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ORIGINAL ARTICLE

"I don't need any treatment" – barriers to mental health treatment in the general population of a megacity

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Objective: Most countries fail to treat individuals with psychopathologies. Investigating treatment barriers and reasons for dropout are key elements to overcoming this scenario.
Methods: A representative sample of 2,942 urban-dwelling adults was interviewed face-to-face within a cross-sectional, stratified, multistage probability survey of the general population. Psychiatric diagnosis, severity level, use of services, reasons for not seeking treatment, and treatment dropout were investigated.
Results: Only 23% of individuals with a psychopathology of any severity level in the last 12 months received treatment. Low perceived need for treatment (56%) was the most common reason for not seeking treatment. The most visited settings were psychiatric, other mental health care, and general medical care. Among those with a perceived need for treatment (44%), psychological barriers were the most common reason for not seeking it. Treatment dropout was more prevalent among those who visited a general medical care setting. Among individuals still in treatment, human services and psychiatric care were the most common types. Female sex was associated with structural barriers (OR = 2.1). Disorder severity was negatively associated with need barriers (OR = 0.4), and positively associated with structural barriers (OR = 2.5) and psychological barriers (OR = 2.5).
Conclusion: Despite the need for treatment and better services, psychological barriers were the major reason for not seeking treatment. Apart from providing more specialists, investing in awareness, de-stigmatization, and information is the ultimate strategy for improving psychiatric care.

Keywords: Mental health; healthcare; treatment adherence; treatment seeking; treatment dropout

Introduction

Mental disorders are among the most burdensome health problems worldwide, affecting approximately one quarter of the adult population.[1] According to the Global Burden of Disease study, mental disorders represent 32.4% of all years lived with disability, involving human, economic, and social costs.[2] Despite advances and the availability of treatment resources for managing mental disorders, mental health policies have failed to provide full access to the health care system for individuals with psychopathologies. Even in countries where mental health coverage is broader, the rate of individuals who drop out of – rather than seek – treatment is substantial.[3] This issue is even more critical when the available resources are scarce, the distribution is unequal, and their use is inefficient.[4,5] Across the world, the major obstacles to seeking and staying in treatment are the low perceived need for treatment, and attitudinal barriers (such as misunderstandings about treatment and stigma).[6,7]

In low-and-middle-income countries (LMIC), treatment dropout is high[7-10] despite the difficulty obtaining it.[11] Furthermore, multimorbidity plays a major role in LMIC, because co-occurring disorders begin approximately one decade earlier than in high-income countries.[12] Multimorbidity affects economically active individuals, involves earlier treatment, and generally requires more specialized personnel an in already overloaded health care system.[12,13] These findings suggest that the reasons for treatment dropout require closer investigation and that comprehensive explanations must go beyond the structural availability of health care facilities.

Data from cross-sectional studies[7,14] in both high-income[14] and LMIC[15] indicate that attitudinal barriers are the most frequent reasons for lack of treatment. In most LMIC, the shortage of health care personnel and limited health facilities hinder treatment access. Unequal

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distribution and regional variations in health care resources are further barriers to treatment for mental disorders. As consequence, the approach to regional health care planning could influence health-seeking behaviors in the midst of scarce resources and budget shortages, which are commonplace in LMIC.

We are unaware of any Brazilian study that has addressed the problem of treatment barriers and/or treatment dropout in epidemiological samples of individuals with mental disorders. The few studies focusing on this issue have investigated clinical samples and patients with substance use disorders,[16,17] limiting the generalization of the findings. The aim of the present study was to examine the barriers to seeking and staying in treatment, as well as the correlates of those barriers, in a community sample of individuals with mental disorders in the fourth largest metropolitan area in the world.

Methods

Sampling

A representative sample of individuals aged 18 years or older was selected through a multistage, stratified probability sampling strategy (n=5,037) in the São Paulo metropolitan area. The region of São Paulo and its 38 adjacent municipalities has about 20 million inhabitants. Details of sampling, recruitment, and weighting procedures have been reported elsewhere.[18] Table S1, available as online-only supplementary material, shows the sample characteristics and the lifetime and 12-month prevalence of any mental disorders. The sample predominantly consisted of employed (66.2%), married (59.8%) women (52.8%). The lifetime prevalence of at least one mental disorder was 44.8%, and the 12-month prevalence of at least one mental disorder was 29.6%.

