Turkish Journal of Psychiatry

RESEARCH ARTICLE

• Article No: 20

Turkish Journal of Psychiatry (2026) **37**:192–204
https://doi.org/10.5080/u27931

Twelve-Month Use of Mental Health Services: Results from the World Mental Health Türkiye Survey

Cengiz KILIÇ[1], Özlem Şeyda ULUĞ[2], Arda BAĞCAZ[3], Semra ULUSOY KAYMAK[4], Adam ZHANG[5], Sertaç AK[6], Mahir ULUSOY[7], Songül KAMIŞLI[8], Özge KARADAĞ[9], Emine EREN KOÇAK[10], Michael Y NI[11], Shiyi WU[12], Bedirhan ÜSTÜN[13], William AXINN[14], Ronald C. KESSLER[15]

ABSTRACT

Objective: Despite the substantial burden of mental disorders worldwide, treatment gaps remain wide, and pathways to adequate care are poorly understood. To address this gap, the Turkish World Mental Health (WMH) Survey was undertaken to assess prevalence and treatment of mental disorders in Türkiye.

Method: A nationally representative random household sample of 1,790 adults were interviewed face to face in 2020, using the DSM-5 version of the Composite International Diagnostic Interview (CIDI-5). Twelve-month prevalence of anxiety, mood, and externalizing disorders were assessed along with disorder-specific treatment, sector of care, minimally adequate treatment (MAT), and socio-demographic correlates.

Results: As detailed in a previous report, twelve-month prevalence of any DSM-5 disorder assessed in this study was 23.9%, with anxiety (17.2%) and mood (12.4%) disorders most common. Only 20.9% of individuals with a disorder received any treatment, most from the mental health specialty sector (17.4%). Among treated cases, 31.7% met criteria for MAT, resulting in 6.6% (i. e., 20.9% x 31.7%) of cases receiving MAT. Treatment rates increased with disorder severity, but MAT among the treated did not increase with severity. Being female, and previously married were associated with significantly elevated rates of treatment, while the never married had a significantly reduced rate of treatment.

Conclusion: One in five people with mental disorders in Türkiye receive some form of treatment; even fewer receive treatment that meets the criteria of being at least minimally adequate. These findings highlight the need to strengthen mental health service coverage, integrate mental health into primary care, and reduce sociodemographic inequalities.

Keywords: CIDI-5, DSM-5, mental health, treatment, Türkiye

INTRODUCTION

Mental disorders affect 20–25% of individuals in most countries in a year and up to 50% of individuals at some point in their lifetime (McGrath et al. 2023). The growing numbers of these disorders worldwide, which is largely driven by population growth and aging, has resulted in significant economic and social burdens on society (Chisholm et al. 2016; Whiteford et al. 2013). Even though there are now evidence-based treatments for many mental disorders (Cuijpers et al. 2024), rates of access to mental health care remain low across the globe. More than 30 years

How to cite: Kılıç C, Uluğ ÖŞ, Bağcaz A et al.(2026) Twelve-Month Use of Mental Health Services: Results from the World Mental Health Türkiye Survey. *Turk Psikiyatri Derg* **37**:192–204. https://doi.org/10.5080/u27931

Received: 04.03.2026, **Accepted:** 20.05.2026, **Publication Date:** 20.07.2026

[1,6,10]Prof., [3]Assist. Prof., Department of Psychiatry, Faculty of Medicine, Hacettepe University, Ankara, Türkiye; [2]Psychologist, Ankara, Türkiye; [4]Prof., Department of Psychiatry, Gülhane Faculty of Medicine, University of Health Sciences, Ankara, Türkiye; [5]BS., Harvard Medical School, Boston, MA 02115, USA; [7]Prof., Abant İzzet Baysal University, Bolu, Türkiye; [8]Assoc. Prof., Faculty of Health Sciences, Çankırı Karatekin University, Çankırı, Türkiye; [9]Prof., Department of Public Health, Faculty of Medicine, Bahçeşehir University, Istanbul, Türkiye; [11]MD, MPH., School of Public Health, Li Ka Shing Faculty of Medicine, University of Hong Kong, Hong Kong SAR, China; [12]MHS., School of Public Health, LKS Faculty of Medicine, The University of Hong Kong, Hong Kong Special Administrative Region, China; [13]Prof., Department of Psychiatry, Faculty of Medicine, Koç University, Istanbul, Türkiye; [14]Institute for Social Research, University of Michigan, PO Box 1248, Ann Arbor, MI 48106-1248, USA; [15]Department of Health Care Policy, Harvard Medical School, Boston, MA, USA

Cengiz Kılıç, e-mail: cengizk@hacettepe.edu.tr

ago, Goldberg & Huxley (1992) described the pathways to care for mental disorders, making it clear that contacting a healthcare professional did not guarantee that the patient would receive effective treatment. Subsequent research provided confirming empirical evidence that effective treatment is not always provided to individuals who seek care for common mental health problems (Thornicroft et al. 2017; Wang et al. 2007). This is true because some patients who obtain treatment for mental disorders discontinue prematurely (Benjet et al. 2022; de Haan et al. 2013; Fernández et al. 2021), while others who continue care fail to receive treatment that meets a basic threshold of intensity or quality (Moitra et al. 2022; Santomauro et al. 2024). More recent World Mental Health (WMH-S) Survey reports described key transitions in this "cascade," including predictors of problem recognition (Harris et al. 2025), of barriers to initial contact with the treatment system among those with problem recognition (Viana et al. 2025), and of obtaining treatment that is of adequate quality (Stein et al. 2025; Pozuelo et al. 2025).

Research on the pathways to care for mental health problems in Türkiye is limited. Although there are several published studies reporting rates of treatment by different types of service providers (caregivers), none of them has data on the general population. Two studies that focused on gender differences in access to mental health services showed that although women were more likely than men to seek psychological help in general, women with severe mental disorders faced more barriers to receiving care than men (Güney et al. 2024; Aktaş and Ayhan 2025). Studies reporting on the pathways to care typically focus on psychiatry outpatients. For example, in a study where psychiatry outpatients contacting seven psychiatry clinics in Ankara were asked about the pathways they took to reach the psychiatry clinic, Kılıç et al. (1994) showed that half of all respondents contacted a mental health professional (a psychologist or a psychiatrist) directly. The second most common contact (42%) was reported to be through referrals from other medical specialists (i.e., neurologist, internist); transitions in contact from primary care doctors or traditional healers was much lower. Similarly, a study on 2007 survivors of the 1999 Marmara earthquake found that direct contact with a psychiatrist or psychologist was the most preferred route to care for those with psychological problems (Kılıç 2008). On the other hand, in another study conducted in Eastern Türkiye (Kırpınar et al. 1994), the major point of first contact was other specialists (43.2%), followed by primary care doctors (23.5%); direct first contact with psychiatrists was reported only by 18.6%. Contact with religious healers was low (14.7%); though it was much higher than in other studies conducted in western (more affluent) regions of Türkiye. The only study with data on a national level was the first psychiatric epidemiology study conducted in 1995 on a random household sample of 7,479 adults (Kılıç 1998). The rate of contact with any healthcare professional in the last year in that study was 13.8% among those with one or more ICD-10 mental disorders. The highest rate of contact was among those with panic disorder (34.5%) and OCD (32.4%) and the lowest were among those with alcohol dependence, pain disorder, social and specific phobia (between 10.2–16.5%). Depression and dysthymia scored in-between, around 27%. In general, the most preferred point of first contact was the psychiatrist (44.4%), followed by other specialist doctors (27.2%) (e.g., neurologists, internists, etc.); primary care doctor was less popular (22.2%). Finally, the preference for religious healers as the first point of contact was quite low (3.6%). Unfortunately, that study did not assess the quality of treatment received. Nor did it, or any of the other studies reviewed above, obtain data on the unknown number of people with clinically significant symptoms who did not receive a psychiatric diagnosis and failed to obtain treatment.

