Collaborative care for depression and suicide prevention: a feasible intervention within the Mexican health system

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Abstract
Mexico faces an enormous challenge in attending mental health disorders with depression rising as one of the five main contributors to disability adjusted life years (DALYs) and increasing suicide rates. These challenges are coupled with a dearth of resources and an inefficient allocation of the meager funds. While no magical bullet is available to ameliorate this situation in the short term, here we discuss current concepts and experiences that could be used in Mexico to deliver better primary mental health care. We focus on depression and suicidal behavior and argue that collaborative care is a feasible and replicable model, emphasizing the importance of training non-specialized primary care personnel to become case managers and provide primary mental health care. Mexico is currently undergoing a process of changes, including the emergence of universal health care. The time seems right to make mental health care more transversal, widely available and scientifically proven.

Keywords: collaborative care; depression; suicide prevention; primary health care; mental health; Mexico

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Resumen
México enfrenta un enorme desafío para atender los trastornos mentales, con la depresión como uno de los principales contribuyentes a los años de vida ajustados por discapacidad (AVAD) y el aumento de las tasas de suicidio. Estos desafíos se combinan con la escasez de recursos y asignación ineficiente de fondos. Si bien no hay una solución mágica a corto plazo, discutimos experiencias actuales que podrían usarse para brindar una mejor atención primaria en salud mental. Nos centramos en depresión y conducta suicida argumentando que la atención colaborativa es un modelo factible y replicable, enfatizando la capacitación del personal no especializado para que se convierta en administrador de casos y brinde atención primaria en salud mental. México está experimentando un proceso de cambios, incluido el surgimiento de la atención médica universal, por lo que es el momento para que la atención en salud mental sea más transversal, disponible y científicamente probada.

Palabras clave: atención colaborativa; depresión; prevención de suicidio; atención primaria; salud mental; México

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According to the World Health Organization (WHO), depression is the leading cause of disability in the world, contributing with 7.5% of the total years lived with disability (YLD). In addition, the number of people living with depression increased by 18.4% between 2005 and 2015, representing 4.4% of the population, that is, more than 300 million people worldwide.[1] There is an evident gender difference in depression, with age-standardized YLD rates that are 10.4% higher in women than in men.[2] Another major public health problem is suicide, responsible for the deaths of >800 000 persons worldwide per year.[3] Evidence shows that suicidal behavior can be one of the symptoms of depression with findings of an estimated suicide risk of 19.7.[4]

In Mexico, the psychosocial variables associated with depression are: 1) female gender, exclusive house work or taking care of a sick person; 2) low socioeconomic status; 3) male unemployment; 4) social isolation; 5) having legal problems; 6) violence experiences; 7) consumption of addictive substances, and 8) migration.[5] There is an evident need to talk about gender differences regarding mental health and how these should be visualized within the Mexican context.[6]

In Mexico, depressive disorders are one of the five main contributors to DALYs[7] and accounting for premature death due to suicidal behavior.[8] This is associated with the fact that currently, only 20% of the people that require mental health care receive it and mostly after a long delay. For affective disorders–such as depression– the average time between the onset of symptoms and receiving attention is up to fourteen years.[5] A recent study in six countries of the Americas–including Mexico–showed a large treatment gap with a mean of 27.6% and only a 35.3% of cases receiving acceptable quality treatment. Social inequalities like lower education and family income proved to be associated factors for this treatment gap. Interestingly, women were more likely to receive any mental health treatment. These findings suggest that various countries in the region have a struggle to provide mental health care, partly due to limited resources and partly due to the organization of mental health services, where Mexico still relies on psychiatrists to deliver care and has pending a change towards community mental health.[9] This depression diagnosis and treatment gap may also be key contributors to the increasing suicide rate from 3.5 to 5.3 per 100 000 habitants in eighteen years.[8] Results from two cross-sectional surveys done 12 years apart in the Mexico City Metropolitan Area showed an increase in suicidal ideation and attempt in young adults; interestingly, these behaviors did not lead to a broader use of mental health care services. The increase in suicide and suicidal behavior in Mexico are multidetermined and need broad actions from clinical interventions to changes in social stereotypes.[10]

