Original

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Prevalence and risk factors for misuse of prescription psychotropic drug in patients with severe mental illness: A systematic review

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ABSTRACT

Objective. The misuse of prescription psychotropic drugs is a major health problem. One of the most exposed groups to the use of these substances is people with a severe mental illness. The aim of this review is to assess the prevalence and risk factors of problematic use of psychoactive prescription drugs in patients with SMI.

Method. A systematic review was conducted following a PRISMA protocol through the scientific databases PubMed, Web Of Science, SCOPUS, ProquestPsycho and PsycInfo. The review was conducted from January 2011 to December 2021. Information on the misuse of prescribed psychotropic drugs and the levels of dependence generated in the severe mental illness population was examined.

Results. A total of 477 studies were identified, and 5 were selected according to the established criteria. Between 26% and 48.7% of patients with severe mental illness misuse prescribed psychotropic drugs and develop dependence. Other drug use problems, having a history of benzodiazepine prescription, perceive drug use as essential, prolonged use, impulsivity and self-harm behaviors were shown as risk factors for developing misuse of prescribed psychotropic drugs.

Conclusions. The severe mental illness population lives with several factors that make them vulnerable to the risk of developing misuse of prescribed psychoactive substances. Future studies are needed, since the current evidence is limited, and does not delve into the effects and treatment of misuse of prescribed psychotropic drugs in these patients.

Keywords. Severe mental illness, misuse, dependence, prescribed psychotropic drugs.

RESUMEN

Objetivo. El uso problemático de psicofármacos de prescripción es un creciente problema de salud. Uno de los grupos más expuestos al consumo de estas sustancias son las personas con un trastorno mental grave. El objetivo de esta revisión es analizar cuál es la prevalencia y los factores de riesgo, del uso problemático de fármacos psicoactivos, con prescripción médica, en pacientes con trastorno mental grave.

Método. Se llevó a cabo una revisión sistemática siguiendo el protocolo PRISMA consultando las bases de datos científicas Medline, Web Of Science, SCOPUS, Proquest y PsycINFO. La revisión se realizó desde enero de 2011 hasta diciembre de 2021. De cada documento se extrajo la información relativa al uso problemático de los psicofármacos prescritos y sus niveles de gravedad.

Resultados. De un total de 477 trabajos, 5 cumplían con los criterios de inclusión. Entre un 26% y un 48,7% de pacientes con trastorno mental grave hace un uso problemático de los psicofármacos prescritos y desarrollan dependencia. Los problemas de consumo de otras drogas, tener una historia de prescripción de benzodiacepinas, considerar esencial el uso del fármaco, un uso prolongado, la impulsividad y los comportamientos autolesivos se mostraron como factores de riesgo a la hora de desarrollar un uso problemático de los psicofármacos recetados.

Conclusiones. La población con trastorno mental grave convive con factores que la hacen vulnerable al riesgo de desarrollar un uso problemático de las sustancias psicoactivas prescritas. Son necesarios futuros estudios, que profundicen en los efectos y el tratamiento del uso problemático, de los psicofármacos prescritos, en estos pacientes.

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Palabras clave. Trastorno mental grave, uso problemático, dependencia, psicofármacos prescritos.

INTRODUCTION

The misuse of prescription psychotropic drugs has become a global public health issue. With the marked increasing trend in the use of psychotropic drugs in developed countries [1–4], the abuse of prescribed substances has grown in the last 15 years [5–7] exponentially increasing overdose-related deaths from the 1990s to 2020 [1,8,9]. The 2020 report from the Substance Abuse and Mental Health Services Administration states that 5.8% of individuals in the United States have engaged in problematic use of prescribed substances in the last 12 months [10]. In Spain, according to the report from the Spanish Observatory of Drugs and Drug Addiction [11], there has been an increase in the consumption of hypnotics in the general population. The percentage of consumers using these substances at least once a month has risen from 3.7% in 2005 to 8.6% in 2019, and lifetime usage has increased from 8.7% to 22.5%. Similarly, the use of opioids has multiplied by 14 in the last 20 years [12].

