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Review

Low Blood Pressure in Psychiatric Care: A Comprehensive Narrative Review

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ABSTRACT

Low blood pressure (hypotension) is a frequently overlooked concern in psychiatric care, despite its significant clinical implications. This narrative review synthesizes findings from 26 studies published between 1998 and 2024, examining the relationship between hypotension and psychiatric disorders, psychotropic medications, medical comorbidities, substance use, and cognitive decline. Evidence suggests that hypotension can contribute to symptoms such as fatigue, impaired concentration, emotional blunting, and confusion, which are often misattributed to primary psychiatric illness. Medications, particularly antipsychotics, antidepressants, and mood stabilizers, frequently induce hypotension, especially in older adults and patients with complex physical conditions. Additional risk arises from polypharmacy and substance use, including alcohol, opioids, and stimulants. In geriatric and forensic psychiatric populations, unrecognized hypotension is associated with increased falls, delirium, and delayed recovery. The review highlights the importance of regular blood pressure monitoring, medication reconciliation, interdisciplinary collaboration, and environmental safety strategies. Recognizing hypotension as a modifiable factor in psychiatric outcomes can support more accurate diagnosis, safer treatment planning, and improved quality of care for vulnerable patients.

Introduction

Low blood pressure, or hypotension, is an under-recognized yet clinically significant concern in psychiatric care. While hypotension is widely studied in cardiovascular and internal medicine, its relevance in mental health settings has received comparatively limited attention. This oversight is notable, given the complex interaction between psychiatric disorders, psychotropic medications, medical comorbidities, and patient Vulnerability, all of which may contribute to the onset or worsening of hypotension in this population [1, 2].

In psychiatric populations, hypotension may be both a direct consequence of treatment and a marker of underlying physiological or neurovegetative dysfunction. Psychotropic medications, particularly antipsychotics and tricyclic antidepressants, are well known for their hypotensive side effects, largely due to their antagonism of peripheral alpha-1 adrenergic receptors [1, 3, 4]. Other agents, such as lithium, benzodiazepines, and certain serotonin-modulating drugs, may further compound this risk, especially in older or medically complex patients [2, 5, 6]. Additionally, polypharmacy, a common feature in psychiatric treatment, exacerbates the likelihood of blood pressure fluctuations and associated complications [7].

Hypotension in mental health settings is not only a pharmacologic side effect but can also reflect broader physiological dysregulation. In elderly patients, orthostatic hypotension is particularly prevalent, associated with frailty, falls, and cognitive decline [8, 9]. There is also growing evidence that hypotension may be linked to depressive symptoms, emotional blunting, and reduced affective responsiveness [10, 11]. Longitudinal data suggest that lower baseline blood pressure may predict the onset of late-life depression, possibly through cerebral hypoperfusion and neurovascular compromise [12]. These findings underscore the need to consider hypotension not only as a somatic concern but as a contributor to psychiatric symptomatology and functional decline.

Substance use further complicates this landscape. Alcohol, opioids, and stimulants can each induce hypotension through diverse mechanisms, including vasodilation, myocardial depression, or autonomic instability [13-15]. When combined with psychotropic regimens, these substances may increase the risk of sudden drops in blood pressure, leading to syncope, injury, or delirium [16, 17].

Despite these concerns, hypotension is rarely a focus of psychiatric evaluation or monitoring. Blood pressure assessments may be inconsistently performed or documented, particularly in non-geriatric psychiatric units [4, 18]. Consequently, many episodes of medication-related or symptom-driven hypotension may go unnoticed, potentially leading to preventable adverse outcomes.

This narrative review synthesizes current evidence on hypotension in psychiatric care, drawing from 26 studies published between 1998 and 2024. It explores the relationship between low blood pressure and psychiatric disorders, pharmacologic treatment, substance use, cognitive decline, and systemic comorbidities. Clinical implications for monitoring, risk reduction, and interdisciplinary collaboration are highlighted, particularly in vulnerable populations such as the elderly. In doing so, this review aims to increase awareness of hypotension as a relevant but underscored clinical concern in psychiatric practice and to support safer, more integrated care for patients with mental illness.

Method

This narrative review was conducted to synthesize the current literature on the causes, consequences, and clinical management of hypotension in psychiatric populations. The review was carried out between February and May 2025.

A literature search was performed using PubMed, ScienceDirect, and Google Scholar, chosen for their broad coverage of biomedical and psychiatric research. Additional relevant

publications were identified through manual reference screening and by accessing full texts via ResearchGate, where necessary.

The search strategy employed combinations of keywords and Boolean operators. Example search terms included:

"hypotension" OR "low blood pressure" AND
"psychiatry" OR "mental illness" OR "psychotropic medications" OR "antipsychotics" OR "antidepressants" OR "substance use" OR "alcohol" OR "cognitive decline".
Search terms were adapted to each database's requirements.

