



Attention to mental illness with a chronic care model at the primary care level

Atención a la enfermedad mental con modelo de atención crónica en nivel primario

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Abstract

Introduction: Globally, the gap between the number of people who have a mental disorder and those who receive treatment is high. There are packages of mental health interventions.

Objective: to evaluate the impact of a mental health care package in primary health care for people with mental illness.

Methods: A controlled pre-post study was conducted using self-report on the organization of the health care system.

Results: The decision support component for service providers experienced a change from 1.1 at baseline to 7.8 at the midline.

Conclusions: Improvements in the perceived quality of mental illness care systems were reported.

Keywords: mental health, chronic diseases, primary care, general practice source: DeCS

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Resumen

Introducción: a nivel mundial la brecha entre el número de personas que tienen un trastorno mental y las que reciben tratamiento es elevada. Existen paquetes de intervenciones de salud mental.

Objetivo: evaluar el impacto de un paquete de atención de salud mental en la atención primaria de salud para personas con enfermedades mentales.

Método: Se realizó un estudio controlado previo y posterior utilizando el autoinforme sobre la organización del sistema de atención médica

Resultados: el componente de soporte de decisiones para proveedores de servicios, experimentó un cambio de 1.1 en la línea de base a 7.8 en la línea media.

Conclusiones: Se informaron mejoras en la calidad percibida de los sistemas de atención de enfermedades mentales.

Palabras clave: salud mental, enfermedades crónicas, atención primaria, medicina general fuente: DeCS

Introduction

The last decade has seen many important contributions in the field of global mental



health. Despite this progress, globally, the gap between the number of people with a mental disorder and those who receive treatment for their disorder remains high and is commonly referred to as the “treatment gap”⁽¹⁾. In low-resource countries, the treatment gap is rapidly increasing to nearly 90%. The World Health Organization (WHO) World Mental Health Survey reported that 76.3% to 85.4% of severe mental health cases in less developed countries did not receive treatment during the 12 months prior to the survey⁽²⁾. One explanation for this high treatment gap is the lack of trained mental health human resources. A meta-analysis finds that all low-income and 59% of middle-income countries had far fewer mental health professionals than needed.⁽³⁾

To help close the treatment gap, which has advocated a task-sharing approach, where non-specialist health workers are trained to provide predetermined packages of mental health interventions and counseling under clinical supervision provided by mental health specialists⁽⁴⁾. This collaborative care approach involving generalists and specialists can also generate positive health and socioeconomic outcomes for people with mental, neurological and substance abuse disorders (MNDS). In addition, the task-sharing approach is acceptable and feasible when preconditions such as adequate training and compensation for primary health care workers, improved access to psychotropic medications, and provision of structured supervision are in place (5).

Mental illness often requires chronic care. Therefore, the focus on the perceived quality of care from the chronic care model (MAC) is important for health systems to respond to the needs of patients with chronic mental illness and close the gap between the provision of care and the need for treatment. However, collaborative care requires coordination of care among providers. The collaborative MAC provides a framework to enable such coordination and allow the health system to respond to the acute and chronic nature of MNS disorders. In high-income countries, such collaborative CCMs in primary health care settings have resulted in positive outcomes for patients with NTM^(6,7).

The present study aimed to identify the application and gaps in the organization and implementation of chronic collaborative care for priority mental disorders (depression, alcohol use disorder, and psychosis) at the primary health facility level.

Method

A controlled pre-post study was conducted using provider self-report on the health care system organization according to the elements of MAC. It was conducted in 10 health facilities east of Ambato, where the mental health care package (PASM) was being implemented and tested, so these health facilities became the default intervention group. For comparison, 10 other health facilities with similar baseline characteristics were needed but were geographically far from the intervention health facilities to reduce the chances of contamination. These 10 health facilities (i.e., a comparative control group) were selected by program staff based on travel distance, accessibility, and population density. The control sites were the health facilities where PASM was planned to be expanded after completion of the three measurements (baseline, midline, and endline) of the study. Health facilities in the intervention group implemented PASM for depression, epilepsy, psychosis, and alcohol use disorders during the study period. This study was approved by the Universidad Regional Autónoma de Los Andes (UNIANDES).