The high prevalence of problematic use of psychotropic drugs is influenced by multiple factors, with easy access likely playing a crucial role [13]. Other factors such as misinformation about addictive potential or the perception of lower risk compared to illicit drugs contribute to the development of problematic prescription drug use behaviors [14]. Likewise, having a history of alcohol and substance addiction is associated with a higher risk of misuse [15]. Regarding age, it appears that both youth and advanced age constitute stages with a high risk of problematic prescription drug misuse [16–20].

Severe Mental Illness (SMI) are long-lasting mental disorders that cause varying degrees of disability and social dysfunction. Although there is no clear consensus on defining the term SMI [21], different definitions have focused on three dimensions: 1) Diagnosis of non-organic psychotic disorder and some personality disorders 2) treatment duration equal to or greater than two years and 3) presence of varying degrees of impairment in social, family and occupational functioning [21,22]. Examples of SMI include disorders such as schizophrenia, bipolar disorder, personality disorders, major depression and anxiety disorders.

Considering the symptomatology of these disorders, medication is one of the primary treatments for individuals with SMI, often entailing a close relationship with the use of addictive psychotropic drugs [23–26]. Sometimes, their use is motivated by sleep problems [27], pain management [28–30], or anxiety and depression issues [31], which are common across different types of SMI.

Harmful effects of using these psychotropic drugs have been studied in clinical populations, including the development of dependence [32], respiratory depressions [14], seizures [33] or the lethal risks of combined consumption [34], both in populations with SMI [35]. However, data on prevalence, risk factors and consequences related to misuse of prescribed psychotropic drugs in SMI populations are still not clear.

A systematic review [36] on inappropriate use of benzodiazepines (BZD) highlighted the vulnerability of patients with SMI to this issue, emphasizing the need to focus on at-risk groups to take appropriate measures. Another systematic review [37], focused on problematic BZD use in populations with schizophrenia revealed the scarcity of studies addressing this question, with most of them lacking sufficiently large samples that included these patients along with a prescription for BZDs.

Both review agree that studies targeting at-risk groups are limited, often fail to address problematic psychotropic drug misuse specifically, and show significant inconsistency in their definitions [36,37]. Additionally, the extracted information about this issue mostly comes from studies not specifically aimed at SMI populations. As a result, the scope of the problem has not been clearly elucidated.

Given the exposure and vulnerability of SMI patients to the development of misuse of prescribed psychotropic drugs, it is relevant to review the existing evidence and examine the impact of this phenomenon on this population. Therefore, the aim of this systematic review is to analyze the prevalence and identify the risk factors associated with the misuse of prescribed psychotropic drugs in the SMI population.

METHOD

A systematic review was conducted following the recommendations of the PRISMA protocol [38].

Study Selection. Inclusion and Exclusion Criteria

The inclusion criteria were: (1) field studies published in English or Spanish providing information on one of the variables of interest (prevalence and risk factors of problematic misuse of psychotropic drugs); (2) participant samples including individuals with SMI of any age; (3) participants' contact with psychotropic drugs was motivated by a medical prescription.

The exclusion criteria were: (1) non-descriptive studies; (2) studies focused on dual pathology that didn't

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differentiate between prescribed and non-prescribed drug use; (3) studies not specifying the presence of a SMI diagnosis in participants; (4) studies not clearly indicating that medication consumption was motivated solely by medical prescriptions.

Search Strategy

A literature search was conducted in scientific databases including Medline, Web Of Science, SCOPUS, Proquest, and PsycINFO using keywords related to problematic misuse of prescribed medication, utilizing Boolean operators AND and OR ((severe mental illness) AND (misuse OR dependence OR withdrawal) AND (prescription drugs OR benzodiazepines OR opioids OR iatrogenic)). All search equations used are provided in Appendix 1.

These same descriptors were used for additional searches of relevant documents in Google Scholar. Additionally, the bibliographic references of the studies included in the review were examined. Given the current interest in this issue, the increasing trend in rates of prescribed psychotropic drug consumption and based on temporal distribution analyses of publications provided by the consulted databases, the search was limited to articles published between January 2011 and December 2021.