The current article presents data on patterns and correlates of mental disorder treatment in Türkiye based on a nationally representative sample of the general population. This allows us to estimate the proportion of people with disorders who fail to obtain any type of treatment as well as to study the predictors of treatment and treatment quality. These issues are especially relevant as natural disasters (Başoğlu et al. 2004; Boztaş et al. 2019; Kılıç and Ulusoy, 2003), forced migration due to the civil war in Syria (Kaya et al. 2019), and other social or economic stressors have placed substantial socioeconomic strain on the nation. Results published separately from the new national survey we report on here show that nearly one in four adults in Türkiye meet criteria for a twelve-month DSM-5 disorder, often of high severity and multimorbidity (Kılıç et al., 2026). This underscores a significant and growing mental health burden -especially of vulnerable groups such as women, young adults, and individuals with lower socioeconomic status. This is true despite previous and ongoing efforts to strengthen Türkiye's mental health system such as the 2011 National Mental Health Action Plan to promote a community-based model of care and restructure the health system by replacing primary care clinics with family doctors (Öcek et al. 2014) and the more recent introduction of innovative service models like Community Mental Health Centers (CMHCs) and Healthy Life Centers that have been established in several city centers aimed at providing care for both severe and common mental disorders.

Major questions remain about whether these models deliver effective treatment, a challenge observed globally (Wang et al. 2007, Thornicroft et al. 2017). Despite efforts to expand the mental health workforce, evidence on the proportion of people with these disorders who are treated at all and the quality of the treatment received in Türkiye remains limited.

The previous nationally representative population-based survey, carried out more than two decades ago (Kılıç 1998), point to a large treatment gap in providing care to those with mental disorders. On the other hand, the findings of that study have not been updated.

The current study aims to fill this knowledge gap, using data from a new nationally representative general population household survey in Türkiye that assessed the prevalence and treatment rates of mental disorders in the Turkish household population. We present data on the twelve-month prevalence of service utilization (overall and by type of service sector), the adequacy of treatment, as well as basic sociodemographic correlates of contact with different types of services. Rigorous evaluation of these treatment patterns will not only strengthen the existing infrastructure but also could help inform the next generation of mental health reforms and policy initiatives in Türkiye.

METHOD

Sample

The 2020 Turkish World Mental Health (WMH) survey sample was based on a stratified, clustered, multistage probability design targeting adults aged 18 or older residing in Turkish households. The Turkish Statistical Institute (TURKSTAT) drew the sample from its February 2019 enumeration of all 24,038,158 address-based households in the country. TURKSTAT divided the population for this purpose into clusters of 100 households. A probability sample of 350 clusters was selected, stratified across the 12 economic regions of the country. From each cluster, 20 households were randomly selected (i.e., 350×20=7,000 households), yielding the target survey sample. The goal was to interview one randomly selected adult from each chosen household without replacement.

A minimum of 10 visits was made to each household before classifying the household as "non-contact". The eligible residents were enumerated, and the interview was conducted with a random eligible resident, selected by the tablet. Only Turkish citizens aged 18 years or older were eligible. As required by the exclusion criteria, 12 respondents with a mental illness severe enough to hinder participation (e.g., dementia, intellectual disability, psychosis), 13 with a physical illness severe enough to hinder participation (e.g., severe frailty, hearing or speech impairments), and 27 who were unable to speak Turkish were excluded. A further 16 respondents, for whom no explanation was given for their ineligibility, were excluded as well (a total of 68 people). Notably, only a very small minority (estimated at less than 1%) of Turkish citizens is unable to speak Turkish; Turkish is either their primary language (approximately 90%) or a second language acquired through public schooling. After enumerating all household residents and entering eligibility information provided by a household informant into a tablet, the software randomly selected the target respondent from among all eligible residents. The final response rate outcomes are explained below in the Results section.

Field Procedures

Interviews were carried out by trained lay interviewers who completed the standard WMH interviewer training program (Kessler et al. 2018) and passed a test involving completing practice interviews to confirm proficiency in administration. The WMH Composite International Diagnostic Interview (CIDI-5) was conducted using tablets. Standardized remote quality control monitoring was conducted using sample management and field quality software linked to computerized interview scripts (Pennell et al. 2008). Supervisors conducted follow-up assessments with probability subsamples of respondents, repeating selected key questions to check interviewer accuracy. A WMH protocol was also applied to data cleaning and coding.

Measures

Overview: Diagnostic assessments were made using the CIDI-5, which is a clinically validated structured diagnostic interview administered by lay interviewers. Developed initially to make diagnoses according to the definitions and criteria of both the DSM-IV and ICD-10 diagnostic systems, the CIDI was subsequently updated for DSM-5. The DSM-5 version was used in the current study and diagnostic results are presented using DSM-5 criteria. Blinded clinical reappraisal studies carried out in Asia (Ghimire et al. 2013; Lu et al. 2015), Europe (Haro et al. 2006), Latin America (Montoya Gonzalez et al. 2016), the Middle East (Kessler et al. 2020), and the US (Kessler et al. 2004) found consistently good concordance between diagnoses based on the CIDI and those based on blinded gold standard clinical diagnostic interviews using DSM-IV criteria (First et al. 2002). Although the WMH survey in Qatar (Khaled et al. 2024) has been the only one so far to evaluate concordance of CIDI diagnoses with clinical diagnoses using DSM-5 criteria, concordance was found to be generally good using the SCID for DSM-5 as the gold standard (AUCs range from 0.67 for mania/hypomania to 0.81 for PTSD) (Khaled et al. 2024).

Disorders: We report here twelve-month prevalence and treatment characteristics of seven twelve-month DSM-5 anxiety disorders (generalized anxiety disorder [GAD], panic disorder [PD], agoraphobia [AGO], specific phobia [SP], social anxiety disorder [SAD], post-traumatic stress disorder [PTSD], and obsessive-compulsive and related disorders

[OCRD]), three mood disorders (major depressive disorder [MDD], persistent depressive disorder [PDD], and bipolar spectrum disorder [BSD], which included either bipolar I disorder, bipolar II disorder, or subthreshold bipolar disorder); and three externalizing disorders (intermittent explosive disorder [IED], alcohol use disorder [AUD], and substance use disorder [SUD]). Although DSM-5 reclassified PTSD and OCRD into separate diagnostic categories, we maintained their grouping under anxiety disorders to ensure consistency for comparisons with other WMH surveys using prior DSM-IV classifications. Severity was categorized with a three-tier distinction among severe, moderate, and mild cases used for many years in the WMH Surveys (See Methodology appendix for details). DSM-5 organic exclusion rules were not applied in making diagnoses. Diagnostic hierarchy rules were not applied other than for MDD and PDD with BSD.

Treatment: Respondents were asked if they ever obtained treatment at least once in the past year for problems with their "emotions, nerves, mental health, or use of alcohol or drugs". Summary measures of twelve-month treatment were created separately for the healthcare sector and the non-healthcare sector. Healthcare sector treatment was further divided into treatment in the mental health specialty sector (psychiatrists and psychologists) and the general medical sector (non-psychiatrist physicians or primary care doctors). Non-healthcare sector was classified into human services professionals (including religious healers or spiritual advisors) and complementary/alternative medicine providers (including internet use, self-help groups, any other healer, and other alternative therapy); and the number of visits to each. Twelve-month prevalent cases were asked if they received treatment for each specific disorder in the past year, distinguishing within-respondent differences in treatment of comorbid disorders.

Adequacy of treatment: Based on the definition established in prior WMH surveys (Wang et al. 2005, 2007) and used extensively thereafter (Alonso et al. 2018, Degenhardt et al. 2017, Thornicroft et al. 2017), we defined minimally adequate treatment (MAT) during the previous 12 months as having either: a) at least one mental health-related hospitalization; or b) using medication and four or more outpatient visits for treatment with a mental health or general medical professional; or c) five or more internet-based mental health support visits; or d) eight or more visits with a talk therapist, a human-services provider, or a self-help group. Although this definition is somewhat broader than in published treatment guidelines, it allows us to obtain conservative estimates of minimally adequate treatment across sectors.

Sociodemographic characteristics: Sociodemographic correlates of respondents considered here include sex, age (18–34, 35–49, 50–64, 65+), marital status (married, never married, previously married), employment status (working versus all others), educational attainment, and family income. Educational attainment and income were both classified into four levels. For education, these were low (primary education or below), low-average (secondary education or post-secondary diploma), high-average (associate degree or bachelor's degree), and high (master's degree or above). For income they were low (less than half the sample median), low-average (up to the median), high-average (up to two times the median) and high (more than two times the median).

