



**KORLE BU**  
TEACHING HOSPITAL



## **MicroResearch Workshop Report**

**Korle-Bu Teaching Hospital – Accra, Ghana**



*Participants, coaches, and facilitators from the Korle Bu Workshop*

*Building Capacity for community-focused health research*

**November 6 - 17, 2023**



Department of  
Obstetrics and  
Gynaecology



## A. Organizers

The 1<sup>st</sup> MicroResearch (MR) research training workshop for Korle Bu Teaching Hospital in Accra, Ghana was held from November 6 – November 17, 2023. The main organizers for this workshop were:

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## B. FACILITATORS, GUEST LECTURERS & COACHES

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### C. Introduction and Objectives

The Korle Bu MicroResearch workshop was organized in response to the Dalhousie Department of Obstetrics and Gynaecology's long-term partners at the Korle Bu Teaching Hospital Department of Obstetrics and Gynaecology's request for a research skills workshop within the faculty to promote research skill building among trainees, allied health professionals, and junior faculty. Local partners advertised this workshop throughout the Korle Bu hospital and through contacts with other health centres around Accra. Our local partners received approximately 40 applications to participate. Twenty participants were chosen, but several midwives and biomedical engineers had to withdraw at the time of program commencement secondary to exam-related conflicts.

The final participant group comprised 16 participants from multiple sites in Ghana with coaches and co-teachers in Ghana and Canada. The workshop was conducted in person with virtual lectures from Micro Research facilitators in Canada. PowerPoint presentations were projected to the participants in Korle Bu using the Zoom video conferencing platform. Recorded versions of the lectures were along with the PowerPoint presentations and supporting educational materials on the private MicroResearch curriculum website.

This workshop involved three teams. Participants were recruited from Korle Bu Teaching Hospital, Akai House Clinic, University of Ghana, Ghana Police Hospital, Eastern Regional Hospital, and Adolescents, Youth and Health International NGO.

The key objectives for the participants of the MR Virtual Workshop:

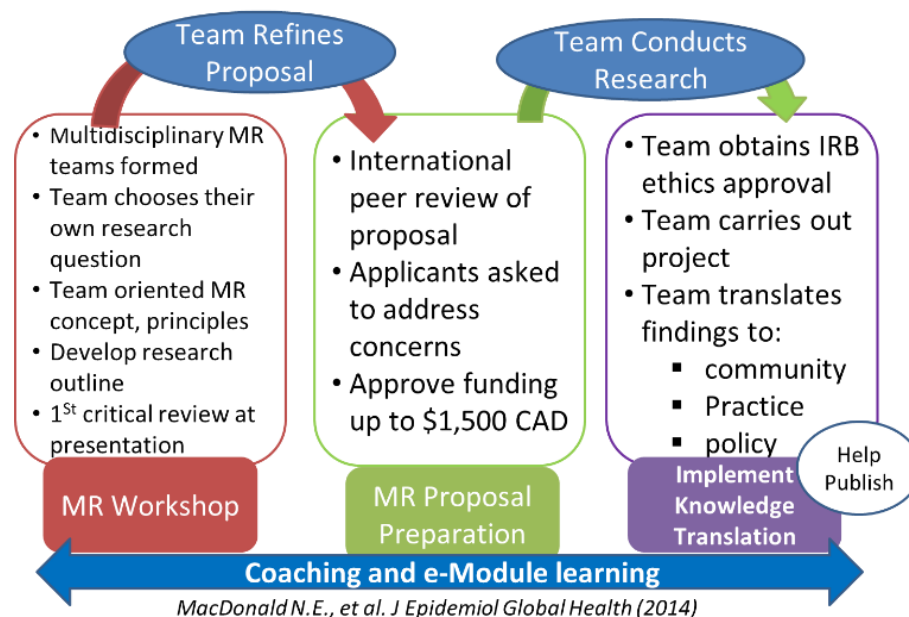
- to develop skills needed for community-focused research,
- to develop skills to work in a multidisciplinary group and to become a team, and
- to write a successful community-focused research proposal overview.

### D. Background

Resource-limited countries bear 25% of the globe's disease burden yet the healthcare professional workforce is less than 1%. Furthermore, these low-income countries obtain only 2% of global research funds. In 2015, the *Sustainable Development Goals* (SDGs) were initiated as a program to build and extend the achievements of the United Nation's *Millennium Development Goals* (MDG) initiative. Encouraging national support for research infrastructure and developing local capacity to address complex health problems, remains a priority of the SDGs.

MicroResearch ([www.microresearch.ca](http://www.microresearch.ca)) is an innovative strategy aimed at building the capacity of local healthcare professionals to better address community healthcare problems by finding local solutions for local problems. The program began in 2008 as a collaboration between faculty at Mbarara University of Science and Technology (Jerome Kabakyenga) and Dalhousie University (Robert Bortolussi and Noni MacDonald). Since then, the research capacity-building workshops have been held in 9 countries with 1,258 participants. As of November 2023, 130 locally driven research projects have been funded and launched with 52 completed, with results published in peer-reviewed international health journals.