Study Variables

Variables considered for extracting information from the included works in this review were the prevalence and risk factors of problematic misuse of prescribed psychotropic drugs in SMI populations. Furthermore, levels of severity of prescribed psychotropic drug abuse were taken into account, along with data on authors and year, country, objective, definition of misuse, participants, type of SMI, and prescribed drugs.

Quality Assessment

The quality of included studies was assessed using the 14 items from the "Quality Assessment Tool for Observational Cohort and Cross-Sectional Studies" from the NIH (National Institute of Health) [39]. The score for each study was calculated based on responses to each item and expressed as a percentage (0 - 100%). Using the classification system of Maass et al. [40], four categories were used: poor (0 - 24%), fair (25 - 49%), good (50 - 74%), and excellent (74 – 100%). According to this classification, among the five included studies, two were rated as good [41,42] while the remaining three were rated as fair [43–45] (Table 1).

RESULTS

In the initial search, a total of 474 articles were identified, with 128 duplicates removed. An additional search in the references of the articles yielded 3 additional documents. A first filter was applied through title and abstract analysis, leading to the removal of 268 documents that did not align with the objectives and subject of this review. A second round of abstract reading was necessary to eliminate 57 documents that did not provide data on misuse of psychotropic drugs in SMI populations. Lastly, the full texts of the remaining 27 studies were reviewed, resulting in the exclusion of 22 due to 8 not analyzing variables related to problematic drug consumption, 4 not being field studies, 8 not specifying or distinguishing patients with SMI, one not clearly indicating prescription-based medication use, and one inaccessible for

Table 1 Study Characteristics

Authors and Year	Country	Objective	Misuse definition	Participants (N)	Type of SMI	Psychotropic Medication	Estudy Design	[a]NIH%
Fresán, Ana., Minaya, Omar., Cortés-López, Jorge Luis., Ugalde, Oscar. (2011)	México	Identify sociodemographic and consumption pattern-related variables that are predictive of benzodiazepine dependence	While not directly defining misuse, it assesses dependence	N=150; 70% women; M = 45,9 years old (SD=14,1; range=19-79 years old) Psychiatric patients	Anxiety or mood disorders diagnoses, major depression, bipolar disorder, BDP, substance dependence and psychotic disorders	BZD	Descriptive – Cross-sectional	42

Authors and Year	Country	Objective	Misuse definition	Participants (N)	Type of SMI	Psychotropic Medication	Estudy Design	[a]NIH%
McHugh, R. K., Peckham, A. D., Björgvinsson, T., Korte, F. M., & Beard, C. (2020)	EEUU	Examine the prevalence, prescription duration, and frequency of BZD misuse. The secondary objective is to explore risk factors for misuse based on the literature	Usage of higher and more frequent doses than prescribed. Assessed through a questionnaire and Likert-type adapted question with 5 response alternatives	N=589; 57,6% women. M = 33,7 years old (SD =13,9; range = 18 – 75) Patients from a partial psychiatric hospitalization program.	Major depression or other mood disorders (63%), bipolar disorder (22,6%), anxiety disorder (5,8%), psychotic disorders (4,2%), obsessive-compulsive disorder (3,2%) and other diagnoses (1,2%)	BZD	Descriptive – Cross-sectional	42
Reynolds, C. J., Vest, N., & Tragesser, S. L. (2021)	EEUU	Examine which BPD characteristics are associated with a higher risk of problematic opioid prescription	Using doses higher or more frequent than prescribed, and for reasons other than treatment. Assessing the risk of misuse, current misuse, and symptoms of opioid use disorder	N=147; 70,6% women. M=53 (SD=11,78; range 20 – 82 years old). Patients undergoing multimodal treatment for chronic pain management prescribed with opioids	TLP	Opioids	Descriptive – Cross-sectional	50
Vest, N., & Tragesser, S. (2019).	EEUU	Examine the association between BPD and prescription opioid consumption. An attempt was made to determine which facet of BPD drives this association.	Using doses higher or more frequent than prescribed, and for reasons other than treatment. Assessed through a series of questions with a Likert-type scale of 6 response options	N = 208; 69,7% men; M= 34,20 years old (SD = 11.01) Patients undergoing treatment for substance use disorder	TLP	Opioids	Descriptive – Cross-sectional	50
Yen, C. F., Ko, C. H., Chang, Y. P., Yu, C. Y., Huang, M. F., Yeh, Y. C., Lin, J. J., & Chen, C. S. (2015).	China	Examine prevalence rates and correlates of dependence, misuse, and beliefs about hypnotic use	Taking higher doses than prescribed, taking BZDs for reasons other than sleep initiation, and attempting to obtain larger quantities from other sources Assessed through dependence and pattern of BZD use	N=139; M=72,8 (SD =5,9) Patients aged 65 or older undergoing psychiatric treatment, with at least 3 months of BZD use	General. Not specified	BZD	Descriptive – Cross-sectional	42