We used the TRAPD (Translation, Review, Adjudication, Pretesting, and Documentation) method stipulated by WMH to adapt the CIDI to Turkish (Harkness et al. 2008) (See Methodology_appendix for details). TRAPD reduces the errors in cultural adaptation that can occur when using the conventional translation and back-translation method (Brislin, 1986) by having multiple translators from different professional backgrounds carry out independent translations and then come together to discuss and reconcile differences using cognitive interviewing techniques such as thinking aloud and paraphrasing (Walde and Völlm 2023).

Analysis Methods

A series of weights was applied to the data before analysis: 1) a weight at the cluster level to adjust for between-cluster variation in response rates; 2) a second weight at the respondent level to adjust for differential within-household probability of selection due to only one interview being carried out in each household regardless of the number of eligible household residents; 3) a post-stratification weight applied to the doubly-weighted respondent-level data to adjust for discrepancies between the sample and the 2019 Census population on the joint distributions of age, sex, and region (Kott 2015). We estimated twelve-month prevalence, treatment characteristics, and severity with these triply weighted data. Sociodemographic correlates of treatment and adequacy of treatment were then examined using logistic regression analysis. Standard errors of estimates were obtained using the Taylor series linearization method implemented in SAS version 9.4 (SAS Institute Inc. 2013). Logits and their 95% confidence intervals (CIs) were exponentiated to produce odds ratios (ORs) and design-based 95% CIs. Multivariable significance tests of predictor sets were made using Wald c^2 tests with Taylor series design-based coefficient variance-covariance matrices. All significance tests were evaluated at α=0.05 level with two-sided tests.

Role of Funding Sources

This survey was conducted with financial support from the Turkish Ministry of Health, while the design and implementation of the study were coordinated and supervised by the WMH Surveys Initiative. The funders of the study

had no role in the design or conduct of the study; collection, management, analysis, or interpretation of the data; preparation, review, or approval of the manuscript; or the decision to submit the manuscript for publication.

RESULTS

Response Rate and Sample Characteristics

The survey start date was October 16, 2019. Fieldwork was terminated five months later, on March 17, 2020, when travel restrictions were implemented by the Turkish government in response to the COVID-19 pandemic. Contacts were made with 4,067 households and 2,374 respondents completed interviews as of that date, for a household contact rate of 58.1% (4,067/7,000), a cooperation rate of 58.4% (2,374/4,067), and a response rate of 33.9% (2,374/7,000). Quality control review resulted in 1,790 of the interviews being accepted, with the others flagged for recontact to obtain additional information. It was not possible to make those recontacts, though, due to the strict COVID-19 restrictions imposed at the time fieldwork ended, resulting in only the 1,790 completed interviews being included in our analysis. The modified survey cooperation and response rates based on this decision were 44.0% (1,790/4,067) and 25.6% (1,790/7,000). The weighted sample was 49.5% female and had a median (inter-quartile range) age of 40 (28–54).

Treatment Estimates

Prevalence: As reported previously (Kiliç et al. 2026; in press), the twelve-month prevalence estimate of any DSM-5/CIDI disorder assessed in the study was 23.9%, with anxiety disorders (17.2%) the most common, followed by mood disorders (12.4%) and externalizing disorders (2.2%) (Table 1). The three disorders with highest estimated twelve-month prevalence were PTSD (9.8%), MDD (7.1%), and OCRD (6.3%). 13.9% of respondents met criteria for exactly one twelve-month disorder, 5.2% two, and 4.8% three or more.

Treatment: Among those with any DSM-5/CIDI twelve-month disorder, 20.9% reported receiving some type of treatment (Table 1, last column). This compares to a 5.9% treatment rate among respondents who did not meet criteria for a twelve-month disorder (Table 1, last column). Notably, twelve-month treatment rates varied across disorders: among the disorders that had enough respondents for analysis, the highest rate was for GAD (34.5%), followed by MDD (29.0%), PDD (27.8%), and PTSD (24.2%). Almost one sixth of people with a twelve-month disorder (17.4%) sought care from a mental health specialist sector (Table 1, column MHS), while smaller proportions consulted a general medical professional (1.8%) or human services sector (4.1%) (column GM and HS).

Proportional treatment in the mental health specialty (Table 1, column MHS) sector was highest for mood disorders (22.0%), followed by anxiety disorders (19.2%) and externalizing disorders (14.0%); among mood disorders, the estimated treatment rates were the highest for MDD at 26.2%, followed by 24.1% for PDD and 15.7% for BSD. There was also a monotonic association between the number of anytwelve-month disorders and treatment provided by the mental health specialist sector. In addition, 4.0% of respondents with none of the disorders assessed in the survey received treatment from the mental health sector, compared to 13.9% with one disorder, 18.1% with two, and 27.1% with three or more. The data was too sparse to examine the distribution of treatment by disorder across the other sectors.

Treatment Characteristics

Adequacy: The above results focused only on receiving any treatment regardless of intensity. However, even the most liberal treatment guidelines require more than a single visit to consider the treatment at least minimally adequate. Among those with any twelve-month disorder assessed in this study who received treatment, 31.7% qualified as receiving minimally adequate treatment (MAT) (Table 2). However, if we instead look at all individuals with twelve-month disorders in the survey regardless of whether they received any treatment, only 6.6% of all individuals with a twelve-month disorder received MAT (Table 2, column MAT).

We did not see much variation in proportional treatment adequacy across broad classes of disorders, as the prevalence of MAT among the treated was similar for mood disorders (8.4%), anxiety disorders (8.3%), and externalizing disorders (7.6%). Instead, greater variation was observed based on the respondent's number of disorders (4.6%-11.9%). Within mood disorders, PDD was most likely to receive MAT (10.6%) followed by MDD (9.6%) and BSD (5.6%). Among anxiety disorders, GAD had the highest MAT rate (18.1%), compared with 8.8% for OCD and OC-related disorders and 7.4% for PCL-SC PTSD. The data are too sparse to examine treatment adequacy on a sector-by-sector basis.

Severity: Although the data are too sparse to examine associations of severity with treatment for individual disorders, this can be done for broader disorder categories. Rates of any treatment were the highest among those with severe diagnoses (30.5%), followed by moderate (20.2%) and mild (8.9%) cases (Table 3). This difference was also observed among those who contacted the mental health specialty sector ($F=18.3$, $p=0.005$), where 25.9% of severe cases, 16.7% of moderate cases, and 6.8% of mild cases received treatment.

Table 1. Twelve-month treatment of DSM-5 disorders in the WMH Türkiye survey (n=1,790) [a]

	Prevalence	Healthcare treatment			Non-healthcare treatment			Any treatment
	12-month disorder %(SE)	MHS %(SE)	GM %(SE)	Any %(SE)	HS %(SE)	CAM %(SE)	Any %(SE)	%(SE)
I. Anxiety disorders								
Panic disorder	0.8 (0.2)							
Generalized anxiety disorder	3.0 (0.7)	28.1 (12.4)		32.3 (13.9)				34.5 (13.4)
Specific phobia	2.5 (0.4)							
Agoraphobia	0.3 (0.1)							
Social anxiety disorder	0.9 (0.3)							
Post-traumatic stress disorder	9.8 (1.0)	20.5 (4.1)		22.3 (3.4)	3.9 (1.6)		3.9 (1.6)	24.2 (4.3)
OCD and OC-related	6.3 (1.3)	16.2 (3.5)		16.6 (3.3)			7.2 (3.5)	19.9 (4.5)
Any anxiety disorder	17.2 (1.0)	19.2 (3.5)	2.1 (0.9)	20.9 (3.3)	5.4 (2.5)		6.0 (2.5)	23.6 (3.8)
II. Mood disorders								
Major depressive disorder	7.1 (0.8)	26.2 (6.4)		28.8 (6.8)				29.0 (6.9)
Persistent depressive disorder	6.1 (0.6)	24.1 (5.3)		27.8 (5.3)			2.6 (0.5)	27.8 (5.3)
Bipolar spectrum disorder	2.8 (0.3)	15.7 (5.4)		18.2 (6.7)				21.9 (5.5)
Any mood disorder	12.4 (1.2)	22.0 (5.1)	3.1 (1.2)	24.6 (5.7)			4.2 (1.7)	25.6 (5.4)
III. Externalizing disorders								
Intermittent explosive disorder	1.2 (0.4)							
Alcohol use disorder	0.9 (0.3)							
Substance use disorder	0.2 (0.1)							
Any externalizing disorder	2.2 (0.5)	14.0 (2.7)		14.0 (2.7)			15.3 (7.2)	21.6 (6.1)
IV. Total								
Any mental disorder (n=420)	23.9 (1.3)	17.4 (3.0)	1.8 (0.6)	18.9 (3.0)	4.1 (1.9)		4.8 (1.7)	20.9 (3.3)
No mental disorder	76.1 (1.3)	4.0 (0.4)	0.9 (0.2)	4.7 (0.5)	1.4 (0.3)	0.4 (0.2)	1.8 (0.4)	5.9 (0.6)
One disorder	13.9 (0.6)	13.9 (2.3)	0.9 (0.2)	14.5 (2.4)			4.1 (2.0)	16.7 (3.4)
Two disorders	5.2 (0.6)	18.1 (5.4)		20.5 (4.6)				20.5 (4.6)
Three or more disorders	4.8 (0.6)	27.1 (7.8)		30.2 (8.0)			8.6 (4.0)	33.8 (7.4)
Total sample (n=1,790)	100.0	7.2 (0.9)	1.1 (0.3)	8.1 (0.9)	2.1 (0.6)	0.5 (0.2)	2.5 (0.6)	9.5 (1.1)

