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Review Article

The Correlation Between Treated vs. Untreated Psychosis in Psychiatric Disorders and the Increased Risk of Developing Dementia

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Abstract

Background: Mental health disorders are common and debilitating conditions. Mental health disorders are correlated with developing dementia, which is a public health concern.

The mental health disorders who are at a higher risk of developing dementia schizophrenia spectrum disorders (SZA), bipolar disorder (BD) and major depressive disorder (MDD). These mental health disorders are also susceptible to the development of Psychosis.

Objective: This literary review explores the correlation between treated and untreated psychosis and the subsequent risk of developing dementia. It does this by exploring the effect of psychosis on the cognitive reserve in patients with chronic mental illnesses. Methods: Two literature reviews were conducted using PubMed/MEDLINE and JAMA Psychiatry, for randomized controlled trials and cohort studies published between 2004 and 2025. The first search included studies that demonstrated a correlation between the relationship of mental health disorders and dementia. While the second search demonstrated a correlation between declined cognitive ability and psychosis and/or corelated untreated mental health illness, psychosis and dementia.

Results: This review examines recent studies that demonstrated a correlation between declined cognitive ability and corelated mental health illness. Studies consistently emphasize the relationship between psychiatric disorders and dementia. Studies show trends with an increased risk of dementia in patients with mental health conditions. There is an increased risk of dementia from recurrent psychosis and a significant impact on cognitive reserve. Patients on the schizophrenia spectrum disorders consistently scored lower in Verbal Fluency and Memory, as well as task involving Attention and Processing Speed than control groups, affective psychoses group, and other psychoses group. Affective psychoses group, and other psychoses group had equivalent verbal knowledge. After a duration of 20 years, performance improved across all groups, except for schizophrenia spectrum group.

Conclusion: While research shows a link between mental health disorders and the development of dementia, few studies have explored the impact of psychosis in development of dementia. This literary review has analyzed compounding research that has established a correlation between mental health disorders and dementia. However, identifying the role that psychosis has is not well understood. Research suggest that Alzheimer disease was more commons in individual with bipolar disorder and major depressive disorder. Some research suggest that patients on the schizophrenia spectrum are a greater risk of developing vascular dementia. Although the pathophysiology varies between disorders, they all share a greater propensity to experience psychosis. The long-term cognitive effects of untreated or recurrent psychosis points to declines in cognitive reserve. These effects are seen within two years of a diagnoses. In addition, after 20 years, cognitive performance improvement in groups with psychosis, except for schizophrenia spectrum group. Psychosis is a defining feature of the schizophrenia spectrum disorders and is likely to be more recurrent and chronic in this disorder. This literary review aims to identify psychosis as a modifiable risk factor for dementia. Further research should aim to establish a correlation of psychosis with a decreased the cognitive reserve and increased risk of dementia.

Keywords: hypertensive; disorders; pregnancy

Introduction

Hypertensive disorders of pregnancy (HDP), including preeclampsia and eclampsia, are serious conditions affecting pregnant women. They are a leading cause of preventable maternal morbidity in the United States [1]. Regardless of advancements in prenatal care, inequalities in access to healthcare and early recognition of complications continue to contribute to poor outcomes in women with HDP. HDP are frequently associated with severe complications, such as acute renal failure, disseminated intravascular coagulation syndrome (DIC), pulmonary edema, myocardial infarction (MI), and cerebrovascular disorders [2]. These complications underscore the serious health risks that HDP pose to pregnant patients, with many of these complications requiring hospitalization. The prevalence of HDP increased from 13.3% to 15.9% in 2019 in the United States [1], highlighting a concerning upward trend. Despite advances in surveillance and clinical guidelines, national data indicates that the prevalence of HDP has continued to rise in the past several decades [3]. The persistent burden of these conditions on pregnant women demonstrates the importance of understanding risk factors and management strategies to improve maternal health outcomes. While HDP poses a threat to all pregnant patients, there are notable racial disparities in incidence, severity, and outcome. Black women have higher HDP-related maternal morbidity and death than White women, even after controlling for comorbidities, insurance status, and socioeconomic determinants [4]. Similarly, Indigenous and Latina women experience elevated rates of HDP-related complications [5], suggesting that these inequities are driven primarily by systemic inequality and implicit bias within healthcare systems, rather than by inherent biological differences. While racial disparities in maternal mortality in HDP are well-documented, less is known about the clinical process, particularly provider bias and escalation patterns, which may also be contributing to these inequities. Existing research has often focused on patient-level risk factors, overlooking how inconsistent provider responses to clinical scenarios may delay life-saving interventions. Implicit bias can skew interpretation of symptoms, the speed at which treatments are administered, and whether patients receive referrals to higher levels of care in a timely manner. More research is needed to examine how these provider and institution factors play a role in preventable mortality and to identify interventions that ensure equitable evidence-based HDP management for all patients. This paper aims to examine current evidence on how delayed clinical escalation and provider bias contribute to racial disparities in HDP outcomes, underscoring systemic patterns in maternal care. It also proposes strategies aimed at promoting timely and equitable treatment for HDP among all patient populations.