[a] National Institutes of Health – Quality Assessment Tool score (NIH): poor (0 – 24%), fair (25 – 49%), good (50 – 74%) y excellent (74 – 100%).

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Table 2 Study Results

Authors	Prevalence	Risk Factors	Conclusions
Fresán, A., Minaya, O., Cortés-López, J. L., & Ugalde, O. (2011).	Of the patients included in the study, 48.7% (n=73) presented dependence on BZDs, with 34.2% (n=25) being mild; 53.4% (n=39) moderate; and 12.3% (n=9) severe. The average duration of consumption was 324.6 weeks (SD=433.7).	All patients had their first contact with BZDs through a medical prescription. Reasons for initial prescription were anxiety (n=103, 68.7%), insomnia (n=46, 30.7%) and as a muscle relaxant (n=1, 0.6%) The duration of consumption (OR = 10.45; p<0.001) increased by 10.45 times. 60% of the men presented dependence on BZDs compared to 41% of the women 41 (x^2= 8.3, 1gl, p= .004) (OR = 2.66; 95%CI = 1.17, 6.05; p=.01).	Being male conferred a 2.66 times higher risk than that of females, and the duration of BZD use increased the risk of developing dependence by 10.45 times. This study highlights the high prevalence of BZD dependence among patients using them as part of their treatment.
McHugh, R. K., Peckham, A. D., Björgvinsson, T., Korte, F. M., & Beard, C. (2020).	Out of 589 participants, 26% (n=153) reported a history of misuse of prescribed BZDs over their lifetime. 54,6% had prescriptions for at least 1 year, and 13.4% for more than 10 years. Among the 153 misusers, 67 abused infrequently, 32 more than a few times but less than monthly, 8 once per month and 11 weekly or more. Out of 113 (n = 113 due to missing data), 66.6% obtained BZDs from friends or family, 12.5% stole them, and 1% bought them online.	Abuse Reasons: Out of the 41 individuals with a history of BZD misuse 85.4% abused them for anxiety, 43.6% for depression, 22.2% out of curiosity, 18,4% to alleviate memories, 12.5% for recreational use, 12.2% were offered them, 10.3% to enhance alcohol effects, 5.3% to augment stimulant effects, and 2.6% for other reasons. Risk Factors: BZD prescription (OR=4.08; 95%CI = 2.39, 6.97 p < .001) and drug use problems (OR = 1.30; 95%CI = 1.17, 1.44; p < .001) were associated with prescription misuse. Younger age was associated with greater BZD misuse (x^2 = 2,57, p = .01), more alcohol-related problems (x^2 = -3.30, p = .001), and other drug-related issues (x^2 = -6.08, p < .001).	Individuals with a history of BZD prescription were four times more likely to abuse them, and the primary source of BZD abuse was family or friends. The majority used BZDs for periods longer than recommended. Misuse of BZD should be evaluated in psychiatric settings.
Reynolds, C. J., Vest, N., & Tragesser, S. L. (2021).	_____	Zero-order correlations revealed significant relationships between BPD traits and all three measures of abuse and risk of abuse: for dependence, r=.32, p<.001; for current misuse, r=.30, p<.001; for opioid use disorder symptoms, r=.22, p=.013.	In a sample of chronic pain patients, elevated BPD traits, especially self-harm/impulsivity and identity disturbances, predicted various measures of opioid misuse.
Vest, N., & Tragesser, S. (2019).	_____	BPD characteristics, particularly the self-harm/impulsivity dimension, were associated with an earlier age of first prescribed opioid consumption (b= -.20, p=.02). BPD traits showed moderate to strong associations (.40 - .79), significant with increased problematic prescribed opioid use (taking higher and more frequent doses than prescribed) and other substances. The self-harm/impulsivity dimension was the strongest predictor for abusive and addictive behaviors.	BPD-associated traits, particularly the self-harm/impulsivity dimension, maintained a relationship with the age of the first prescription and all measures of opioid misuse.
Yen, C. F., Ko, C. H., Chang, Y. P., Yu, C. Y., Huang, M. F., Yeh, Y. C., Lin, J. J., & Chen, C. S. (2015).	A total of 28.8% (n=40) presented high dependence, 7.9% (n=11) misuse, 12.2% (n=17) unfavorable attitude and 22.3% (n=31) high concern towards the use of hypnotics.	Patients with high concern towards the use of hypnotics (considering them necessary) maintained a high dependence (OR=4.7, 95%CI 1.765-12.551, p<.01). Patients with depressive symptoms (OR=5.867, 95%CI 1.184-29.066, p<.05) who were taking zolpidem (OR=8.576, 95%CI 1.733-42.430, p<.05) exhibited greater misuse compared to those taking estazolam of flunitrazepam.	One in four exhibited dependence on the drug. Considering the hypnotic´s use as necessary conferred 4.7 times more risk of developing dependence. Regarding misuse, those with depressive symptoms had a 5.8 times higher risk, and using the drug zolpidem was associated with an 8.57 times higher risk.