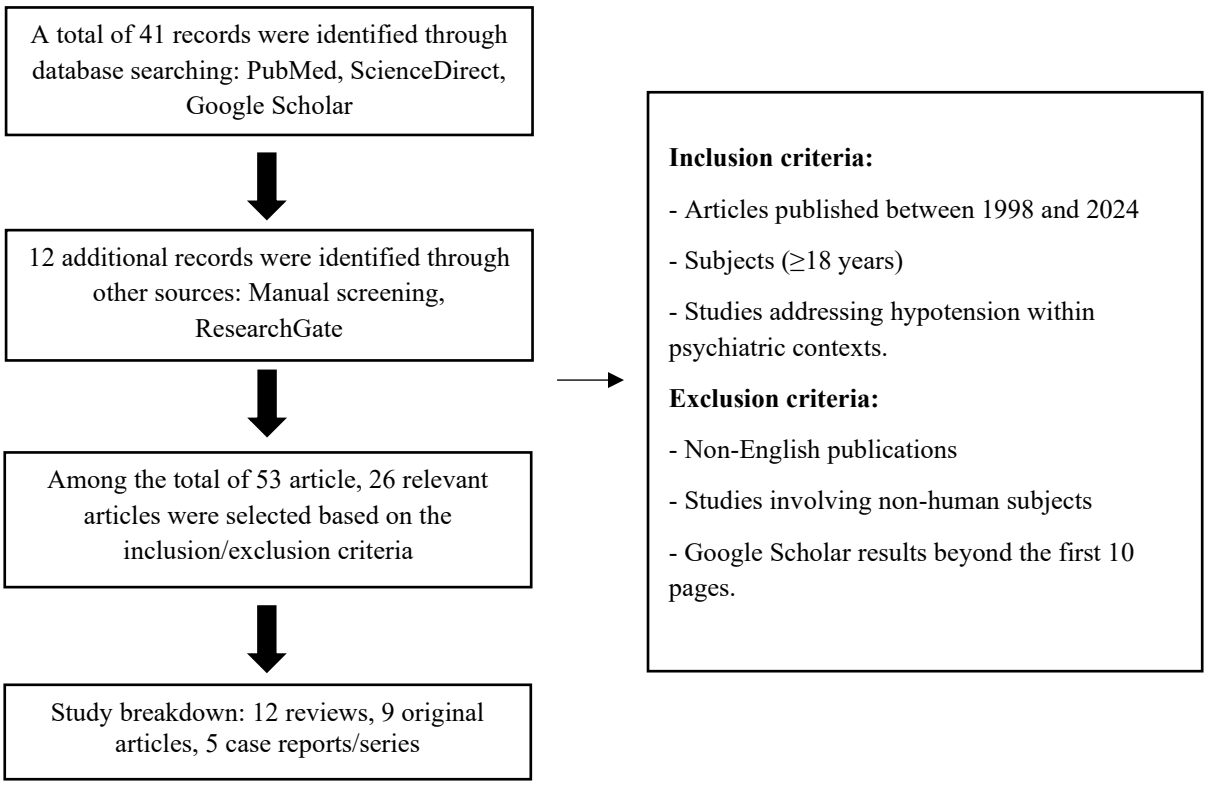
Inclusion criteria: Articles published between 1998 and 2024, studies in English, research involving adult human subjects (≥18 years), studies addressing hypotension within psychiatric contexts (e.g., as a clinical manifestation, side effect, or comorbidity)

Exclusion criteria: Non-English publications, studies involving non-human subjects, Google Scholar results beyond the first 10 pages.

After applying the inclusion and exclusion criteria and evaluating relevance, 26 studies were selected for final analysis. Study selection was performed by a well-experienced psychiatrist.

The final selection included a total of 26 studies, comprising 12 systematic or narrative reviews, 9 original articles, 5 case reports or series (Figure 1).

Figure 1. PRISMA diagram summarizing the selection of 26 studies included in this narrative review.



Although this review does not follow a systematic methodology, it offers a comprehensive synthesis intended to support clinical awareness and interdisciplinary care for patients in psychiatric settings.

Results

Hypotension in Primary Psychiatric Disorders

Hypotension is not only a cardiovascular concern but may also reflect or influence primary psychiatric symptoms. Researchers have recently examined whether low blood pressure is related to mental illnesses such as depression, anxiety, bipolar disorder, and schizophrenia. While the direction of causality remains debated, growing evidence suggests that hypotension may contribute to emotional dysregulation, reduced affect, fatigue, and, in some cases, the development or worsening of mood symptoms [2, 10-12].

Cross-sectional research has identified a notable link between low blood pressure and symptoms of depression. For instance, Hildrum et al. [10], using data from the Nord-Trøndelag Health Study, reported that individuals with lower systolic and diastolic blood pressure were more likely to experience depressive and anxiety-related symptoms.

In a similar vein, Jorm et al. [11] observed that hypotension among older adults was associated with diminished positive mood and heightened depressive tendencies. One hypothesis is that chronic cerebral hypoperfusion in individuals with low blood pressure may lead to neurobiological changes affecting mood regulation [2]. In older populations, where cerebral autoregulation is already compromised, this risk may be even greater.

Longitudinal data also support the predictive role of hypotension in mental health decline. Findings from the Irish Longitudinal Study on Ageing (TILDA) by Briggs et al. [12] indicated that individuals with hypotension at baseline were more likely to develop depression over time. This temporal relationship suggests that the connection between low blood pressure and depression may involve underlying biological mechanisms rather than being merely coincidental. This finding may be clinically important, as it implies that blood pressure assessment could serve as a simple biomarker for early identification of individuals at risk for mood disorders, particularly in geriatric settings.

In bipolar disorder, autonomic dysregulation and blood pressure instability are also frequently reported. McGowan et al. [19] explored the association between pulse pressure and mood instability, finding that fluctuations in blood pressure may correspond with manic or depressive episodes. Although the mechanisms remain unclear, some researchers have proposed that sympathetic-parasympathetic imbalance plays a role in both mood regulation and vascular tone.