Epidemiology and Disparities in HDP

Hypertensive disorders of pregnancy (HDP), including gestational hypertension, preeclampsia, and eclampsia, are among the major causes of maternal morbidity and mortality. HDP prevalence varies across demographic groups, with Black and Indigenous populations experiencing significantly higher rates. While not a rare pregnancy complication, the effects can linger for a long time after pregnancy, increasing the risk of cardiovascular disease [6]. Pre-existing racial and ethnic biases not only contribute to delayed treatment of HDP, but can also lead to significant disparities in cardiovascular disease prevalence among racial demographics.

In general, the trends are consistent across many studies. Black women experience higher risks of hypertension, while Latinas tend to have normotensive pregnancies compared to non-Hispanic White women [7]. In a cohort study of HDP patients, Black women had a higher severe maternal mortality rate (11.8%) than White (4.5%) and Hispanic (4.8%) women [8]. Studies show that even among minorities, Black women with HDP consistently experience higher death rates. This validates the question of whether there truly is prejudice or bias present when treating HDP patients. Compared to White women, Latina women show a possible elevated maternal mortality rate but not a statistically significant difference; a 1.08 ratio for maternal deaths and 1.29 for late maternal deaths [8]. This slightly elevated maternal mortality rate for Latina women still suggests the presence of social and structural barriers to equitable healthcare. Latina women may encounter language barriers, lack of insurance (if undocumented), and problems with documentation status, potentially leading to avoidance treatment out of fear of deportation, contributing to the elevated maternal mortality. In the research data, Indigenous women were greatly underrepresented in studies and analyses. Race and ethnicity reporting on Indigenous and Asian death certificates is less accurate than the racial reporting of White, Black, and Hispanic women [8]. This finding establishes a need for more studies focused on HDP in Indigenous women in order to establish a better standard of care for these women. The elevated risks of severe HDP seen in minority, especially Black, women greatly contribute to the development of long-term cardiovascular disease within this population, creating a demographic disparity. In order to reduce the higher risk of cardiovascular disease development in Black women – by way of HDP risk reduction, close monitoring early on in pregnancy for black women is especially important. A new standard of care needs to be established for pregnant Black, Latina, and Indigenous women in order to effectively reduce HDP-caused maternal mortality in these populations. These disparities also exist as a direct consequence of decades of systemic racism in the United States, affecting access to care and the quality of it. While many discriminatory practices, such as red lining, are illegal today, the effects of the practices still carry forward. Historically redlined areas, typically occupied by Black individuals and other minorities, experience higher chances of serious adverse health outcomes [9]. This shows the continuation of systemic issues that are negatively impacting the livelihoods of so many minority women, especially Black women. Maternal healthcare needs to be standardized through education of early HDP warning signs, as well as consistent treatment procedures for all women.

