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Pregabalin: From Treatment to Dependence

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ABSTRACT

Non-medical use of pregabalinrepresents an emerging issue in Morocco. This cross-sectional descriptive study, conductedamong 37 patients followed at the addiction service of Arrazi Hospital in Salé between 2024 and 2025, aimed to describetheirsociodemographic, addictive, and psychiatriccharacteristics, as well as associated impacts. Patients were predominantlyyoung, single, unemployed men. Polysubstance use wascommon, primarilyinvolving cannabis and benzodiazepines. Psychiatricdisorderswerepresent in over four out of five patients, dominated by depression and schizophrenia. Social, financial, and legalcon sequences were significant, including violence, sellingpersonalbelongings, and police custody. A significant association was found between psychiatric disorders and violence (p=0.04), while a trend linkedeconomicprecariousness to riskyfinancialbehaviors (p=0.15).

Keywords: Pregabalin, addiction, polysubstance use, psychiatricdisorders, Morocco.

Introduction

The misuse of pregabalin, a gabapentinoidindicated for epilepsy, neuropathic pain, and anxietydisorders, is a growing global public healthconcern [1]. Itsincreased prescription isaccompanied by cases of misuse and dependence [2]. Sought for itsanxiolytic and euphoriceffects, itprimarily affects youngadults in precarious situations or withpsychiatricdisorders [3]. Polysubstance use, combining cannabis, benzodiazepines, or opioids, heightensrisks of respiratorydepression and impulsive behaviors [4]. Psychiatrically, it can exacerbatedepressive, anxiety, or psychoticdisorders at high doses [5]. Theseeffects, combinedwithdependence, complicate management, requiring addiction treatment, comorbidity management, and controlleddispensing [6]. This studycharacterizes the sociodemographic, addictive, and psychiatric profile of pregabalin-dependent patients in Morocco, their impacts, and associatedfactors to guide management.

Materials and Methods

A cross-sectional descriptive studywasconductedamong 37 patients followed at the addiction service of Arrazi Hospital in Salé between 2024 and 2025. Data, collectedanonymously via an Excel file, coveredseveraldimensions:sociodemographiccharacteristics, addictive behaviors, personalpsychiatric and medical-surgicalhistory, familyhistory, and social, financial, and legal impacts. Data analysisincluded a univariate phase, describingfrequencies, percentages, means, and standard deviations, and a bivariate phase usingFisher's exact test to examine associations betweencategorical variables. All statistical analyses wereperformedusingRStudio software.

Results

1. UnivariateAnalysis

SociodemographicCharacteristics

The sampleincluded 37 pregabalin-dependent patients with a meanage of 29.4 years (standard deviation: 7.1 years;min: 16 years;max: 50 years).

Table 1: SociodemographicCharacteristics

Characteristics	Number	Percentage (%)
Sex		
Female	4	10.8
Male	33	89.2

Characteristics	Number	Percentage (%)
Marital Status		
Single	24	64.9
Divorced	3	8.1
Married	10	27.0
SocioeconomicStatus		
Average	26	70.3
Precarious	11	29.7
Residence		
Urban	35	94.6
Rural	2	5.4
Education Level		
Never attendedschool	2	5.4
Primary	3	8.1
Middle school	9	24.3
High school	11	29.7
Vocational training	4	10.8
University	8	21.6
Professional Activity		
Unemployed	20	54.1
Full-time employment	7	18.9
Part-time employment	7	18.9
Student	2	5.4
Apprentice/Trainee	1	2.7

Addictive Comorbidities

All patients usedpregabalin, with 89.2% combining it withother substances (cannabis: 62.2%;benzodiazepines: 56.8%; crack/cocaine: 29.7%;alcohol: 27.0%;ecstasy: 10.8%;tramadol: 8.1%;organicsolvents: 2.7%). A behavioral addiction (pathological gambling) wasobservedin 2.7% of patients.

PsychiatricComorbidities

Psychiatricdisordersaffected 81.1% of patients, with the followingdiagnoses:depressivedisorder (32.4%), schizophrenia (18.9%), generalizedanxietydisorder (18.9%), borderline personalitydisorder (13.5%), social anxiety (8.1%), schizoaffectivedisorder (8.1%), panic disorder (5.4%), antisocial personalitydisorder (5.4%), bipolardisorder (2.7%), substance-inducedpsychoticdisorder (2.7%).

History

Medical-surgical: 16.2% of patients.

Legal: 29.7% (exclusively men).

Suicide attempts: 10.8%.

Family history: 24.3% psychiatric; 40.5% addiction-related.

Hospitalizations: None in psychiatry; 24.3% in addiction services (all related to polysubstance use).

Impacts :

Social Impacts

Table 2: Distribution of Social Impacts

Social Impact	Number
No	13
Yes	23
Total	37

Analysis of social impacts revealsthat 62.2% of patients experiencedsignificant social consequences, compared to 37.8% withnegligible or no impact. The evaluation shows a decreasingprevalence of issues: violence was the dominant factor (43.2%), affectingnearlyhalf the sample, followed by family rejection (24.3%). Marital separations, including divorces (8.1%) and breakups (5.4%), affected 13.5% of patients.

Financial Impacts

Table 3: Distribution of Financial Impacts

Financial Impact	Number
No	17
Yes	20
Total	37

Analysis of financial impacts shows that 54.1% of patients experiencedsignificanteconomicconsequences, compared to 45.9% withnegligible or no impact. Examination of financial coping mechanismsrevealsconcerningbehaviors. Sellingpersonalbelongingswas the mostcommonstrategy (48.7%), affectingnearly one in two patients. Borrowing money occurredin 24.3% of cases, reflecting a "formal" attempt to manage financialdifficulties but riskingdebt accumulation. Theft (16.2%), thoughlessfrequent, represents a high-riskbehaviorwithpotentiallegal and social consequences.