full-text reading. Ultimately, 5 documents were included in this review (Figure 1).

Study Characteristics

All included studies employed a descriptive and cross-sectional design, were conducted in Anglo-Saxon [41–43], Chinese [44] and Mexican[45] populations, and examined misuse of BZD. Descriptive information including authors and year, country, aim, definition of misuse, participants, type of SMI, and prescribed drugs is presented in Table 1.

The minimum sample size was 147 participants, and the maximum was 589 [42,43]. The range of mean ages extended from 33.7 years [43] to 72.8 years [44]. Most studies included participants over 18 years of age without setting a specific age limit. Only one study was focused on participants over 65 years old [44]. Samples were gathered from private psychiatric hospitals [42–44], public hospitals [45], and outpatient substance abuse treatment centers [41].

Of the included documents, two were focused on Borderline Personality Disorder (BPD) patients with chronic pain treated with opioids [41,42], while the other three studies examined patients receiving psychiatric treatment the or various conditions such as bipolar disorder, BPD, Obsessive-Compulsive Disorder (OCD), psychotic, affective, and mood disorders, with BZD prescriptions [43–45].

Definition and Measurement of Misuse and Abuse of Prescribed Psychotropic Drugs

Most studies defined and interpreted misuse of prescribed psychotropic drugs as consumption in higher quantities and more frequently than prescribed by healthcare professionals. Only one study employed a specific and validated tool for assessing misuse of psychotropic drugs, the Prescription Opioid Misuse Index (POMI) [42].