Black and Latina women are more likely to be uninsured or publicly insured, limiting options for maternal care during any point of pregnancy [7]. Subsequent barriers, including transportation challenges and lack of childcare, arise when the range of available healthcare providers is restricted. This can further contribute to racial disparities in the incidence and mortality of HDP. Ghosh et al. (2014) additionally reported that Black women are more likely to develop chronic hypertension and severe preeclampsia during pregnancy; Hispanic and White women are more likely to remain normotensive. While both Hispanic and Asian women seem to have a comparable risk of HDP to White women, it is still important to monitor these populations for any changes. These findings exemplify the very obvious disparities between Black, Hispanic, and White women, displaying the differences in access to quality care. MacDorman et al. 's (2021) cause-of-death listings showed that most HDP-related deaths in Black women were due to preventable conditions, not unexplained complications. Again, these findings corroborate with the idea that prejudice and biases may play a significant role in the racial disparity of HDP-incidence and HDP-related mortality rates among women.

Delays in clinical escalation can be seen as a major cause of HDP in minority women. Specifically, underutilization of antihypertensive agents, irregular escalation protocols, and difficulty incorporating maternal early warning systems (MEWS) all contribute to the growing number of medical issues associated with HDP in minority, pregnant women. The research shows that antihypertensive medications are underprescribed, meaning that minority women have an even smaller chance of obtaining the medication needed to prevent some types of HDP. In a cross-sectional study of office visits conducted from 2006 to 2010, it was found that thiazide diuretics (hypertension medication) were only prescribed 58.9% of the time [10]. Aldosterone antagonists were even less commonly prescribed despite medical guidelines recommending their use. The underutilization of vital drugs for treating HDP led to increased risks of pregnancy complications. Additionally, many hospital systems follow rigid escalation protocols that can delay timely responses due to the multiple layers of required chain-of-command approvals [11]. Because of this, it is essential to establish a set of protocols consistent across the country to make care as standardized as possible. With consistent standards of escalation protocols, less judgement is left to the individual healthcare provider. Lastly, MEWS allow for early detection of maternal distress. However, inconsistent use and training for these systems hinder their potential to be a helpful tool. In a qualitative study, it was found that MEWS are seen as beneficial tools, but the additional workload and deskilling prevent providers from adopting this prevention [12]. The possible presence of prejudice against minority groups may further delay response times for maternal distress, increasing the risk of death or injury due to HDP.

Contributors to Disparities

There are a variety of contributors that lead to racial disparities in outcomes of hypertensive disorders of pregnancy (HDP), particularly affecting women of color, such as Black, Indigenous, and Latina women. These racial disparities are often influenced by a variety of factors, including delayed clinical escalation, provider bias, and institutional gaps in the treatment of patients affected by HDP. Unfortunately, these factors can lead to an increase in maternal morbidity and mortality for minority women.

Delayed Escalation

Delayed clinical escalation is a significant contributor to disparities in outcomes of HDP, particularly for women from minority groups. When healthcare providers fail to notice worsening symptoms of hypertensive complications or take appropriate interventions promptly, the risk of maternal morbidity and mortality increases, and the likelihood of intervention decreases significantly. If a pregnant woman from a marginalized group presents with symptoms of preeclampsia, such as elevated blood pressure and severe headaches, and her concerns are not treated to the appropriate level of care, she may progress to eclampsia or organ failure, which could have been avoided with timely intervention. Unfortunately, Black women are more likely than White women to face delays in care, which can lead to preeclampsia that goes undiagnosed and prolonged exposure to high blood pressure. Clinical judgment can be influenced by implicit biases of healthcare providers, which can result in pregnant women of color having their symptoms minimized [13]. This delay in clinical escalation concerning treatment, such as administering cardiac medications or antihypertensives to treat HDP symptoms, can increase the likelihood of stroke, eclampsia, or even organ failure. Black women also frequently present with more severe symptoms of postpartum cardiomyopathy [8]. Overall, the delays in treatment due to delayed clinical escalation negatively foster long-term health inequities for minority pregnant women, and puts maternal minority women at greater risk of serious health complications and death, which exacerbates inequities in HDP outcomes. As a result, appropriate and timely recognition of such symptoms is crucial.

