

Original article

Sedative, hypnotic and anxiolytic drug use disorder: prevalence and treatment perspectives in a population of young detainees

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Summary

Psychotropic drug dependency among the prisoner population from 18 to 25 years of age represents a growing and epidemiologically relevant phenomenon. The behaviour of abuse may begin before incarceration or during its course. The loss of personal freedom and the prison environment seem to be instrumental contributing factors in the increase of use and abuse of psychotropic drugs, with consequent clinical criticality associated with the chronic use of sedatives. Psychotropic drug use in prison, together with the appropriate prescriptions for mental disorders, appears in effect to constitute at times a simplistic and partial response to suffering and to aggressive and dysfunctional behaviours. Treatment perspectives are complex, and must necessarily be multidimensional, founded on solid therapeutic combinations. They must consider both the patient and the prison environment in which the disorders emerge.

Key words: psychotropic drug dependency, sedative-related disorders, young detainees, mental health

A recent study, undertaken within Turin's penitentiary, namely the Casa Circondariale Lorusso e Cutugno, and promoted by the Municipality of Turin's Office of the Guarantor of the Rights of Detainees, ascertained a significant predominance of dependency on psychopharmaceuticals in the prison's young adult population. This phenomenon especially concerns substances with a sedative and anxiolytic action: benzodiazepines (especially with a short or mid-range half-life), benzodiazepine-like drugs (*z-drugs*) and gabapentinoids, although psychotropics belonging to other pharmacological classes also serve as abused substances, such as, for example, antidepressants and second-generation antipsychotics.

In this paper we will describe the prevalence and the treatment perspectives of sedative, hypnotic, or anxiolytic drug use disorder in a population of young detainees.

Diagnosis, epidemiological and clinical indications

According to the most widely recognized and shared nosography in psychiatry, i.e., the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) ¹, the dependency on pharmaceutical sedatives can be placed within the sedative, hypnotic, or anxiolytic drug use disorder. According to the diagnostic criteria of the DSM-5, this disorder is defined as a problematic

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Conflict of interest

The authors declare that they have no conflict of interest nor that they have received compensation from third parties for the creation of this article.

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pattern of sedative drug use, which entails significant distress or impairment, manifesting in at least two of the following conditions: intake of greater quantities or of greater duration than initially predetermined, the desire or unsuccessful efforts to limit use, extensive expenditure of time in the pursuit or use of the drug, the presence of craving, failure to fulfil family and work obligations, work and social problems, or the abandonment of important work or social activities due to usage, consumption of sedatives in potentially dangerous situations (like driving), continual use despite the awareness that it may lead to physical or psychological health problems, the development of tolerance or withdrawal phenomena.

The estimated prevalence of the disorder in the adult population is 0.2%, with a slight predominance among males, and a spike in the 18-29 age group (0.5%). The onset of use most usually occurs in adolescence and early adulthood¹. However, it is possible that this data underestimates the true extent of the disorder, one which often escapes medical attention. As regards benzodiazepines and *z-drugs*, it has been ascertained that there is a prevalence in drug consumption for a duration longer than 6 months, which means that, realistically speaking, it exceeds the length of consumption advised by the guidelines and evidenced-based data and could even reach 15%². This figure further rises if we consider populations of patients associated with psychiatric services, with values reaching beyond 30% for benzodiazepine use, and primarily consumed in a chronic manner, something widely discouraged^{3,4}. The data on gabapentinoids indicate a prevalence of abuse at around 1%, with a risk of developing forms of abuse or dependence on gabapentin reaching 50% in patients who began use with a medical prescription^{5,6}.

