VIEWPOINT

## Optimizing an Era of Global Mental Health Implementation Science

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David A. Chambers, DPhil Division of Cancer Control and Population Sciences, National Cancer Institute, Rockville, Maryland. The field of global mental health faces important challenges. Access to mental health services is grossly inadequate in many low- and middle-income countries (LMICs) despite the heavy burden of violent conflict and the association between exposure to human and natural disasters in many LMICs and mental health problems such as depression, anxiety, and traumatic stress reactions. Today, the percentage of individuals with severe mental disorders who remain untreated is estimated to be upwards of 97% in some countries, and even in high-income countries, there are vulnerable populations who have similarly unmet needs.

In recent years, global mental health researchers have made tremendous strides in developing and testing innovative services. Major research trials have documented that evidence-based mental health services can be delivered with effectiveness in contexts struggling with poverty, violence, and chronic disease in LMICs. Unfortunately, demonstrated effectiveness of interventions does not frequently translate into widespread use; research is greatly needed on the effectiveness of strategies to implement, sustain, and scale-up these interventions for populations in need.

There is growing interest in embedding evidencebased mental health interventions within alternative delivery structures such as schools or primary care and the delivery of mental health services by community health workers and other paraprofessionals in LMICs. For instance, evidence-based mental health interventions based on cognitive behavioral therapy have been successfully delivered by "lady health workers" in Pakistan,3 and other lay workers have effectively provided group interpersonal psychotherapy to war-affected youth.4 Another "disruptive innovation," mental health information technology has enabled use of tablet- and PDAbased assessments for mental health screening and delivery of interventions from video-based counseling to long distance training and supervision of lay workers. These advances show promise but have yet to demonstrate population health impact.

In 2011, Collins and colleagues<sup>5</sup> described 25 "Grand Challenges" for global mental health. The top 5 challenges, as ranked by impact on disease burden, equity, immediacy, and feasibility, all invoked implementation science (IS)—the knowledge base to optimally embed and sustain effective interventions within clinical and community systems. The authors noted that health care worker training, integration of treatments into primary health care, improved supply of medications, and system redesign are needed to overcome both supply and demand barriers to evidence-based care; these are the areas where IS can make a significant impact. There are important efforts currently

under way that offer great potential to address this need. Several Grand Challenges initiatives aim to raise awareness about mental illness globally and expand evidence-based approaches to care and prevention. Coordinated research funding has emerged across a range of institutions including the World Health Organization (WHO), National Institute of Mental Health, and the Canadian Development Agency.<sup>5</sup>

Similarly, leadership at the WHO and the World Bank has increased a focus on IS across multiple initiatives. The World Bank Director, Jim Yong Kim, MD, PhD, was well known for his global antiretroviral treatment implementation efforts while at the WHO. Since he took the helm, the World Bank is increasingly recognizing the need to implement effective mental health practices that fit the context of trauma in a number of countries. Relatedly, the WHO Mental Health Gap project has provided a set of tools and procedures designed to implement improvements to mental health systems in LMICs.

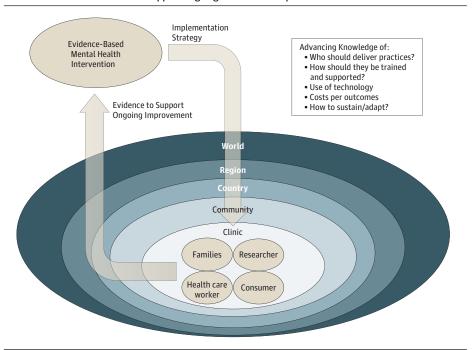
While these efforts are promising, additional opportunities remain to more substantially advance IS in global mental health. For instance, while many projects have been studying "task sharing"—using lay health workers to deliver mental health interventions-there has been little effort to systematically understand how best to identify, train, supervise, and support these important care deliverers. In addition, rather than replicating effectiveness of evidence-based mental health interventions delivered by community health workers, one can systematically compare implementation strategies that vary community health workers by type of experience and contrasting approaches to training and supervision, and perhaps more fundamentally, investigate adaptation of evidence-based interventions to improve fit with setting and population needs. Also, while projects have succeeded in embedding services within LMIC settings, strategies are needed to scale-up these efforts across villages, countries, and regions. New research is also needed to test different models of government leadership, administrative support, and financing of services to optimize adaptation and sustainability of mental health services.

The IS field is rapidly expanding, with multiple funding opportunities available through federal, foundation, and nongovernmental organization initiatives, including landmark work on human immunodeficiency virus/AIDS services through WHO, PEPFAR, and the United States Agency for International Development (USAID), among others. The number of scientific meetings, research training opportunities, and peerreviewed publications on IS continues to grow in size and quality. The confluence of global mental health and IS activities creates a perfect opportunity to form a global

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Figure. Toward a Next-Generation Implementation Science Global Mental Health Network: Studying the Impact of Implementation Strategies on Uptake, Adaptation, and Sustainability of Evidence-Based Mental Health Practices to Generate Evidence to Support Ongoing Intervention Improvement



mental health implementation network to synergize efforts to advance the knowledge base through identifying key outcomes by researchers and practitioners<sup>6</sup>; applying existing IS frameworks to LMIC contexts<sup>7</sup>; identifying common data elements and core components of effective interventions, as well as tools for researchers and practitioners to identify key questions; and establishing collaborative multisite studies such as those exemplified by the 5-country PRIME project on integrating mental health into primary care in LMICs and several National Institutes of Health-funded collaborative hubs such the South Asian Hub for Advocacy, Research and Education on Mental Health (SHARE).

This organized approach to IS within the global mental health agenda would enable the testing of a range of implementation strat-

egies, advancing knowledge on how interventions should be delivered in LMICs, while feeding back lessons learned to improve the interventions themselves (Figure). It would allow for efficient study of a myriad of IS questions not sufficiently addressed at present, including intervention adaptation, sustainability, and scale-up, the capture of local innovations, and use of technology to improve supply and demand of evidence-based practices. Implementation science provides an opportunity to shine a lens on the important context-determined use of effective interventions, the ongoing study of local adaptation, and the collection of shared lessons from which global mental health can benefit. It is time for us to bring the IS and global mental health fields closer together and to coordinate a comprehensive approach to achieve this critical integration.

## ARTICLE INFORMATION

**Published Online:** December 30, 2015. doi:10.1001/jamapsychiatry.2015.2705.

Conflict of Interest Disclosures: None reported.

**Disclaimer:** The ideas presented in this article are those of the authors and do not necessarily represent the official position of the National Cancer Institute, National Institutes of Health.

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