The disability and large treatment gap marks mental disorders as a major public health issue that requires a prompt health care response and as The Lancet Commission on global mental health and sustainable development established, community-based interventions should be implemented to increase prompt help-seeking behavior.[11] In this discussion, we consider collaborative care–understood as a complex intervention that aims for close partnership between a multidisciplinary group of health professionals to augment primary care, including the management of common mental disorders–as a path to improve mental health in Mexico.[12]

This model inserts well with the changes that the Mexican health system has undergone in the past years, with a rise in health coverage from 48.38% in 2006 to 75% in 2012, but still showing challenges to provide prenatal care and non-communicable disease prevention; even more so for mental health.[13] Since the current health system is undergoing a restructuration–including the emergence of universal health care coverage and strengthening of primary health care[14] –the time seems right to make mental health care more transversal, widely available and scientifically proven. Thus, the aim of this paper is to provide a framework and global understanding on what has been done and proven effective within the area of collaborative care for depression and suicidal behavior and discuss its possible replication in Mexico's primary health care system. While we propose a general view, we understand that the country's diversity calls for adaptations at local jurisdictions.

Human resources for mental health care

Currently, there are multiple barriers to deliver effective mental health care in Mexico. First, it is an extensive and densely populated country with an unequal and fragmented health care system. One example is the reduced and uneven distribution of specialized human resources in mental health. There are 3.71 psychiatrists per 100 000 habitants centralized in the three main states of the country.[15] Only above 50% of psychiatrists work in the public health sector and mainly at psychiatric hospitals, resulting in limited specialized human resources within general hospitals and almost non-existent in primary health care.[16]

Differently from other countries, Mexico's general practitioners (GP's), who are the basis of primary health care and are in direct contact with the population, have only a medical degree, with only 11.4% having a three-year specialization in family medicine.[17] Thus, they do not necessarily have formal or in-depth mental health

training, even less so for evaluating depression and suicidal behavior in adolescents and young adults, a group of underserved population where suicidal behavior has risen. Furthermore, no more than 30% of primary care facilities report specific mental health care protocols and less than 15% received mental health training courses.[18]

We consider that the solution should include, but also go beyond, the increase in the number of psychiatrists to meet the mental health demands of the Mexican population. Rather we need to train non-specialized primary care personnel (e.g., GPs', psychologists, nurses and social workers) to provide a timely diagnosis, treatment and follow-up of people with mental disorders, thus acting directly upon the mental health diagnosis and treatment gap.

Diagnosis and treatment of depression and suicidal behavior

Subjective barriers are a reality. Depression and suicidal behavior still remain poorly referred by the patient but also under diagnosed and undertreated by health professionals. There is evidence that shows that people may not disclose openly their suicidal thoughts to healthcare providers. Paradoxically, 81% of patients support suicidal risk screening.[19] Results from WHO's World Mental Health Surveys, which includes data from Mexico, showed that people with higher suicidal risk where the ones that sought mental health care.[20]

Regarding under–diagnosis and treatment from health professionals, evidence shows that a percentage of people who died by suicide had previously expressed death wishes, suicidal ideation or showed other alarm signs to health professionals. For example, Luoma and colleagues[21] concluded that 45% of the people who committed suicide had been in contact with primary healthcare providers within the month prior of the attempt. In general, people who died by suicide averaged 16.7 visits to healthcare during the latest year.[22] Younes and colleagues[23] found that during the last consultation with GPs, the people who later committed suicide had expressed more suicidal ideas, though they did not receive the according follow-up.

In other words, a high percentage of people with suicidal behavior request medical care, but depressive symptoms and suicidal behavior are not routinely mentioned by the patient nor identified by the GP's, going unnoticed, undertreated and with serious consequences. However, things can be different. Recently, an Italian intervention that proved to be effective is the addition of a psychologist present in the GP's consultation, thus facilitating timely crisis control, reduction in pharmacological prescriptions and overall mental health promotion.[24] Also, a suicide risk care program (Arsuic) in Spain showed that a decreased follow-up time between discharge to the first visit from 8.5 to 7 days had an impact on suicidal behavior with a reduction of suicide attempt rate per person from 1.20 to 1.08 and relapse attempts from 26.6 to 12.8%.[25]

Interventions for timely diagnosis of depression and suicidal behavior

Barriers to develop mental health primary care programs have been established, including the lack of policies, the shortage of specialists–even more so for child and adolescent populations–and insufficient financial resources. Facilitators, on the other hand, have also been described, including key factors like willingness for change, task sharing, adaptability, organization, planning and evaluation of the implementation of the mental health programs.[26-28]

