GENEVA FOUNDATION FOR MEDICAL EDUCATION AND RESEARCH



Training course in research methodology, research protocol development and scientific writing 2024



Course Evaluation Report

Dr Raqibat Idris

Mrs Fionna Poon

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Acknowledgement

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Background

The GFMER "Training course in research methodology, research protocol development and scientific writing 2024" is one of the online training courses organized by the Geneva Foundation for Medical Education and Research (GFMER). It was organized in collaboration with the World Health Organization's (WHO) Department of Sexual and Reproductive Health & Research, and for the first time, Oxford Maternal & Perinatal Health Institute (OMPHI).

The goal of this course was to provide knowledge and skills in research methodology, research protocol development and scientific writing to health professionals in sexual and reproductive health field.

The course coordinators were Dr Moazzam Ali of the Department of Sexual and Reproductive Health and Research, WHO, Prof Jane Hirst of the University of Oxford and Dr Karim Abawi of GFMER. The duration of the course was eight weeks from 04 September 2024 to 29 October 2024.

The course core team comprised:

- Dr Moazzam Ali (WHO SRHR Department, Geneva)
- Prof Jane Hirst (University of Oxford UK)

External contributors

• Dr Khalifa Elmusharaf (University of Birmingham, Dubai Campus)

Geneva Foundation for Medical Education and Research

- Dr Karim Abawi
- Prof Aldo Campana
- Dr Raqibat Idris
- Dr Aseel Mugahed
- Ms Fionna Poon
- Dr Fariza Rahman

About the course

1. Particulars of the participants

A total of 92 health professionals from 36 countries (Table 1) participated in the course in 2024. Most of the participants were within the ages of 35 - 44 years (42%) and 25-34 years (37%) (Table 2) with male participants (61%) as majority (Table 3). Participants were working mostly as medical doctors (44%), professors/ lecturers / researchers (16%) and program managers/ implementers (12%) (Table 4), and mostly from government organizations (28%), international NGOs (18%), academic sectors (12%) and international organizations (12%) (Table 5). Majority of enrolled participants were from African region (62%), then Eastern Mediterranean region (16%), European region (9%), Region of Americas (7%), Southeast Asian region (5%) and Western Pacific region (1%) (Table 6).

As of the end of October 2024, of the total 92 enrolled participants, 74 (80%) were actively participating in the course and submitted all required assignments.

Currently, participants are working on their final research protocol, the submission deadline of which is 17 December 2024. Each participant is assigned a coach, who provides technical support during the course and reviews and gives feedback on participants' assignments and research protocols.

Table 1: Participants' country of residence

Country of residence	No. of participants
Ethiopia	24
Nigeria	9
India	5
Somalia	5
Kenya	4
Zambia	4
Bahrain	2

Burundi	2
Haiti	2
Italy	2
DR Congo	2
Romania	2
Sudan	2
Switzerland	2
Uganda	2
United States of America	2
Yemen	2
Afghanistan	1
Cameroon	1
Congo	1
Eswatini	1
Iraq	1
Jamaica	1
Liberia	1
Malawi	1
Mozambique	1
Pakistan	1
Papua New Guinea	1
Sierra Leone	1
South Africa	1
South Sudan	1
Tanzania	1
Turkey	1

United Arab Emirates	1
United Kingdom	1
Venezuela	1
Total	92

Table 2: Age distribution of the participants

Age range	No. of participants	%
18-24	1	1%
25-34	34	37%
35-44	39	42%
45-54	15	16%
>55	3	3%
Total	92	100%

Table 3: Gender distribution of the participants

Gender	No. of participants	%
Male	56	61%
Female	36	39%
Total	92	100%

Table 4: Occupation of the participants

Profession	No. of participants	%
Medical doctor	40	43%
Professor / Lecturer / Researcher	15	16%
Program Management / Implementation	11	12%
Allied Health	10	11%

Midwife / Nurse	6	7%
Government Official	3	3%
Social scientists / Social Worker	3	3%
Student - Nursing /Midwifery / Medical	2	2%
Human right / SRHR advocate	1	1%
Others	1	1%
Total	92	100%

Table 5: Organization type of the participants

Organization type	No. of participants	%
Government organizations	26	28%
International NGOs	16	17%
International organizations	11	12%
Academic sectors	11	12%
Non-government Hospitals / Clinics / Medical offices	10	11%
Government Hospitals / Clinics / Medical offices	8	9%
Private organizations	4	4%
Local NGOs	3	3%
Others	3	3%
Total	92	100%