Of note, especially with respect to the population entering a prison, are the data around comorbidity: often the disorder goes hand in hand with the intake of other psychotropic substances of abuse (alcohol, cocaine, amphetamines, opioids). Sedative-anxiolytic pharmaceuticals are in fact frequently used in a progression with cocaine, amphetamines, or other stimulants in order to shut down excessive psychophysical activation or to reduce symptoms linked to the end of their effect, or in association with opioids or alcohol in order to amplify their sedative effect, or to counter insufficiency⁷. Other disorders, which are often found in comorbidity with dependence on sedatives, are those pertaining to personality, mood, and anxiety¹. The main risk factors for the development of dependency on sedative and anxiolytic drugs are the presence of some mental disturbance, a positive anamnesis for the use of alcohol or substances, the absence of an explicit diagnosis justifying an initial prescription or co-prescription with opioid drugs^{6,8}.

The onset of the disorder is in general attributable to two distinct patterns: one which anticipates the procurement of drugs illegally, and a consumption often associated with other substances of abuse, and the second, which

coincides with a doctor's prescription, followed by a progressive dose increase and frequency of use, self-directed or supported by repeat prescriptions. The risk of developing dependency is directly related to the dosage and duration of the treatment and is greater for the chemicals that have a shorter half life, meaning those which reach peak effect first and are metabolized more rapidly (for example clonazepam)^{1,7}. That is why it is evident that chronic usage of these drugs should be avoided.

Intoxication from benzodiazepine or pharmaceuticals with a similar profile can result in excessive sedation or the development of respiratory depression, which can be lethal, especially if in the presence of other organic disorders, or in conjunction with the consumption of alcohol or opioids. It should also be highlighted that decreased impulse control and behavioural disinhibition (including episodes of autodirected or heterodirected aggressivity) can be manifested – possible adverse effects that arise especially after acute consumption. If, in fact, on the one hand, these drugs are taken for the management of anxiety and agitation, on the other, they can lead to an increased risk of aggressive acts through the facilitation of behavioural disinhibition. The withdrawal from benzodiazepine and other hypnotic and anxiolytic drugs may manifest in the emergence of anxiety, epileptic seizures, agitation, hallucinations, and ultimately in the development of delirium, with the possibility of even a fatal outcome in the absence of proper treatment. It is also possible that, over the course of withdrawal, suicidal behaviours can develop. Lastly, it is necessary to emphasize the consequences of chronic use, which, due to a slow and insidious onset, can be clinically just as relevant as they are underestimated: emotional blunting, depression, negative effects on cognitive and mnemonic functions^{1,3,6,7,9}.

Substance dependency in the young adult population of the prison

The predominance of abuse and dependency on psychopharmaceuticals observed in prison should be included within the wider phenomenon of a recent rapid quantitative and qualitative increase in the use of prescription medications as substances of abuse, on both the national and international level. This phenomenon, which often goes hand in hand with the use of “traditional” substances, is of particular interest to the adolescent and the early adult populations and appears to be only partially definable and traceable¹⁰. In addition, considering, as shown above, that substance abuse and youth are risk factors for dependency on sedative-anxiolytic drugs, it is not surprising to discover a higher prevalence of the phenomenon in young detainees⁶⁻⁸.

As seen with respect to the general population, it is apparent that, within the prison population too, it is possible to trace two different profiles that lead to the development of

disorders linked to the use of sedative and anxiolytic drugs, which often overlap in the stories of single individuals. Drug consumption can in fact begin in the context of behaviours of alcohol or substance abuse, through illegal acquisition, or via a doctor's prescription in the event of a mental disturbance. Some of the detainees obtain the prescription before entering the prison, while in other instances, the disorder, for which benzodiazepine or other anxiolytics may be prescribed, arises during detention. The disorder can be represented by the withdrawal from other substances consumed before incarceration, or from the onset, a relapse or an exacerbation of anxiety or sleep disorders, or from the manifesting of symptoms – different from those of anxiety – attributable to personality disorders (for which benzodiazepines have no reported indications). At any rate, as previously mentioned, chronic usage is to be avoided^{3,4}. Moreover prescriptions of sedatives within the prison do not always correspond to specific diagnoses but can play a role in diminishing behavioural alterations and aggressivity, representing more than a cure of a specific disorder – in other words, a form of behaviour control for the purpose of maintaining order¹¹. However, resuming what was said about clinical manifestations of abuse of benzodiazepine and similar drugs, it must be remembered how the intake itself of the drug may contribute to the surfacing of those stresses that therapy wishes to hinder^{3,6}. In relation to mental disturbances, it is necessary to give thought to how much our prison system, due to its structural and systemic characteristics, may constitute a greater pathogenic harm than the privation of personal freedom. If we assume that distress and how the manifestations of aggression and behavioural changes originate, not only from an individual predisposition and other psychosocial factors, but also from the prison environment in which they develop, it is necessary to consider the importance, simultaneously with, or as an alternative to a medical response, of interventions on the environment, on the living conditions, as well as the implementation or consolidation of other forms of support, providing more valid alternatives to a mere pharmacological management of the suffering¹¹.