Diagnostic and sociodemographic data assessment

We applied the World Mental Health Survey version of the Composite International Diagnostic Interview (WMHS-CIDI) to collect the respondents' sociodemographic data, psychiatric diagnosis, level of impairment, and access to health care services. Lay professional interviewers administered a fully structured WMHS-CIDI in the respondents' households between May 2005 and May 2007. This interview allows diagnosis of 20 DSM-IV mental disorders: major depressive disorder, bipolar I and II disorders, dysthymia, panic disorder, agoraphobia, social phobia, specific phobia, childhood and adult separation anxiety disorders, generalized anxiety disorder, post-traumatic stress disorder, alcohol and drug abuse and dependence, intermittent explosive disorder, oppositional-defiant disorder, conduct disorder, and attention-deficit/hyperactivity disorder.[19,20] The interview consists of two broad sections. Part 1 (n=5,037), which was administered to the whole sample, includes core diagnostic sections, demographic information, daily functioning, and physical morbidity. Part 2 includes questions about risk factors, consequences, and other correlates, assessment of additional disorders (e.g., pre-menstrual disorder or neurasthenia) and the use of mental health care services. To reduce respondent burden and control study costs, Part 2 was only administered to those (n=2,942) who met lifetime criteria for any Part 1 core disorders, as well as a probability subsample of other respondents. To prevent recall bias, oppositional-defiant, conduct, and attention-deficit/hyperactivity disorders were assessed only in respondents aged 18 to 44 years old.

The sociodemographic correlates were age (years), sex (male/female), completed years of education (0-4, 5-8, 9-11, and $\geqslant$ 12), marital status (married/cohabiting, previously married, never married), and family income (low, lower-middle, upper-middle, and high).

Severity level

Serious disorders in the last 12 months were defined as: bipolar I disorder or substance use disorder with physiological dependence, a suicide attempt in conjunction with any other disorder, severe role impairment due to a mental disorder in at least two areas in the disorder-specific Sheehan Disability Scales,[21] or overall functional impairment from any disorder consistent with a score of 50 or less on the Global Assessment of Functioning.[22] Disorders were classified as moderate if the respondent had substance use disorder without physiological dependence or at least moderate interference in any Sheehan Disability Scale domain. All other disorders were classified as mild.

Use of services

Treatment was assessed by asking the respondents (n=2,942) if they had consulted any professionals (as an outpatient or inpatient) for problems with their emotions, nerves, mental health, or alcohol/drug use in the last 12 months. A list of professionals was presented that included mental health (e.g., psychiatrist, psychologist), general medical (e.g., general physician, cardiologist, gynecologist), other mental health professionals (e.g., nurse, occupational therapist, social worker), religious counselors (e.g., priest, minister, rabbi), and traditional healers (e.g., herbalist, spiritual healer). In a previous publication, we indicated that approximately 90% of people with mental disorders in São Paulo were either untreated or insufficiently treated.[12]

Barriers to using services or not continuing their use

First, using the WMH-CIDI, we asked the respondents who reported not having used mental health services in the 12 months prior to the interview if they ''ever felt that they would need to see a professional because of problems with emotions, nerves, or mental health'' (perceived need for treatment).

Low perceived need refers to respondents who reported that they ''did not need help'' or that they ''needed help for less than 4 weeks.'' Additional questions regarding structural barriers (e.g., lack of health insurance, money, or available treatment) and attitudinal barriers (e.g., low

perceived efficacy of treatment, stigma, or the desire to handle the problem on their own) to seeking treatment were asked to those who reported a perceived need for treatment (needing help for more than 4 weeks) (see Table S2, available as online-only supplementary material, for the full list of structural and attitudinal barriers to treatment seeking).

Individuals who had obtained mental health treatment in the 12 months prior to the interview were further asked if they were still in treatment. If not, we asked whether they discontinued treatment before the date recommended by their treatment provider. A series of reasons for treatment dropout were presented. For those who "got better" or "didn't need help anymore," no questions about structural or attitudinal reasons were asked. Table S3 (online-only supplementary material) presents the full list of structural and attitudinal reasons for dropout.

