

Assessment of Adherence to Drug Treatment in the Psychiatric Setting: Research Review

Avaliação da Adesão ao Tratamento Medicamentoso no Contexto Psiquiátrico: Revisão de Pesquisas

Evaluación de la Adherencia al Tratamiento Farmacológico en el Contexto Psiquiátrico: Revisión de Investigaciones

RESUMO

Objetivos: realizar uma revisão de literatura sobre a avaliação da adesão ao tratamento medicamentoso no contexto psiquiátrico no período de 2013 a 2024. **Método:** a busca foi realizada na base de dados eletrônica 'Biblioteca Virtual em Saúde', após a aplicação de critérios de inclusão e exclusão, 112 artigos foram selecionados. **Resultados:** indicaram que os participantes dos estudos apresentaram, como diagnósticos principais, a esquizofrenia, transtorno depressivo maior e transtorno afetivo bipolar, sendo, a maior parte deles, adultos. **Conclusões:** de modo geral a revisão indicou a existência de lacunas em relação à existência de escalas no Brasil, de modo que pesquisas nessa área são essenciais. **DESCRIPTORES:** Saúde Mental; Cobertura de Serviços Públicos de Saúde; Psiquiatria; Auto-Avaliação.

ABSTRACT

Objectives: To conduct a literature review on the evaluation of medication adherence in the psychiatric context from 2013 to 2024. **Method:** The search was conducted in the electronic database 'Biblioteca Virtual em Saúde'. After applying inclusion and exclusion criteria, 112 articles were selected. **Results:** The studies' participants mainly presented diagnoses of schizophrenia, major depressive disorder, and bipolar affective disorder, with most being adults. **Conclusions:** Overall, the review indicated the existence of gaps regarding the availability of adherence assessment scales in Brazil, highlighting the importance of further research in this area.

DESCRIPTORS: Mental health; State Health Care Coverage; Psychiatry; Self-Testing.

RESUMEN

Objetivos: Realizar una revisión de la literatura sobre la evaluación de la adherencia al tratamiento farmacológico en el contexto psiquiátrico en el período de 2013 a 2024. **Método:** La búsqueda se realizó en la base de datos electrónica 'Biblioteca Virtual em Saúde'. Después de aplicar los criterios de inclusión y exclusión, se seleccionaron 112 artículos. **Resultados:** Los participantes de los estudios presentaron, como diagnósticos principales, esquizofrenia, trastorno depresivo mayor y trastorno afectivo bipolar, siendo la mayoría adultos. **Conclusiones:** En general, la revisión indicó la existencia de vacíos en relación con la disponibilidad de escalas de evaluación en Brasil, lo que demuestra la necesidad de más investigaciones en esta área.

DESCRIPTORES: Salud mental; Cobertura de Servicios Públicos de Salud; Psiquiatría; Autoevaluación.

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INTRODUCTION

Mental health involves the emotional, cognitive, social, and behavioral functioning of individuals, ranging from well-being to illness depending on the context and living conditions¹. Despite scientific advances, global mental health remains in a critical situation, with services still insufficient². It is estimated that 19.2% of adults have received some type of treatment in the last 12 months, with 15.8% receiving medication and 9.5% receiving psychotherapy, figures that have increased after the Covid-19 pandemic^{3,4}.

Among the decisive factors for therapeutic effectiveness, adherence to treatment stands out, defined by the World Health Organization as the degree to which the patient's behavior in following medical recommendations corresponds to what was agreed with the health professional⁵. In the psychiatric context, adherence to medication is crucial to prevent relapses and ensure clinical stability, although it still represents a major challenge^{6,7}. Studies indicate non-adherence rates between 30% and 65%, varying according to diagnosis^{8,9}, and associated with unfavorable outcomes, hospitalizations, and increased mortality^{10,11}.

Assessing adherence allows for the identification of barriers and guides more effective interventions. Available measures can be subjective (self-report, professional assessment) or objective (pill counting, electronic monitoring, biochemical analyses)^{12,13}. Although objective measures are more accurate, they are expensive and invasive; subjective measures, on the other

hand, are more accessible but suffer from memory bias and social desirability^{9,13}. Self-reporting, due to its applicability and low cost, is the most widely used method, although there is still no single, simple, and universally validated instrument¹⁴.