Implicit Bias

Implicit and systemic provider biases significantly impact clinical decision-making and outcomes concerning the management of HDP, particularly for women of color. Implicit provider biases are unconscious stereotypes that can influence healthcare providers' decisions and behaviors without them necessarily being aware, and frequently stem from misconceptions by healthcare clinicians about different perceptions of pain, risk, and credibility. Therefore, these biases influence how healthcare clinicians assess symptoms and select treatments for various patients. One example of a common implicit bias is the belief that Black patients have a higher pain threshold compared to White patients [14]. Consequently, if a clinician unknowingly harbors this implicit bias, they can underestimate the severity of symptoms reported by a Black woman with HDP. Additionally, implicit biases may result in delays in pain management, further negatively impacting maternal health. Even when the symptoms of HDP are almost identical in presentation compared to those of White patients, these implicit biases can lead to providers significantly delaying or providing less aggressive treatment to minority women [15]. This lack of treatment can result in worsening health outcomes for minority women.

Provider perceptions of risk can be impacted by provider biases, which can result in inaccurate clinical judgments. Due to racial and socioeconomic stereotypes, healthcare providers may undermine the likelihood of HDP complications among women of color [14]. This has a detrimental effect on how effectively patients' medical needs are addressed. For example, certain providers may not believe Black women's reports of their symptoms related to HDP [14]. This lack of belief can cause providers to dismiss patient concerns, which further delays the process of identification and treatment of HDP complications. Additionally, this can have long-term effects on minority women since it can deter them from seeking care in the future, which over time may increase health concerns. Due to these various forms of bias, whether they be systemic or implicit biases by providers, women of color are more likely to experience morbidity and mortality from HDP in the healthcare system.

Systemic Bias

Systemic provider biases are often found within healthcare policies and structures of healthcare organizations. For instance, these policies include insufficient language support or restrictive insurance policies that may cause minority women to have delays in obtaining specialist referrals or diagnostic testing [15]. Therefore, these patients face a higher risk of severe HDP complications and maternal death due to delays in diagnostic evaluations and limited access to necessary treatments. These systemic biases in healthcare organizations and policies can lead to women of color receiving inadequate treatment, which further exacerbates already existing maternal health disparities.

Institutional Gaps

There are several institutional gaps within the healthcare system that contribute to inequities in the management of HDP, including the inconsistent use of standardized evidence-based guidelines across different healthcare institutions. There are significant differences in the ways different healthcare clinicians follow guidelines for best practices in managing HDP among various healthcare facilities [5]. Some hospitals, for instance, may follow established protocols and start implementing interventions for HDP symptoms promptly, while others may delay implementing such steps. As a result, such inconsistencies can cause delays in diagnosis and inadequate treatment. Unfortunately, women of color have been particularly affected by this, which can contribute to poorer health outcomes. Another institutional gap is the inadequacy of training among healthcare professionals on HDP management. Some healthcare professionals are not confident in their ability to manage and identify the range of HDP problems during pregnancy, nor are some aware of the most recent guidelines [5]. Due to this knowledge gap, symptoms of HDP may not be recognized in time, leading to missed opportunities for timely intervention. Inadequate training can therefore negatively impact minority women, who are already more susceptible to poor maternal outcomes and misjudgments in clinical care. These institutional gaps contribute to racial differences in HDP health outcomes, making it more challenging to manage HDP symptoms.

Structural and Systemic Barriers

Many structural barriers have led to the unequal treatment of expecting mothers with hypertensive disorders of pregnancy (HDP). Although clinical guidelines exist to manage maternal health disorders, such as HDP, these protocols are not always applied equitably across patient populations. Pierce (2024) explains that racial disparity is a significant factor, and that low-income minorities are forced to live in areas lacking hospitals, birthing centers, and obstetric providers. This phenomenon is known as maternal care deserts. The deserts, often found in low-income communities, face unequal resource allocation, and the resources that they do have are frequently shut down. Approximately 400 maternity services in the United States closed between 2006 and 2020, which has dramatically impacted the communities they served, many of them being minority communities that rely heavily on Medicaid [16]. The closures, driven by systemic healthcare policies and inadequate funding, create upstream barriers that limit access to early prenatal care and consistent monitoring, foundational contributors to HDP racial disparities.