Closing the diagnosis and treatment gap for depression and suicidal behavior demands efforts at many levels. Integrating mental health into primary care can provide opportunities to improve patient-centered health services, thus treating the person as a whole; but can also increase acceptance and utilization of mental health services with a potential to reduce stigma associated to mental illnesses.[29]

A key point in suicide prevention strategies includes improving the diagnosis and treatment of mental disorders through education and training of healthcare professionals.[30,31] In this regard, the Swedish Gotland Study proved that after an intensive training program on the diagnosis and treatment of depression given to general practitioners, a marked time-related reduction of 60% of suicides was reported.[32] In Mexico, a recent study based on WHO mh-GAP training course for depression and suicide risk with 60 primary care practitioners proved a significant increase in action stage (63.9%) by the end of the training and showed that 70% of the participants were willing to undertake this knowledge as routine practice, thus concluding that this could be an effective tool to be implemented in mental health services.[33]

According to Bower and Gilbody,[34] strengthening primary mental health care can be achieved with the following four models: 1) training primary care staff, providing knowledge and skills on mental health to primary care clinicians; 2) consultation-liaison, involvement and cooperation between mental health specialists and primary care clinicians; 3) collaborative care, with the addition of a new staff member, usually identified as case manager, that is in contact with all three parties involved: patients, primary care clinicians and specialists,

and 4) replacement or referral, where the management is timely passed to the mental health specialist.

The main components of collaborative care are: 1) a multi-professional approach with at least two professionals (a GP and another health professional, ideally a case manager) involved in patient care; 2) a structured management plan with evidence-based guidelines and protocols for non-pharmacological and pharmacological treatment; 3) proactive care with scheduled and organized patient follow-up, to provide interventions, supervise treatment adherence and monitor symptoms or adverse effects, and 4) enhanced communication with team meetings, case conferences, supervision and shared medical records.[35]

The degree of involvement of primary care clinicians, but also other health care personnel such as psychologists, nurses and social workers, is crucial to the adequate outcome of collaborative care, thus increasing access and equity to primary mental health care. For this to occur, there needs to be a change of mindset from an added responsibility to the opportunity of collaborative work with various health professionals, thus having an impact on disease outcomes and improving patient's quality of life. In this regard, a qualitative study with case managers in Denmark showed that they were motivated and enthusiastic regarding their new role within collaborative care and perceived their job as meaningful, specially towards seeing patient's progress.[36] It is also important to have clear roles and shared responsibility within the team, as proven in a patient-aligned care team for veterans where nurses were able to recognize subtle changes in patient's behavior; behavioral health providers were skilled to provide suicide risk assessment and primary care practitioners were seen as integral conductors for treatment.[37] Successful teamwork does not only depend on the people involved, but also on stakeholders and policy makers to provide the basic framework, which according to Reeves and colleagues[38] includes the organizational aspects, in regard to the local environment where professionals work; the relational aspects linked to how power, hierarchy, socialization, leadership and participation are visualized; contextual aspects which depend on policy-makers and how they foster collaboration, strategies, funding and support multi-professional work, and processual aspects related to time, space, proximity, task complexity and how all these interact within the team and teamwork.

Collaborative care has been proven effective in depression outcomes in the short, medium and long-term, also showing secondary benefits including medication use, quality of life and patient satisfaction.[39-42] As previously mentioned, one of the key elements of collaborative care is case management, which has to be achieved through the realignment of roles of primary care nurses and social workers, enhancing proactive roles in patient follow-up, assessing the patients' symptoms, adherence and medical needs, delivering psychosocial support, and taking action when treatment is unsuccessful trough direct communication with primary care clinicians and mental health specialists.[43-45] For example, the Improving Mood-Promoting Access to Collaborative Treatment (IMPACT) study, a collaborative care model for systematic late-life depression screening, monitoring and treatment, used a team-based approach that included the patient, a depression care specialist (DCS, with case management characteristics), the primary care physician, and the consulting psychiatrist. Intervention patients had a greater reduction of depressive symptoms, more satisfaction with their mental health care, less functional impairment and greater quality of life.[46,47] The Depression Improvement Across Minnesota, Offering a New Direction (DIAMOND) is a model founded on the IMPACT framework and focused on six components: 1) screening and weekly monitoring with Patient Health Questionnaire-9 (PHQ-9); 2) systematic registers for patient tracking including PHQ-9, patient's medication, treatment adjustments and behavioral activation; 3) use of evidence-based guidelines to provide stepped care; 4) relapse prevention education; 5) case management, and 6) weekly follow-ups between case managers, primary care physicians and psychiatrists for case reviews and treatment recommendations. Outcomes, like depression remission, are 4.5 times better than usual treatment.[48]

