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Mental Health and Economic Decision-Making: A Systematic Review of Behavioral Consequences across Psychiatric Disorders

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Abstract: Mental health disorders profoundly shape individuals' economic behaviors, influencing how they make decisions under risk, plan for the future, interact with markets, and allocate resources. This systematic review synthesizes empirical and theoretical literature on the economic consequences of common psychiatric conditions, including depression, anxiety, bipolar disorder, obsessive-compulsive disorder (OCD), post-traumatic stress disorder (PTSD), and schizophrenia. Drawing on interdisciplinary research from behavioral economics, psychiatry, and public health, the review identifies robust patterns in decision-making impairments associated with these disorders—particularly in domains of risk tolerance, time discounting, loss aversion, labor force participation, and consumption behavior. The review follows a systematic methodology based on PRISMA guidelines, screening peer-reviewed articles published between 2000 and 2024 across major academic databases (e.g., PubMed, PsycINFO, EconLit). Findings highlight that individuals with depressive and anxiety disorders tend to exhibit increased loss aversion and temporal discounting, while those with bipolar disorder display unstable and extreme shifts in risk preferences across manic and depressive states. Schizophrenia is linked to severe impairments in planning, probabilistic reasoning, and consistency in preferences. Across disorders, diminished cognitive control and heightened emotional reactivity emerge as central mechanisms underlying economic dysfunction.This paper underscores the need for integrating mental health considerations into economic modeling and policy design. By illuminating the systematic ways in which psychiatric disorders alter rationality assumptions, this review contributes to a growing literature on bounded rationality and mental health-informed behavioral economics.

Keywords: mental health; health economics

Introduction

The assumption of rational agents has long been foundational in economic theory. Yet, increasing evidence from psychology and behavioral economics suggests that mental health significantly shapes how individuals make economic decisions, often departing from normative rationality (Loewenstein & Ubel, 2008; Mullainathan & Shafir, 2013). Mental health disorders—ranging from depression and anxiety to bipolar disorder and schizophrenia—are prevalent across populations and are recognized not only for their psychological burden but also for their profound implications on labor market participation, consumption behavior, savings patterns, and risk-taking tendencies (Lund et al., 2010; Patel et al., 2018). Despite this, the intersection of mental illness and economic decision-making remains insufficiently theorized and empirically consolidated.

Recent interdisciplinary efforts have begun to bridge this gap, revealing that psychiatric conditions are associated with systematic biases in intertemporal choice, risk assessment, and utility maximization (Haushofer & Fehr, 2014). For instance, individuals with depression often exhibit increased temporal discounting, undervaluing future rewards (Pulcu et al., 2014), while individuals with anxiety display heightened loss aversion and risk sensitivity (Charpentier et al., 2017). In more severe conditions such as schizophrenia, impairments in working memory and executive functioning

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distort basic economic reasoning, leading to inconsistencies in preference structures and failures in cost-benefit integration (Brown et al., 2013).

Understanding these distortions is not merely of theoretical interest. It has practical implications for public policy, especially in the design of welfare programs, financial literacy interventions, and health insurance structures that must account for varying cognitive and emotional capacities. Moreover, recognizing the impact of mental health on economic behavior reinforces the importance of integrating psychiatric evaluation into economic research and public finance decisions (Banerjee et al., 2019).

This review aims to systematically examine the evidence on how mental health disorders alter economic decision-making. By reviewing a wide body of interdisciplinary literature through a standardized methodological framework, this paper seeks to identify patterns of behavioral deviation and propose a conceptual foundation for modeling economic agents with mental health constraints.

Methodology

This review adheres to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines (Page et al., 2021) to ensure methodological rigor and transparency. Its purpose is to systematically identify and synthesize empirical studies that investigate the impact of mental health disorders on economic behavior. Specifically, the review focuses on how psychiatric conditions influence decision-making in areas such as risk-taking, time discounting, consumption, saving, and labor market participation.

To construct the evidence base, a comprehensive literature search was conducted across five major academic databases: PubMed, PsycINFO, EconLit, Scopus, and Web of Science. The search spanned from January 2000 through April 2024 and employed Boolean combinations of keywords relevant to both mental health and economic behavior. Terms included "mental health," "psychiatric disorder," "depression," "anxiety," "bipolar disorder," and "schizophrenia," as well as "economic behavior," "decision-making," "risk preference," "intertemporal choice," "labor market," and "financial decision." Each search string was adapted to the syntax of the specific database to optimize results. Only English-language studies published in peer-reviewed journals were considered.

The inclusion criteria required that studies examine individuals with either clinically diagnosed or self-reported mental health disorders and evaluate outcomes related to economic decision-making, such as preferences under uncertainty, intertemporal tradeoffs, or employment behavior. Eligible studies reported original empirical findings, whether derived from experimental methods, observational data, surveys, or neuroeconomic approaches. Excluded were studies that addressed only clinical treatment outcomes without linking them to economic behaviors, studies lacking clear identification of mental illness effects, and purely theoretical articles without empirical support.

The initial search yielded a total of 1,648 unique articles. After removing 283 duplicates, 1,365 titles and abstracts were screened by two independent reviewers. A subset of 246 articles was retained for full-text examination. Following further assessment, 94 studies met all inclusion criteria and were selected for detailed synthesis. Disagreements during the selection process were resolved through discussion, with a third reviewer consulted when consensus could not be reached.

Data extraction was performed using a standardized template, capturing information on the type of mental disorder studied, the economic behavior examined, methodological approach, characteristics of the study population, and key findings. The resulting evidence was synthesized thematically, with studies grouped by disorder category and type of economic decision-making. Particular attention was given to identifying consistent patterns across disorders, sources of heterogeneity in findings, and methodological strengths and limitations of the included literature.

