

# **Misuse of anxiolytics among women with psychiatric disorders**

## **INTRODUCTION:**

Inappropriate uses of medications are commonly referred to as *misuse*, defined as “inappropriate use of a drug outside of the product’s summary of characteristics and current best practice guidelines” (1). Regardless of its form, misuse alters the benefit/risk balance of the medication. In France, it is estimated that 20 to 30% of adverse drug reactions are linked to misuse (2).

All studies show that anxiolytics—widely used in psychiatric populations—are frequently misused in terms of treatment duration, dosage, and the number of medications prescribed concurrently. According to the World Health Organization (WHO), approximately 50% of benzodiazepine consumption worldwide does not comply with prescription standards (3).

The psychiatric population is not only particularly exposed to anxiolytics but may also be more vulnerable to their side effects. In 2015, the prevalence of benzodiazepine use in France—across all indications—was higher among women (16.6%) than men (9.7%) across all age groups, with prevalence increasing with age. Women are therefore more susceptible to such misuse (4).

## **OBJECTIVES:**

The objectives of our study are to identify the sociodemographic profile, personal and family history, history of psychoactive substance use, and the clinical characteristics of anxiolytic misuse among female patients receiving psychiatric care at the Ar-Razi University Psychiatric Hospital in Salé. In addition, the study aims to assess the impact of anxiolytic misuse on the daily lives of these patients.

## **MATERIALS AND METHODS:**

This is a retrospective and descriptive study conducted over a one-year period, from March 2024 to March 2025. All patients included had a diagnosis of psychiatric disorders according to DSM-5 criteria and were under follow-up at the Ar-Razi University Psychiatric Hospital in Salé.

The severity of anxiolytic misuse was assessed using the Severity of Dependence Scale (SDS). Data analysis was performed using SPSS statistical software.

The data collection form included the following variables: sociodemographic characteristics, personal and family psychiatric history, and substance use disorders.

Aspects related to the misuse of anxiolytics included: the nature of the main psychiatric diagnosis, duration of anxiolytic use, initial prescriber, compliance with prescribed dosage, level of dependency on the treatment, side effects, withdrawal symptoms upon reduction or discontinuation, and the impact of misuse on daily life—particularly social, professional, and

financial consequences. Misuse severity was quantified using the SDS scale, which includes 5 items and is known for its predictive validity regarding misuse intensity.

## **RESULTS :**

### **Sociodemographic Characteristics:**

- The majority of patients were between 40 and 50 years old.
- 63.5% had a middle socioeconomic status.
- 90.5% lived in urban areas.
- 51.4% were single, and 40.5% had completed secondary education.
- More than half were unemployed.

### **Personal and Family History:**

- The most frequent personal psychiatric history was anxiety disorders (52.7%), followed by depressive disorders (37.8%).
- 78.4% had a medical/surgical history.
- 35.1% had a family history of psychiatric disorders.

### **Substance Use:**

- 81% of the patients had co-occurring substance use disorders.
- The most commonly used substances were:
  - Tobacco (69%)
  - Cannabis
  - Alcohol

### **Misuse Patterns:**

- 55% had an anxiety disorder as the main psychiatric diagnosis.
- 47.3% of the anxiolytics were initially prescribed by a psychiatrist.
- Benzodiazepines were the most used molecules, reported by 69.7% of patients.
- 50% had been taking anxiolytics for more than one year.
- 45.9% did not comply with the prescribed dosage.
- Main side effects due to overuse included:
  - Excessive drowsiness (60.8%)
  - Memory problems (40.5%)
- 21.6% admitted to engaging in risky behavior to obtain or consume anxiolytics.

Among the benzodiazepines (BZDs) used in our sample, Alprazolam (Xanax) was the most common at 34%, followed by Lorazepam (Temesta) at 20%, Diazepam at 16%, Bromazepam (Lexomil) at 12%, and Prazepam (Lysanxia) at 9%.

Approximately 9% of cases showed no significant impact, but several variables were identified as contributing to the socio-professional consequences of misuse. These included:

- **Decreased productivity (27%)**
- **Family conflicts (25.6%)**
- **Prescription forgery (22.9%)**
- **Social isolation (10.8%)**
- **Debt accumulation (4%)**

More than half of the patients (55%) considered their treatment to be essential, while 37% viewed it as important.

The severity of misuse was assessed using the Severity of Dependence Scale (SDS), which revealed a psychological dependence in 68% of the cases.

