and nature reserve but does not have the infrastructure to cope with approximately 885,000 Rohingya refugees now residing in Cox's Bazar district [1]. The Rohingya community is acknowledged to have already been disadvantaged at home

1
2
3 within Myanmar with very low levels of formal education, low socio-economic status
4 and possible high levels of unmet health needs [2]. This level of need would be a
5
6 challenge for even the most developed of nations. The Bangladeshi government and the
7
8 international community have demonstrated a strong humanitarian commitment and
9
10 since the latest outbreak of violence in August 2017, a total of nearly USD 2.8 billion
11
12 has been provided to the Rohingya crisis response. This is in addition to USD 700
13
14 million in development commitments to Bangladesh from the World Bank and Asian
15
16 Development Bank. However, many sectors, including Health, have had to depend on
17
18 local human resources with little or no experience in humanitarian care.
19
20
21
22
23

24 The initial humanitarian development followed the WHO Health Cluster
25
26 approach [2] “to relieve suffering and save lives in humanitarian emergencies, while
27
28 advancing the well-being and dignity of affected populations”. This created a
29
30 foundation of ‘Level one’ primary care centres to cater to all the primary care needs of
31
32 both the host and migrant communities, and additionally provide emergency care,
33
34 maternal care and admission for observations. These now feed into new and existing
35
36 secondary and tertiary care facilities regionally and even nationally.
37
38
39

40 The majority of doctors running these centres are within five years of
41
42 graduation. They were recruited locally by NGOs and have stayed on with periodical
43
44 renewal of contracts and intermittent deployment of expatriate colleagues. Career
45
46 progression is uncertain and continuing medical education is sporadic and reactive.
47
48 When Doctors Worldwide first arrived in November 2017 to carry out a needs
49
50 assessment, it was clear that the gap did not lie in the number of clinicians on the
51
52 ground, but rather in the skill set and experience of the practitioners who responded to
53
54 the crisis out of a sense of altruism and motivated by social justice, but who had never
55
56 faced the likes of the current challenge. With a focus on building capacity and providing
57
58
59
60

1
2
3 sustainable healthcare and education that could be self-perpetuating without the need for
4 external assistance, the PGF aimed to introduce new modalities of medical education
5 following an adult learning, self-directed model. Much of this was a new approach for a
6 cohort of doctors who had thus far received didactic lectures in medical school and the
7 occasional workshops as set up by the Health Cluster. These latter were important
8 sources of information about provision of facilities and protocol-driven care but were
9 designed to hand over knowledge, rather than facilitate growth in learning and develop
10 a cadre of doctors who could identify and address their own future learning needs.
11
12
13
14
15
16
17
18
19
20
21
22

23 **Programme Development**

24 To gain the maximum impact from the limited amount of field time available, a
25 community of practice approach was developed [3]. This allowed experienced DWW
26 expatriate faculty to share their knowledge and skills with local participants while
27 simultaneously mentoring them on an individual basis.
28
29
30
31
32
33

34 The domain of practice, after Wenger [3], was defined by DWW as the primary
35 healthcare facilities within the extended migrant camps. These included stand-alone
36 health posts (sometimes just a chair, a table and a single doctor harboured under a
37 shelter) to the more comprehensive primary healthcare centres (open twenty-four hours
38 a day, seven days a week). The community identified were doctors working at these
39 facilities who registered for the free training programme on their one free day per week,
40 after approval of their line-managers. It also included a selected group of local and
41 expatriate specialists intermittently deployed to the camps (26 UK based colleagues) as
42 well as a team of over 50 specialist content developers from 6 countries, who engaged
43 remotely. The practice seeking to be improved was the wide range of primary care
44 interventions that this unique group of healthcare users accessed at these facilities.
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

1
2
3 A pilot programme was run over a period of three weeks in February 2018 to
4 engage with the learners and carry out a feasibility study. During this period, learning
5 needs were identified and content or activities were identified to match (Table 1).
6
7
8
9
10 Different modalities of learning (Figure 1) were put forward to enhance the learner
11 experience and the need to provide mentorship and direct clinical supervision was
12 recognised in order to provide immediate solutions for the clinical problems
13 encountered. A deliberate effort was made to introduce a variety of supported, active
14 learning methods to scaffold learners from a dependence on familiar content-rich
15 lectures to a more self-directed, process-rich style of learning.
16
17
18
19
20
21
22
23