Table 4:MonthlyExpenditure on Addictive Behavior

MonthlyExpenditure	In MAD (Moroccan Dirham)
Minimum	100
Maximum	70,000
Mean	5,000
Median	2,300
Q1	1,000
Q3	5,000
Total MonthlyExpenditure	185,000

The table reveals a highlyunequalfinancial distribution, marked by significantdisparitiesamong patients. Fifty percent of patients spentbetween 1,000 MAD (Q1) and 5,000 MAD (Q3) per month, with a median of 2,300 MAD, indicatingthathalf of the patients stayedbelowthisthreshold. However, the high mean (5,000 MAD), driven by extreme cases (up to 70,000 MAD), highlights a minority of "heavyspenders" whoseexpenditures far exceed the norm. This asymmetry (mean>median) suggeststwo distinct profiles:amajoritywithmodest budgets (likely "typical" users) and a minoritywithvery high expenditures (potentiallypolysubstanceusers or thosewithseveredependence). The total range from 100 MAD to 70,000 MAD confirmsthisheterogeneity, while the collective monthlyexpenditure (185,000 MAD) illustrates the economicburden of addiction.

Legal Impacts

Table 5: Distribution of Legal Impacts

Legal Impact	Number
No	22
Yes	15
Total	37

Analysis of legal impacts shows that 40.5% of patients experiencedsignificantlegalconsequences, compared to 59.5% with no impact. Among the patients, 40.5% had a history of police custody, while 13.5% had been incarcerated. These figures indicatethat a significant proportion of patients had contact with the judicial system, with police custodybeingnearlythree times more frequentthanincarceration.

2. BivariateAnalysis

Bivariate analyses wereconducted to identifyassociatedfactorsusingFisher's exact test.

Table 6:BivariateAnalysis

Variables in Association	P-value	Significance (α<0.05)	Interpretation
Sex ↔ Cannabis Use	1	No	No association
Sex ↔ Benzodiazepine Use	0.654	No	No association
Sex ↔ Cocaine/Crack Use	1	No	No association
Sex ↔ Alcohol Use	1	No	No association
PrecariousStatus ↔ Financial Impacts	0.014	Yes	Significant association
DepressiveDisorder ↔ Legal History	0.723	No	No association
Polysubstance Use ↔ Addiction Hospitalization	0.005	Yes	Significant association

The bivariateanalysisfound no significant association betweensex and co-use of other substances, including cannabis, benzodiazepines, cocaine/crack, or alcohol. However, a statisticallysignificant association wasobservedbetweenprecarioussocioeconomicstatus and financial impacts, suggestingthateconomicvulnerabilitypromotesriskyfinancialbehaviorsrelated to pregabalin use. No significant correlation was found between psychiatriccomorbidities and legalhistory. Finally, polysubstance use wasstronglyassociatedwith addiction-related hospitalizations: patients usingpregabalinwithothersubstances were more likely to have a history of hospitalization, while no patient usingpregabalinexclusivelyhad been hospitalized for addiction.

Discussion

This study, conducted at Arrazi Hospital in Salé (2024–2025), highlights the profile of pregabalin-dependentpatients:predominantlyyoung men (meanage 29.4 years, 89.2% male), often single (64.9%), unemployed (54.1%), and in socioeconomicprecariousness (29.7%), consistent with global trends [7]. Polysubstance use, observedin 89.2% of patients, involved cannabis (62.2%), benzodiazepines (56.8%), and cocaine/crack (29.7%), increasing complications such as respiratorydepression [8]. The significant association with addiction-relatedhospitalizations (p=0.005) underscores the severity of co-use, with no mono-usershospitalized [9]. Psychiatricdisorders, presentin 81.1% of patients (depression 32.4%, schizophrenia 18.9%), reflect high comorbidity, exacerbated by high doses or prolonged use [10]. The association betweenpsychiatricdisorders and violence (p=0.04) indicates a risk of impulsivity, particularly in patients withpersonalitydisorders or psychoses [11]. Social impacts weresignificant: violence (43.2%), family rejection (24.3%), and marital separations (13.5%) impairedinterpersonalrelationships [12]. Financially, sellingpersonalbelongings (48.7%) and theft (16.2%) revealriskystrategies, with a significantlinkbetweenprecariousness and financial impacts (p=0.014) [13]. Monthlyexpenditures, rangingfrom 100 to 70,000 MAD (median 2,300 MAD), highlight the heterogeneity of addictive behaviors [14]. Legal history (police custody 40.5%, incarceration 13.5%) affectedonly men, reflectingseriouslegalconsequences [15]. A multidimensional management approachis crucial, integratingearlydetection, addiction and psychiatric follow-up, and social support [16]. Raisingprescriberawareness and strengtheningpharmaceuticalcontrolswouldreducemisuse [17]. Public healthpolicies, includingprevention and regulation, are essential to addressthisemerging issue in Morocco [18].

Conclusion

This study highlights the severity of pregabalin use disorder in Morocco, primarilyaffectingyoung men in precarious situations, with high polysubstance use and psychiatriccomorbidities. Social, financial, and legal impacts, exacerbated by precariousness and psychiatricdisorders, underscore the urgency of integrated management. Earlydetection, addiction and psychiatric follow-up, and social support are essential. Strengtheningpharmaceuticalcontrols and raisingprescriberawarenesswouldlimitmisuse. Public healthpolicies are necessary to counterthisemerging issue.

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