Collaborative Care for Mental Health in Low- and Middle-Income Countries: A WHO Health Systems Framework Assessment of Three Programs

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Abstract

The collaborative care model is an evidence-based intervention for behavioral and other chronic conditions that has the potential to address the large burden of mental illness globally. Using the World Health Organization Health Systems Framework, the authors present challenges in implementing this model in low- and middle-income countries (LMICs) and discuss strategies to address these challenges based on experiences with three large-scale programs: an implementation

research study in a district- level government hospital in rural Nepal, one clinical trial in 50 primary health centers in rural India, and one study in four diabetes clinics in India. Several strategies can be utilized to address implementation challenges and enhance scalability in LMICs, including mobilizing community resources, engaging in advocacy, and strengthening the overall health care delivery system.

Collaborative task sharing, which engages nonspecialists in mental health care delivery, is essential to address the large global burden of mental illness (1). This approach may pose some risk to the quality of care provided. The collaborative care model (CoCM), a specific type of task-sharing strategy, can maintain quality while expanding access. It incorporates four core components. The first is a team-based approach with health workers of varying levels of specialization: a primary care provider (PCP); a behavioral health professional, who is the care manager (CM); and a consulting psychiatrist. The second component is evidence-based, guidelines-based treatment. The third component is measurement-driven care that uses validated scales (such as the Patient Health Questionnaire–9) to drive treatment decisions while incorporating patient preferences. The fourth component is population-level services that leverage the limited time of the psychiatrist to supervise the care of a large group of patients (2). A review of nearly 80 randomized controlled trials of CoCM has shown improved outcomes for both mental and general health, expanded access to care, and cost-effectiveness (3). Given these results, CoCM has the potential to address the large burden of mental illness globally. Although most CoCM studies have occurred in high-resource settings, we have adapted this model in three low-resource sites: a district-level hospital in rural Nepal, 50 primary health centers (PHCs) in rural India, and four diabetes clinics in India. On the basis of these experiences, we discuss the challenges and strategies to adapt CoCM in low- and middle-income countries (LMICs) by using the World Health Organization (WHO) Health Systems Framework (4), which was developed to assess and strengthen health systems across six building blocks, described next.

Leadership and Governance

Health system leadership often deprioritizes mental health care for various reasons, including stigma about mental illness, misconceptions about effectiveness, and lack of training among clinicians (5). Mental health can be prioritized by presenting data that mental illnesses are the leading cause of burden of chronic diseases and that effective treatments are available (1). Moreover, integrating mental health services into primary care and other clinical settings leads to improved outcomes in high-priority metrics (including HIV and diabetes medication adherence). Given that CoCM creates a new role for the psychiatrist in the treatment team, it is essential to receive buy-in and support from leadership of professional societies and medical training institutions. Another common challenge is governance and the lack of a regulatory environment to support high-quality care. This void can be a result of poor or absent national mental health policy. Legal and other policy avenues can ensure parity of mental health care with other services and can be leveraged to build mental health quality standards into the health system. For example, the Nepal program incorporates mental health metrics into its government reporting system.

Governance systems should also provide the legal framework for psychiatrists to practice in their new role within CoCM.

Health Care Financing

There are multiple financial barriers to expanding mental health services in LMICs, and these may differ at national and local levels and by health financing structure (whether single payer, multipayer, or out of pocket). Because mental health services often receive inadequate budgetary allocation, we emphasize the fourfold economic return on investment (6). In particular, CoCM can save money in the long run (7). However, local health care delivery systems are rarely incentivized toward programs that improve economic productivity among populations, and budgets are often based on impact on mortality or health metrics with dedicated financial support. In such cases, we emphasize that investments in mental health improve outcomes in comorbid conditions such as HIV, tuberculosis, and diabetes. If external funding streams for mental health services can be obtained to implement a program and demonstrate cost-effectiveness, the program is more likely to receive adequate, ongoing financial support. Given that user fees limit access to care for the most vulnerable patients in many LMICs, it is often important to continue advocacy for universal health care and to evaluate creative mechanisms (for example, community-based health insurance) to avoid point-of-care fees.

Health Workforce

CoCM implementation in LMICs presents challenges in recruiting team members and defining their roles. First, social workers often function as CMs in high-resource settings but are extremely rare in most LMICs (1). Training existing health workers with transferable skills can fill this gap. For example, in India, we have trained nutritionists to work as CMs in diabetes clinics. In the PHC-based program in India, CM tasks have been extended to social workers, counselors, and community health workers (CHWs).

Second, psychiatrists may not be available for consultation and supervision for various reasons: there are very few in most LMICs (1), they are concentrated in urban centers, they may prefer direct patient care over consultant roles, and they may lack training in collaborative care and evidence-based psychotherapy. For example, the Nepal site is 14 hours from the nearest psychiatrist and has overcome this challenge by recruiting a part-time visiting psychiatrist who conducts weekly consultations remotely via teleconferencing. We also suggest recruiting academic and early-career psychiatrists, who typically are more eager than other psychiatrists to learn about and participate in new care models. We have trained our psychiatrists in CoCM on site but also advocate for systematic and scaled training in LMICs.