Only individuals who dropped out of all treatment modalities and provided reasons why were included in the analysis. If the respondent reported multiple reasons for not seeking help or for dropping out of treatment, each reason was coded positively. Several previous studies have already used the same methodology and questions from the WMH-CIDI to assess treatment dropout and/or barriers to treatment.[7,10,23-25]

Statistical analyses

For this report, we used data from Part 2 of the WMHS-CIDI (n=2,942). The analyses included conventional methods of variance estimation with complex sample survey data according to the sample design. Part 2 data was weighted to adjust for undersampling of non-cases from Part I and differential within-household probability of selection, as well as for residual aggregate discrepancies between samples and populations.[26] This post-stratification weighting allowed the sample distribution to be compared to population distribution in the 2000 Census regarding sociodemographic variables (see details in Viana et al.[18]).

Logistic regression analysis evaluated the likelihood of sociodemographic correlates in relation to reasons for not seeking treatment. Sociodemographic variables and disorder severity were controlled for the number of disorders in the last 12-months. The proportion of barriers to seeking treatment among those who had any mental disorder 12 months before the interview and did not seek treatment was calculated. The same analysis was performed in the sub-sample of individuals with a perceived need for treatment. The treatment modalities received in the 12 months prior to the interview were consolidated into into four categories: 1) psychiatrists; 2) other mental health professionals; 3) the general medical sector; and 4) human services. For each modality, the median number of visits, interquartile range of visits, and proportion of patients who completed, discontinued, or were still in treatment were determined. Multivariate logistic models were run for each outcome (number of visits and dropout according to treatment provider type). The predictors included the number of visits, age, sex, marital status, education, income, insurance status, previous mental health treatment, mental disorders, number of disorders, number of treatment providers, and the use of complementary and alternative medicine (CAM). Kaplan-Meier curves were used to analyze dropout according to the number of visits. The same analytical steps were repeated to determine the reasons for treatment dropout. Logistic regression coefficients and their standard errors were exponentiated, creating odds ratios (ORs) and 95% confidence intervals (95%CI). The Taylor series method in SUDAAN[27] was used to estimate the standard errors to adjust for data clustering and weighting. Multivariate significance tests were conducted using Wald χ^2 tests based on coefficient variance-covariance matrices adjusted for design effects using the Taylor series method. Two-sided, design-based 0.05-level tests were used to determine statistical significance. A comprehensive description of the sample and the subgroups considered in the analyses is shown in Figure 1.

Ethics statement

The procedures were approved by the ethics and research committee of the Faculdade de Medicina, Universidade de São Paulo. The respondents were interviewed after the nature of the procedures was fully explained, total confidentiality was assured, and written informed consent was provided. The investigation was conducted according to Helsinki Declaration criteria.

Results

Of all the respondents (n=2,942), only 10% received any treatment for mental health problems in the 12 months prior to the interview. The most common treatment providers were psychiatrists (38.5%), other mental health professionals (33.3%), and general medical care services (33%). Human services and psychiatric care were the treatment settings most frequently reported by those still in treatment (78.9 and 66.6%, respectively).

CAM had the highest treatment adherence of any category (92.3%). Other mental health professionals (20.5%) and general medical treatment (20.3%) were more prevalent among treatment completers (Table 1). Dropout rates differed between groups, being more prevalent in general medical care (44.3%), and other mental health care providers (36.4%), and less prevalent among those receiving care in a human services setting (13.4%) and CAM (5.7%) (Figure 2).

Treatment was obtained by 23% of the sample who had any mental disorder. The proportion of treated respondents was significantly higher with increased severity (13% mild, 21.7% moderate, 35% severe; $p < 0.0001$). Treatment dropout occurred in 16.8% of those who received any type of treatment; there were significant differences among severity levels (Table 2).