24 Principles of reflective practice as a way of identifying blind spots in knowledge
25 and practice were introduced and elements of mentoring from the community (visitors
26 and other participants) were integrated to facilitate a sustainable learning experience.
27
28 Each participant had a logbook to record mini-clinical evaluation exercises and direct
29 observations of procedures and faculty were deployed into the camps to sit alongside
30 and engage in professional conversations in real-time with the participants. In addition,
31 the logbook enabled reflection on clinical decision making to be facilitated back in the
32 classroom using case-based discussions. Despite the often chaotic and always busy
33 clinical environment, once the benefits of enhanced professional practice were noted by
34 participants, and the non-judgmental approach of the visiting faculty was experienced,
35 this novel form of learning was valued. Importantly, it was reassuring that local
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

The programme ran for 13 weeks and was repeated four times during a two-year
period. The programme duration was short enough to avoid drop-out due to change in
circumstances of the participants, but long enough to allow community learning to

1
2
3 develop, both on the part of the participants and faculty. For the faculty and the
4
5 programme, each cohort improved upon the previous by means of a rigorous system of
6
7 monitoring, evaluation, assessment and learning exercises. This included the review of
8
9 field data and practices as well as live feedback from participants and their line
10
11 managers.
12
13
14
15

16 **Outcomes**

17
18 The development of a community of practice for the participants was a rewarding
19
20 outcome and this developed organically. Previously participants had been in the bubble
21
22 of their own organisations, unaware of the array of resources at hand. Through the PGF,
23
24 not only were they able to learn clinical skills from each other but they were able to link
25
26 up with one another and establish best practices in the absence of formal guidelines. The
27
28 community also developed conventionally in the sense that bonds were formed and
29
30 previous cohorts were looked upon as older and wiser siblings. Following up with the
31
32 PGF participants a year after the last cohort reveals that the camaraderie is still strong
33
34 and many of the PGF alumni have moved up the career pathways and are guiding their
35
36 younger colleagues well (Table 2). The majority of the participants entered into the PGF
37
38 programme when they were at the entry level grade of Medical Officer (equivalent to an
39
40 intern, house officer or foundation doctor) within their parent organisations. Many now
41
42 have been appointed to supervisory and coordination roles or have moved on to larger,
43
44 international organisations.
45
46
47
48
49

50 A total of 787 hours of clinical shadowing were conducted in addition to the 423
51
52 hours of classroom training. Over 1500 workplace-based assessments were recorded
53
54 and reviewed by the 26 expert faculty. The 99 medical doctors trained over the four
55
56 cohorts received an additional 602 professional certificates from third-party online
57
58 courses that were facilitated through the PGF programme.
59
60

1
2
3 In the project's final impact review, participants reported an increase in
4 confidence in patient management. They felt that the overall care extended to patients
5 had improved through their own exposure to international standards of medical care.
6
7 Most importantly, they felt empowered to demonstrate their leadership abilities, for
8 example by introducing elements from the teaching such as the practice of triage in their
9
10 own organisations. A participant from the third cohort of training in 2019 stated the
11
12 following:
13
14
15
16
17
18

19 *'I came across a patient who was not breathing. I performed the head tilt and*
20 *chin lift procedure that I was taught in one of the PGF simulation sessions. I*
21 *was able to help the patient breathe again. I felt so happy.'*
22
23
24
25
26
27

28 Patient satisfaction with the care provided has been a challenge to evaluate due to
29 language and logistical difficulties but is ongoing and will be reported elsewhere.
30
31
32
33

34 **Discussion**

35 Wenger suggests that three 'modes of belonging' are important aspects of learning in
36 communities of practice: engagement, alignment and imagination. These act to:
37
38
39

40 *'anchor [learning] in practice, yet make it broad, creative and effective in the*
41 *wider world'.*
42
43
44

45 Reflective practice, such as integrated into the PGF, results from the effective
46 combination of engagement plus imagination. Wenger points out that the presence of an
47 outside view, such as provided by the PGF mentors, enables participants both to engage
48 fully with the reality of their experience for example by have attention brought to
49 unconscious aspects of practice, and also to trigger new interpretations enabling the
50 imagination of other futures - where clinical practice might be enhanced. Imagination
51 must be combined with alignment to context however, to ensure it is not just a fantasy,
52
53
54
55
56
57
58
59
60