Patients with schizophrenia also face unique challenges related to hypotension. Beyond medication effects, primary autonomic dysfunction and sedentary lifestyle may contribute to decreased vascular tone. Some evidence suggests that chronic schizophrenia is associated with impaired baroreflex sensitivity and reduced sympathetic response, both of which can predispose individuals to orthostatic hypotension [20].

Collectively, these findings highlight the need to view hypotension not only as a physical side effect but also as a potential physiological marker embedded within psychiatric syndromes. It may reflect poor somatic health, autonomic dysregulation, or medication side effects, but it may also be part of the psychiatric syndrome itself, especially in older adults or those with long-term illness. Regular blood pressure monitoring in psychiatric patients, particularly those with affective symptoms or cognitive decline, may provide valuable clinical insights that can inform both diagnosis and treatment planning.

Hypotension Induced by Psychotropic Medications

Psychotropic medications are among the most common causes of hypotension in psychiatric populations. Many antipsychotics, antidepressants, mood stabilizers, and sedative agents affect blood pressure either directly through their pharmacological action or indirectly through cumulative sedative and autonomic effects. These changes can increase the risk of orthostatic hypotension, dizziness, syncope, and falls, particularly in elderly or medically vulnerable patients [1, 2, 6].

Antipsychotics, especially clozapine, quetiapine, risperidone, and olanzapine, are well known to cause hypotension. This effect is primarily due to antagonism of alpha-1 adrenergic receptors, which leads to peripheral vasodilation and impaired vascular tone [3, 4]. Clozapine in particular has been linked to both dose-related and unpredictable hypotensive episodes, sometimes severe enough to cause falls or syncope [3]. In a clinical review, Gugger et al. [1] emphasized that orthostatic hypotension was most frequent within the first week of initiating antipsychotic therapy, especially in older patients or those on multiple medications.

Antidepressants, such as Tricyclic Antidepressants (TCAs) and Monoamine Oxidase Inhibitors (MAOIs), are also associated with hypotension. Their sympatholytic effects, anticholinergic activity, and inhibition of norepinephrine reuptake can lower blood pressure, particularly when used at higher doses or in combination with other agents [6]. Although selective Serotonin Reuptake Inhibitors (SSRIs) are generally safer, some reports have noted blood pressure instability, particularly in the elderly or during rapid titration [21].

Mood stabilizers, including lithium and valproate, may contribute to hypotension through different mechanisms. Lithium, in particular, affects sodium balance and renal function, which can result in volume depletion and hypotensive episodes. One case report described dose-related hypotension during aripiprazole therapy, which reversed after discontinuation [5]. Although rare, such cases underline the need for individualized blood pressure monitoring in patients using multiple mood-stabilizing agents.

Benzodiazepines and sedating antihistamines may also contribute to hypotension through general central nervous system depression, leading to reduced vascular tone and impaired autonomic response. These effects are usually mild but can be significant in combination with other hypotensive medications or in older patients with autonomic instability [2, 7].

The risk of hypotension increases substantially when polypharmacy is present. Psychiatric patients often receive combinations of antipsychotics, antidepressants, anxiolytics, and somatic medications, especially in inpatient or geriatric settings. In their scoping review of 158 non-antihypertensive drugs associated with hypotension, Sari et al. [7] identified multiple psychotropic agents across different classes as contributors to clinically significant drops in blood pressure. These findings support the need for systematic blood pressure monitoring, especially during medication changes or treatment initiation.

A systematic review and meta-analysis by Bhanu et al. [22] highlights that drug-induced orthostatic hypotension is a frequent yet underrecognized side effect, especially among older adults. The study found that medications commonly used in clinical practice—such as

antihypertensives, antidepressants, and antipsychotics—can significantly increase the risk of postural blood pressure drops. These effects are often dose-dependent and more pronounced in polypharmacy contexts. Clinicians should monitor vulnerable populations closely to prevent falls and other adverse outcomes.

Table 1 summarizes key psychotropic drug classes known to cause hypotension, their mechanisms, and relevant clinical notes.

Table 1. Summary of psychiatric drug classes linked to hypotension, with mechanisms, risk levels, and clinical considerations.

Drug Class	Examples	Mechanism of Hypotension	Risk Level	Clinical Notes
Antipsychotics	Clozapine, Risperidone, Olanzapine	α1-adrenergic blockade → peripheral vasodilation	High	Most risk in early treatment or dose escalation
Antidepressants	TCAs, MAOIs, SSRIs (rare)	Sympatholytic effect; impaired autonomic tone	Moderate–High	TCAs and MAOIs highest risk; SSRIs in elderly
Mood Stabilizers	Lithium, Valproate	Fluid/electrolyte imbalance; renal dysfunction	Moderate	Monitor serum levels, renal function, and fluid status
Benzodiazepines	Lorazepam, Diazepam	Sedation and CNS depression → ↓ vascular tone	Low–Moderate	Enhances hypotension in polypharmacy
Sedating Antihistamines	Hydroxyzine, Diphenhydramine	Anticholinergic and sedative properties	Low	Can add to postural hypotension, especially in elderly
Polypharmacy	All classes (combined)	Pharmacodynamic and additive hypotensive effects	Variable	Particularly high risk in elderly or inpatient settings

Hypotension and Substance Use Disorders

Substance use disorders represent an additional and often underestimated source of hypotension in psychiatric populations. Alcohol, opioids, cannabis, and stimulants such as methamphetamine can all affect cardiovascular regulation, either independently or in combination with prescribed psychotropic medications. These interactions may increase the risk of hypotensive episodes, particularly during intoxication, withdrawal, or when substances are used alongside sedating or vasodilating drugs.