### **Socio-demographic characteristics – $n = 74$**

#### **Age group**

Under 20	(9) 12.2%
20 – 30	(23) 31%
31 – 40	(14) 18.9%
<b>41 – 50</b>	<b>(28) 37.9%</b>

#### **Socioeconomic level**

Low	(19) 25.7%
<b>Middle</b>	<b>(47) 63.5%</b>
High	(8) 10.8%

#### **Living environment**

<b>Urban</b>	<b>(67) 90.5%</b>
Rural	(7) 9.5%

#### **Marital status**

<b>Single</b>	<b>(38) 51.4%</b>
Married	(28) 37.8%
Divorced	(8) 10.8%

#### **Education level**

Primary	(11) 14.8%
College	(20) 27%
<b>High school</b>	<b>(30) 40.5%</b>
University	(13) 17.7%

#### **Occupation**

<b>Unemployed</b>	<b>(54) 73%</b>
Student	(9) 12.2%
Worker	(3) 4%
Civil servant	(6) 8.1%
Liberal profession	(2) 2.7%

Background		n=74
Psychiatric	Depressive Disorder	(28) 37,8 %
	Bipolar disorder	(5) 6,7%
	Anxiety disorder	(39) 52,7 %
	Schizophrenia	(2) 2,8 %
Medical-surgical	Yes	(58) 78,4 %
	No	(16) 21,6 %
Family psychiatric	Yes	(26) 35,1 %
	No	(48) 64,9 %

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History of substance use disorder		n= 74
Use-related disorders	No	(14) 19 %
	Yes	(60) 81%
Substances used	Tobacco	(51) 69%
	Cannabis	(42) 56,7%
	Alcohol	(29) 39,2 %
	Cocaine	(9) 12,2 %
	Organic Solvent	(3) 4%
	Ecstasy	(3) 4,%
	Codeine	(3) 4%
	Crack	(2) 2,7 %
	Pregbaline	(2) 2,7 %
	Heroin	(1) 1,3 %
	Morphine	(1) 1,3 %

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The characteristics of misuse		n=74
Nature of the Primary Psychiatric Diagnosis		
	Depressive Disorder	(15) 19,7 %
	Bipolar disorder	(10) 13,7 %
	Anxiety disorder	(40) 55 %
	Schizophrenia	(4) 5 %
	PTSD	(5) 6,6%

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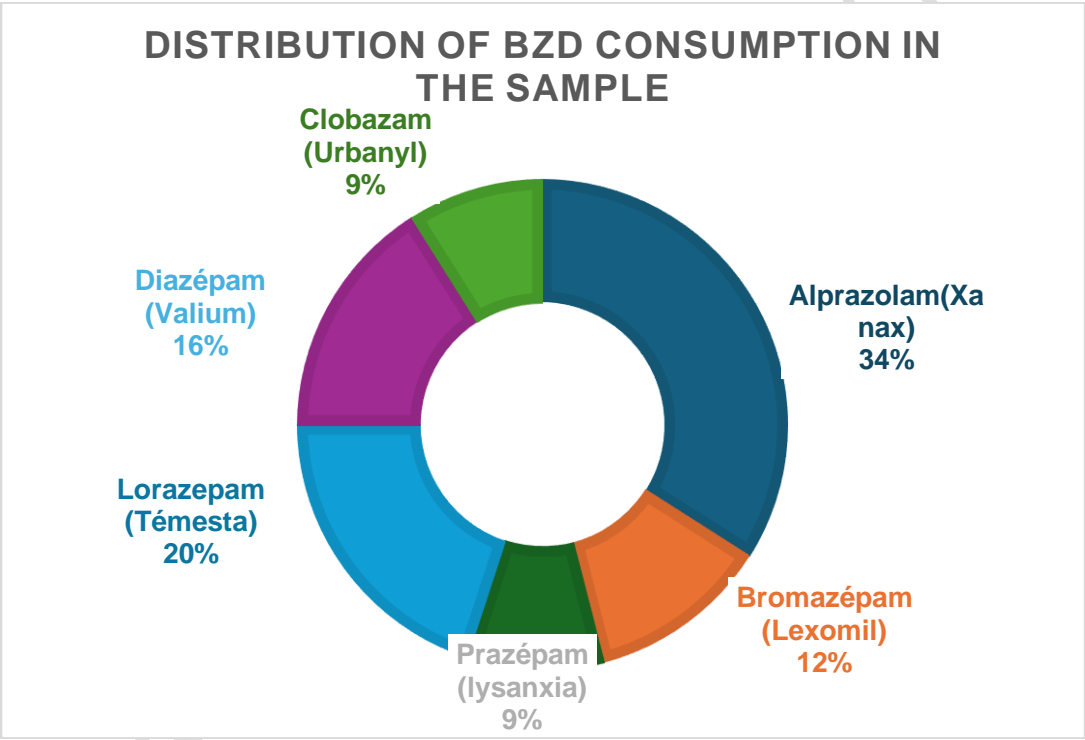
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The characteristics of misuse		n=74
Prescriber		
	Psychiatre Psychiatrist	(35) 47,3 %
	Généraliste Generalist	(26) 35,1 %
	Autres Other	(13) 17,6 %
Anxiolytics used		
	BZD	(51) 69,7 %
	Autres Other	(23) 30,3 %
Duration of use		
	Less than 6 months	(16) 21,7 %
	6 months to 1 year	(21) 28,3 %
	More than a year	(37) 50 %