Finally, there are several challenges in engaging PCPs: high absenteeism and turnover, substantial variation in prior mental health training (with some medical schools providing no training) (5), and concerns of overburden from new clinical tasks. We address absenteeism by ensuring that both physician and nonphysician PCPs are trained, because the latter are more likely to be retained, particularly in rural sites. When implementing CoCM, we

emphasize overall health systems strengthening and team culture, which, if successful, can outlast individual clinicians. We closely coordinate with local governing bodies and senior administrators to support PCP training and other tasks related to implementing the studies, reducing absenteeism, and enhancing accountability. We develop and implement mental health training for PCPs and measure gains with pre- and posttests (8). We emphasize the role of training and ongoing supervision from a psychiatrist to address PCP concerns about new tasks of prescribing and monitoring psychotropic medications. We address clinical burden concerns from PCPs by relieving them of certain tasks (such as lengthy psychosocial assessments conducted by the CM) and by emphasizing that CoCM simply replaces, rather than adds to, previous non–evidence-based tasks (for example, prescribing painkillers for depression is replaced by prescribing antidepressants or by referring patients to psychotherapy) (5).

Medical Products and Technologies

Two common challenges in LMICs are a lack of essential psychotropic medications and a lack of diagnostic tools to rule out other illnesses. In Nepal and the PHC program in India, we have successfully lobbied the government to provide reliable supplies of psychotropic medications, which had been deprioritized. In addition, we use the WHO list of essential medications, procured from the government's inventory. In Nepal, we implemented an electronic inventory management system to track and proactively order medications. Similarly, we presented to health system leadership the view that investment in diagnostic capacity (including thyroid tests to help differentiate depression from hypothyroidism) would create an opportunity to strengthen the overall health care delivery system.

Information and Research

CoCM relies on tracking clinical data to ensure measurement-driven care. All of our studies use behavioral health outcome scales that have been cross-culturally validated by researchers. In settings that have electronic health records (EHRs) and reliable electricity (such as the diabetes clinics in India), health information technology (such as registries and decision support software) has been critical. Unfortunately, in many LMICs, EHRs do not exist or are not fully operational, and unreliable electricity and telecommunications limit the off-site psychiatrists' ability to provide remote consultation. Addressing these challenges will require overall strengthening of record-keeping and communication infrastructures. The Nepal program invested in solar panels and EHRs that incorporate mental health protocols. The PHC program in India created simplified one-to two-page forms to document clinical encounters. Such investments are required for successes; mental health services integrated into weak health systems will almost certainly fail.

Service Delivery

Given the chronic nature of most mental illnesses, building relationships and engaging patients longitudinally are critical for recovery. Patients have difficulty visiting the health facility for regular follow-up for various reasons, including distance from facilities, physical disability, and competing priorities. In the diabetes clinics in India, the CM role has been

expanded to provide patient engagement at their homes (including home visits to assess medication side effects and adherence) and accompaniment to the facility, if necessary. In rural Nepal and India, CHWs are effective in this role.

Another challenge is that most LMIC facilities use an urgent care model rather than a strictly primary care model. Patients line up in the morning and are seen by the first available PCP. This system leads to lack of continuity of care with PCPs. We address this challenge by emphasizing continuity with CMs and CHWs to track patients' progress over time and develop a longitudinal, trusting relationship.

The final challenge in service delivery is the lack of access to intensive treatments, including inpatient services and day hospitals, which are often necessary for management of severe mental illness. If someone is acutely suicidal, the facility may not be equipped to admit and monitor him or her, and in rural sites the nearest inpatient psychiatric facility is prohibitively far. Often, patients and family members from rural regions cannot travel to the inpatient facility because of cost, lack of familiarity with the new system, and the loss of income from travel and hospitalization. To address these challenges in our studies at rural sites, we offer enhanced assistance to patients and their families to navigate the system in urban centers and connect them with referral centers that have ongoing partnerships with us. If patients are still unable to travel, we provide intensive support in the community by recruiting CHWs, trusted neighbors, and other social contacts. In multiple aspects of service delivery, we rely on CHWs, who are often absent from health systems in high-resource settings.

Additional Challenges

We have encountered additional challenges that are not captured by the WHO framework. The first is a lack of social and legal services to support patients. High-resource settings often offer legal recourse and a safe shelter for victims of abuse. In LMICs, however, it may be particularly important to partner with organizations that assist victims of domestic violence, child abuse, and extreme poverty. The CHWs and other community members can also assist with supporting such patients. Advocacy for and partnership with social services alongside health services are essential components of an effective program. Finally, persistent stigma in the community, among health care providers, and even among patients is a major challenge. Drawing lessons from HIV services, addressing stigma requires multifaceted interventions that include access to high-quality, effective treatment, which can change perceptions about mental illness and the potential for recovery.

Conclusions

The CoCM was developed in high-resource settings to address challenges that are also found in LMICs: the shortage of such specialists as psychiatrists and the risk of loss in quality of services provided by nonspecialists. The framework described here [and summarized in an online supplement to this column] was helpful in identifying and characterizing several challenges for successful adaptation of CoCM in LMICs. Because of a lack of accessible, formal programs in LMICs, many of the strategies used in our studies rely on community resources and advocacy by global mental health practitioners. Similar to the expansion of

HIV services, with this transition to CoCM several of the strategies in use provide opportunities to strengthen the overall health system while bringing a proven intervention to a neglected discipline within global health.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

Acknowledgments

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