Alcohol is a well-documented contributor to orthostatic hypotension. In a controlled physiological study, Narkiewicz et al. [13] demonstrated that alcohol significantly potentiates blood pressure drops during postural stress by impairing autonomic reflexes. The hypotensive effect may be most pronounced in the hours following intake, especially when combined with antipsychotics, antidepressants, or benzodiazepines, all of which can have overlapping sedative or vasodilatory effects.

Opioids also reduce blood pressure through a combination of central nervous system depression, histamine release, and decreased sympathetic tone. Virnes et al. [14] reviewed the link between opioid use and falls in older adults, identifying hypotension as a significant mediating factor. This relationship is especially relevant in psychiatric populations with comorbid chronic pain or a history of substance use, where opioid prescribing is common.

Cannabis has complex cardiovascular effects. While some users experience transient hypertension, others, especially older adults or those using cannabis with sedating agents, may experience orthostatic hypotension. Goyal et al. [23] described several cases where cannabis use was associated with syncopal episodes due to postural blood pressure changes.

In psychiatric settings, where polypharmacy and medical comorbidities are prevalent, these effects may go unnoticed or misattributed to medication alone.

Stimulants, such as methamphetamine, are typically associated with elevated blood pressure and tachycardia. However, chronic or high-dose use can paradoxically result in cardiovascular collapse due to brainstem dysfunction. Edinoff et al. [15] showed that methamphetamine overdose could impair brainstem cardiovascular control, leading to refractory hypotension and shock. This risk is especially relevant in emergency psychiatric or forensic contexts where stimulant use is common and may co-occur with antipsychotic treatment.

Importantly, the hypotensive effects of substances may be exacerbated by psychotropic medications that patients are already taking. Sedative synergy, fluid shifts, and autonomic instability can result in sudden, clinically significant drops in blood pressure, sometimes leading to syncope or delirium. These risks are magnified during periods of substance withdrawal, where autonomic rebound and electrolyte imbalance are common.

Overall, substance-induced hypotension is a clinically relevant but frequently under-recognized factor in psychiatric care. Routine screening for substance uses and its cardiovascular implications, especially during intake or medication adjustment, may help reduce iatrogenic complications. Collaborative management between psychiatry, internal medicine, and addiction services is crucial for addressing this multifactorial risk.

Hypotension in Psychiatric Patients with Medical Comorbidities

In psychiatric patients, low blood pressure is commonly observed alongside coexisting medical conditions, especially in individuals with intricate physical health issues. These comorbid conditions, such as cardiovascular disease, renal impairment, malnutrition, and endocrine dysfunction, not only increase baseline vulnerability to hypotension but may also interact negatively with psychotropic medications, further destabilizing blood pressure regulation [2, 16, 24, 25].

One notable example is eating disorders, where hypotension is a common clinical finding due to malnutrition, dehydration, and electrolyte imbalance. In their review of anorexia nervosa complications, Mehler et al. [25] emphasized that hypotension, along with bradycardia and orthostasis, often signals medical instability. These symptoms are not just cardiovascular markers but may also influence mood, concentration, and energy, potentially complicating psychiatric evaluation and treatment engagement. In such cases, even low-dose psychotropics may exacerbate hemodynamic compromise.

Post-surgical patients, particularly those recovering from cardiac interventions, represent another high-risk group. Othman et al. [16] investigated the link between postoperative hypotension and delirium in critically ill patients following cardiac surgery. Their findings suggest that even transient episodes of hypotension in vulnerable patients can lead to acute confusion, behavioral dysregulation, or delayed psychiatric stabilization. This is highly relevant for liaison psychiatry or geriatric psychiatry teams working in general hospitals.

Among individuals with cardiovascular disease, particularly those experiencing arrhythmias or heart failure, hypotension is a frequent concern. The risk of hypotension is compounded by beta-blockers, diuretics, and other antihypertensives, many of which are

co-prescribed alongside antipsychotics or antidepressants. Younes et al. [24] noted that psychiatric symptoms in cardiac patients are frequently accompanied by medication side effects that include orthostatic hypotension. This makes coordination between psychiatry and cardiology essential, especially in older adults or patients with cognitive impairment.

Renal dysfunction is another important contributor to hypotension, particularly in patients taking lithium, ACE inhibitors, or diuretics. Lithium's effect on renal sodium handling can lead to volume depletion and orthostatic symptoms, especially in summer months or during periods of poor oral intake. Regular monitoring of electrolytes, creatinine, and blood pressure is recommended in such patients, particularly when treated in long-term settings or with a history of psychiatric-medical overlap [2].

Finally, polypharmacy related to chronic physical illnesses, such as diabetes, hypertension, or neurological disorders, can unintentionally produce hypotensive effects. When psychiatric medications are added on top of already complex regimens, the cumulative risk may be overlooked, especially if baseline blood pressure is not monitored regularly. This concern is amplified in long-term psychiatric facilities or forensic units, where physical examinations may not be consistently emphasized [2, 7].

In summary, medical comorbidities are a key factor in the development and persistence of hypotension in psychiatric care. Routine assessment of physical health, medication reconciliation, and interdisciplinary collaboration can significantly reduce this risk and support more individualized and safer treatment planning.