1
2
3 and this combination situates learning back in practice. Additionally, the learning that
4
5 can result from combining alignment with imagination ensures that practitioners remain
6
7 adaptable when situations change for example when protocols do not apply or resources
8
9 do not allow a preferred course of action. Combining the modes of belonging of
10
11 engagement plus alignment within a community of practice leads to professional
12
13 conversations that can fully exploit variation in practice. In negotiating and defending
14
15 our practice with colleagues, we can come to see ambiguities, inconsistencies and
16
17 perhaps mutually develop new ways of doing things.
18
19
20
21
22

23 **Conclusion**

24
25 Through a process of professional engagement with colleagues, catalysed by the PGF, a
26
27 creative community of practice has developed. This model of teaching, although
28
29 resource intensive at its initiation, has led to a vibrant, self-sustaining community of
30
31 practice among the doctors of the Rohingya refugee camps. The PGF alumni are
32
33 arranging in-house training of their own for their allied health professional colleagues,
34
35 employing a number of the learning techniques from the PGF. Doctors Worldwide has
36
37 further plans of running the PGF in 2021, not only for doctors, but for nurses, midwives
38
39 and medical assistants, in parallel programmes.
40
41
42
43

44 **References:**

- 45
46 1. United Nations High Commission for Refugees (2020)
47
48 [www.unhcr.org/news/press/2020/10/5f915c464/conference-sustaining-support-](http://www.unhcr.org/news/press/2020/10/5f915c464/conference-sustaining-support-rohingya-refugee-response-22-october-2020.html)
49
50 [rohingya-refugee-response-22-october-2020.html](http://www.unhcr.org/news/press/2020/10/5f915c464/conference-sustaining-support-rohingya-refugee-response-22-october-2020.html) (accessed 30.10.20)
51
52
53 2. Mobarak, AM (2020) Socioeconomic Characteristics of Rohingya Refugees from
54
55 Myanmar Living in Bangladesh; Yale Research Initiative on Innovation and
56
57 Scale (Y-RISE); New Haven: Yale University Press.
58
59
60

3. World Health Organisation (2020). Health Clusters in Countries

<https://www.who.int/health-cluster/countries/en> (accessed 30.10.20)

4. Lave, J; Wenger, E (1991). Situated Learning: Legitimate Peripheral Participation.

Cambridge: Cambridge University Press.

5. Wenger, E Communities of practice: Learning, Meaning and Identity (1998)

Cambridge: Cambridge University Press

Table 1. The PGF curriculum broken down into its 7 modules and corresponding units.

Module Number	Module Title	Unit Number	Unit Title
1	Health in Humanitarian Emergencies	1	Introduction to humanitarian principles
		2	Historical, current and emerging trends in humanitarian action
		3	Challenges of healthcare delivery in crisis situations - contextualised focus
		4	The Cluster system and the Sphere Standards
		5	Methodologies to identify health needs of populations in humanitarian crisis
		6	Sector-specific health interventions in refugee camps
		7	Cross-cutting health issues, i.e., disability, elderly, women and children
		8	Ethical considerations
		9	The future of humanitarianism and innovations
		10	The written assessment
2	Emergency Care and Triage	1	Triage
		2	Airway and Breathing
		3	Circulation
		4	Disability and Exposure
		5	Head Injury
		6	Diarrhoea and Dehydration
		7	Special circumstances
		8	Malnutrition
		9	Implementing Triage Protocols
3	Communicable diseases in Humanitarian Crises	1	Understanding communicable disease risk assessments
		2	Surveillance and the role of early warning scores
		3	Vaccine-preventable diseases
		4	Meningitis and epidemic Meningitis
		5	Acute Respiratory Diseases
		6	Gastrointestinal infections
		7	Skin Infections and infestations

		8	Vector Borne diseases
		9	Sexually transmitted Infections
		10	High consequence infectious disease
		11	Outbreaks
4	Non-communicable diseases and Palliative care	1	Introduction to Non-communicable disease
		2	Challenges in Managing chronic disease
		3	Role of primary care facilities and preparedness
		4	Promoting health behaviours
		5	Cardiovascular disease and hypertension
		6	Diabetes
		7	Chronic Respiratory Diseases
		8	Cancer
		9	An approach to palliative care
5	Mental health in humanitarian emergencies	1	Communication skills, assessment and management
		2	Reducing stress and strengthening social support
		3	Protection of human rights and holistic care
		4	Acute Stress, grief and post-traumatic stress disorder
		5	Moderate to severe depressive disorders and suicide
		6	Psychosis
		7	Epilepsy/Seizures and intellectual disability
		8	Harmful use of drugs and alcohol
6	Maternal and child health	1	Introduction to SRH in humanitarian settings
		2	Sexual and Gender-Based Violence
		3	SGBV Counselling
		4	Antenatal and postnatal care
		5	Obstetric emergencies
		6	New born Health
		7	Contraception and family planning
		8	Unsafe Abortion
7	Professional and communication skills	1	Professional Standards and Ethics
		2	Consultation Models
		3	Communication Skills
		4	Focused patient assessment
		5	Medical record keeping and documentation
		6	Hygiene and infection control
		7	Good Prescribing Practice
		8	Public health considerations