Beyond the geographic and resource-based challenges of maternal care deserts, insurance coverage gaps further compound these structural barriers. Medicaid, which plays a critical role in providing maternal healthcare in low-income communities, has seen limited expansion, particularly in Texas and Georgia, and has failed to deliver on its promise of providing complete and affordable aid. This leaves many low-income women in a situation where they do not qualify for traditional Medicaid and cannot afford the alternative option of private insurance [16]. The lack of Medicaid expansion shows significant correlations to racial disparities and political resistance, which have been shown to deny care to minority communities continuously. Without insurance, regular prenatal visits become a luxury that these women cannot afford, leading to many HDP cases going undiagnosed or untreated. These structural disparities have deep rooted history, from forced sterilization of Black and Hispanic women to unethical medical experiments on enslaved individuals. It is also noted that women without insurance or a higher level of education show an increased risk for HDP due to their lack of stable income, accessible care, and trust in the health system. Limited coverage can damage patient-physician relationships and erode trust, deterring women from seeking or following care [17]. This emphasizes the necessity for targeted interventions to improve cultural competency and rebuild trust between healthcare providers and marginalized communities.

Socioeconomic status also plays a significant role in shaping the economic insecurity that minorities may experience, especially when complications like HDP arise. Financial instability can hinder access to early and continuous prenatal care, which is crucial for monitoring blood pressure and detecting HDP early [17]. This inability to provide timely interventions can increase the risk of severe complications. Families with limited financial resources often struggle to take time off work for prenatal visits, as they are already burdened with the need to provide food, cover medication costs, and maintain safe and adequate housing for both mother and child. Lastly, social determinants such as a pregnant woman's level of education are essential for effectively navigating the complexities of pregnancy and the possible complications that may accompany it. Lower levels of formal education often correlate with reduced literacy, which can affect the ability to recognize early signs of hypertension [17]. If an expecting mother has a limited understanding of her condition, she may not be able to advocate for herself or provide informed consent during the decision-making process of her care. This barrier, like the others, can also lead to delays in seeking help or non-adherence to a provided treatment plan due to her lack of understanding. This lack of understanding by the patient can also lead to misinformation, underscoring the importance of enhancing communication practices and providing accessible educational resources to empower patients to be active participants in their care. Addressing these structural and systemic barriers is critical for the advancement of equality-driven care and decreasing HDP disparities.

Proposed Solutions

In light of the disparities and systemic failures discussed previously, the following interventions are important in addressing these gaps. Integration of implicit bias recognition and management should begin at the most foundational level, medical education, and span throughout a physician's practicing years. The American Heart Association recommends training that includes cultural humility, structural competence, and cross-disciplinary diversity training integrated into medical school education, continued throughout advanced training and practice, and across all medical disciplines [18]. Establishing training early on for all healthcare providers aims to address the gaps that have been continuously identified through research and practice. Continuing education has shown to uncover implicit biases and improve attitudes and communication, but does require ongoing and multifaceted interventions [19, 20]. This finding highlights the necessity for comprehensive, system-wide training to drive lasting and sustainable changes. A key factor for change requires creating environments that challenge implicit biases and address underlying structures, norms, and hidden curricula that perpetuate bias and inequities in healthcare [21]. Acknowledging the biases ingrained in medical education through institutional traditions is essential for initiating meaningful change and addressing the racial disparities in maternal care.