Among respondents with a mental disorder of any severity level, the most common reason for not seeking treatment was a low perceived need for treatment (56%). This rate was significantly higher among those with milder

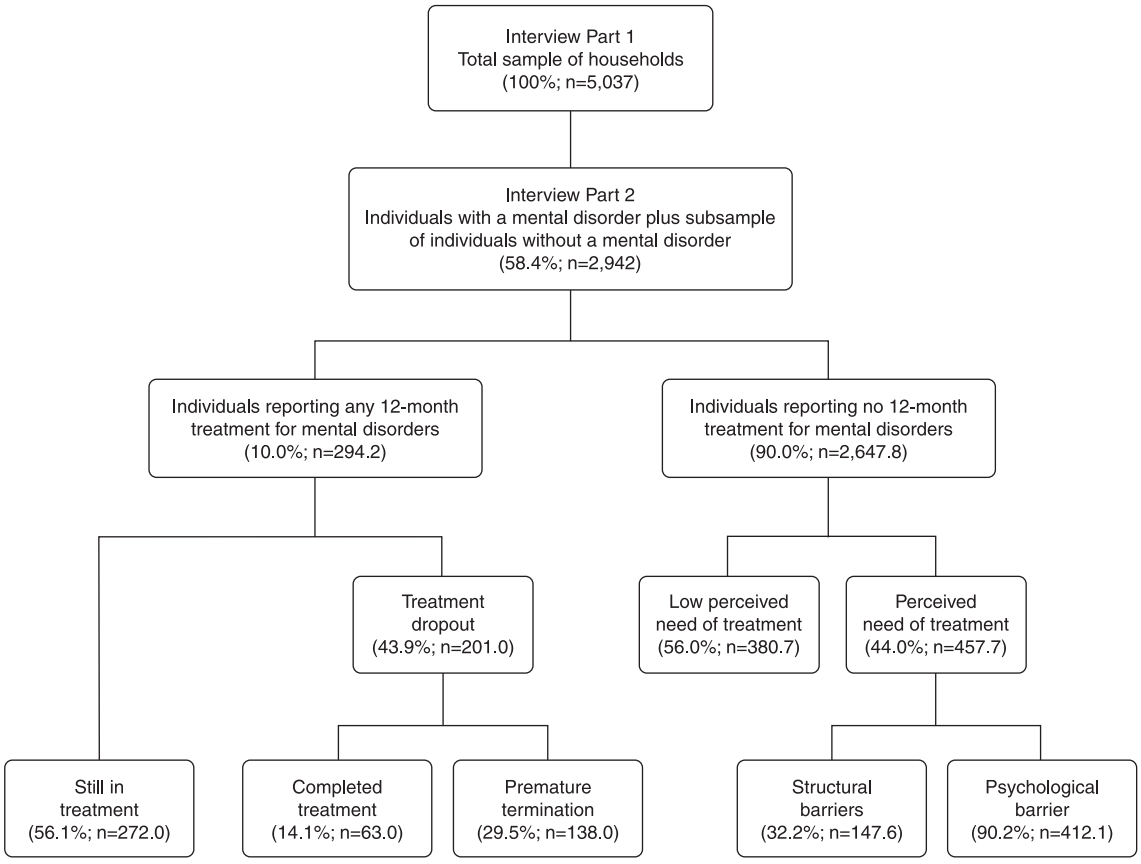

Figure 1 Description of the sample, and the subgroups considered in the analysis (weighted frequencies).

disorders than those with moderate disorders (70.1 vs. 52.3%), although the difference was not significant between those with moderate and severe disorders (52.3% vs. 40.3%). Among the psychological barriers to treatment (39.7%), the wish to handle the disorder on their own was the most prevalent (29.4%), and it increased with severity (20.4% mild vs. 39.1% severe disorders).

Structural barriers (14.2%) were also reported more frequently with increasing disorder severity ($p = 0.013$), with financial (10.9%) and availability (9.9%) being the most prevalent. Treatment availability increased between moderate and severe disorders (9.2 vs. 18.3%; $p = 0.013$), while financial increased between mild and moderate disorders (4.4 vs. 11.6%; $p = 0.002$) (Table S4, available as online-only supplementary material).

Among respondents who recognized their need for treatment, the main reasons for not obtaining treatment were psychological barriers (90.2%), the most common of which were the desire to handle the disorder on their own (66.7%), and the perceived ineffectiveness of the treatment (16.3%). There was no significant difference between severity levels.