Table 2. Examples of career progression of some PGF alumni. Although most of the participants had been working in the camps from the outset, it is interesting to see that the earlier cohorts have moved much further than the latter.

Alumni no.	Gender	Post and organisation during PGF	Training Cohort	Present post and organisation
1	M	Assistant medical coordinator, Migrant Offshore Aid Station (MOAS)	A	Surveillance and immunisation officer, World Health Organisation (WHO) National team
2	F	Medical officer, International Organisation for Migration (IOM)	A	Clinical supervisor and facility in charge, IOM
3	M	Nutrition and Health Deputy Program Manager, Nayapar stabilisation centre	A	Immunization and outbreaks officer, WHO
4	M	Consultant, Sexual and Reproductive Health and Rights (SRHR), United Nations Population Fund (UNFPA)	A	National Quality Assurance Analyst, UNFPA
5	F	Medical officer, IOM	A	National program officer, SRHR, IOM
6	M	Medical officer, IOM	B	Assistant surgeon, Ministry of Health and Family welfare, Bangladesh Civil Service
7	F	Medical officer, We the dreamers	B	Surveillance and Immunisation medical officer, WHO
8	M	Medical officer in charge, IOM	B	Clinical supervisor for Health outreach team and community based surveillance, IOM
9	F	Medical officer, IOM	B	Medical officer, sonologist, UHC
10	M	Facility in charge, IOM	B	Medical officer, Paediatrics, Treatment Medical Centre
11	M	Clinical supervisor, Relief International	B	Studying Masters in Public Health, University of Eastern Finland
12	F	Medical officer, Multiple facilities, IOM	C	Clinical supervisor, Camp 2W Infection Treatment Centre (ITC), IOM
13	M	Medical officer, IOM	C	Clinical supervisor, Emergency preparedness and response unit, IOM
14	F	Senior RH Manager, 19 facilities, International Rescue Committee (IRC)	C	Senior RH Manager, 28 facilities, IRC
15	F	Medical officer, IOM	D	Medical officer, IOM
16	M	Medical officer, Association for Socio-Economic Advancement of Bangladesh (ASEAB)	D	Medical officer, Kutupalong, IOM
17	F	Clinical manager, Research Training Management International (RTMI)	D	Health field officer, International Committee of the Red Cross (ICRC)
18	F	Medical officer, Inani sub centre	D	Medical officer, Inani sub centre

Figure 1. Modalities of learning used in the PGF matched to the cone of learning.

The Doctors Worldwide Postgraduate Fellowship Cone of Learning

90% of what we say and do	Doing the real thing	ACTIVE	Clinical supervision	
	Simulating the real experience		Simulation scenarios	
	Doing a dramatic presentation		Practical skills training	
70% of what we say	Giving a talk		Directly observed skills	
	Participating in a discussion		Table-top exercise	
	Seeing it done on location		Focused group discussions	
50% of what we hear and see	Watching a demonstration		PASSIVE	Case-based discussions
	Watching a movie			Reflective practice
	Looking at pictures			Role play
30% of what we see	Multi-media presentations			
20% of what we hear	Hearing words			On-line certification
10% of what we read	Reading	Handouts		
Retention Ability	Nature of Involvement	Lectures		
		PGF Activity		