METHOD

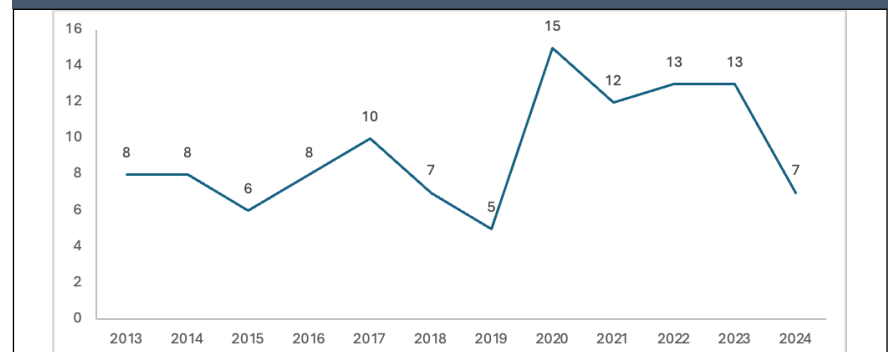
This is a systematic review of the literature, descriptive and exploratory in nature, with the aim of identifying and analyzing instruments used to assess adherence to drug treatment in psychiatric contexts. The search was conducted in the Virtual Health Library in October 2024, using descriptors in Portuguese and English combined by Boolean operators: Mental Health, Mental Disorders, Medication Adherence, Questionnaire, Scale, and Assessment. A total of 674 articles were identified, applying inclusion criteria (publications from 2013–2024, peer-reviewed empirical studies available in Portuguese, English, or Spanish) and exclusion criteria (reviews, incomplete texts, preprints, dis-

sertations, and non-psychiatric research). After screening, 112 studies met the criteria and were qualitatively analyzed. The data were organized in Microsoft Excel spreadsheets, considering year, country, sample, diagnosis, instrument, and type of measure. The process followed the PRISMA-P (Preferred Reporting Items for Systematic Review and Meta-Analysis Protocols) guidelines^{13,15}, ensuring transparency and reproducibility of results.

RESULTS

Initially, the small number of articles found stands out. Over a 12-year period, only 112 studies were identified, representing an average of 9.3 publications per year, a low number considering the relevance of the topic, the scope of the international database, and the increase in psychiatric diagnoses in the world population. The trend in the production of articles per year of publication is shown below in Figure 1.

Figure 1. Annual trend in publications on adherence to drug treatment in the psychiatric context. Santos/SP (2024).



Source: Own elaboration.

Literature Review

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Since 2013, interest in empirical research on medication adherence in psychiatric disorders has been growing, with the exception of 2015 and 2019, when there was a reduction in the number of publications. The highest peak occurred in 2020, after which scientific production remained at high levels.

Next, we sought to identify the profile of the publications, considering the area of the journals and the geographical origin of the authors. There was a predominance of publications in journals in the field of psychiatry and clinical psychology, with wide international distribution, especially in countries such as the United

States, Brazil, China, and the United Kingdom.

Regarding the sample of studies, there was a wide variation in the number of participants, ranging from 13 patients¹⁶ to 24,763 patients¹⁷. The diagnostic profile of the participants is shown in Figure 2.

Figure 2. Main diagnoses of participants in studies on adherence to drug treatment. Santos/SP (2024).

Diagnosis	Frequency	Percentage
Schizophrenia	66	58,9
Major depressive disorder	41	36,6
Bipolar disorder	35	30,7
Anxiety disorder	15	13,4
Anxiety disorder	15	13,4
Psychosis	14	12,5
Schizoaffective disorder	11	9,8
Personality disorder	8	7,1
Obsessive-compulsive disorder	6	5,3
Mood disorder	5	4,4
Attention-deficit/hyperactivity disorder	5	4,4
Substance use disorder	5	4,4
Post-traumatic stress disorder	4	3,5

Source: Own elaboration.

There is a predominance of studies with patients with schizophrenia, followed by major depressive disorder and bipolar affective disorder. Less frequent diagnoses included social phobia, disruptive behavior, panic, epilepsy, intellectual disability, eating disorders, and substance use. It should

be noted that several articles included mixed samples, which is why the total number of classifications exceeds the total number of articles.

Analysis of age groups indicated that adults comprised the most investigated group ($n = 85$; 75.9%), followed by adolescents ($n = 5$; 4.4%) and children ($n = 1$; 0.9%), while

three studies covered multiple age groups ($n = 3$; 2.6%).

Regarding assessment tools, 18 different instruments were identified for measuring treatment adherence, most of them in the form of standardized scales or questionnaires. The frequency distribution of these instruments is shown in Figure 3.

Figure 3. Main instruments used to assess adherence in research studies. Santos/SP (2024).

Instrumento	Frequency	Percentage
Medication Adherence Rating Scale (MARS)	30	26,7
Morisky Medication Adherence Scales (MMAS-4)	24	21,4
Brief Adherence Rating Scale (BARS)	7	6,2
Adherence to Antipsychotic Medications for Individuals with Schizophrenia (SAA)	2	1,8
Medication Adherence Questionnaire (MAQ)	1	0,9
Adherence Rating Scale (ARS)	1	0,9
Adherence to Refills and Medications Scale (ARMS)	1	0,9

Adolescent Medical Adherence Scale (AMAS)	1	0,9
March Drug Adherence Questionnaire	1	0,9
Treatment Adherence Rating Scale	1	0,9
Brief Medication Questionnaire	1	0,9
Hill-Bone Compliance Scale	1	0,9
Self-Efficacy for Appropriate Medication Use Scale (SEAMS)	1	0,9
Malaysian Medication Adherence Scale (MALMAS)	1	0,9
Iraqi Anti-Diabetic Medication Adherence Scale (IADMAS)	1	0,9
Adherence Starts with Knowledge 20 (ASK-20)	1	0,9
General Medication Adherence Scale (GMAS)	1	0,9
Test of Adherence to Inhalers (TAI)	1	0,9

Source: Own elaboration.