Hypotension in Cognitive Disorders and Delirium

Cognitive disorders and delirium are frequently influenced by underlying physiological instability, including fluctuations in blood pressure. In psychiatric and geriatric populations, low blood pressure is increasingly acknowledged as a modifiable risk factor contributing to both long-term cognitive deterioration and sudden episodes of confusion. While hypotension may not always be the primary cause of cognitive dysfunction, it often contributes to cerebral hypoperfusion, which can accelerate or exacerbate neurodegenerative processes and impair recovery from delirium [8, 9, 16, 26].

Evidence linking hypotension and cognitive impairment has been demonstrated in several observational studies. Xia et al. [8] showed that orthostatic hypotension in older adults was markedly associated with an increased risk of developing from mild cognitive impairment to dementia. Their findings suggest that reduced cerebral perfusion during postural changes may have long-term effects on brain structure and function. Similarly, Zhu et al. [26] reported that elderly Chinese adults with low blood pressure scored lower on cognitive assessments compared to normotensive peers, supporting the relationship between vascular instability and cognitive decline.

Acute hypotension is also a known precipitating factor for delirium, particularly in hospitalized patients with psychiatric comorbidities. Carbone et al. [17] reported a case of delirious mania in a patient with bipolar mood disorder, precipitated by medication-induced hypotension. Although delirium in these scenarios is typically caused by multiple factors, hypotension significantly contributes by reducing cerebral blood flow, particularly in those with pre-existing cognitive susceptibility. Othman et al. [16] further emphasized this link

in a study of cardiac surgery patients, finding that postoperative hypotension was significantly associated with increased delirium rates in critical care settings.

The elderly are specifically vulnerable to these effects due to age-related reductions in baroreflex sensitivity, arterial stiffness, and impaired autonomic regulation. Even modest drops in blood pressure can lead to transient confusion, disorientation, or slowed thinking in this group. Saedon et al. [9], in a meta-analysis of orthostatic hypotension prevalence, highlighted the high rates of symptomatic hypotension in older adults, many of whom also present with cognitive concerns in psychiatric settings.

Importantly, hypotension may not only worsen pre-existing dementia or delirium but also interfere with psychiatric care. Patients experiencing frequent dizziness, poor attention, or disorganized thinking due to low blood pressure may struggle with therapy engagement, medication adherence, and daily functioning. When such symptoms are misattributed solely to psychiatric illness, the true physiological contributor, hypotension, may remain untreated.

In clinical practice, the recognition of hypotension as a contributor to cognitive instability can lead to earlier interventions. Monitoring orthostatic vitals, adjusting medication regimens, and ensuring hydration and mobility are essential steps, particularly in inpatient or geriatric psychiatric units. Interdisciplinary care involving psychiatry, internal medicine, and nursing is often necessary to stabilize both the mental and physical condition of the patient.

Hypotension and Psychiatric Symptoms

Hypotension may present with a variety of nonspecific psychiatric symptoms that can easily be misattributed to primary mental illness. In both settings, including inpatient and outpatient, patients with low blood pressure often report fatigue, dizziness, impaired concentration, low mood, and emotional blunting, symptoms that overlap significantly with depressive and cognitive disorders. This diagnostic overlap can obscure the underlying physiological cause, leading to inappropriate treatment or missed opportunities for intervention.

Studies have shown that low blood pressure may be linked to reduced affective responsiveness, apathy, and anhedonia. Hildrum et al. [10] found that individuals with hypotension scored higher on depression inventories and reported fewer positive affective states. Similarly, (11) observed a correlation between low blood pressure and diminished emotional engagement in elderly populations, suggesting that chronic hypotension may contribute to flattened affect and loss of motivation.

From a neurophysiological perspective, this connection may be mediated by cerebral hypoperfusion, particularly in the frontal lobes and subcortical regions involved in emotion regulation. Mackin et al. [2] emphasized that hypotension-related decreases in cerebral blood flow may lead to subtle changes in executive functioning, memory, and mood, symptoms often seen in patients with affective or psychotic disorders.

In psychiatric interviews, symptoms such as dizziness, visual dimming, or light-headedness may be underreported unless specifically probed. When these symptoms occur alongside concentration problems, low energy, or postural instability, they may be incorrectly labeled as somatic complaints of depression or side effects of medication. This

can lead to either unnecessary medication adjustments or a failure to address the primary issue of low blood pressure [12].

Moreover, hypotension may amplify pre-existing psychiatric symptoms. In patients with anxiety disorders, sudden drops in blood pressure may trigger panic-like reactions, while in those with psychotic disorders, the resulting confusion and disorientation may worsen paranoia or thought disturbance. Although less studied, these interactions may influence treatment resistance and relapse risk, particularly when blood pressure is not routinely monitored [1].

Recognizing hypotension as a contributing factor to psychiatric symptom expression allows for more accurate diagnosis and targeted interventions. Checking orthostatic blood pressure in patients presenting with mood changes, attention difficulties, or unexplained somatic symptoms may prevent misdiagnosis and guide appropriate management strategies. Interdisciplinary collaboration between psychiatry and general medicine is especially valuable in teasing apart these overlapping presentations.

Clinical Management of Hypotension in Psychiatric Settings

The clinical management of hypotension in psychiatric settings requires an integrated approach that includes regular monitoring, medication review, interdisciplinary collaboration, and patient education. Although hypotension is common in psychiatric populations, particularly among the elderly, medically complex, or polypharmacy-exposed, it is often under-recognized and undertreated. This oversight can contribute to poor treatment adherence, increased fall risk, delayed recovery, and unnecessary psychiatric medication changes [1, 4, 7, 18].