Suicide interventions in primary care have also shown effective results. In a review, four major components for suicide risk management were found, including education for practitioners, screening for mood disorders and suicidal risk, managing depression symptoms and assessing and managing suicide risk. They also showed that even though all these components are important, they alone are insufficient and that the collaborative care approach is the one that can actually reduce suicidal risk in primary health care.[49] The Prospect (Prevention of Suicide in Primary Care Elderly: Collaborative Trial) study in the United States aimed to intervene on depression as a way to reduce suicide risk in late life in randomized controlled trials. Within the intervention group, they found a higher depression remission and a 2.2 times greater decline in suicide ideation in the 24 months follow-up.[50-52] The Collaborative Assessment and Management of Suicidality (CAMS) and its related Suicide Status Form (SSF) provides both quantitative and qualitative information on suicidal risk that functions as a multipurpose assessment, treatment planning, tracking and outcome-oriented clinical tool that can be used as a road map for case managers.[53]

Therefore, collaborative care interventions for depression and suicidal behavior should include case manager roles as the main mean to deliver care.

Discussion

Collaborative care in primary health can enhance appropriate and timely depression and suicidal behavior diagnosis and treatment, thus having a potential to prevent depression and suicide. Interventions regarding this have proven to be effective, and key elements for the successful implementation of collaborative care have also been established, including strong leadership support, well-defined and implemented case manager roles, strong primary care physicians, onsite and accessible case managers, engaged psychiatrists, not seeing operational costs as a barrier and face-to-face communication between case managers and primary care physicians.[12]

Closing the diagnosis and treatment gap and expanding prevention strategies for depression and suicidal behavior requires efforts at many levels, with an active role of policy-makers, clinicians and researchers addressing the organizational, contextual, relational and processual aspects of collaborative care.[38] The current Mexican government has the interest to provide universal health care, focusing on strengthening primary health. It is important to add mental health to the new policy, understanding the complexity and challenges that have to be encountered, like the fragmentation of health care, the lack and inadequate distribution of specialized human resources, and the low mental health literacy within health professionals and the general population that elongates help-seeking behavior for depression and suicidal behavior. Thus, it is imperative to broaden the mental health curricula in pregraduate medical, nursing and social work universities to enhance mental health literacy and achieve a reduction of stigma; there needs to be a formal yearly mental health training agenda for primary care health workers and there has to be a change of mindset to provide teamwork, role-differentiation and shared responsibilities of health professionals, with new case managing roles for motivated nurses and social workers with the constant supervision and support of general practitioners and mental health specialists. In Mexico, the aspects that influence the integration of mental health services within primary care are related to the need to make these programs a priority with the subsequent organization required, the need to have appropriate infrastructure and material resources and finally the importance of broadening the human resources and training on mental health.[54] While our suggestion here emphasizes the formal training of health care professionals, training aimed to non-professional community members, like the Mental Health Facilitator (MHF) training, could also be integrated.[55]

Implementing a collaborative care model for primary mental health is feasible in Mexico, starting in a regional setting that–when proven effective–can be generalized to other parts of the country. In addition, the diversity in key mental disorders and suicide across genders calls for possible adaptations to account for a gender perspective whenever necessary. This can only be achieved with the following steps: 1) attending the different political, structural, administrative and educational barriers of the current health system; 2) assigning specific economic and human resources for the adequate achievement of the program; 3) defining new roles for health professionals, specifically case manager roles; 4) providing adequate time distribution; 5) continuous mental health training and supervision from mental health professionals, and 6) proper evaluation of the program to provide evidence for its further replication.

Conclusion

A timely prevention strategy, such as the collaborative care model for depression and suicidal behavior within primary care, has the potential to impact people's mental health and outcomes. Mexico needs to implement these successful experiences to secure that future generations can fulfill their potential and contributions to society.

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