SE: standard error; MHS: mental health specialty; GM: general medical; HS: human services; CAM: complementary alternative medicine; OCD and OC-related includes obsessive-compulsive disorder, excoriation (skin-picking disorder), trichotillomania (hair-pulling disorder), hoarding disorder, and body dysmorphic disorder (dysmorphophobia); bipolar spectrum disorder includes bipolar disorder I/II/sub.
[a] Prevalence (P) are reported only if P-2.
* SE ≥0 and denominator ≥30.

However, this difference was not significant among those contacting the general medical sector (F=4.4, p=0.08) and no comparable pattern was found among those contacting the non-healthcare sector (F=2.8, p=0.15), where individuals with moderate diagnoses (6.2%) were slightly more likely to receive care as those with severe diagnoses (4.8%).

Of note, the probability of treatment being at least minimally adequate was not associated significantly with disorder severity among individuals who received any twelve-month treatment (F=0.8, p=0.40). Among those who received any twelve-month treatment, 38.4% of people with a severe diagnosis had treatment that met MAT criteria, compared with 22.7% of those with moderate diagnoses. The number treated with mild diagnoses was too small to estimate proportional MAT. When considering all respondents, only 11.7% of those with severe diagnoses were treated and 4.6% of those with moderate diagnoses who received treatment had treatment that met MAT criteria.

Table 2. Minimally adequate twelve-month treatment of DSM-5 disorders among all cases and among those with treatment in the World Mental Health Türkiye study[a]

	Among all cases[b]	Healthcare treatment[c]			Non-healthcare treatment[c]			Any treatment[c]
	%(SE)	MHS %(SE)	GM %(SE)	Any %(SE)	HS %(SE)	CAM %(SE)	Any %(SE)	%(SE)
I. Anxiety disorders								
Panic disorder								
Generalized anxiety disorder	18.1 (8.7)							
Specific phobia								
Agoraphobia								
Social anxiety disorder								
Post-traumatic stress disorder	7.4 (2.4)	29.2 (10.9)		29.2 (10.7)				30.4 (7.7)
OCD and OC-related	8.8 (3.0)							
Any anxiety disorder	8.3 (2.1)	37.2 (7.9)		37.5 (7.8)				35.3 (5.6)
II. Mood disorders								
Major depressive disorder	9.6 (2.1)	35.0 (6.1)		33.2 (7.8)				32.9 (7.7)
Persistent depressive disorder	10.6 (2.6)			38.1 (13.6)				38.1 (13.6)
Bipolar spectrum disorder	5.6 (2.2)							
Any mood disorder	8.4 (1.8)	34.7 (7.3)		34.2 (8.6)				32.9 (7.4)
III. Externalizing disorders								
Intermittent explosive disorder								
Alcohol use disorder								
Substance use disorder								
Any externalizing disorder	7.6 (1.9)							
IV. Total								
Any mental disorder (n=420)	6.6 (1.1)	33.1 (5.3)		33.3 (5.8)				31.7 (3.7)
One disorder	4.6 (1.0)	27.4 (8.6)		27.6 (7.6)				27.5 (6.0)
Two disorders								
Three or more disorders	11.9 (3.9)							
Total sample (n=1, 790) [d]	2.9 (0.4)	33.7 (5.3)		34.2 (4.2)	23.3 (8.1)		22.3 (5.7)	30.1 (3.2)
(n)	(1790)	(140)	(25)	(159)	(33)	(8)	(40)	(181)

SE: standard error; MHS: mental health specialty; GM: general medical; HS: human services; CAM: complementary alternative medicine; OCD and OC-related includes obsessive-compulsive disorder, excoriation (skin-picking disorder), trichotillomania (hair-pulling disorder), hoarding disorder, and body dysmorphic disorder (dysmorphophobia); bipolar spectrum disorder includes bipolar disorder I/II/sub; MAT: the minimal adequate treatment received from any type of treatment.
aPrevalence (P) are reported only if P - 2*SE ≥0 and denominator ≥30.
bMAT among each disorder listed in the corresponding row.
cMAT among each disorder (row) who received any treatment of the specific type (column).
dThe "Total sample (n=1,790)" row presents overall MAT rates for the full sample, as well as MAT rates for those who received each type of treatment.

Sociodemographic Correlates

After controlling for severity, number and type of diagnosis, examination of each sociodemographic factor individually showed that women were more likely than men to receive treatment and that individuals who were separated, widowed, or divorced were more likely to receive treatment than those who were married (Table 4). In contrast, individuals who had never married had significantly lower treatment rates than those who were married. There was a nonmonotonic association between age and likelihood of receiving treatment, with the highest OR for the next to oldest age group. Additionally, individuals with lower levels of education were more likely to receive treatment. The data were too sparce to study multivariable associations or predictors of MAT in the subsample of respondents who received treatment.

Table 3. Twelve-month treatment by disorder severity and sector in the World Mental Health Türkiye study[a]

	Severe %(SE)	Moderate %(SE)	Mild %(SE)	None %(SE)	Any severity %(SE)	F (p-value) [b]
I: Any treatment						
Mental Health Specialty	25.9 (5.0)	16.7 (3.5)	6.8 (2.7)	4.0 (0.4)	17.4 (3.0)	18.3 (0.005)*
General Medical	4.3 (1.9)	0.8 (0.2)		0.9 (0.2)	1.8 (0.6)	4.4 (0.08)
Any Healthcare	29.4 (5.4)	17.5 (3.6)	6.8 (2.7)	4.7 (0.5)	18.9 (3.0)	20.1 (0.004)*
Any Non-healthcare	4.8 (1.9)	6.2 (3.0)		1.8 (0.4)	4.8 (1.7)	2.8 (0.15)
Any Treatment	30.5 (5.3)	20.2 (4.4)	8.9 (2.7)	5.9 (0.6)	20.9 (3.3)	18.8 (0.005)*
(n)	(144)	(171)	(105)	(1,370)	(420)	
II: MAT among the treated						
Mental Health Specialty	40.3 (7.9)			34.7 (7.5)	33.1 (5.3)	0.1 (0.83)
General Medical						
Any Healthcare	39.8 (9.8)	21.6 (7.6)		35.4 (4.3)	33.3 (5.8)	0.1 (0.74)
Any Non-healthcare						
Any Treatment	38.4 (8.6)	22.7 (6.1)		28.2 (3.9)	31.7 (3.7)	0.8 (0.40)
(n)	(43)	(35)	(12)	(91)	(90)	
III: MAT						
Mental Health Specialty	10.4 (2.8)			1.4 (0.4)	5.8 (1.3)	11.0 (0.016)*
General Medical						
Any Healthcare	11.7 (3.0)	3.8 (1.6)		1.7 (0.3)	6.3 (1.2)	11.9 (0.014)*
Any Non-healthcare	3.3 (1.5)				2.2 (1.0)	
Any Treatment	11.7 (3.0)	4.6 (1.7)		1.7 (0.3)	6.6 (1.1)	14.9 (0.008)*
(n)	(144)	(171)	(105)	(1,370)	(420)	

MAT: the minimal adequate treatment received from any type of treatment.
[a] Prevalence (P) are reported only if P-2.
* SE ≥0 and denominator ≥30.
[b] F (p-value): Wald F-statistic and p-value for the association between receiving treatment and the severity (None vs. Any Severity). F tests are not reported if "None" and/or "Any Severity" are suppressed. All F tests used 1 and 6 degrees of freedom for the numerator and denominator, respectively. F test interpretation: Section I compares disorder severity across treatment types. Section II compares disorder severity within each treatment subsample for receipt of minimally adequate treatment (MAT). Section III compares disorder severity for those receiving both treatment and MAT.
* Significant at the 0.05 level, two-sided test.