The most frequent structural barriers (32.3%) were financial (24.7%), and availability (22.5%). The prevalence of any structural barrier was 22.5% for mild, 29.2% for moderate, and 42.1% for severe disorders ($p < 0.032$) (Table 3).

Correlates of treatment-seeking barriers and dropout

Table 4 shows the correlates for not seeking treatment. Disorder severity was the only predictor associated with all groups, being negatively associated with need barriers (OR = 0.4) and positively associated with structural barriers (OR = 2.5) and psychological barriers (OR = 2.5). Female sex was positively associated only with structural barriers (OR = 2.1).

Of the demographic correlates for treatment dropout among respondents with a disorder of any severity (Table 5), age (OR = 1.1) and education (OR = 1.5) were significant predictors of psychological barriers.

Discussion

Despite the high prevalence of mental disorders in the last 12 months (29.6%) in the São Paulo metropolitan area,[28] few affected individuals obtained treatment, and fewer still completed the recommended treatment. Psychological barriers were the main obstacles to seeking and adhering to treatment. The perception that treatment is unnecessary and the desire to resolve the problem without professional help were the most commonly reported reasons.

Adherence was higher among respondents treated by psychiatrists, reinforcing the need for more specialized care for individuals with a psychopathology. As a key implication for LMIC, improving mental health care

Table 1 Mental health treatment type and status in the 12 months prior to the interview (n=2,942)

					At the time of the interview*					
	Still in treatment		Number of visits		Premature termination		Completed treatment		Still in treatment	
	n† (%)	(SE)	Median	IQR	n† (%)	(SE)	n† (%)	(SE)	n† (%)	(SE)
Among total sample	2,942 (100.0)	0.6	-	-	-	-	-	-	-	-
Among service providers										
Psychiatrist	198 (38.5)	2.8	3.8	(1.5-8.5)	37 (19.6)	3.7	26 (13.8)	3.1	135 (66.6)	3.7
Other mental health providers	133 (33.3)	2.1	2.9	(1.2-11.0)	40 (36.4)	4.9	21 (20.5)	3.4	72 (43.1)	4.9
General medical care	174 (33.0)	2.6	1.5	(1.0-2.0)	81 (44.3)	5.1	26 (20.3)	5.2	67 (35.4)	5.3
Human services	63 (14.8)	2.5	1.8	(1.2-4.8)	10 (13.4)	5.4	7 (7.7)	3.6	46 (78.9)	7.9
Complementary and alternative medicine	56 (13.8)	2.2	4.0	(2.1-20.0)	4 (5.7)	3.7	3 (2.0)	1.3	49 (92.3)	3.9
Any‡	473 (100.0)	0.0	3.3	(1.3-9.8)	138 (29.5)	2.5	63 (14.4)	2.3	272 (56.1)	2.5
Significance tests					χ^2	p-value	χ^2	p-value	χ^2	p-value
4 df test across providers			-		23.1	< 0.0001	19.8	0.001	68.5	< 0.0001
3 df test across providers excluding CAM§			-		22.1	< 0.0001	6.3	0.097	66.5	< 0.0001

CAM = complementary and alternative medicine; df = degrees of freedom; IQR = interquartile range; SE = standard error.

*The three proportions in each row sum to 100%. Percentages are weighted to adjust for differences in selection probabilities, differential nonresponse, oversampling of Part II cases, and residual differences in sociodemographic variables between the sample and the population.

†Unweighted number of respondents who received treatment in each sector.

‡The median number of visits in any sector represents the median across all sectors, not within any one sector, among patients treated in one or more sectors. The number who dropped out reported in this row represents those who dropped out of all sectors. Patients treated in multiple sectors over the 12-month period who were still in treatment in any of those sectors at the time of the interview were classified as still in treatment, and those no longer in any treatment who reported completing treatment in at least one sector were classified as having completed treatment.

§CAM was not included in the analysis due to the low drop-out rate.