Table 6: Regional distribution of the participants

WHO Region	No. of participants	%
African Region (AFR)	57	62%
Eastern Mediterranean Region (EMR)	15	16%
European Region (EUR)	8	9%

Region of the Americas (AMR)	6	7%
South-East Asian Region (SEAR)	5	5%
Western Pacific Region (WPR)	1	1%
Total	92	100%

2. Recruitment of the participants

Participants in the course were recruited through announcements on the GFMER website and social media, as well as through coaches, country coordinators, WHO regional and country offices, and other WHO networks, regional NGOs, and health ministries. Majority of the participants were self-sponsored or sponsored by their institutions.

3. Coaches for the course

GFMER engaged 11 coaches from 10 countries to mentor the participants. The main responsibility of the coach was to guide the participants, review their assignments and research protocols while providing constructive feedback. Assignment and research protocol review guides were shared with coaches for this purpose. An orientation session was also held for coaches before the start of the course for quality and standardized tutoring. Participants were distributed under coaches according to countries or regions. Coaches communicated with the participants via e-mail, WhatsApp and met regularly via Zoom/Google meet.

4. Course module

This course is divided into four thematic areas with 8 topics introduced per week:

Four thematic areas:

- 1. Literature search and referral to biomedical documents
- 2. Epidemiologic studies
- 3. Research protocol development
- 4. Scientific writing

Eight topics in chronicle order:

Week 1. Introduction: Research topic selection, research question and research problem statement

- Week 2. Types of research, effective literature search and citing biomedical documents and sources
- Week 3. Epidemiologic studies
- Week 4. Systematic review and implementation research
- Week 5. Sampling (sample size and sampling technique) and quantitative data collection
- Week 6. Qualitative study design
- Week 7. Research ethics and critical appraisal of research publication
- Week 8. Research protocol development and scientific writing

5. Assignments

The course was assessed by weekly individual assignments, and individual development of a research protocol relevant to their professional practice at the end of the course along with a set of multiple-choice questions. Coaches reviewed and provided feedback on the assignments and research protocols using the guides provided by GFMER.

6. Teaching method

The teaching methods for the course consisted of on-line lectures (video recordings, didactic presentations), key readings, additional references and audio-visual materials, and referrals to related websites.

A course overview presentation was posted on the course website at the start of the course to introduce participants to the course. The course materials and assignments questions were published on the website on a weekly basis during the course. Regular communications with links were sent to individual participants and coaches via e-mail as well. The course materials could be downloaded for offline reading. Participants find time during the week to study the materials and submit assignments. Expected total study time is 60 hours including the time for assignments submission.

During the course, three live webinars were organized, the first two to answer questions on the course content from students and coaches and the third, a teaching session. Ongoing communications between the organizing partners before and during the course ensured adequate preparation and smooth running of the course. At the end of the course, a Zoom meeting was organized for all participants, coaches, course organizers and course resource persons.

7. Certification

At the end of the course, coaches submitted the scores of all assignments to course management. Participants who have completed the assignments, MCQs and research protocol were awarded with a certificate cosigned by WHO, OMPHI and GFMER.

Online Zoom meetings

As previously mentioned, one orientation session for coaches, three online webinars and one end of course meeting were organized to facilitate learning and interactions between participants, coaches, course resource persons and course organizers.

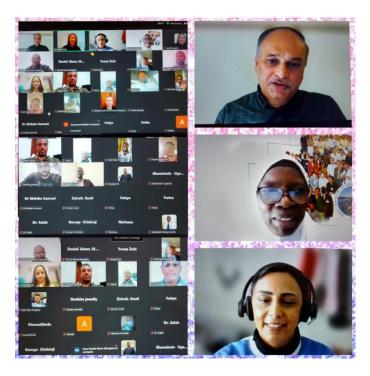
1. Orientation session for coaches

Before the course commenced, on 02 September 2024, an online orientation session was held for 11 coaches of the course, attended by two of the course coordinators, Dr Moazzam Ali (WHO SRHR Department, Geneva) and Dr Karim Abawi (GFMER). Below is a group of pictures from the orientation.