Routine blood pressure monitoring should be a core component of psychiatric care, especially during psychotropic initiation or dose adjustments. Gugger et al. [1] emphasized the need for blood pressure assessments during antipsychotic titration, particularly with drugs known to affect vascular tone, such as clozapine or quetiapine. Similarly, Parks et al. [4] reported that acute blood pressure changes are not uncommon in inpatient psychiatric units and may go unrecognized without structured monitoring protocols.

In addition to seated blood pressure readings, orthostatic vital signs should be assessed when patients report symptoms such as dizziness, weakness, or difficulty concentrating. Measuring blood pressure and heart rate changes in supine, seated, and standing positions helps identify orthostatic hypotension, which is especially prevalent in older adults and those with autonomic dysfunction [9, 18]. Early detection allows clinicians to adjust medications, ensure hydration, and implement supportive measures before more serious complications arise.

Medication reconciliation is critical to identifying and reducing hypotensive burden. This includes reviewing both psychiatric and non-psychiatric medications, such as antihypertensives, diuretics, or opioids, that may contribute to blood pressure instability. Sari et al. [7] provided a comprehensive list of non-antihypertensive drugs, including multiple psychotropics, linked to hypotension. Their findings support the need for individualized medication planning, especially in high-risk populations such as the elderly or those with cognitive impairment.

Environmental and nursing strategies can also reduce the risk of adverse outcomes. These include slow position changes, increased fluid intake, compression stockings, and fall precautions. In inpatient units, especially those serving geriatric or forensic patients, nursing staff should be trained to recognize early signs of hypotension and report positional symptoms, changes in gait, or unexplained agitation.

Interdisciplinary collaboration is essential. Psychiatrists, nurses, pharmacists, and internal medicine consultants should work together to balance psychiatric symptom control with cardiovascular safety. This collaboration is particularly important during transitions of care, such as hospital discharge, where medication regimens are often changed and continuity may be disrupted [18].

In summary, managing hypotension in psychiatric care requires proactive and interdisciplinary strategies. With regular monitoring, early identification, and appropriate adjustments, clinicians can reduce complications, improve quality of life, and support safe, effective psychiatric treatment across diverse patient populations.

The summary of clinical management and approach to hypotension in psychiatric disorders is provided in Table 2.

Table 2. Approach to hypotension in psychiatric disorders.

Psychiatric Condition	Importance of Hypotension	Management Approach
Major Depressive Disorder	Associated with fatigue, apathy, emotional blunting, and cerebral hypoperfusion; may worsen mood symptoms.	Monitor blood pressure routinely; assess for orthostatic changes; avoid over-sedating meds; ensure hydration.
Bipolar Disorder	Linked to autonomic dysregulation and BP instability during mood episodes.	Check for BP fluctuations across mood states; review medications; monitor during titration.
Schizophrenia	Risk of orthostatic hypotension due to antipsychotics and autonomic dysfunction; may mimic negative symptoms.	Monitor orthostatic vitals; differentiate fatigue from psychiatric symptoms; adjust antipsychotic doses.
Substance Use Disorders	Alcohol, opioids, cannabis, and stimulants may cause hypotension via vasodilation, CNS depression, or instability.	Screen for substance use; adjust meds accordingly; monitor during withdrawal; involve addiction services.
Cognitive Disorders / Delirium	Hypotension contributes to cerebral hypoperfusion, confusion, and worsened cognitive symptoms.	Monitor for subtle cognitive changes; check orthostatic vitals; adjust meds; ensure hydration and safety.
Anorexia Nervosa	Hypotension results from malnutrition and electrolyte imbalance; signals medical instability.	Monitor vitals closely; correct fluid/electrolyte imbalance; avoid further hypotensive medications.

Hypotension in Geriatric Psychiatric Populations

Geriatric patients in psychiatric care represent a population with heightened vulnerability to hypotension, due to a combination of age-related physiological changes, polypharmacy, cognitive impairment, and multimorbidity. Even modest decreases in blood pressure can lead to significant clinical consequences, such as falls, confusion, fatigue, and reduced engagement with treatment. Given the complexity of geriatric psychiatry, identifying and managing hypotension in this group is critical to maintaining both medical stability and psychiatric recovery [7-9, 26].

Physiologically, older adults experience reduced baroreflex sensitivity, diminished vascular compliance, and impaired autonomic regulation, making them more susceptible to blood pressure instability. Saedon et al. [9] reported that orthostatic hypotension is highly prevalent among the elderly, particularly those with multiple comorbidities or on psychotropic medication. These changes are often exacerbated by sedating

psychotropics, diuretics, and cardiovascular agents commonly prescribed in this age group [7].

Cognitive decline and dementia also increase the risk of unrecognized hypotension. Many elderly patients do not report typical symptoms such as dizziness or lightheadedness. Instead, they may present with agitation, slowed thinking, or sudden confusion, which may be misattributed to primary psychiatric illness or medication effects [8, 26]. In inpatient psychiatric units, these signs may go unnoticed or be documented as behavioral fluctuations.

Medication burden plays a central role in geriatric hypotension. Older patients are often prescribed multiple agents across both psychiatric and medical domains. Antipsychotics, tricyclic antidepressants, lithium, and opioids, frequently used in elderly populations, are known to have cumulative hypotensive effects. Sari et al. [7] identified a wide range of psychotropics as contributors to clinically significant hypotension, particularly when combined with antihypertensives or diuretics.

A summary of common psychiatric conditions and comorbidities associated with hypotension in older adults is presented below in Table 3.

Table 3. Clinical Conditions in Geriatric Psychiatry Commonly Associated with Hypotension.