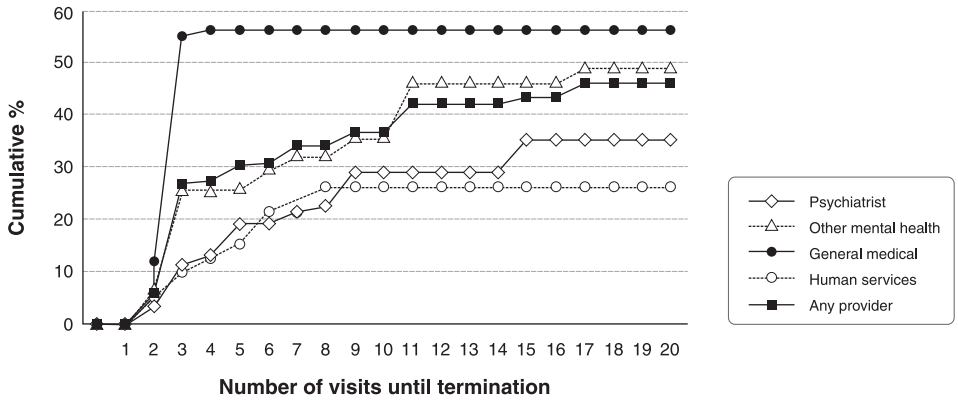

Figure 2 Cumulative probability of treatment dropout over the course of treatment according to treatment type.

Table 2 Prevalence of treatment for mental disorders in the past 12 months, including treatment dropout according to severity level

	Any severity		Severe		Moderate		Mild			
	n (%)	SE	%	SE	%	SE	%	SE	χ^2	p-value
Individuals who received treatment	1,315 (23.0)	1.0	35.0	2.1	21.7	2.7	13.0	1.5	61.3	< 0.0001
Individuals who dropped out of treatment	288 (16.8)	2.8	15.6	3.1	22.4	7.1	10.8	5.9	2.6	0.289

SE = standard error.

Table 3 Reasons for not seeking treatment among respondents who recognized they needed treatment in the past 12 months, according to disorder severity

	Severity													
	Any severity (n=457)		Severe (n=179)		Moderate (n=160)		Mild (n=118)		χ^2 across all groups		χ^2 between severe, moderate		χ^2 between moderate, mild	
Reasons	%	SE	%	SE	%	SE	%	SE	χ^2	p-value	χ^2	p-value	χ^2	p-value
Structural barriers														
Financial	24.7	3.4	32.2	4.7	24.4	4.9	14.7	4.6	12.8	0.006	1.2	0.288	4.5	0.044
Availability	22.5	2.4	30.6	4.3	19.3	3.2	15.2	4.4	6.7	0.051	4.1	0.054	0.5	0.494
Transportation	9.7	1.5	16.0	3.1	8.2	3.4	3.0	1.3	18.5	0.001	2.3	0.144	1.7	0.198
Inconvenience	7.7	1.5	13.4	3.5	6.0	2.3	2.0	1.2	9.4	0.018	2.6	0.119	2.7	0.115
Any structural barrier	32.3	3.7	42.1	4.9	29.2	5.4	22.5	5.4	7.9	0.032	3.3	0.081	1.3	0.268
Psychological barriers														
Wanted to handle on own	66.7	2.8	65.5	7.5	66.9	6.1	68.2	5.5	0.1	0.948	0.0	0.912	0.0	0.851
Perceived ineffectiveness	16.3	2.4	19.7	4.8	14.3	3.9	14.1	5.8	0.7	0.698	0.6	0.441	0.0	0.980
Stigma	7.5	1.1	12.1	2.4	6.3	1.7	2.7	1.3	9.5	0.018	3.6	0.069	3.4	0.078
Thought would get better	6.5	1.1	12.0	2.4	6.9	1.7	2.3	0.7	18.1	0.001	4.2	0.051	5.5	0.027
Problem was not severe	6.4	1.1	9.0	2.1	7.2	1.9	4.0	1.5	4.7	0.114	0.4	0.546	1.9	0.177
Any psychological barrier	90.2	1.9	89.0	3.0	92.3	3.0	89.2	3.9	0.7	0.724	0.5	0.472	0.4	0.527

SE = standard error.

training for teams involved in task-shifting programs could improve adherence to psychiatric treatment. Our findings also indicate a need for awareness programs in the general population to decrease stigmatization. Thus, fundamental components for increasing the use of health care services in LMIC include changing public opinion regarding psychopathologies and expanding the training of non-specialized personnel in primary care.