The results highlight MARS, MMAS-4, and BARS, confirming the widespread use of these scales in international research on medication adherence¹⁸.

The psychometric characteristics, format, and clinical applications of each instrument were described in detail, reinforcing the validity and versatility of these methods in different cultural contexts.

In addition to adherence measures, the studies also included instruments aimed at assessing other psychological and psychiatric constructs, as shown in Figure 4.

Figure 4. Assessment instruments for other constructs used in the studies. Santos/SP (2024).

Instrument	Frequency	Percentage
Drug Attitude Inventory-10 (DAI-10)	26	23,2
Positive and Negative Syndrome Scale (PANSS)	24	21,4
Global Assessment of Functioning (GAF)	16	14,3
Clinical Global Impression (CGI)	14	12,5
Internalized Stigma of Mental Illness (ISMI)	11	9,8
Brief Psychiatric Rating Scale (BPRS)	10	8,9
Beliefs about Medicines Questionnaire (BMQ)	9	8,0
Beck Depression Inventory-II (BDI-II)	8	7,1
Birchwood Insight Scale (BIS)	5	4,4
Hong Psychological Reactance Scale (HPRS)	4	3,5
Multidimensional Health Locus of Control Scale (MHLC)	4	3,5
Personal and Social Performance Scale (PSP)	4	3,5
Scale to Assess Unawareness of Mental Disorder (SUMD)	4	3,5

Source: Own elaboration.

The most frequently used measure was the Drug Attitude Inventory-10 (DAI-10), used in 23.2% of the studies, followed by PANSS, GAF, and CGI. These instruments were used to complement the analysis of adherence, correlating it with symptoms, overall functioning, and perception of treatment.

Another 18 instruments were found in

two articles and hundreds in just one, including measures of personality, self-efficacy, social support, religiosity, quality of life, sleep, and substance abuse.

DISCUSSION

The review showed that adherence to psychiatric treatment remains a global challenge, which has motivated sev-

eral interventions aimed at improving it^{16,19,20,21,22,23,24,25,26}. This growing interest reflects the recognition of the clinical and social consequences of non-adherence, which impact both individual therapeutic outcomes and public health costs²⁷.

Research indicates that the phenomenon of adherence is multidimensional, encompassing cognitive, emotional, cultural, and contextual factors that influence medi-

cation use behavior²⁸. This complexity partly explains the lack of a universally accepted "gold standard" method for measuring adherence^{27,29}. Different techniques have advantages and limitations in terms of validity, cost, applicability, and acceptability by patients.

Self-report instruments continue to be widely used due to their practicality and potential to capture subjective dimensions of the patient's experience with treatment, such as beliefs, perceptions of efficacy, and perceived barriers^{28,30}. Such measures, although susceptible to social desirability and memory biases, are considered valuable tools in clinical screening and adherence monitoring, especially when combined with other objective methods. Studies indicate that the combination of subjective and objective instruments tends to improve diagnostic accuracy and sensitivity in detecting non-adherence, contributing to more targeted interventions³⁰.

The international literature also highlights that instruments capable of assessing both the level of adherence and barrier factors have greater practical applicability, helping professionals to understand and intervene on the specific causes of non-adherence³⁰. In this sense, scales such as the Med-

ication Adherence Rating Scale (MARS) and the Morisky Medication Adherence Scale (MMAS) remain among the most widely used, not only because of their brevity and low cost, but also because they have satisfactory psychometric properties in different clinical contexts^{9,27}.

However, a critical point identified in this review concerns the scarcity of validated instruments in Brazil. Although some international scales have translated versions, there are no robust studies to ensure their psychometric validity and reliability in the national context. This methodological gap compromises the comparability of results and hinders the advancement of local research. The development and validation of culturally appropriate measures are therefore essential to strengthen clinical practice and psychiatric research in the country.

Another limitation observed refers to the predominance of studies with adult samples and a focus on severe disorders, such as schizophrenia and bipolar affective disorder, which restricts the understanding of adherence in other population groups, such as adolescents, the elderly, and patients with comorbidities. This trend highlights the need to broaden the scope of investigations, incorporating socioeconomic,

gender, and health service access variables, which are known to be associated with treatment adherence.^{23,26}

CONCLUSION

The study identified the main measures of medication adherence in the psychiatric context, highlighting the scarcity of validated instruments in Brazil. This limitation reflects the absence of research focused on the development or adaptation of psychometrically proven scales. Although there are several international measures, their use in the country is still restricted to translated versions without cultural validation. The review therefore highlights a relevant gap that requires further study. The generalization of the findings should be cautious, as the search may not have covered all publications, and the inclusion and exclusion criteria may have limited the scope. It is recommended that future research expand on the topic, analyzing the psychometric properties of the instruments and factors associated with adherence and non-adherence. Systematic assessment of adherence, using valid and reliable methods, is essential to guide interventions and strengthen clinical practice in mental health.

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