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The characteristics of misuse		n=74
<b>Dosage adherence</b>		
	Yes (regularly)	(15) 20,3 %
	Yes (occasionally)	(25) 33,7%
	No	(34) 45,9 %
<b>Side effects of overconsumption</b>		
	Excessive sleepiness	(45) 60,8%
	Memory or attention disorders	(30) 40,5%
	Falls or loss of balance	(18) 24,3 %
	Depression	(22) 29,7 %
<b>Risky behaviors to buy anxiolytics</b>		
	Yes	(16) 21,6%
	No	(58) 78,4%

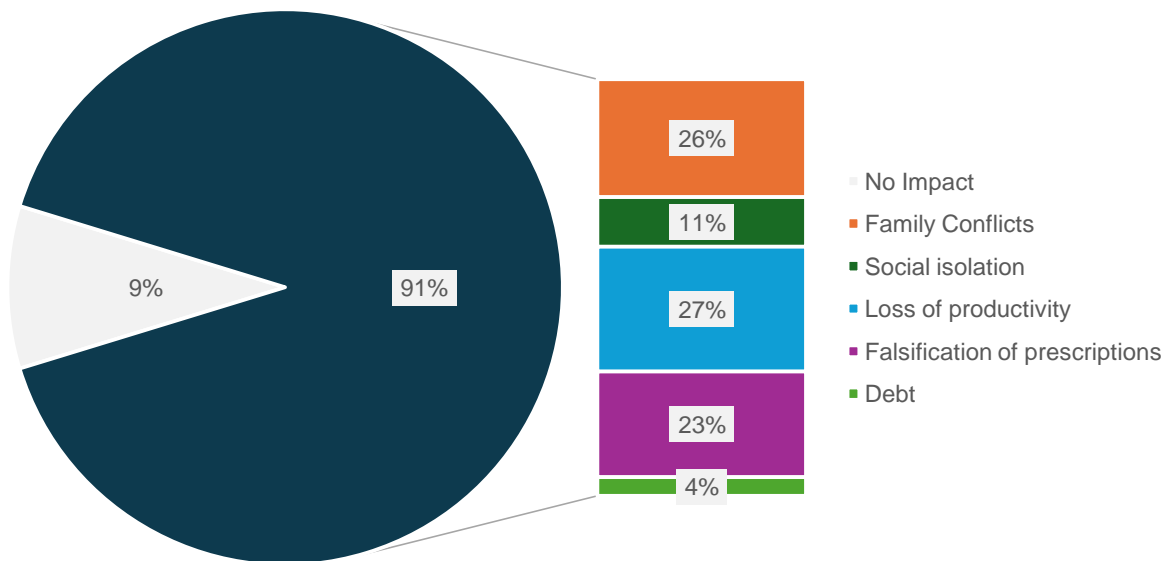
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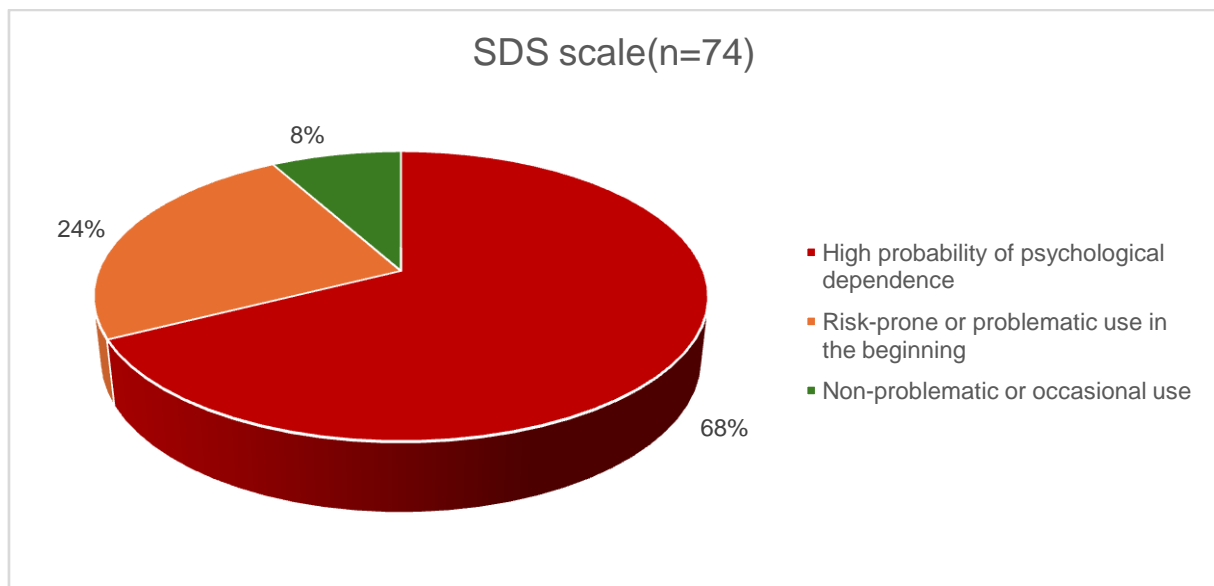
### Occupational and social impact of misuse (n=74)