DISCUSSION

This study presents data on twelve-month treatment rates of common mental disorders in Türkiye from the recently completed Turkish WMH survey. Overall, only 20.9% of adults meeting criteria for at least one mental disorder in the past year received treatment. This rate is lower than estimates from WMH surveys in other countries with levels of economic development comparable to Türkiye (e.g., Wang et al. 2007, Borges et al. 2019, Cia et al. 2019). For comparison, the 20.9% treatment rate in Türkiye is below the mean of 29.0% reported across 25 countries (Evans-Lacko et al. 2018). What's more important and alarming is the difference in severe cases. Among Turkish respondents with severe twelve-month disorders (except psychoses and dementia), only 30.5% received treatment, considerably lower than the median of about 50% across other WMH surveys in high-income countries, which ranged between 40.6% in Germany to 62.1% in Belgium (Wang et al. 2007). The only high-income country with comparable (and low) rates of treatment (24.2%) was Japan (Nishi et al, 2019). Although overall treatment contact in Türkiye seems to have increased compared to the rates of 30 years ago (Kılıç 1998), this increase is not marked in the contact rates for individual disorders. These findings indicate a high level of unmet need for treatment in Türkiye and underscore the importance of updated policies and mental health interventions to reduce treatment barriers and increase treatment access.

Most treatment in our Turkish sample occurred in the mental health specialist sector, whereas in most countries the general medical sector serves as the largest source of mental health services (Wang et al. 2007). This tendency for the majority of those in need to contact MH services directly has been referred to as the 'American bypass' in the literature (Goldberg and Huxley 1992) and used to emphasize the differences in services use patterns between European countries and the US. The pattern of contact with mental health services in Türkiye shows more similarity to those in the U. S than those in the European countries. Even though Türkiye has attempted to broaden access to services by restructuring its primary

Table 4. Univariable socio-demographic correlates of twelve-month treatment in the World Mental Health Türkiye study[a]

	Any treatment	MAT among any treatment	MAT
	OR (95% CI)	OR (95% CI)	OR (95% CI)
Sex			
Female	2.0 (1.5–2.8)*	1.1 (0.4–2.9)	1.6 (0.7–3.7)
Male	1.0 (Ref)	1.0 (Ref)	1.0 (Ref)
$\chi^2$1 (p-value)	18.2 (<0.001)*	0.0 (0.88)	1.5 (0.22)
Age (years)			
18–34	0.9 (0.3–2.8)	0.4 (0.1–1.9)	0.6 (0.1–3.0)
35–49	1.5 (0.6–4.0)	0.3 (0.1–1.6)	0.8 (0.2–3.5)
50–64	2.2 (1.0–4.6)*	0.2 (0.0–1.9)	1.0 (0.2–4.7)
65 and above	1.0 (Ref)	1.0 (Ref)	1.0 (Ref)
$\chi^2$3 (p-value)	23.9 (<0.001)*	2.3 (0.52)	7.1 (0.07)
Educationb			
Low	1.7 (1.0–2.9)*	0.5 (0.1–2.0)	1.2 (0.6–2.2)
Low average	0.9 (0.6–1.4)	0.2 (0.0–1.7)	0.4 (0.1–1.6)
High average/High	1.0 (Ref)	1.0 (Ref)	1.0 (Ref)
$\chi^2$2 (p-value)	6.1 (0.046)*	8.8 (0.012)*	7.7 (0.022)*
Income[b]			
Low	1.0 (0.6–1.6)	0.5 (0.1–2.6)	0.6 (0.2–2.4)
Low average	0.7 (0.5–1.0)	1.0 (0.2–5.6)	0.7 (0.3–1.8)
High average	0.9 (0.5–1.6)	0.5 (0.0–6.1)	0.5 (0.1–2.3)
High	1.0 (Ref)	1.0 (Ref)	1.0 (Ref)
$\chi^2$3 (p-value)	3.5 (0.32)	1.8 (0.61)	1.0 (0.79)
Employment status			
Others	1.3 (0.6–2.6)	1.3 (0.7–2.6)	1.5 (0.5–4.0)
Working	1.0 (Ref)	1.0 (Ref)	1.0 (Ref)
$\chi^2$1 (p-value)	0.5 (0.47)	0.8 (0.38)	0.6 (0.44)
Marital status			
Never married	0.6 (0.3–1.0)*	2.9 (1.3–6.7)*	1.1 (0.5–2.5)
Separated/ Widowed/Divorced	1.8 (1.1–2.9)*	1.8 (0.5–6.0)	2.0 (0.6–6.8)
Married	1.0 (Ref)	1.0 (Ref)	1.0 (Ref)
$\chi^2$2 (p-value)	6.7 (0.035)*	12.0 (0.002)*	2.9 (0.24)
(n)	(1,790)	(181)	(1,790)

OR: odds ratio; CI: confidence interval. Ref: the reference category. MAT: the minimal adequate treatment received from any type of treatment.
a Models were adjusted for the following twelve-month disorders (panic disorder, generalized anxiety disorder, specific phobia, agoraphobia, social anxiety disorder, PTSD, OCD and OC-related, major depressive disorder, persistent depressive disorder, bipolar disorder spectrum, intermittent explosive disorder, alcohol use disorder and substance use disorder) as well as number of twelve-month disorders (indicators for 2 disorders and 3+ disorders), and severity of disorders (indicators for moderate and severe).
b Educational attainment and income were both classified into four levels. For education, these were low (primary education or below), low-average (secondary education or post-secondary diploma), high-average (associate degree or bachelor's degree), and high (master's degree or above). High-average and high were combined to improve statistical power. For income they were low (less than half the sample median), low-average (up to the median), high-average (up to two times the median) and high (more than two times the median).
*Significant at the 0.05 level, two-sided test.

care system, psychiatrists and mental health professionals still represent the first point of contact for most mental health concerns. This pattern may reflect patient preference for specialized care made possible by a high mental health literacy on one hand; and limited integration of mental health services within primary care settings, on the other. Patients with comorbid psychiatric disorders were also more likely to receive specialist treatment from mental health professionals, potentially reflecting greater perceived or clinical need. Nevertheless, the fact that a large share remains untreated highlights persistent treatment gaps in Türkiye, even among those with more complex mental health profiles.

Among patients with a twelve-month disorder who received any treatment, around one third (31.7%) received MAT, using our conservative (low) threshold for MAT. Even though the likelihood of receiving adequate treatment appeared to increase with the number of disorders in our total sample, the overall proportion remained relatively low. There was a positive association between disorder severity and probability of treatment occurrence, which is consistent with other WMH surveys (Borges et al. 2019, Cia et al. 2019). This pattern suggests that individuals who present with more serious mental health symptoms may be more motivated to seek treatment. These findings indicate that a majority of Turkish patients receive treatment that may fall short of minimum standards defined in the WMH Surveys. Most outpatient mental health services in Türkiye are provided at hospitals affiliated with the Ministry of Health and are carried out through a centralized appointment system. There is no clear distinction between psychiatry and other specialist examinations in terms of the time allocated per appointment. The short duration of examinations may be a factor that reduces the motivation of patients making their first visit to continue treatment. Increasing time allocated for psychiatric examinations, strengthening clinical guidelines, expanding workforce capacity, and improving the integration of mental health services across care levels could help enhance treatment adequacy and outcomes in Türkiye. Also, a small proportion of respondents (5.9%) received treatment despite not meeting criteria for any DSM-5/CIDI disorder. This finding is consistent with other WMH surveys (Ishikawa et al. 2018, Borges et al. 2019, Cia et al. 2019), where treated twelve-month non-cases may reflect individuals with remitted disorders who are receiving maintenance medication, receiving follow-up for relapse prevention, and a small number of cases with subthreshold symptoms that are not assessed in the WMH surveys (Druss et al. 2007, Bruffaerts et al. 2015). Another possibility is that these individuals may have sought treatment for a mental health problem that is not assessed in our survey (i. e. psychotic disorders).