Health systems with structural and budget problems are common in LMIC.[29] However, even among individuals who recognize their need for treatment, "cognitive barriers" (e.g., low perceived need and psychological barriers) were the main impediments to treatment. In this context, structural barriers play a secondary role. However, regardless of national income, underuse of health systems seems to be the norm for mental health.

In the São Paulo metropolitan area, approximately one quarter of those with mental health problems received some care. Among other LMIC and upper-middle-income-countries, only Iraq (14.1%), Colombia (24.3%), and

Table 4 Demographic correlates for treatment-seeking barriers in the past 12 months among those with disorders of any severity (n=2,942)

	Any need barrier			Any structural barrier			Any psychological barrier		
	OR (95%CI)	χ^2	p-value	OR (95%CI)	χ^2	p-value	OR (95%CI)	χ^2	p-value
Age, years									
18-34	0.5 (0.2-1.6)	1.6	0.660	1.4 (0.6-3.1)	2.1	0.352	2.3 (0.8-6.7)	2.9	0.413
35-49	0.6 (0.2-1.8)	-	-	1.5 (0.8-2.9)	-	-	2.2 (0.8-6.5)	-	-
50-64	0.6 (0.2-1.9)	-	-	-	-	-	1.9 (0.7-5.1)	-	-
Sex									
Female	0.7 (0.5-1.2)	1.7	0.192	2.1 (1.0-4.5)	4.3	0.039	1.1 (0.7-1.8)	0.3	0.580
Education, years									
0-4	1.0 (0.4-2.5)	2.2	0.540	0.8 (0.3-2.6)	11.1	0.011	1.1 (0.4-2.9)	1.2	0.755
5-8	0.7 (0.3-1.5)	-	-	1.0 (0.3-3.3)	-	-	1.3 (0.6-2.7)	-	-
9-11	0.8 (0.4-1.7)	-	-	2.0 (0.7-5.8)	-	-	1.2 (0.6-2.4)	-	-
Income									
Low	0.8 (0.5-1.3)	1.6	0.670	2.0 (0.9-4.7)	3.9	0.277	0.8 (0.5-1.5)	2.6	0.461
Lower-middle	1.0 (0.7-1.7)	-	-	2.0 (0.8-5.2)	-	-	0.7 (0.5-1.2)	-	-
Upper-middle	1.0 (0.6-1.7)	-	-	1.4 (0.7-3.1)	-	-	1.0 (0.5-1.8)	-	-
Marital status									
Married/cohabitating	0.8 (0.4-1.5)	0.9	0.637	1.6 (0.8-3.3)	3.4	0.184	1.2 (0.6-2.2)	0.3	0.853
Separated/widowed/divorced	0.8 (0.4-1.4)	-	-	1.9 (0.9-3.9)	-	-	1.1 (0.6-2.3)	-	-
Severity									
Severe	0.4 (0.2-0.6)	17.5	0.000	2.5 (1.3-5.0)	7.9	0.019	2.5 (1.6-4.0)	17.5	0.000
Moderate	0.6 (0.3-1.0)	-	-	1.6 (0.8-3.2)	-	-	1.7 (1.0-3.2)	-	-

95%CI = 95% confidence interval; OR = odds ratio.
Controlled for the number of mood disorders, anxiety disorders, substance disorders, and externalizing disorders in the last 12 months.

Table 5 Demographic correlates of reasons for treatment dropout among respondents with disorders of any severity

	Any need barriers			Any structural barriers			Any psychological barriers		
	OR (95%CI)	χ^2	p-value	OR (95%CI)	χ^2	p-value	OR (95%CI)	χ^2	p-value
Age	1.0 (0.9-1.1)	0.0	0.838	1.0 (0.9-1.0)	1.3	0.256	1.1 (1.0-1.2)	6.0	0.014
Sex									
Female	-	-	-	0.3 (0.0-2.4)	1.5	0.219	3.3 (0.2-47.9)	0.9	0.350
Education									
As a continuous variable	1.2 (0.8-1.9)	0.6	0.439	1.0 (0.8-1.3)	0.0	0.883	1.5 (1.0-2.3)	4.4	0.036
Income									
As a continuous variable	0.9 (0.5-1.7)	0.1	0.734	1.0 (0.7-1.3)	0.0	0.904	1.3 (0.9-1.8)	1.6	0.211
Marital status									
Married/cohabitating	1.1 (0.2-7.9)	0.0	0.914	0.9 (0.1-8.0)	0.0	0.957	4.0 (0.6-27.6)	2.2	0.142
Separated/widowed/divorced	-	-	-	-	-	-	-	-	-
Severity									
Severe	0.5 (0.0-7.1)	0.2	0.631	0.4 (0.0-4.0)	0.7	0.395	0.5 (0.1-3.5)	0.5	0.493
Moderate	-	-	-	-	-	-	-	-	-