Condition	Mechanism of Hypotension	Clinical Implications
Major depressive disorder	Low autonomic tone, reduced activity	Fatigue, apathy, syncope, fall risk
Dementia	Autonomic dysfunction, impaired baroreflex	Agitation, confusion, silent orthostasis
Anorexia nervosa	Malnutrition, electrolyte imbalance	Bradycardia, dizziness, psychiatric instability
Schizophrenia	Antipsychotic side effects, sedentary behavior	Orthostatic drops, worsened cognition
Polypharmacy (multiple Dx)	Drug interactions (e.g., psychotropics + antihypertensives)	High fall risk, impaired mobility, delirium episodes

Hypotension and Falls, Injuries, and Safety in Psychiatric Facilities

Hypotension is a major but often underappreciated risk factor for falls and physical injuries in psychiatric settings, particularly among older adults and individuals on sedating medications. Psychiatric inpatients are already at elevated risk due to factors such as psychomotor agitation, poor insight, gait instability, and medication side effects. When hypotension, especially orthostatic or postural, is present, the risk of sudden drops in consciousness, dizziness, and loss of balance increases substantially [1, 4, 7, 9].

In inpatient units, many falls occur during early morning hours, after abrupt position changes from bed to standing. Gugger et al. [1] and Parks et al. [4] both highlighted that the initiation of antipsychotics, particularly those with alpha-1 adrenergic blocking properties, can significantly increase fall risk, especially within the first few days of treatment. These effects may be further amplified when medications are administered at night, a period during which blood pressure naturally dips due to circadian rhythms.

Elderly psychiatric patients are especially vulnerable. Saedon et al. [9] emphasized that orthostatic hypotension is one of the strongest predictors of falls in geriatric populations.

However, even younger individuals with psychiatric illness may be at risk, particularly those experiencing sedation from benzodiazepines, cannabis, or antipsychotics [7, 23].

Medical comorbidities can exacerbate this risk. Patients with Parkinson's disease, diabetes, or cardiovascular conditions may already experience autonomic instability, which worsens with dehydration, nutritional deficiencies, or psychotropic use. These patients may fall silently or report only vague symptoms such as dizziness or "feeling off," making incident prevention more difficult.

In forensic or acute psychiatric units, hypotension-related falls also raise safety concerns beyond physical injury. A sudden collapse may be mistaken for seizure, malingering, or medication noncompliance, leading to unnecessary interventions or disciplinary responses. Additionally, injuries resulting from hypotensive episodes may delay psychiatric stabilization and disrupt therapeutic engagement.

Effective fall prevention strategies require routine orthostatic assessments, especially during high-risk periods such as medication changes, somatic illness, or behavioral decompensation. Environmental modifications, like installing bed alarms, improving lighting, and supervising mobility, can also help. Wahba et al. [18] noted that interdisciplinary care planning, particularly involving nursing staff and physiotherapists, can reduce fall rates by addressing both psychiatric and physical contributors.

Recognizing hypotension as a key factor in inpatient safety allows for proactive, rather than reactive, intervention. Incorporating blood pressure screening into standard psychiatric observation protocols may reduce harm, support recovery, and enhance the overall safety culture in psychiatric facilities.

Hypotension as a Marker of Psychiatric-Medical Complexity

Hypotension in psychiatric patients often reflects more than an isolated cardiovascular issue. Instead, it can serve as a clinical marker of complex interactions between mental illness, medical comorbidities, aging, pharmacotherapy, and systemic vulnerability. This complexity is particularly evident in long-term psychiatric inpatients, geriatric populations, and those with overlapping somatic and neuropsychiatric conditions [2].

In such patients, hypotension may be one of the earliest signs of clinical deterioration or imbalance. A subtle drop in blood pressure may indicate dehydration, medication side effects, acute infection, renal dysfunction, or poor nutritional intake, all of which are common in psychiatric populations. Mackin [2] emphasized that hypotension is often overlooked in mental health care, despite being associated with impaired cerebral perfusion and cognitive slowing. These findings highlight hypotension as a potential bio- psychiatric signal rather than a purely physical symptom.

The presence of hypotension often reflects the burden of polypharmacy, which itself is a marker of clinical complexity. Sari et al. [7] identified over 150 non-antihypertensive medications linked to hypotension, many of which are used in psychiatric and geriatric practice. These include antipsychotics, tricyclic antidepressants, benzodiazepines, and opioids. Patients requiring multiple medications often present with overlapping psychiatric and medical conditions, leading to compounded physiological stress.

In institutional settings such as forensic or long-term psychiatric units, hypotension may also result from systemic factors like dehydration, delayed medication rounds, or reduced

physical activity. Saedon et al. [9] reported that orthostatic hypotension is especially common in frail or sedentary elderly adults, who often reside in such environments. Without regular monitoring and environmental adjustments, these patients may experience preventable complications such as falls, cognitive decline, or reduced treatment engagement.

Furthermore, hypotension can obscure accurate psychiatric diagnosis. For example, in a patient with schizophrenia, chronic fatigue or reduced affect caused by hypotension may be misinterpreted as negative symptoms. Similarly, in individuals with depression, physical weakness or lightheadedness may be confused with somatic complaints of mood disorders. Hildrum et al. [10] demonstrated that individuals with low blood pressure often report depressive features, suggesting a physiological contribution to psychiatric symptom expression.

