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LETTER TO THE EDITOR

A growing concern: Carbamazepine abuse in Turkish correctional settings and its clinical and ethical implications

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Dear Editor,

Carbamazepine (CBZ) is a widely used antiepileptic drug with established efficacy in epilepsy, bipolar disorder, trigeminal neuralgia, and selected impulse-control disorders (1). It is also prescribed for alcohol withdrawal syndromes in selected cases, although benzodiazepines remain the standard first-line treatment (2). However, recent clinical observations from correctional psychiatry units in Turkiye point to an unsettling trend: the increasing misuse and non-indicated demand for CBZ among incarcerated individuals, particularly those with histories of substance use and antisocial personality traits.

Across multiple prison settings, clinicians working in high-security forensic psychiatry hospitals, forensic units of major general hospitals, and correctional institutions throughout Turkiye have observed that CBZ is being explicitly requested—often by brand name or formulation—despite the absence of appropriate psychiatric or neurological indications. This behavior is especially pronounced among inmates who show little interest in standard pharmacological treatments such as selective serotonin reuptake inhibitors (SSRIs), mood stabilizers, or atypical antipsychotics. A disproportionate preference for the immediate-release (IR) formulation over the controlled-release (CR) form has been noted, likely due to its more rapid central nervous system effects. In some cases, patients reportedly feign epileptic symptoms or present falsified prescriptions to obtain CBZ, occasionally seeking access through neurology departments when denied by psychiatric services.

Clinical staff in correctional settings have also reported that some inmates stockpile CBZ—acquired through legitimate or illicit means—and consume it in large quantities. Although this phenomenon has not yet been systematically documented in the Turkish literature, anecdotal observations suggest that these individuals describe subjective effects such as "feeling good," "getting high," or "calming down"—descriptions that parallel the "quiet euphoria," "light-headedness," "getting a buzz," and mild sedative effects previously reported in the literature (3, 4). The paradox in this context is notable: although CBZ lacks a clearly defined addictive pathway, it appears to be used for self-soothing or euphoric purposes (3, 5). Reports from correctional officers and healthcare professionals suggest that, for some individuals, CBZ may reduce impulsivity, aggression, or affective instability—raising the complex question of whether its misuse may, in some cases, represent a form of self-medication in emotionally dysregulated, trauma-exposed, or high-impulsivity populations. Incarcerated individuals frequently experience limited and inconsistent access to psychiatric care, including

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shortages of qualified clinicians and restricted availability of psychotherapeutic interventions, which may contribute to self-medication as a coping strategy for psychological distress. Such barriers represent modifiable deficiencies within correctional mental healthcare and underscore the need for improved and more continuous access to structured treatment.

The existing case literature, although limited, supports the dual nature of CBZ. For example, Stuppaeck et al. (3) reported a patient who described experiencing a "quiet euphoria" when using CBZ at therapeutic doses and clearly distinguished this effect from placebo. Crawford et al. (4) described a series of polysubstance users who misused CBZ recreationally, emphasizing that in the absence of readily available benzodiazepines, individuals may experiment with whatever agents are accessible, leading to emergent patterns of misuse, findings that closely parallel our clinical observations. Other reports have noted subjective experiences of sedation, mild euphoria, or behavioral disinhibition at supratherapeutic doses, even among patients without histories of polysubstance abuse (5–7).

The mechanism underlying the psychoactive misuse of carbamazepine remains speculative. CBZ acts through sodium channel blockade and modulation of glutamatergic activity but may also indirectly influence serotonergic, dopaminergic, or peripheral benzodiazepine systems (8, 9). Some studies have postulated potential interactions with glucocorticoid and neurosteroid pathways (10). Notably, Zullino et al. (11) suggested that CBZ may reduce cravings in individuals undergoing withdrawal from alcohol, benzodiazepines, or cocaine.

Based on our clinical experience in Turkiye, CBZ misuse appears to be neither isolated nor benign. Some inmates openly admit to "borrowing" CBZ from other prisoners. In rare but illustrative cases, such as that reported by Hanada et al. (12), discontinuation of CBZ in a youth with hippocampal agenesis was followed by an immediate resurgence of criminal behavior, which again subsided upon resumption of treatment—highlighting CBZ's potential regulatory role in affect and behavior.

Nevertheless, the associated risks are substantial. CBZ overdose can result in ataxia, diplopia, confusion, seizures, and severe toxicity, posing a safety concern in poorly monitored environments such as correctional facilities. Moreover, CBZ is a potent inducer of cytochrome P450 enzymes, which can alter the plasma concentrations of numerous concomitantly administered medications (13). In incarcerated individuals receiving multiple psychotropic agents, these interactions complicate both therapeutic efficacy and safety.

Inmates frequently request progressively higher doses over time in the absence of documented clinical deterioration. Others insist on CBZ use for off-label indications, such as restless leg syndrome, despite current guidelines not recommending it as a first-line treatment (14). This pattern of behavior—characterized by persistent medication-seeking, diagnostic manipulation, and resistance to alternative treatments—resembles classic drug-seeking behavior and must be approached with vigilance.

Nonetheless, not all CBZ use within correctional settings is problematic. Based on our experience in prison psychiatric wards, inmates with well-established diagnoses of bipolar disorder or impulse-control syndromes who are prescribed either IR or CR CBZ under structured monitoring sometimes demonstrate notable improvements in emotional regulation, sleep quality, and interpersonal functioning. These subjective improvements are often corroborated by correctional staff observing fewer disciplinary incidents. In contrast, individuals engaging in manipulative medication-seeking behaviors rarely exhibit behavioral improvement.

This duality illustrates the therapeutic ambiguity surrounding CBZ use in carceral environments. Its potential utility in managing impulsivity must be carefully balanced against the emerging risk of misuse. Clinical decision-making therefore requires both ethical clarity and strong institutional support.

We propose the following measures:

- Prescriptions should be strictly limited to documented psychiatric indications, such as bipolar disorder or impulse-control pathology.
- Immediate-release formulations should be prescribed with particular caution, especially in individuals with a history of substance use.
- Clinicians should verify prior treatment records across departments and institutions to confirm the appropriateness of indications.
- Multidisciplinary collaboration—including psychiatrists, correctional officers, and nursing staff—along with structured contextual risk assessments, is essential (15).
- Blood level monitoring, although challenging in correctional settings, should not be neglected when behavioral warning signs or unexplained dose escalation are observed.

- The implementation of institutional prescribing protocols for high-risk medications such as CBZ may help protect both patients and clinicians from ethical dilemmas.

To our knowledge, the misuse of CBZ in correctional psychiatry has not yet been systematically studied in Turkiye. We therefore call for urgent national surveillance efforts, multicenter collaboration, and the development of evidence-based clinical guidelines to better understand and address this evolving phenomenon. In particular, partnerships among major psychiatric hospitals, high-security forensic psychiatry centers, and correctional institutions will be critical for designing translational research that bridges theory and clinical practice. Only through such coordinated efforts can we balance ethical patient care with the systemic need to prevent misuse and ensure safe prescribing.

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