The Assessment of Chronic Illness Care (ACIC), a quality improvement tool⁽⁸⁾, is generally used to assess the strengths and weaknesses of chronic illness care. In this study, the ACIC was used to assess whether PASM was beneficial in integrating chronic care elements into primary health care for people with mental illness. The elements/components of the ACIC include health care delivery system (4 items); community linkages (4 items); patient self-management support (4 items); decision support for service providers (4 items); delivery system redesign (6 items); clinical information system (4 items); and integration of MAC elements (5 items). The health care delivery system component assesses perceptions of the overall health systems



components that play a vital role in supporting the system of care for chronic mental illnesses

Responses to the ACIC items require a score between 0 and 11. Scores of 0-2 are classified as 'little support for chronic disease care', 3-5 indicate 'basic support for chronic disease care', 6-8 are classified as 'reasonably good support for chronic disease care' and 9-11 indicate fully developed chronic disease care. The database and statistical processing of the data were performed and analyzed in the SPSS 26 statistical program (SPSS Inc., Chicago, IL, USA). Descriptive statistics were used for the results collection, presentation and interpretation. First, the frequency table of each ACIC item was examined to identify missing values. Next, the mean subscales for each ACIC domain were calculated for the six ACIC sections and the overall program score (attention integration) for baseline, midline, and endline data. Finally, to determine a longitudinal change in the ACIC domains, a univariate analysis of variance (ANOVA) was performed with repeated measures.

Results

At baseline, there was no visible difference in the ACIC secondary scores between the

intervention and comparative control health facilities, and both groups fell below the threshold for basic support (scores between 3 and 5). The highest mean subscale score at baseline for the intervention group was for patient support (3.0). The highest mean score for the comparative control group was for delivery system design (3.2).

The ACIC was repeated at 13 months (i.e., at midline) to establish whether there was any change in mean scores after implementation of the PASM intervention. Table 1 shows that at midline, the intervention group reported much higher mean scores on all six items of the ACIC. The most notable change was for the service provider decision support component, which experienced a change from 1.1 at baseline to 7.8 at the midline. Although, for the comparative control group, there was also an improvement in the mean score on all six ACIC items, the delivery system design component had the highest mean score of 3.9 (compared to its mean score of 3.2 at baseline). However, the difference in mean score from baseline to midline for the comparative control group was minimal compared to the intervention group.

Table 1. System level changes from baseline to endline.

Components	Baseline mean (SD)		Mean ofmidline (SD)		Final mean (SD)		ANOVA (gl, error time) = F-statistic, p-value
	Interventio n	Control	Interve ntion	Control	Interve ntion	Control	
Part 1: Organization of the health care delivery system	2.4 (1.1)	1,8 (0,6)	6.3 (2.1)	2,5 (1,6)	7.9 (1.1)	3.7 (1.6)	F(2,36) = 10,07, p < 0,001
Part 2: Community links	2.3 (1.6)	1,4 (0,7)	7.1 (1.6)	2.7 (2.3)	8.5 (1.0)	3.4 (2.1)	F(2,36) = 11.31, p < 0.001
Part 3: Practicelevel							
3a: Patientsupport	3.0 (1.0)	2,6 (0,6)	7.0 (2.0)	3.9 (1.6)	8.1 (1.4)	3.9 (1.1)	F(2,36) = 11,58, p < 0,001
3b: Decision support for service providers	1.1 (1.1)	0,6 (0,5)	7.8 (2.0)	1.7 (1.7)	8,2 (0,7)	4.7 (2.4)	F(2,36) = 17,55, p < 0,001
3c: Deliverysystemdesign	2.9 (1.1)	3.2 (1.2)	7.5 (1.4)	3.9 (2.0)	8.2 (1.3)	4.5 (1.3)	F(2,36) = 12,34, p < 0,001
3d: ClinicalInformationSys tems	1.8 (1.6)	1,4 (0,9)	7.3 (2.3)	2.7 (1.9)	8.4 (1.2)	2,9 (1,4)	F(2,36) = 12,98, p < 0,001



Part 4: Integration of the components of the chronic care model	0,3 (0,7)	0,3 (0,6)	6.5 (2.1)	2.1 (2.2)	7.1 (1.5)	2.2 (1.3)	F(2,36) = 16,36, p < 0,001
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Source: statistical analysis, $p \leq 0,05$

At endline, conducted at 25 months (after 2 years of PASM implementation), the intervention group made more progress on all six elements of the ACIC. The most notable change was for the community linkages component, which experienced a change from 7.1 at the midline to 8.5 at the endline. The comparative control group also improved on all six items of the ACIC. The most notable change was for the service provider decision support component, which experienced a change from 1.7 at the midline to 4.7 at the endline.