Treatment suggestions

Before exploring available therapeutic options, two preliminary considerations are necessary. First and foremost, studies to date on the efficacy of the possible treatments for the disorder, caused by using sedatives, are largely of poor quality, according to what has been confirmed by authoritative literature reviews^{3,7}, and are therefore of only partial value in guiding responsible therapeutic choices.

Furthermore, the available scientific literature takes into consideration heterogenous populations, with the possibility that the effectiveness of the data observed in particular populations (for instance composed of patients that have developed dependence as a result of

medical prescriptions) may not be valid in clinical practice with patients, who, instead, began their drug intake for recreational purposes, or together with other substances of abuse, or who may be included in different treatment contexts. In other words, it is difficult to say how much the results of the current studies in the literature may be extrapolated to include the prison population.

The resolution of dependency can not but have as its goal drug discontinuation, which must be conducted by means of a gradual tapering to avoid withdrawal symptoms. For this to happen successfully, it is necessary for the patient to demonstrate awareness of the problem and be motivated to get treatment, and that this is supported by a solid therapeutic relationship. The process of decreasing drug intake is to be defined based on the half life of the drug, the dosage and duration of consumption. This reduction must also be gradual because some withdrawal symptoms (anxiety, insomnia) can overlap those that instigated the prescription of the drug in the first place, with the subsequent difficulty for the clinician to distinguish between a relapse, which could benefit from a revitalization of the therapy, and symptoms of deficiency. In the case of benzodiazepine with a short half life – which, as previously stated, should be avoided, but are often the most requested – a valid option is that of including longer-lasting benzodiazepine, whose discontinuation, to be carried out after the discontinuation of the initial chemical, will be less challenging because of its pharmacokinetic profile^{3,8}.

Various treatments have been suggested to support drug tapering and they can be categorized in pharmacological and psycho-social interventions.

The efficacy of numerous drugs, belonging to different pharmacological classes, and administered in coordination with benzodiazepine weaning, has been investigated and has resulted in possible, albeit modest, benefits particularly from the dispensing of valproate and some anti-depressants^{3,12}.

Psychological treatments associated with gradual drug discontinuation have been, as a whole, more effective in relation to tapering not combined with other interventions. Some evidence suggests the utilization of cognitive behavioural psychotherapy, relaxation techniques, and of counselling or motivational psychoeducational interventions^{2,3,7,8,13}.

In the prison context, numerous and relevant factors of obstacles to treatment are present. The environment does not provide adequate social support and indeed can represent a pathogenic factor for the establishment of a possible “contagion” regarding the use of and dependency on drugs linked to cohabitation with individuals who already manifest abuse practices or dependence. The creation of significant therapeutic relationships is sometimes undermined by an institutional context that induces “relational structures (...) {that are} responsibility-negating and infantilizing” and within which “the valorization of the therapeutic relationship must conflict not only with

certain strategies for the maintenance of internal order, but also with the systematic reproduction of ‘diminished’ individualities”¹¹. The offer of specific interventions in conjunction with the services for dependencies is challenging. Meanwhile, providing therapeutic continuity as well, after release from prison with support measures for the discontinuation or reduction of sedative drugs¹¹ would be of fundamental clinical importance.

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