Regarding variables collected about misuse and abuse drug use, one study measured prescribed opioid use, use problems, lifetime use, and use in the last 12 months

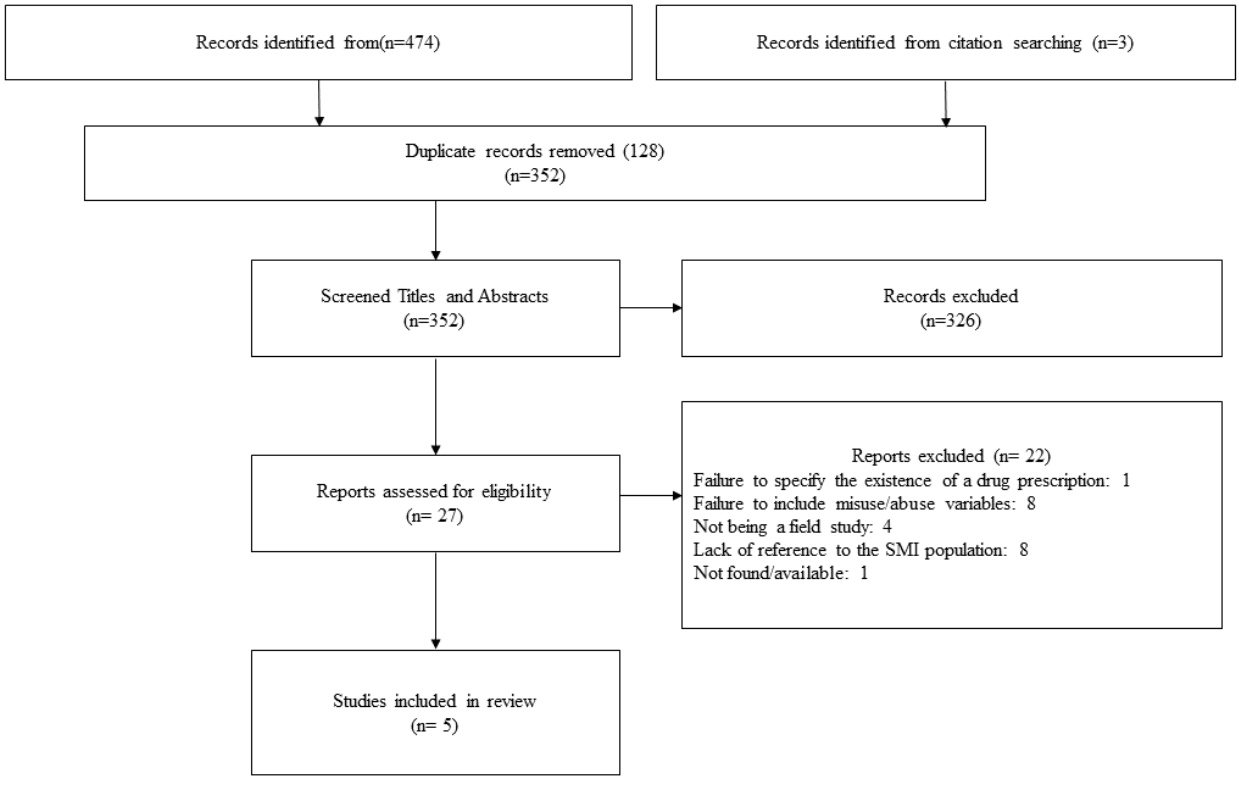

Figure 1

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[41]. Another assessed the history of BZD consumption, prescription indications, access to prescriptions and received information about drug use [43]. A third study, in addition to evaluating dependence levels and prescribed hypnotic use patterns, assessed thoughts and attitudes towards BZD use to improve sleep problems, where higher scores indicated a greater level of perceived need [44].

Alternatively, Fresán et al. [45] solely focused on the most severe level of problematic use, dependence.

Prevalence of Misuse of Prescribed Psychotropic Drugs in SMI Population

The prevalence of prescribed psychotropic drugs misuse in the SMI population is high. One study found that 26% of patients had abused prescribed BZDs at least once in their lifetime, and a third of these did so frequently [43]. Another study highlighted how half of the patients with SMI developed dependence on BZDs through prescriptions [45]. A third study found that up to 28.8% of patients with SMI and BZD prescriptions maintained high-severity dependence and misuse [44].

Mchugh et al. [43] observed that up to 68% of patients with SMI had prolonged BZD prescriptions. Within the study conducted by Fresán et al. [45], they emphasized that SMI patients with BZD prescriptions had an average consumption duration of 6 years.