### MicroResearch Process



As shown in the figure above, the MicroResearch process advances in three phases: (i) Training Workshops are the first phase in the process. (ii) Teams formed during the workshops are then able to refine and improve their research ideas for a grant submission to MicroResearch and review by an international panel of research experts from Canada and Africa. Once the research teams have responded to the reviewers’ recommendations with changes to their proposal, approval is given on scientific merit. (iii) Teams are then able to submit their proposal to their local Research Ethics Committee (REC or IRB) for approval and carry out their research. They are also encouraged to bring their findings back to the community through a Knowledge Translation plan.

### E. Workshop Events and Outputs

Participants were recruited through word-of-mouth at Korle Bu Teaching Hospital. The 16 participants included a wide range of professions including Dietician, Sonographer, Researcher, Nutritionists, Pharmacist, Nurse, and Obstetrician Gynaecologists.

The pre-workshop assessment was completed by 11 of the 16 participants (69%). As shown in the Pre-Workshop evaluation, nine participants had previous research experience: four as study participants, four as research assistants, two as site investigators, and five as principal investigators. Participants indicated the top things they wanted to get out of the workshop were

developing research skills and knowledge, networking and collaborative opportunities, and the ability to write grant proposals.

The ten-day workshop combined lectures and daily small group interdisciplinary, interactive working sessions. Many of the lectures, support materials and tool kits were recently updated and refreshed in 2023 to include new slides on using the internet, study design, challenges in research, ethics, knowledge translation, budget, research to policy, and how to get published. Session lectures began at 1:00pm local time in Ghana. Session lectures were followed by group work sessions with the coaches. The lectures, exercises, and group work over the nine days led the participants step-by-step through the development of a research proposal overview. Participants moved from formulating an idea to the development of the research question, to the selection of methods to fit the questions taking into account the budget available and the formulation of the overview of a knowledge translation plan and determination of what communities to engage, when and how. Daily workshop attendance ranged from 80-100%.

On the final day of the workshop, the three teams presented their proposal overview in 10-minute PowerPoint presentations. Three panelists were present to provide feedback and constructive criticism.

## **F. Team Proposals**

As in previous workshops, the major educational component was centred on the proposal overview development in the interdisciplinary groups. There was a significant amount of content on Day 1 to orientate and allow participants to develop their own ideas into a research question based on their own experiences. On Day 2, the collaboration began when participants were divided into three groups. Working in breakout tables the groups then discussed each member's question and applied the FINER criteria (discussed during the lecture on Day 2) and selected the "best" one to develop into a research proposal throughout the rest of the workshop. During these group sessions, Korle Bu faculty including co-teachers and coaches as well as MR faculty moved between the groups to provide feedback and promote discussion.

On Day 3, a spokesperson for each group presented the topics to the class and noted the question selected by the group and the rationale for its selection. The questions selected on Day 3 were:

- Group 1 - What is the information given to patients with hypertension during counselling and what is their adherence to this information in the Tarkwa/Nsuaem community?
- Group 2 - The impact of late referrals on obstetric patient outcomes in the Korle Bu Teaching Hospital.
- Group 3 - Preconception care; Understanding the Knowledge and Practices regarding Preconception Care among Pregnant Women at Korle Bu Teaching Hospital

A discussion followed each group's presentation, with emphasis on importance of narrowing and refining each question.

The series of lectures that followed provided knowledge and skills needed to develop these questions into research proposal overviews, including knowledge translation, ethical issues, community engagement and budget development. All the lectures included core elements to the MR concept, which were essential in preparation for the presentation on the final day.

Throughout the workshop, each group became a team, working together on their proposals, guided by their coach.

### **G. Workshop Partners**

This workshop and projects emerging, as a result, are supported by partners including:

- Obstetrics and Gynaecology Department, Korle Bu Teaching Hospital
- Obstetrics and Gynecology Department, Dalhousie University/IWK
- Academics without Borders
- Dalhousie Medical School, Dalhousie University (Volunteer teachers)
- IWK Health (Volunteer teachers)
- MicroResearch private donors

### **H. Final Days**

On the final day of the workshop, each team presented the overview of their proposal in a ten-minute presentation to a panel of four local experts. The review panel, along with the two Canadian facilitators, adjudicated each team's presentation and suggested how the proposals might be further strengthened.

The local review panel included:

- Dr. Alim Swarry-Deen
- Dr. Dilly Anumba
- Dr (Rev.) Thomas Ndanu Akuetteh

### **Review Panels General Comments**

The local experts noted that all teams had clearly worked hard and presented their proposal overviews well. The reviewers were impressed by the professional presentations of the PowerPoints.