Although, as expected, more severe or comorbid cases were more likely to get any treatment, severity did not correlate

with MAT among individuals who received any treatment. The absence of a significant association between the probability of treatment being at least minimally adequate and disorder severity could be a reflection of the measure of responsiveness of the treatment system to variation in need for services among patients. In other words, while individuals with more severe disorders are more likely to access services, the quality or intensity of care they receive does not necessarily correspond to the severity of their condition. This lack of proportionality suggests that resources in mental health services in Türkiye should be used in a way that better aligns with patients' needs.

Several demographic correlates found in our study were consistent with those found in health surveys in other countries. For instance, women were more likely to receive mental health treatment than men (Kessler et al. 1981, Oliver et al. 2005, Wang et al. 2007, Cia et al. 2019, Terlizzi and Norris 2021). Historical masculine ideology may make males more susceptible to self-stigma surrounding seeking help for mental health problems (Smith et al. 2008, Vogel and Wade, 2009). Because different factors influence males and females to seek help for their mental health problems (Tedstone Doherty and Kartalova-O'Doherty, 2010), there is a need for gender-sensitive mental health treatment and prevention programs in Türkiye.

Marital status also influenced the likelihood of receiving treatment in the current study (Simon 2002, Tudiver and Talbot 1999), where individuals who were separated, widowed, or divorced were more likely to receive treatment than those who were married. This is unsurprising, given that marital dissolution can be a result of mental health problems, as well as a source of psychological stress and relationship discord that prompts help-seeking (Reneflot et al. 2020). However, there was less utilization of services by never-married respondents in the current study, which is contrary to findings in five of the 17 other WMH Survey countries (Wang et al. 2007). Stigma surrounding mental illness in Türkiye is known to be one of the major barriers to seeking treatment (Çam and Bilge 2013, Dikeç et al. 2020). It is quite common for young adults to continue living with their parents in Türkiye; this may have led parents to be reluctant to take their children to a psychiatrist or psychologist due to concerns that it could negatively affect their chances of marriage or employment.

Interestingly, we also found that individuals with lower educational attainment were more likely to receive (any) mental health services, though the rates of MAT were lower than other education groups. Higher education is typically associated with greater health literacy, awareness of available services, and enabling resources, all of which tend to facilitate treatment access (Lin et al. 2023). On the other hand, low education may relate more to higher severity of mental disorders, thus resulting in higher rates of contact with services. Finally, the correlation reported in univariate analyses is not observed in multivariate analyses (not reported), which warns us that we must interpret univariate findings with caution. The factors leading to the decision to seek treatment are highly diverse. That education alone does not increase application rates is evident from the low rates observed among healthcare professionals or medical students (Ye et al. 2023). This indicates that health literacy can only be effective when combined with a comprehensive health promotion perspective.

There were some limitations to this study. First, we focused on a limited number of treatment services and mental disorders; findings might not generalize to variables not included in this study. Second, although we employed standardized diagnostic criteria, the reliance on self-reported symptom assessments potentially makes our data susceptible to recall and acquiescence/social desirability bias (Torvik et al. 2012). Third, we only included Turkish citizens. The 3.5 million Syrian migrants in Türkiye are known to have significant barriers to accessing mental health treatment due to their migrant status, language barrier, cost of mental health care, and fear of being stigmatized (Fuhr et al. 2019, Kaya et al 2019, Kılıç et al 2024). Although some migrants have recently returned to their countries, the majority will remain, and it is important to include them in future surveys. Fourth, our data were collected just before the COVID-19 pandemic. Our findings therefore do not reflect the mental health effects (if any) of the pandemic on treatment rates. A study on the use of services of psychiatric outpatients during the pandemic, for example, concluded that the pandemic response structure of mental health services should be modified to fit the needs of anxiety/depression spectrum patients (Kılıç et al. 2025). Similarly, we do not know how the Turkish population was affected by the twin-earthquakes of February 6, 2023 that killed more than 50,000 people. Finally, some analyses lacked statistical power because they were based on small subsamples. The current study is limited to findings on the prevalence and services use of DSM-5 disorders in the last twelve-month. Findings on lifetime prevalence of DSM-5 disorders, services use related with lifetime disorders by treatment sector; age-of-onset distributions of DSM-5 disorders will be presented in a separate report.

In conclusion, the current study found that only about 1 in 5 adults in Türkiye with any DSM-5 disorder assessed in this study received treatment within the past twelve-months, highlighting a substantial gap in mental health service utilization. This treatment gap underscores the urgent need to expand access to care and address barriers that may hinder help-seeking, particularly among groups that may experience greater stigma, such as men. It is also essential to find out why the improvement in treatment rates over the years is not satisfactory, despite all the efforts by the ministry of health to

improve mental health provision. Ultimately, these findings can contribute to the broader global mental health literature by providing insights into the factors that influence the likelihood that individuals seek and obtain adequate interventions.

Acknowledgments: This study is the product of many years of preparation and collaboration among numerous individuals and institutions. First and foremost, we sincerely thank the Republic of Türkiye Ministry of Health for funding all project-related expenses and for providing the sampling frame that made this research possible. We are deeply grateful to the World Mental Health (WMH) Initiative team for their continuous guidance and support throughout every stage of the project's planning and implementation, especially Nancy Sampson, Zeina Mneimneh, Sarah Gildea, Marrena Lindberg, Teresa Gorman, and Edward Chiu. We also thank Corinne Wong and Yoo Na Kim from the Hong Kong team for their significant contributions to the data analyses on which the findings of this paper are based; Mehmet Yağcı for providing comprehensive technical support; and Alper Gür for his assistance with the quality control software. The translation and cultural adaptation of the CIDI-5 into Turkish was a lengthy and demanding process, accomplished through the expertise and valuable feedback of many specialists. We are particularly grateful to our late mentor, Prof. Dr. Orhan Öztürk, as well as to Aylin Uluşahin, Berna Uluğ, Elif Anıl Yağcıoğlu, Elif Barışkın, Bedriye Öncü, İnci Özgür İlhan, and Peykan Gençoğlu from Türkiye, and Stephanie Chardoul from the University of Michigan for their invaluable contributions. Finally, we extend our sincere appreciation to the experts and patients who participated in the cognitive interviews, whose contributions were instrumental in producing the final Turkish version of the CIDI-5.

Ethics Committe Approval: The study was approved by Hacettepe University, Ethics Commission (9.5.2017) No: 431.10-1851.

Conflict of Interest: The authors declare no conflicts of interest.

Funding: This research received no external funding.

Ronald C. Kessler, PhD: "In the past 3 years, Dr. Kessler was a consultant for Cambridge Health Alliance, Child Mind Institute, Massachusetts General Hospital, RallyPoint LLC., Sage Therapeutics, University of Michigan, and University of North Carolina. He has stock options in Cerebral Inc., Mirah, PYM (Prepare Your Mind), and Verisense Health. He owns an interest in Menssano LLC."

Handling Editor: Aygün Ertuğrul

SUPPLEMENTARY

https://www.turkpsikiyatri.com/upload/19_27855_EN_Methodology_Appendix.pdf

REFERENCES

Aktaş MC and Ayhan CH (2025) experiences in accessing treatment among females with schizophrenia: a qualitative study from Turkey. *Healthcare* 13:721. https://doi.org/10.3390/healthcare13070721

Alonso J, Liu Z, Evans-Lacko S et al. (2018) Treatment gap for anxiety disorders is global: Results of the world mental health surveys in 21 countries. *Depr Anxiety* 35:195–208. https://doi.org/10.1002/da.22711

Başoğlu M, Kılıç C, Şalcıoğlu E et al. (2004) Prevalence of posttraumatic stress disorder and major depression in earthquake survivors in Turkey: two epidemiological studies. *J Trauma Stress* 17:133–41. https://doi.org/10.1023/B:JOTS.0000022619.31615.e8

Benjet C, Borges G, Orozco R et al. (2022) Dropout from treatment for mental disorders in six countries of the Americas: a regional report from the World Mental Health Surveys. *J Affect Disord* 303:168–79. https://doi.org/10.1016/j.jad.2022.02.019

Borges G, Aguilar-Gaxiola S, Andrade L et al. (2019) Twelve-month mental health service use in six countries of the Americas: a regional report from the World Mental Health Surveys. *Epidem Psychiatr Sci* 29:e53. https://doi.org/10.1017/S2045796019000477

Boztaş MH, Aker AT, Munir K et al. (2019) Post traumatic stress disorder among adults in the aftermath of 2011 Van-Ercis earthquake in Turkey. *Turkish J Clinical Psychiatry 22:380–8. https://doi.org/10.5505/kpd.2019.62534*

Brislin R (1986) The wording and translation of research instruments. In W. Lonner & J. Berry (Eds.), *Field Methods in Cross-Cultural Research* (pp. 137–64). Sage Publications.