Regarding ways of acquiring larger quantities of psychotropic drugs, a significant portion of SMI patients turned to family or friends, while others resorted to theft, and a few bought them online [43].

Risk Factors Associated with Misuse of Prescribed Psychotropic Drugs in SMI Population

Self-harming behaviors and high impulsivity, characteristics associated with BPD, increased the risk of developing problematic opioid misuse in patients undergoing treatment for chronic pain [41,42]. Similarly, these characteristics were also associated with an earlier age of onset for prescribed opioid consumption [41].

McHugh et al. [43] found that coping with anxious and depressive symptoms constituted the main reasons reported by SMI patients for engaging in non-prescribed benzodiazepine use. In line with this, another study identified that depressive symptoms conferred a 5.8-fold increased risk of developing misuse of prescribed benzodiazepines [44].

Furthermore, perceiving hypnotics as essential and indispensable for sleep initiation, along with concern about the inability to access them, were associated with the development of more severe dependence, conferring a 4.7-fold increased risk [44].

Having received various BZD prescriptions throughout life also elevated the risk of misuse. McHugh et al. [43] indicated that having problems with alcohol and other drugs increased the risk 1.3 times of developing misuse of BZD, while having a history of BZD prescriptions increased this risk to 4.08 times.

The initial utilization of BZDs consistently originated from a prescription. Fresán et al. [45] showed that, among psychiatric patients consuming BZDs, all reported that the initial use of the psychotropic medication stemmed from a medical prescription.

As expected, prolonged use of substances with high addictive potential leads to dependence development. Prolonged use of BZD conferred a 10.45-fold risk of developing dependence [45].

In terms of sociodemographic variables, Fresán et al. [45] were the only ones to find gender-based differences. Men face a higher risk of developing BZD dependence compared to women. Concerning age, McHugh et al. [43] discovered that misuse of BZD prescriptions was associated with a younger age.

There is limited data available about the risk associated with different types of psychotropic drugs in developing misuse and abuse. Only results regarding the type of BZD used were found, indicating that using zolpidem, compared to stazolam or flunitrazepam, conferred a higher risk of developing misuse in the population over 65 years old with SMI [44].

DISCUSSION

The aim of this review was to analyze the risk factors, prevalence, and consequences of misuse of prescription psychotropic drugs in patients with SMI.

Misuse of prescription psychotropic drugs has surged in recent decades [3,46], constituting a significant and current health concern [18–20,47]. The studies included in this review, which provide prevalence data, suggest that this issue is equally prevalent among the SMI population [43–45].

Clinical guidelines suggest limiting the use of BZDs to periods of fewer than three months [47–49]. However, at times, the use of these drugs is extended from 1 to 6 years [43,44] considerably increasing the risk of dependence development. The results

of the review indicate that between 28.8% and 48.7% of SMI patients develop BZD dependence [44,45].

In terms of risk factors, it has been observed that prolonged BZD use, experiencing anxious and depressive symptoms, and feeling concerned about accessing these drugs are related to the development of BZD misuse in patients with SMI [43–45].

Furthermore, some characteristics of PD have been consistently associated with substance use disorder development [50,51]. Similarly, in populations of patients with chronic pain, a condition related to BPD [52], it was found that self-harming behaviors and impulsivity increase the risk of opioid misuse and abuse [41,42].

Regarding comorbidity between SMI and substance use disorders, often referred to as dual diagnosis [53,54], studies sometimes do not differentiate between prescribed and non-prescribed substance abuse, or assume an undefined or independent history of consumption unrelated to prescribed medication [55]. This distinction becomes relevant when attempting to elucidate the risks of prescribing certain psychotropic drugs or how they interact with SMI, with or without previous substance abuse disorders.

In psychiatric contexts, one would expect individuals initiating treatment with a dual diagnosis to have higher likelihood of abusing medication compared to counterparts without prior substance abuse history [56,57]. However, McHugh et al. [43] showed that while having alcohol and substance abuse problems increased the risk of developing BZD misuse, having a history of BZD prescriptions posed an even greater risk. These findings emphasize that medication misuse is not solely an issue among individuals with dual diagnosis.