Hypertensive disorders of pregnancy are a leading cause of maternal morbidity and mortality in the United States. A universal, evidence-based escalation protocol is critical for improving maternal outcomes, fostering team cohesion, and ensuring all team members can identify patients requiring escalation in an adequate time frame. The influence of race and ethnicity on the likelihood of a patient receiving recommended treatments has been recognized by the US Preventive Services Task Force (USPSTF). To combat this, the use of clinical bundles is considered best practice for the management of HDP to ensure all pregnant persons receive appropriate equitable care [22]. By adopting universal, evidence-based protocols, the reliance on individual clinical judgment is minimized, and patients receive timely care, regardless of their race, ethnicity, or socioeconomic background. Additionally, the American Heart Association emphasizes the importance of a universal protocol by highlighting the differences among societies regarding the treatment of hypertension in pregnancy. The differences in blood pressure thresholds for initiating antihypertensives between the USPSTF, American College of Obstetrics and Gynecology (ACOG), World Health Organization (WHO), and several other organizations only hinder progress towards reaching a consensus for finding a universal protocol for the management of HDP [23]. Varying information for the treatment of HDP contributes to confusion among healthcare providers, which could lead to delays in management and treatment. Furthermore, the lack of universal protocols for managing HDP can increase difficulties in multidisciplinary care. In multidisciplinary teams, the use of universal standards allows all team members the ability to identify patients requiring escalation of treatment and ensure timely communication, leading to reduced maternal mortality from hypertensive disorders [23]. Universal protocols can improve team effectiveness by guaranteeing consistent identification of patients' need for treatment, escalation. Not only does this improve team cohesion and immediate patient outcomes, but it also has long-term positive impact on maternal patient health.

Implementation of race-conscious quality metrics is necessary for monitoring and addressing disparities in the delivery of care. Process metrics, such as tracking the rate of timely treatment for severe hypertension, can help reduce disparities in the delivery of care for every patient regardless of race, socioeconomic status, or other confounding factors. Integration of this metric would establish a uniform definition, specifying that timely management of severe hypertension is defined as initiating treatment within 30 to 60 minutes [24]. Monitoring delays in prompt treatment within a hospital system can help identify factors impacting efficiency, driving system-wide change. Furthermore, organizations can conduct their own investigations to identify areas for improvement and set internal standards and monitoring systems to sustain a high level of care by all practitioners. By identifying an organization's goals, patient needs, and shortcomings, targeted and organization-specific changes can be implemented to improve patient outcomes.

Implementing effective accountability structures, such as quality metrics, internal audits, and disciplinary action, is key to ensuring that protocols are followed and disparities in maternal health are addressed. Differences have been identified between high-performing versus low-performing hospitals in maternal mortality rates. High-performing facilities-maintained success rates through the involvement of leadership in daily quality activities, emphasizing standardization, and through the maintenance of formalized auditing processes, including quarterly physician report cards to motivate clinicians to improve care [25]. This further highlights the crucial role of leadership involvement in driving systemic change and maintaining accountability by each practitioner. In addition, regularly performing multidisciplinary reviews of serious complications can be used to identify system issues, driving large systematic change [26]. System-level factors leading to medical errors should be identified and used to guide improvements in care outcomes. When implemented together, these interventions offer a thorough framework for achieving maternal health equity and reducing preventable HDP-related complications and deaths.

Conclusion

Although HDP is preventable, it still predominantly impacts Black, Latina, and Indigenous women in the United States, resulting in elevated rates of maternal complications and death in minority populations. These disparities are not the result of biological differences but primarily stem from structural barriers in maternal healthcare, such as delayed clinical escalation, provider bias, and inconsistent use of standardized evidence-based guidelines. These systemic failures in maternal healthcare emphasize the critical need for comprehensive and inclusive reforms to avoid adverse outcomes for minority pregnant women. As discussed in the previous sections, these interventions form a comprehensive framework to address the multifaceted contributors to these disparities. To combat the rising incidence of HDP in minority women, healthcare systems must implement bias mitigation training, develop and adopt universal escalation protocols, integrate race-conscious quality metrics, and consistently apply evidence-based guidelines across healthcare settings. These interventions are essential to guarantee that every pregnant woman, regardless of race or socioeconomic status, receives prompt and effective care.

Through integration of excellent care by providers and systemic reforms, the United States healthcare system can address fundamental causes of these racial disparities, decrease preventable complications and deaths, and improve maternal health outcomes for minority women. A system-wide reform movement such as this will require steadfast dedication, ongoing commitment, multidisciplinary collaboration, and accountability at every level of delivery of care. Only through such comprehensive efforts can meaningfully change and improvement in maternal health be achieved.

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