Bruffaerts R, Posada-Villa J, Al-Hamzawi AO et al. (2015) Proportion of patients without mental disorders being treated in mental health services worldwide. *Br J Psychiatry* 206:101–9. https://doi.org/10.1192/bjp.bp.113.141424

Chisholm D, Sweeny K, Sheehan P et al. (2016) Scaling-up treatment of depression and anxiety: a global return on investment analysis. *Lancet Psychiatry* 3:415–24. https://doi.org/10.1016/S2215-0366(16)30024-4

Cia AH, Stagnaro JC, Aguilar-Gaxiola S et al. (2019) Twelve-month utilization rates and adequacy of treatment for mental health and substance use disorders in Argentina. *Braz J Psychiatry* 41:238–44. https://doi.org/10.1590/1516-4446-2018-0036

Cuijpers P, Miguel C, Ciharova M et al. (2024) Absolute and relative outcomes of psychotherapies for eight mental disorders: a systematic review and meta-analysis. *World Psychiatry* 23:267–75. https://doi.org/10.1002/wps.21203

Çam O and Bilge A (2013) The process of stigmatization and attitude, belief about mental illness and patient in Turkey: a systematic review. *J Psy Nurs* 4:91–101. https://doi.org/10.5505/phd.2013.92300

de Haan AM, Boon AE, de Jong JT et al. (2013) A meta-analytic review on treatment dropout in child and adolescent outpatient mental health care. *Clin Psychol Rev* 33:698–711. https://doi.org/10.1016/j.cpr.2013.04.005

Degenhardt L, Glantz M, Evans-Lacko S et al. (2017) Estimating treatment coverage for people with substance use disorders: an analysis of data from the world mental health surveys. *World Psychiatry* 16:299–307. https://doi.org/10.1002/wps.20457

Dikeç G, Gümüş F and Atlı A (2020) Validity and reliability of the Parents Internalized Stigma of Mental Illness Scale. *Turk Psikiyatri Derg* 31:269–79. https://doi.org/10.5080/u23728

Druss BG, Wang PS, Sampson NA et al. (2007) Understanding mental health treatment in persons without mental diagnoses: results from the National Comorbidity Survey replication. *Arch Gen Psychiatry* 64:1196–203. https://doi.org/10.1001/archpsyc.64.10.1196

Evans-Lacko S, Aguilar-Gaxiola S, Al-Hamzawi A et al. (2018) Socio-economic variations in the mental health treatment gap for people with anxiety, mood, and substance use disorders: results from the WHO World Mental Health (WMH) surveys. *Psychol Med* 48:1560–71. https://doi.org/10.1017/S0033291717003336

Fernández D, Vigo D, Sampson NA et al. (2021) Patterns of care and dropout rates from outpatient mental healthcare in low-, middle- and high-income countries from the World Health Organization's World Mental Health Survey initiative. *Psychol Med* 51:2104-16. https://doi.org/10.1017/S0033291720000884

First MB, Spitzer RL, Gibbon ML et al. (2002) Structured Clinical Interview for DSM-IV Axis I Disorders: research version, non-patient edition (SCID-I/NP). In *New York, NY. Biometrics Research*, New York State Psychiatric Institute.

Fuhr DC, Acarturk C, McGrath M et al. (2019) Treatment gap and mental health service use among Syrian refugees in Sultanbeyli, Istanbul: a cross-sectional survey. *Epidemiol Psychiatr Sci* 29:e70.

Ghimire DJ, Chardoul S, Kessler RC et al. (2013) Modifying and validating the Composite International Diagnostic Interview (CIDI) for use in Nepal. *Int J Methods Psychiatr Res* 22:71–81. https://doi.org/10.1002/mpr.1375

Goldberg DP and Huxley P (1992) *Common Mental Disorders: a Bio-Social Model*. London: Routledge

Güney E, Aydemir AF, Iyit N et al. (2024) Gender differences in psychological help-seeking attitudes: a case in Türkiye. *Front Psychol* 15:1289435. https://doi.org/10.3389/fpsyg.2024.1289435

Harkness J, Pennell B, Villar A et al. (2008) Translation procedures and translation assessment in the World Mental Health Survey Initiative. In Kessler RC and Ustün TB (Eds.) *The WHO World Mental Health Surveys: Global Perspectives on the Epidemiology of Mental Disorders* (pp. 91–114). Cambridge University Press.

Haro JM, Arbabzadeh-Bouchez S, Brugha TS et al. (2006) Concordance of the Composite International Diagnostic Interview Version 3.0 (CIDI 3.0) with standardized clinical assessments in the WHO World Mental Health surveys. *Int J Methods Psychiatr Res* 15:167–80. https://doi.org/10.1002/mpr.196

Harris MG, Kazdin AE, Hwang I et al. (2025) Pathway to effective treatment for common mental and substance use disorders in the World Mental Health Surveys: perceived need for treatment. *Int J Ment Health Syst* 19:17. https://doi.org/10.1186/s13033-025-00666-w

Ishikawa H, Tachimori H, Takeshima T et al. (2018) Prevalence, treatment, and the correlates of common mental disorders in the mid 2010's in Japan: the results of the world mental health Japan 2nd survey. *J Affect Disord* 241:554–62. https://doi.org/10.1016/j.jad.2018.08.050

Kaya E, Kılıç C, Karadağ Çaman Ö et al. (2019) Posttraumatic stress and depression among Syrian refugees living in Turkey: findings from an urban sample. *J Nerv Ment Dis* 207:995–1000. https://doi.org/10.1097/NMD.0000000000001104

Kessler RC, Abelson J, Demler O et al. (2004) Clinical calibration of DSM-IV diagnoses in the World Mental Health (WMH) version of the World Health Organization (WHO) Composite International Diagnostic Interview (WMHCIDI). *Int J Methods Psychiatr Res* 13:122–39. https://doi.org/10.1002/mpr.169

Kessler R, Heeringa S, Pennell B et al. (2018) Methods of the World Mental Health surveys. In Scott K, de Jonge P, Stein D, Kessler R (Eds.) *Mental Disorders Around the World: Facts and Figures from the WHO World Mental Health Surveys* (pp. 9–40). Cambridge University Press. https://doi.org/10.1017/9781316336168.003

Kessler RC, Al-Desouki M, King AJ et al. (2020) Clinical reappraisal of the Composite International Diagnostic Interview Version 3.0 in the Saudi National Mental Health Survey. *Int J Methods Psychiatr Res* 29:e1828. https://doi.org/10.1002/mpr.1828

Kessler RC and Üstün TB (2004). The World Mental Health (WMH) Survey Initiative Version of the World Health Organization (WHO) Composite International Diagnostic Interview (CIDI). *Int J Methods Psychiatr Res* 13:93–121. https://doi.org/10.1002/mpr.168

Kessler RC, Brown RL and Broman CL (1981) Sex differences in psychiatric help-seeking: evidence from four large-scale surveys. *J Health Soc Behav* 22:49–64.

Khaled SM, Amro I, Abdelkader M et al. (2024) Clinical reappraisal of the Composite International Diagnostic Interview version 3.3 in Qatar's National Mental Health Study. *Int J Methods Psychiatr Res* 33:e2013. https://doi.org/10.1002/mpr.2013

Kılıç C (1998) *Erişkin Nüfusla İlgili Sonuçlar: Türkiye Ruh Sağlığı Profili: Ana Rapor*. Erol N, Kılıç C, Ulusoy M, Keçeci M, Şimşek Z. Sağlık Bakanlığı Yayınları, Ankara.

Kılıç C (2008) Health services use for earthquake-related psychological problems: results from the 1999 earthquakes in Turkey. *Turk Psikiyatri Derg* 19:113–23.