### DEGREE OF ATTACHMENT TO TREATMENT (N=74)



**SDS: Severity of Dependence Scale**



SDS	n=74
Non-problematic or occasional use	(6) 8%
Risk-prone or problematic use in the beginning	(18) 24%
High probability of psychological dependence	(50) 68%

## **DISCUSSION:**

We compared our study to three others:

- A cross-sectional observational American study published in 2021 including 141 female patients,
- A French retrospective and analytical study from 2022 involving 344 patients,
- A Brazilian cross-sectional analytical study published in 2023 including 74 patients.

In comparing our results to the French, Brazilian, and American series, we observed a clear predominance of women aged between 40 and 50, with most being single and from a middle socioeconomic background, similar to the American study. The dominant education level in all studies was secondary, and more than half of the patients were unemployed.

As for the main psychiatric diagnosis, anxiety and depression were most common in both our study and the American study. In contrast, the French and Brazilian studies highlighted a strong presence of post-traumatic stress disorder (PTSD) and depression. Alcohol use disorder was frequently observed in all studies, except for the Brazilian one, where tobacco use disorder was predominant.

Alprazolam was the most frequently reported anxiolytic in all studies, followed by other short half-life benzodiazepines, due to their rapid, intense effect, which is often the desired outcome sought by patients (5).

In our study and the French study, the primary prescriber was a psychiatrist, while in the American and Brazilian studies, prescriptions were mostly made by general practitioners.



Compliance with prescribed dosages was 45.9% in our study, consistent with other studies. Risk-taking behaviors were reported in 21.6% of our patients, aligning with the French study, while higher rates were reported in the others. Side effects were similar across all studies, mostly including drowsiness, memory problems, and falls, with humerus fractures being one of the most feared complications (6).

In all series, benzodiazepine use exceeded one year. The socio-professional impact was significant in our study as well as in the others, except for the American study, where the impact was moderate.

The attachment level to benzodiazepines was similar in all studies, with a prevalence of about 50%.

Our study revealed a frequent misuse of anxiolytics with a significant p-value of 0.02, which is consistent with the other studies that observed severe misuse with p-values < 0.05. The Brazilian study, however, reported moderate misuse with a p-value of 0.001.

These findings suggest that women are more likely to misuse anxiolytics. This trend is linked to a higher prevalence of anxiety and depressive disorders in women, as well as socio-demographic context, domestic violence, and social pressures, all of which play a significant role in overuse (7).

## **CONCLUSION:**

Our study confirms that female psychiatric patients are particularly vulnerable to misuse of anxiolytics, especially benzodiazepines. These results highlight the need to understand biological, psychological, and behavioral factors that influence misuse, to prevent the risk of dependence.

Several preventive measures should be implemented at the start of treatment:

- Prescribe only when clearly indicated (e.g., severe anxiety),
- Limit prescriptions to 12 weeks (including withdrawal phase) for anxiety, and 4 weeks for insomnia,
- Prefer longer half-life BZDs (to reduce “flash” effects),
- Inform patients about the risks of dependence, tolerance, and withdrawal,
- Ensure regular follow-up, especially for prolonged treatments or high-risk patients (e.g., history of addiction, elderly, psychiatric disorders),
- Provide a tailored tapering strategy with gradual dose reduction and psychological support during the withdrawal phase.

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