Module Number	Module Title	Unit Number	Unit Title
1	Health in Humanitarian Emergencies	1	Introduction to humanitarian principles
		2	Historical, current and emerging trends in humanitarian action
		3	Challenges of healthcare delivery in crisis situations - contextualised focus
		4	The Cluster system and the Sphere Standards
		5	Methodologies to identify health needs of populations in humanitarian crisis
		6	Sector-specific health interventions in refugee camps
		7	Cross-cutting health issues, i.e., disability, elderly, women and children
		8	Ethical considerations
		9	The future of humanitarianism and innovations
		10	The written assessment
2	Emergency Care and Triage	1	Triage
		2	Airway and Breathing
		3	Circulation
		4	Disability and Exposure
		5	Head Injury
		6	Diarrhoea and Dehydration
		7	Special circumstances
		8	Malnutrition
		9	Implementing Triage Protocols
3	Communicable diseases in Humanitarian Crises	1	Understanding communicable disease risk assessments
		2	Surveillance and the role of early warning scores
		3	Vaccine-preventable diseases
		4	Meningitis and epidemic Meningitis
		5	Acute Respiratory Diseases
		6	Gastrointestinal infections
		7	Skin Infections and infestations
		8	Vector Borne diseases
		9	Sexually transmitted Infections
		10	High consequence infectious disease
		11	Outbreaks

4	Non-communicable diseases and Palliative care	1	Introduction to Non-communicable disease
		2	Challenges in Managing chronic disease
		3	Role of primary care facilities and preparedness
		4	Promoting health behaviours
		5	Cardiovascular disease and hypertension
		6	Diabetes
		7	Chronic Respiratory Diseases
		8	Cancer
		9	An approach to palliative care
5	Mental health in humanitarian emergencies	1	Communication skills, assessment and management
		2	Reducing stress and strengthening social support
		3	Protection of human rights and holistic care
		4	Acute Stress, grief and post-traumatic stress disorder
		5	Moderate to severe depressive disorders and suicide
		6	Psychosis
		7	Epilepsy/Seizures and intellectual disability
		8	Harmful use of drugs and alcohol
6	Maternal and child health	1	Introduction to SRH in humanitarian settings
		2	Sexual and Gender-Based Violence
		3	SGBV Counselling
		4	Antenatal and postnatal care
		5	Obstetric emergencies
		6	New born Health
		7	Contraception and family planning
		8	Unsafe Abortion
7	Professional and communication skills	1	Professional Standards and Ethics
		2	Consultation Models
		3	Communication Skills
		4	Focused patient assessment
		5	Medical record keeping and documentation
		6	Hygiene and infection control
		7	Good Prescribing Practice
		8	Public health considerations

Alumni no.	Gender	Post and organisation during PGF	Training Cohort	Present post and organisation
1	M	Assistant medical coordinator, Migrant Offshore Aid Station (MOAS)	A	Surveillance and immunisation officer, World Health Organisation (WHO) National team
2	F	Medical officer, International Organisation for Migration (IOM)	A	Clinical supervisor and facility in charge, IOM
3	M	Nutrition and Health Deputy Program Manager, Nayapar stabilisation centre	A	Immunization and outbreaks officer, WHO
4	M	Consultant, Sexual and Reproductive Health and Rights (SRHR), United Nations Population Fund (UNFPA)	A	National Quality Assurance Analyst, UNFPA
5	F	Medical officer, IOM	A	National program officer, SRHR, IOM
6	M	Medical officer, IOM	B	Assistant surgeon, Ministry of Health and Family welfare, Bangladesh Civil Service
7	F	Medical officer, We the dreamers	B	Surveillance and Immunisation medical officer, WHO
8	M	Medical officer in charge, IOM	B	Clinical supervisor for Health outreach team and community based surveillance, IOM
9	F	Medical officer, IOM	B	Medical officer, sonologist, UHC
10	M	Facility in charge, IOM	B	Medical officer, Paediatrics, Treatment Medical Centre
11	M	Clinical supervisor, Relief International	B	Studying Masters in Public Health, University of Eastern Finland
12	F	Medical officer, Multiple facilities, IOM	C	Clinical supervisor, Camp 2W Infection Treatment Centre (ITC), IOM
13	M	Medical officer, IOM	C	Clinical supervisor, Emergency preparedness and response unit, IOM
14	F	Senior RH Manager, 19 facilities, International Rescue Committee (IRC)	C	Senior RH Manager, 28 facilities, IRC
15	F	Medical officer, IOM	D	Medical officer, IOM
16	M	Medical officer, Association for Socio-Economic Advancement of Bangladesh (ASEAB)	D	Medical officer, Kutupalong, IOM
17	F	Clinical manager, Research Training Management International (RTMI)	D	Health field officer, International Committee of the Red Cross (ICRC)
18	F	Medical officer, Inani sub centre	D	Medical officer, Inani sub centre