At baseline, both groups scored 0.3 for integrating MAC elements, the lower threshold for poor support (score between 0 and 2) for chronic care. At midline, the intervention group showed marked improvements (mean score changed from 0.3 at baseline to 6.5 at midline) and all health facilities moved from minimal to reasonably good support for the chronic mental illness care system.

When these improvements were categorized according to the ACIC categories (little support, basic support, reasonably good support, and full support), using the mean of the subscale means, it showed that at baseline 90% of the health facilities in the intervention group, and 100% of the health facilities in the comparative control group had limited support for chronic disease care. However, at the end, 90% of the health facilities in the intervention group showed reasonably good support, and 10% had a fully developed chronic disease care system for mental illness.

An effect was obtained between the intervention and comparative control groups that were statistically significant for all subsections of the ACIC ($P < 0.001$), indicating that health facilities in the intervention group achieved statistically significant improvements in the elements of chronic care service delivery concerning mental illness compared with the comparative control group.

Discussion

The findings show that PASM was perceived to positively impact the quality of systems of care for chronic mental illness through integrating elements of the MAC into routine primary health care. At baseline, health facilities in both groups generally had little support for chronic mental illness care. However, after PASM implementation, facilities in the intervention group showed significant improvements in all ACIC domains compared to health facilities in the comparative control group.

Primary health care workers' recognition of increased support for the information system showed that training of primary health care workers and the availability of mental health records and proforma indicators improved the patient information system⁽⁹⁾.

Cramm and colleagues in the Netherlands demonstrated that chronic care delivery improved due to improvements in coordination between professionals from various disciplines⁽¹⁰⁾. Coordination and collaboration between the health center and the community are vital to address supply and demand issues in mental health care⁽¹¹⁾. The findings show that through PASM, the system was developed to support the patient self-care component of the MAC. The emphasis on self-care strategies during training and supervision sessions may have motivated health care workers to provide self-care information during patient interactions.

The higher average score change for decision support reflects that through PASM, the system was better organized and primary health care workers were sufficiently trained and supervised to provide integrated mental health care at the primary health care level based on the MAC model⁽¹²⁾.

The changes in mean scores for integrating the elements of the CCM show that, at the primary health care level, it is possible to develop supportive organizational structures to help primary health care workers provide



more holistic, integrated chronic care. However, this finding should be interpreted with caution, as a full implementation of the MAC was not conducted in this study and the evaluation only provided primary health care workers' perspectives on the care system for chronic mental illness. However, the findings show that primary health care workers were ready and willing to integrate the essential elements of chronic care within existing primary health care^(13,14).

The study also found positive changes in the comparative control group. The improvements, albeit small, in the health facilities in the comparative control group may be due to some of the MAC components in the physical health programs and the testing effect of the ACIC interview process. In addition, although health facilities in the comparative control group did not receive support under the PASM, routine primary health care for physical health problems was being provided (in both intervention and comparative control health facilities), which had components of counseling, patient information system, intersectoral collaboration, and community linkages^(15,16).

Previous studies have found that participatory reflective practice and collegial settings send clear messages to staff about the importance of chronic disease care and thus contribute to improvements in health care practices and patient outcomes⁽¹⁷⁾. The ACIC is also a useful tool for identifying areas that need further focus for improvement⁽¹⁸⁾. The current study results indicate that further improvements are needed in PASM, especially in the system-related components of the MAC, such as the organization of the health care delivery system and the redesign of the delivery system.

The findings show a positive evaluation by primary health care workers of improvements in chronic care elements due to PASM. Primary health care workers' positive perception and motivation precondition for successfully integrating mental health into chronic care^(19,20). Also, the results should be interpreted in light of the power dynamics among various actors involved in this study.

Conclusions

Primary health care workers reported improvements in the perceived quality of systems of care for mental illness in health facilities that received PASM support compared to those that did not. At baseline, there were no statistically significant differences between the intervention and comparative control groups, but at midline and endline there was a significant difference in all six items of the ACIC.

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