Recognizing hypotension as a marker of psychiatric-medical complexity encourages a shift from symptom-focused care to integrative assessment. Blood pressure monitoring, medication reconciliation, nutritional evaluation, and interdisciplinary collaboration are essential to ensuring diagnostic accuracy and patient safety. When viewed through a systemic lens, hypotension becomes not just a cardiovascular concern, but a valuable indicator of whole-person health.

A summary of the key clinical findings identified in this review is provided in Table 4 to assist clinicians in recognizing key aspects of hypotension in psychiatric care.

Table 4. Summary of main findings regarding hypotension in psychiatric care.

Topic	Summary of Findings
Primary Psychiatric Disorders	Hypotension may contribute to depressive symptoms, emotional flattening, and fatigue, especially in elderly patients. It can also be related to autonomic dysfunction and may worsen mood and cognitive symptoms.
Psychotropic Medications	Many psychiatric drugs such as antipsychotics (clozapine, risperidone), antidepressants (TCAs, MAOIs), and mood stabilizers (lithium) can cause hypotension. The risk is higher in polypharmacy and during treatment initiation.
Substance Use	Alcohol, opioids, cannabis, and stimulants can lower blood pressure through various mechanisms. The risk increases when used together with psychotropic medications, leading to possible confusion, syncope, or delirium.
Medical Comorbidities	Conditions like heart disease, renal dysfunction, and malnutrition (e.g., anorexia nervosa) make patients more vulnerable to hypotension, especially when taking multiple medications.
Cognitive Disorders and Delirium	Hypotension is a modifiable risk factor for both delirium and progressive cognitive decline. It is often linked to reduced cerebral perfusion, especially in frail or elderly individuals.
Psychiatric Symptoms	Low blood pressure can present with fatigue, poor attention, or emotional blunting, which may be misdiagnosed as psychiatric symptoms, especially in depression or psychosis.
Clinical Management	Regular blood pressure monitoring, including orthostatic vitals, medication review, and attention to hydration and mobility are essential. Interdisciplinary teamwork can improve patient safety.
Geriatric Psychiatry	Older adults have high risk of hypotension due to age-related changes, comorbidities, and polypharmacy. Even small drops in BP may cause falls or cognitive worsening.
Falls and Safety	Hypotension is a major contributor to falls and injuries in psychiatric units, especially during early treatment phases or at night. Prevention strategies must be implemented in inpatient care.
Systemic Complexity	Hypotension often reflects a combination of physical illness, psychiatric burden, and treatment complexity. It should be seen as a sign of vulnerability requiring comprehensive care.

Conclusion

Hypotension is an under-recognized but clinically significant concern in psychiatric care. While often treated as a secondary issue, low blood pressure has important implications for diagnosis, treatment planning, and patient safety, particularly in older adults and medically complex populations. As demonstrated in this narrative review, hypotension can result

from psychotropic medications, substance use, comorbid medical illness, cognitive disorders, and autonomic dysregulation. Its presence may exacerbate psychiatric symptoms, contribute to confusion or functional decline, and increase the risk of falls, injuries, and treatment nonadherence.

Psychiatrists and mental health teams are increasingly caring for patients with overlapping physical and mental health conditions. In this context, hypotension serves not only as a physiological measurement but as a marker of systemic vulnerability. Regular monitoring of orthostatic vitals, careful medication selection, and attention to hydration, nutrition, and mobility are critical components of integrated care. Special attention should be given to the geriatric population, where even mild hypotension can accelerate cognitive decline and lead to serious adverse events.

Despite its relevance, hypotension remains insufficiently addressed in psychiatric guidelines and practice. Many episodes go unnoticed, undocumented, or misattributed to primary psychiatric symptoms. There is a need for greater clinical awareness and for institutional protocols that incorporate blood pressure assessment into routine psychiatric care, particularly during admission, medication changes, and behavioral deterioration.

Future research should explore the prevalence, impact, and management of hypotension across different psychiatric populations, including younger adults, forensic settings, and those with co-occurring substance use disorders. Prospective studies and clinical audits may help identify risk thresholds and guide evidence-based interventions. Additionally, interdisciplinary training and collaboration between psychiatry, internal medicine, nursing, and pharmacy can support early identification and appropriate response.

One of the main challenges in managing hypotension among psychiatric patients lies in its multifactorial etiology. Psychotropic medications, particularly antipsychotics, antidepressants, and mood stabilizers, are well-known contributors to blood pressure dysregulation, with the risk increasing significantly in cases of polypharmacy. Furthermore, many individuals with psychiatric disorders may concurrently use substances such as alcohol, opioids, or stimulants, which can further destabilize blood pressure control. The nature of psychiatric disorders themselves may also predispose individuals to hypotensive episodes through mechanisms such as autonomic dysregulation, poor nutritional intake, or reduced physical activity. Compounding the issue, medications prescribed for coexisting medical conditions, such as hypertension, diabetes, or other chronic illnesses, may also inadvertently contribute to lowered blood pressure. Older adults are particularly susceptible, as age-related physiological changes heighten sensitivity to both pharmacologic effects and postural shifts.

Symptoms such as fatigue, dizziness, impaired concentration, and affective blunting are often misattributed to psychiatric pathology, potentially delaying accurate recognition and management of hypotension. These overlapping clinical features underscore the critical importance of routine blood pressure monitoring and integrated, multidisciplinary care in psychiatric settings.

Ultimately, recognizing hypotension as a modifiable contributor to psychiatric outcomes offers an opportunity to improve patient care, safety, and quality of life. By adopting a more integrative and preventive approach, clinicians can reduce avoidable complications

and foster more comprehensive mental health treatment in both acute and long-term settings.

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