Literature reflects adolescence and advanced age as periods of risk for prescription abuse [16,18–20], in line with some of the findings in this review [43,44]. This could be explained by older individuals receiving more prescriptions due to multiple health issues and misusing substance to counteract the effects of other medications or alleviate symptoms [18,44]. Younger individuals tend to engage in problematic use more for recreational purposes [17], which is concerning since early use increases the risk of future episodes of misuse and abuse [19].

In relation to sex-based differences, there is no clear consensus on substance abuse patterns in populations with substance use disorders [58]. In SMI populations, there are also no clear differences, as only one study found higher dependence levels in males [45].

When defining and evaluating misuse of prescription drug, there is a high heterogeneity of concepts and methods [59]. The diverse results extracted from this review demonstrate this diversity, which may be explained by the current interest and growing trend of studies addressing this issue. Some works are already attempting to establish a common method not only to facilitate the evaluation and identification of cases of prescription substance misuse but also to enable the development of better preventive and treatment strategies [60].

Regarding possible limitations of this review, it should be noted that the evidence found is scarce, making it challenging to draw robust conclusions. Additionally, in terms of the selection of databases used in the search, there is a possibility of unintentionally omitting studies published in other resources. Furthermore, the heterogeneity found in evaluating, defining, and presenting results on psychotropic drug misuse hinders the synthesis of the extracted information. Lastly, since all the included studies were descriptive, the results obtained in this study should be interpreted with caution.

This review can help focus attention on the high prevalence of psychotropic drug misuse and abuse among patients with SMI, as well as the existing knowledge gaps regarding its consequences, assessment, and treatment. Further research is needed to address these issues in order to raise awareness of potential iatrogenic effects of psychopharmacological treatment, identify patient profiles with a higher likelihood of developing addiction, plan more effective and cost-saving treatments, and ultimately improve the quality of life for these patients.

CONCLUSIONS

Misuse of prescribed psychotropic drug constitutes a significant health concern for patients with SMI. Exposure to various risk factors such as previous prescriptions, prolonged psychotropic drug use, substance abuse problems, perceived indispensability, and impulsivity, keeps these patients vulnerable. The issue is present in a substantial portion of SMI patients. However, further studies are needed to provide evidence to develop strategies that alleviate the problem and improve the clinical circumstances of this population.

Conflict of Interest

None.

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Appendix 1

SEARCH EQUATIONS USED

PUBMED	("severe mental illness"[Title/Abstract) AND ("abuse*"[Title/Abstract] OR "misuse"[Title/Abstract] OR "dependence"[Title/Abstract] OR "withdrawal"[Title/Abstract]) AND ("prescription drugs"[Title/Abstract] OR "benzodiazepin*"[Title/Abstract] OR "opioid*"[Title/Abstract] OR "iatrogenic*"[Title/Abstract]) AND (2011:2021[pdat])
WOS	(TS=(severe mental illness)) AND (TS=(abuse*) OR TS=(withdrawal) OR TS=(misuse) OR TS=(dependence)) AND (TS=(prescription drugs) OR TS=(benzodiazepin*) OR TS=(opioid*) OR TS=(iatrogenic*))
SCOPUS	(TITLE-ABS-KEY ("severe mental illness") AND TITLE-ABS-KEY("abuse" OR "dependence" OR "misuse" OR "withdrawal") AND TITLE-ABS-KEY("prescription drugs" OR "benzodiazepin*" OR "opioid*" OR "iatrogenic*"))
ProquesPsyco	noft(severe mental illness) AND (noft(abuse*) OR noft(misuse) OR noft(dependence) OR noft(withdrawal)) AND (noft(Prescription Drugs) OR noft(benzodiazepin*) OR noft(opioid*) OR noft(iatrogenic*))
Psycoinfo	((severe mental illness) AND (abuse* OR misuse OR dependence OR withdrawal) AND (prescription drugs OR benzodiazepin* OR opioid* OR iatrogenic*))

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