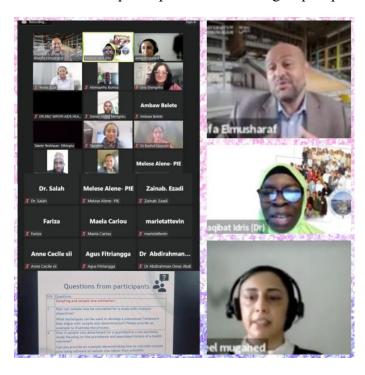
2. Webinar 1

The <u>first webinar</u> was held on Thursday 3 October 2024. The panelists, Dr Moazzam Ali (WHO SRHR Department, Geneva) responded to questions received from the course participants. Below is a group of pictures from webinar 1.



3. Webinar 2

The <u>second webinar</u> held on Wednesday 23 October 2024. The panelists, Dr Khalifa Elmusharaf (University of Birmingham, Dubai Campus) responded to questions received from the course participants. Below is a group of pictures from webinar 2.



4. Webinar 3

The <u>third webinar</u> held on Thursday 24 October 2024 featured presentations on Critical appraisal and Scientific writing by Prof. Jane Hirst, the Program Director, Women's Health Clinical Chair in Global Women's Health, Imperial College London and Visiting Professor, Nuffield Department of Women's & Reproductive Health, University of Oxford UK. Below is a group of pictures from webinar 3.



5. End of course meeting

The <u>end of course meeting</u> organized on Thursday 31 October 2024 was for participants, coaches, course resource persons and course organizers to reflect on the course. The course coordinators, Prof Jane Hirst (University of Oxford UK), Dr Moazzam Ali (WHO SRHR Department, Geneva) and Dr Karim Abawi (GFMER) were present in the meeting to motivate participants to apply the skills from the course to contribute to knowledge in their respective fields and for professional self-improvement. Below is a group of pictures from the meeting.



Course evaluation

After the course (that is, after the deadlines for research protocol submission), participants and coaches were invited to complete separate anonymous course evaluation online survey forms to assess their perceived levels of satisfaction and usefulness of the course and to identify areas of improvement.

A total of 46 participants (50% participation rate) and 7 coaches (67% participation rate) responded to the survey. The course was highly rated by 100% of both participants and coaches who responded with a rating of 'excellent' or 'good'. The majority of those who responded felt that the course objectives were clear (96% participants and 100% coaches), it was organized in a way that encouraged learning (93% participants and 100% coaches), and the course content was adequate (98% participants and 100% coaches). Up to 98% of the participants believed that the course increased their knowledge of research methodology and research protocol development, 93% of them gained confidence and skills in research protocol development and 96% will apply the knowledge gained in their professional practices. However, few participants remained neutral (1 to 2) or strongly disagreed (1) with these questions. For 91% of the participants, the course corresponded to their expectations, while 3 participants were neutral, and 1 strongly disagreed. With respect to the overall quality of coaching received during the course, overall participants

were satisfied with a 93% response rating of excellent (67%) and good (26%), and 7% rating of fair. The course included three webinars and an end-of-course meeting. 74% of participants joined all (22%) and 2 or 3 (52%) sessions, while 70% of coaches joined all. We are highly motivated to see that 100% of the participants said that they would (96%) or may (4%) recommend the course to others. Respondents of the surveys gave some suggestions to help improve the course, which the course organizers will consider for future courses in keeping with the overall course structure and objectives. A few of these suggestions were to have more explanations on sampling techniques and data analysis along with exercises, to introduce artificial intelligence in medicine, to improve on study registration, more face-to-face interactions especially webinars, voice over presentation, regular interaction and online meetings with the coaches, funding opportunities - to enable more participants to take the course and research grants for their proposals, and a French version of the course.

Conclusion

The training course in research methodology, research protocol development and scientific writing 2024 was organized by GFMER in collaboration with WHO since 2010. From 2023, the Oxford Maternal & Perinatal Health Institute (OMPHI) joined forces to strengthen the areas of scientific writing and critical appraisal.

The objective of this course is to provide knowledge and skills in research methodology, research protocol development and scientific writing to health professionals in the sexual and reproductive health field. We believe that from the outcome of the course and feedback from coaches and participants this objective was achieved, and participants have been equipped with enough knowledge and tools to contribute to their work. Though the response rates to both the participants' and coaches' surveys were not optimal, we are encouraged by the feedback received. It is our hope that subsequent training will be organized and in other languages to strengthen the research skills of health professionals all over the world, especially in low- and middle-income countries where majority of the course participants reside. It is also our hope that the course will secure the necessary funding to make this possible.