

Development of a Virtual Training and Mentoring Initiative for Implementation Research in Rwanda

During the Covid-19 Pandemic

Becca Dworkin¹, Rex Wong², JD Smith³, Dieudonne Hakizimana², Lisa R Hirschhorn^{1,2}



¹Feinberg School of Medicine, Northwestern University, Chicago, IL, USA; ²Bill and Joyce Cummings Institute of Global Health, University of Global Health Equity, Kigali, Rwanda; ³University of Utah School of Medicine, Salt Lake City, UT, USA

Background

- Significant gap exists between evidence-based interventions and their successful delivery
- Implementation research (IR)
 - The study of what, why, and how interventions are implemented in real world settings
 - Applies rigorous frameworks, measures, and research designs
 - Critical to understand how to address delivery and policy gaps
- There is a need to build capacity for IR in academic institutions and researchers in low- and middle-income countries (LMICs)
- We describe the design, adaptation and implementation of a blended training and mentoring initiative embedded into the existing Masters of Science in Global Health Delivery (MGHD) at the University of Global Health Equity (UGHE) in Rwanda

Methods

- The University of Global Health Equity located in Rwanda is an independent university shaping global health professionals into leaders equipped in sustaining equitable health services for all
- The MGHD program at UGHE:
 - 1-year program
 - Builds research and leadership for global health delivery
 - Combines didactic work and a field-based practicum
- In 2019
 - Funding from the NU Institute of Global Health (IGH) to develop a blended distance and in person workshop and mentoring program to integrate IR into the MGHD program
- Design
 - Leveraged existing Northwestern resources and IR expertise
 - TiDR model from the NIH
- Rapid revision due to Covid-19 travel restrictions
 - Fully remote
 - Combined synchronous and asynchronous learning
 - Interactive workshop
 - Mentoring of 3 MGHD student projects

Project Objectives



To develop and integrate a remote mentoring and training program into UGHE's Master's of Global Health Delivery program to build IR training and mentoring capacity, increase interest and skills of IR in graduating students, and inform future work

Results

- Final design
 - Introductory virtual 3-hour workshop (via zoom)
 - Didactic sessions and breakout groups for applied learning
 - 3 practicum projects were selected and remote mentoring initiated (see box 1)
 - Second virtual workshop
 - Deepening understanding and applicability of IR
 - IR Logical Model
 - Didactic lectures, breakout sessions and case studies
- Evaluation (figures 1A and 1B)
 - 67% of students 'moderately' and 33% of students 'greatly' plan to use implementation research moving forward
 - 83% of students rated the overall workshop as 'very good' to increase application of the core concepts of IR
- Practicums have all integrated components of IR into their design
- Ongoing mentoring and distance journal clubs are planned

Box 1: Mentored MGH student projects with IR Integration

1. Assessing the Prevalence and Factors Associated with Postpartum Depression Among Women Delivering in Four Rural Districts in Lesotho
2. Assessing the Outcomes, Associated factors and Barriers to Care after Discharge in Children with Gastroschisis in Rwanda
3. Assessing Functionality and Utilization of mHealth Yendanefe System in Community and Clinical Programming in Neno district, Malawi

As a result of the workshop, has your interest in implementation improved?

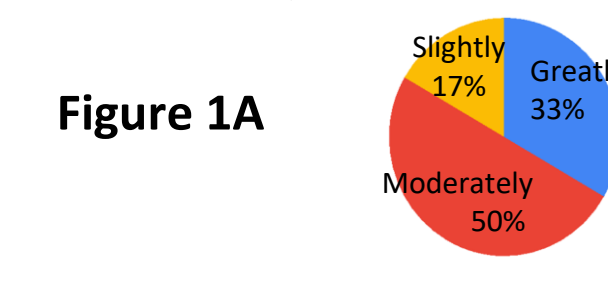


Figure 1A

To what extent do you expect your research to improve as a result of the workshop?

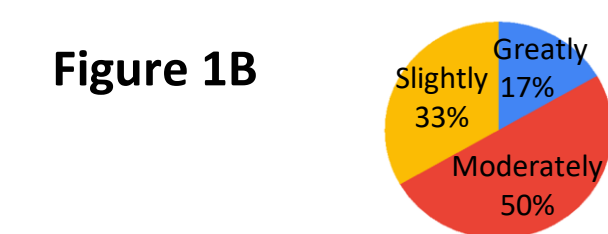


Figure 1B

IR Workshop Agenda Day 1

Implementation Research Workshop Agenda Feb 22 and 25 th , 2021			
Day 1			
6-6:20/2-2:20	Welcome, Introduction and overview	Lisa and Rex	
6:20-6:40/2:20-2:40	What is IR? Designing your question	Lisa	
6:40-6:55/2:20-2:35	Small group (15 minutes)		Begin the Powerpoint
6:55-7:15/2:35-3:15	Report back	Lisa moderates	
7:15-7:45/3:15-3:45	IR Logic Model • Outcomes • Contextual factors	JD	
7:45-8:00/3:45-4	Break		
8-8:30/4-4:30	Small group work Identify 1 contextual factor in each bucket Choose 1 implementation outcome and operationalize	Worksheet Begin the IR logic model and Powerpoint for reports back	
8:30-8:50/4:30-4:50	Report back	JD moderates	
8:50-9/4:50-5	Wrap up and homework assignment	Lisa	

Homework:

- Complete the determinants, and outcomes of the logic model (put into the IRLM)
- Operationalize 1 more implementation outcomes and one system or clinical outcome
- How you would measure at least 2 of the determinants

Practice a 3 minute presentation

Conclusions and Future Directions

- Successfully designed and rapidly adapted a fully remote blended approach to training and mentoring using adult learning pedagogical principles
- Resulting in increased knowledge and application into planned practicum
- Building on existing NU resources helped accelerate the process
- Areas for improvement:
 - More time in the workshops for slower paced learning
 - Engaging practicum leaders earlier in design
 - Further case study examples to enhance understanding
- Areas for continued development:
 - Modifications to sustain virtual approach
 - Practicum design expansion
 - IR curricula integration
 - Training and skills building at UGHE
 - Transition into blended on-site and remote as travel restrictions lighten