Controlled for the number of mood disorders, anxiety disorders, substance disorders, and externalizing disorders in the last 12 months.
95%CI = 95% confidence interval; OR = odds ratio.

Mexico (25.8%) had lower rates of individuals with severe disorders who are not receiving treatment. However, this rate was also lower in the following high-income-countries: Japan (24.1%), Israel (33.6%), and Portugal (39.4%).[7]

The difference in low perceived need among respondents with mild-to-moderate disorders but not in moderate-to-severe disorders suggests that individuals tolerate mild but not moderate/severe impairment.[30] More severe disorders cause increasing difficulties and functional limitations. Thus, since manuals such as the DSM[31] require that clusters of symptoms which produce clinically significant distress or impairment be considered disorders, the criterion significant impairment could lead to increased sensitivity and generate false-positive diagnoses. In fact, the perceived need for treatment is influenced and

constructed by one's perception of symptom severity and one's feelings about treatment.[32]

Low perceived need for treatment is a complex behavior related to personal attitudes and beliefs, subjective social norms, past experience, and social standards.[32] Present worldwide,[7] this phenomenon occurs in distinct cultural and economic backgrounds, such as South Africa,[15] Japan,[33] or the United States.[24]

It should be pointed out that the subgroup who ''recognized their need for treatment,'' perceived ineffectiveness of treatment was the most commonly reported psychological barrier. This finding is remarkable, since positive past treatment was negatively associated with low perceived need.[34] This indicates that the initial treatment should be the most effective available one, since the perceived effectiveness of treatment would lead to better adherence rates.[35]

The respondents' perception that they ''did not need treatment'' and their desire to deal with the problem themselves indicates that people tend to handle mental disorders differently from other chronic diseases, such diabetes (i.e., cognitive bias). Despite the psychiatric reform in Brazil in late 20th century[36] and the advances in mental health care, misconceptions regarding psychiatric treatment still persist. For example, some individuals still believe that mental health treatment is harsh and coercive and could worsen a patient's condition.[37] Brazil has a history of uprisings against treatments considered coercive, such as the Vaccine Revolt of 1904,[38] and this cultural aspect could deeply affect the population's treatment-seeking behavior.

Our results should be interpreted in light of some important limitations. First, the cross-sectional design could not account for the complexity of treatment-seeking behavior, since it cannot determine the direction of the association.[39] Second, since the analysis combined different 12-month disorders into new groups, no disorder-specific needs were assessed. Nevertheless, the perceived need could differ across disorders.[40] Moreover, some of the most disabling disorders (e.g., schizophrenia) were not evaluated. Third, the perceived need for treatment and treatment barriers could be related to the severity of some psychopathologic conditions.[41] Fourth, treatment barriers and the reasons for dropout were investigated through a structured interview, which limited comprehension of anything beyond low perceived need for treatment, possibly underestimating such reasons. Furthermore, no additional questions probed for the reasons behind the respondents' answers. Such deeper motives could provide valid reasons for treatment dropout. Nevertheless, despite these limitations, this study has shed light on the complex issue of treatment compliance.

In conclusion, psychological barriers were the main reason for not seeking treatment, even among individuals who recognized their need for treatment. Despite health funding and structural issues, the patients' desire to resolve their mental health problems themselves is the main reason for avoiding treatment. These findings suggest that investing in treatment awareness, along with providing better services and more highly trained professionals, are fundamental steps toward improving access to mental health care. Campaigns to promote mental health and achieve better psychiatric treatment adherence must modify cultural aspects resistant to mental health treatment.

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Disclosure

The authors report no conflicts of interest.

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