The expert panel members felt that all three teams showed that they worked hard as a team, with each member contributing to the final proposal presentation. The teams made great progress in refining their research topic and plan over the two-week workshop. The budgets were generally well done but will also need to be refined as the specific research plan is further developed. Each research proposal will need some refinement before it is ready to be submitted for a MicroResearch grant. Teams need to show their project question is well-justified, that the design/methods are appropriate, and that their question is relevant for publication and will inform clinical care. All of the projects will contribute to betterment of obstetrical care in Ghana, and worthy to proceed for a formal application for a MicroResearch Grant proposal in May.

### **I. Workshop Evaluation**

An assessment of the workshop by participants as well as how well their team functioned was obtained using structured evaluation forms submitted with 16/16 (100%) of participants completing the form.

Overall, the workshop was highly regarded by participants and was well-received. However, a few participants noted that the program's start time was not ideal for them due to afternoon fatigue. Hence, the timing could be reconsidered, and the participants could be possibly relieved from their clinical duties to enable full participation:

*“Time- to do it in the mornings instead of the afternoons as we were exhausted and more often tired at that time.”*

*“We should be given time off work during this period to fully engage in it.”*

Lectures that participants indicated were particularly helpful included knowledge translation, time management, grant proposal writing, research methods, and how to develop a research question. Overall, respondents indicated that the lectures and workshop content helped to “demystify” research and provided participants with the tools needed to help create positive changes in their communities:

*“I enjoyed every bit of the lectures. They were all helpful to me as a new person venturing into research.”*

*“My confidence in starting research has improved and it should help me pursue more research questions.”*

*“I will collaborate with others within my community to come up research works to help solve problems in my community.”*

Most participants responded in their evaluation that working as a team, workshop content, and expertise from facilitators and local experts enhanced their research skills and the workshop experience stimulated their research interest. Several indicated potential challenges in continuing to work as a team, including clinical responsibilities and time constraints, however, dedication, mentorship, access to experts, and funding could help overcome these issues.

## **J. Recommendations and Comments**

### **3. Minimizing Hierarchy within the Groups:**

- As the groups were familiar with each other from a professional setting, we found that the medical hierarchy was often reinforced within groups with junior faculty taking the lead in a spokesperson role.
  - Mitigating strategy would be to provide more orientation to facilitate a sense of equity within the group and assigning the spokesperson role to a group member that might not otherwise be given this opportunity within the medical hierarchy.
- Groups were often deferent to the research ideas and feedback of coaches and co-teachers. This minimized the opportunity for free creation of research ideas from within the group.
  - Greater orientation of coaches to their role, led by in country Champions might help with this.



- Ultimately, the medical hierarchy makes the mitigation of this power dynamic challenging.
- One additional way to mitigate this issue would be to draw from a wider geographic area to disrupt the within faculty hierarchy.

## **2. Reluctance of Coaches to Stay with An Assigned Group**

- Competing clinical priorities made it challenging for coaches to attend daily and coaches and co-teachers often roamed between groups rather than remaining with one group. Additionally, more than one faculty member wished to act in the role as coach, a gesture that reflects faculty enthusiasm for this workshop.
  - Greater time spent on the orientation of coaches as above might mitigate this issue.
  - Further survey of the department prior to future workshops to optimize timing would also be valuable.

## **3. Internet Connectivity**

- Hospital electricity rolling outages combined with intermittent internet connectivity made virtual connections unreliable. Additionally, it was challenging to promote group discussion during these sessions.
  - Consider adoption of novel group participation technology like an “Owl” or equivalent (could be transported with MR facilitators)
  - Lectures that are being co-taught by a virtual and in-country facilitator should be clearly divided in advance to minimize overlap.

## **4. Lecture Timing**

- a. Timely commencement of the lectures was impossible with most participants not arriving until at least 30 minutes after the published start time. Local partners suggested that this was both a cultural norm and influenced by competing clinical demands.
  - i. Suggest group work time for the first half hour of the session to minimize delays in starting lectures.
  - ii. May need to create “buffer time” in start time to accommodate this.
- b. Friday sessions had to be moved secondary to traffic challenges in Accra.
  - i. Consideration of a different start time in advance of the workshop would both accommodate these challenges and minimize disruption to facilitators.

## **5. General Comments and Suggestions:**

- Participant name tags as an MR Workshop standard would facilitate discussion and group integration.
- For Day 10, the participants should send in their final PPTs ahead of the start time. This is key in ensuring the files will load properly during the session and that the presentations are not delayed in starting secondary to submission.

## **Acknowledgments**

We would like to extend our thanks to the local site for providing administrative and organizational support. As well as to the local volunteer coaches and co-teachers for their continued involvement in MicroResearch. Thank you to the panelists for their valuable feedback and constructive critiques on the final day of the workshop. We thank the participants for their engagement throughout the



ten days. Finally, we extend our sincere appreciation to the Department of Obstetrics and Gynecology for their generous commitment to provide half the cost for the final projects that are funded.

Respectfully submitted,



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