Kılıç C, Kaya E, Karadağ Ö et al. (2024) Barriers to accessing mental health services among Syrian refugees: a mixed-method study. *Turk Psikiyatri Derg* 35:87–94. https://doi.org/10.5080/u27044

Kılıç C, Rezaki M, Üstün TB et al. (1994) Pathways to psychiatric care in Ankara. *Soc Psychiatry Psychiatr Epidemiol* 29:131–6. https://doi.org/10.1007/BF00796493

Kılıç C and Ulusoy M (2003) Psychological effects of the November 1999 earthquake in Turkey: an epidemiological study. *Acta Psychiatr Scand* 108:232–8. https://doi.org/10.1034/j.1600-0447.2003.00119.x

Kılıç C, Üstün TB, Uluğ ÖŞ et al (2026) Prevalence, persistence, and severity of 12-month and 30-day DSM-5 disorders in the Turkish World Mental Health Survey. *Turkish Journal of Psychiatry,* 37:180-191. https://doi.org/10.5080/u27931.

Kılıç C, Türkoğlu Ö, Avanoğlu KB et al. (2025) Effect of the COVID-19 pandemic on psychiatric service use among psychiatric outpatients. *Turk Psikiyatri Derg* 36:27. https://doi.org/10.5080/u27455

Kırpınar I, Çaykoylu A and Kuloglu M (1994) Pathways to psychiatric units in Erzurum. *Turk Psikiyatri Derg* 5:175–81.

Kott PS (2015) Calibration weighting in survey sampling. *WIREs Computational Statistics* 8:39–53. https://doi.org/10.1002/wics.1374

Lin C, Pham H and Hser Y-I (2023) Mental health service utilization and disparities in the U.S: observation of the first year into the COVID pandemic. *Community Ment Health J* 59:972–85. https://doi.org/10.1007/s10597-022-01081-y

Lu J, Huang YQ, Liu ZR et al. (2015) Validity of Chinese version of the Composite International Diagnostic Interview-3.0 in psychiatric settings. *Chin Med J (Engl)* 128:2462–6. https://doi.org/10.4103/0366-6999.164930

McGrath JJ, Al-Hamzawi A, Alonso J et al. (2023) Age of onset and cumulative risk of mental disorders: a cross-national analysis of population surveys from 29 countries. *Lancet Psychiatry* 10:668–81. https://doi.org/10.1016/S2215-0366(23)00193-1

Moitra M, Santomauro D, Collins PY et al. (2022) The global gap in treatment coverage for major depressive disorder in 84 countries from 2000-2019: a systematic review and Bayesian meta-regression analysis. *PLoS Med* 19:e1003901. https://doi.org/10.1371/journal.pmed.1003901

Montoya Gonzalez LE, Restrepo Bernal DP, Mejía-Montoya R et al. (2016) Sensitivity and specificity between the Composite International Diagnostic Interview Version 3.0 (World Mental Health, CIDI) and the Standardised Clinical Evaluation version I (SCID-I) in a mental health survey of the city of Medellin, 2012. *Rev Colomb Psiquiatr* 45:22–7. https://doi.org/10.1016/j.rcp.2015.07.001

Nishi D, Ishikawa H and Kawakami N (2019) Prevalence of mental disorders and mental health service use in Japan. *Psychiatry Clin Neurosci* 73:458–65. https://doi.org/10.1111/pcn.12894

Öcek ZA, Çiçeklioğlu M, Yücel U et al. (2014) Family medicine model in Turkey: a qualitative assessment from the perspectives of primary care workers. *BMC Fam Pract* 15:38. https://doi.org/10.1186/1471-2296-15-38

Oliver MI, Pearson N, Coe N et al. (2005) Help-seeking behaviour in men and women with common mental health problems: cross-sectional study. *Br J Psychiatry* 186:297–301. https://doi.org/10.1192/bjp.186.4.297

Pennell B, Mneimneh ZN, Bowers A et al. (2008) Implementation of the World Mental Health Surveys In Kessler R and Üstün T (Eds.) *The WHO World Mental Health Surveys: Global Perspectives on the Epidemiology of Mental Disorders* (pp. 33–57). Cambridge University Press.

Pozuelo JR, Vigo DV, Kazdin AE et al. (2025) Predictors and barriers to minimally adequate treatment among treated individuals with 7 mental disorders: results from the World Mental Health survey. *Int J Ment Health Syst* 19:34. https://doi.org/10.1186/s13033-025-00686-6

Reneflot A, Øien-Ødegaard C and Hauge LJ (2020) Marital separation and contact with primary healthcare services for mental health problems: a register-based study. *BMC Psychol* 8:124. https://doi.org/10.1186/s40359-020-00488-0

Santomauro DF, Vos T, Whiteford HA et al. (2024) Service coverage for major depressive disorder: estimated rates of minimally adequate treatment for 204 countries and territories in 2021. *Lancet Psychiatry* 11:1012–21. https://doi.org/10.1016/S2215-0366(24)00317-1

SAS Institute Inc. (2013) SAS®Software 9.4 [computer program]. In *SAS Institute Inc*. https://documentation.sas.com/doc/en/pgmsascdc/9.4_3.5/whatsnew/p07ec8vqwrr6i9n1ptnai8ui5ebo.htm

Simon RW (2002) Revisiting the relationships among gender, marital status, and mental health. *Am J Sociology* 107:1065–96. https://doi.org/10.1086/339225

Smith JP, Tran GQ and Thompson RD (2008) Can the theory of planned behaviour help explain men's psychological help-seeking? Evidence for a mediation effect and clinical implications. *Psychol Men Masc* 9:179–92. https://doi.org/10.1037/a0012158

Stein DJ, Vigo DV, Harris MG et al. (2025) Patterns and predictors of 12-month treatment of common anxiety, mood, and substance use disorders in the World Mental Health (WMH) surveys: contact coverage in the context of perceived need. *Int J Ment Health Syst* 19:10. https://doi.org/10.1186/s13033-025-00661-1

Tedstone Doherty D and Kartalova-O'Doherty Y (2010) Gender and self-reported mental health problems: predictors of help seeking from a general practitioner. *Br J Health Psychol* 15:213–28. https://doi.org/10.1348/135910709X457423

Terlizzi EP and Norris T (2021) *Mental Health Treatment Among Adults: United States, 2020*. NCHS Data Brief, no 419. Hyattsville, MD. National Center for Health Statistics. https://doi.org/10.15620/cdc:110593

Thornicroft G, Chatterji S, Evans-Lacko S et al. (2017) Undertreatment of people with major depressive disorder in 21 countries. *Br J Psychiatry* 210:119–24. https://doi.org/10.1192/bjp.bp.116.188078

Torvik FA, Rognmo K and Tambs K (2012) Alcohol use and mental distress as predictors of non-response in a general population health survey: the HUNT study. *Soc Psychiatry Psychiatr Epidemiol* 47:805–16. https://doi.org/10.1007/s00127-011-0387-3

Tudiver F and Talbot Y (1999) Why don't men seek help? Family physicians' perspectives on help-seeking behaviour in men. *J Fam Pract* 48:47–52.

Viana MC, Kazdin AE, Harris MG et al. (2025) Barriers to 12-month treatment of common anxiety, mood, and substance use disorders in the World Mental Health (WMH) surveys. *Int J Ment Health Syst* 19:6. https://doi.org/10.1186/s13033-024-00658-2

Vogel DL and Wade N (2009) Stigma and help-seeking. *Psychologist* 22:20–3.

Walde P and Völlm BA (2023) The TRAPD approach as a method for questionnaire translation. *Front Psychiatry* 14:1199989. https://doi.org/10.3389/fpsyt.2023.1199989

Wang PS, Lane M, Olfson M et al. (2005) Twelve-month use of mental health services in the United States: results from the National Comorbidity Survey replication. *Arch Gen Psychiatry* 62:629–40. https://doi.org/10.1001/archpsyc.62.6.629

Wang PS, Aguilar-Gaxiola S, Alonso J et al. (2007) Use of mental health services for anxiety, mood, and substance disorders in 17 countries in the WHO world mental health surveys. *Lancet (London, England)* 370:841–50. https://doi.org/10.1016/S0140-6736(07)61414-7

Whiteford HA, Degenhardt L, Rehm J et al. (2013) Global burden of disease attributable to mental and substance use disorders: findings from the Global Burden of Disease Study 2010. *Lancet* 382:1575–86. https://doi.org/10.1016/S0140-6736(13)61611-6

Ye WQW, Rietze BA, McQueen S et al. (2023) Barriers to accessing mental health support services in undergraduate medical training: a multicenter, qualitative study. *Acad Med* 98:491–6. https://doi.org/10.1097/ACM.0000000000004966