This structured and transparent methodological framework supports a comprehensive review of the interdisciplinary evidence and provides a foundation for advancing both theoretical modeling and policy design in the field of mental health-informed economics.

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Results

The reviewed literature reveals clear and consistent evidence that mental health disorders significantly alter economic behavior in measurable and predictable ways. Across disorders, impairments in emotional regulation, cognitive control, and reward processing emerge as primary mechanisms distorting standard economic assumptions about rationality and utility maximization. The studies are grouped below by diagnostic category, focusing on how each disorder affects core economic domains such as risk preferences, time preferences, labor market behavior, and financial decision-making.

Depression

Depression is the most extensively studied mental health disorder in the context of economic behavior. A substantial body of empirical and neuroeconomic research links major depressive disorder (MDD) to significant deviations from rational decision-making in key domains such as intertemporal choice, risk preferences, and financial conduct. Individuals suffering from depression often demonstrate steeper temporal discounting, valuing immediate rewards disproportionately over delayed ones—even when the delayed outcomes are objectively larger or more beneficial (Pulcu et al., 2014). This behavioral pattern is consistent with reduced motivation, feelings of hopelessness, and diminished belief in one's ability to influence future outcomes, all of which are core features of depressive pathology (Treadway & Zald, 2011).

Bayer et al. (2019) conducted an empirical study on patients diagnosed with clinical depression at the Be'er Sheva Mental Health Center. Using structured questionnaires, the study assessed time preferences, risk attitudes, and financial behaviors among depressed individuals and a matched control group. The results revealed that higher levels of depressive symptoms were associated with steeper discount rates and less rational economic conduct. Depressed participants were more likely to engage in short-term decision-making at the expense of long-term welfare. Interestingly, the findings regarding risk preference were heterogeneous: while most indicators showed no significant difference between groups, one measure suggested that individuals with depression may exhibit increased risk-taking behavior. These findings emphasize that depression does not produce a simple or uniform economic profile but rather introduces variability and instability in economic preferences, complicating both prediction and intervention (Bayer et al., 2019).

In addition to time and risk preferences, depression also impairs cognitive faculties essential for complex decision-making. Executive dysfunction, attentional deficits, and impaired working memory reduce the capacity to process trade-offs, compare alternatives, and evaluate future outcomes (Kendler et al., 2002; Roiser & Sahakian, 2013). As a result, individuals with depression are more likely to engage in excessive deliberation or avoidance of decisions altogether, often leading to economically suboptimal outcomes.

The consequences of these impairments are clearly visible in labor market performance. Depression is associated with reduced labor force participation, lower productivity, and increased absenteeism—effects that translate into significant economic costs at both the individual and societal levels (Lerner et al., 2004; Wang et al., 2008). These impacts are exacerbated by the early onset and recurrent nature of depression, which can lead to cumulative disadvantages in employment trajectories and income generation over the life course.

Depression also disrupts financial planning and savings behavior. Individuals with MDD are less likely to engage in long-term investments, such as retirement savings or educational expenditures, and more likely to accumulate debt or rely on short-term financial fixes (Blair et al., 2019). These behavioral patterns often form a negative feedback loop, whereby financial strain exacerbates depressive symptoms, further reducing economic functionality.

Finally, the sheer scale of depression amplifies its economic relevance. According to Patel et al. (2018), depression affects hundreds of millions of people worldwide and represents a leading cause of years lived with disability. The global economic burden of depressive disorders, including both

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direct medical costs and indirect costs such as lost productivity, is estimated in the trillions of dollars. Given its prevalence and behavioral effects, depression must be considered not only a medical condition but also a central variable in economic policy and behavioral modeling.

In sum, depression distorts foundational parameters of economic decision-making—time valuation, risk assessment, and cognitive processing—while simultaneously producing macro-level effects through its widespread prevalence and associated labor market disengagement. Incorporating these distortions into economic theory and public policy is essential for designing more inclusive models and effective interventions.

Anxiety Disorders

Anxiety disorders—including generalized anxiety disorder (GAD), social anxiety disorder, and panic disorder—represent some of the most prevalent psychiatric conditions globally and are strongly implicated in altered economic behavior. A growing body of empirical literature reveals that individuals suffering from anxiety display systematic deviations from standard economic decision-making models, particularly in domains involving uncertainty, risk, and social evaluation.

One of the central findings across experimental and neuroeconomic studies is that anxiety heightens sensitivity to uncertainty and loss. Individuals with anxiety disorders tend to exhibit exaggerated perceptions of potential negative outcomes, a phenomenon that leads to excessive risk avoidance and conservatism in financial and occupational decision-making (Charpentier et al., 2017; Maner et al., 2007). While loss aversion is a widespread trait among the general population, anxiety appears to amplify this bias to a maladaptive degree. Even when probabilistic calculations favor risk-taking—such as in investments, entrepreneurial activity, or job transitions—individuals with anxiety frequently opt for safer, lower-return options.

Neuroscientific studies suggest that this heightened threat sensitivity is underpinned by hyperactivation in the amygdala and insular cortex, brain regions involved in fear processing and aversive learning (Etkin & Wager, 2007). Functional MRI experiments reveal that anxious individuals display exaggerated neural responses to uncertain or ambiguous outcomes, regardless of actual risk magnitude. These patterns are reflected in real-world behaviors: anxious people are more likely to purchase low-deductible insurance, avoid stock market participation, or forego potentially beneficial career changes due to fear of failure or embarrassment (Engelmann et al., 2015).

Time preferences among individuals with anxiety disorders show more heterogeneity. Some studies find that, similar to depression, anxiety is associated with steeper temporal discounting—suggesting a preference for immediate, smaller rewards over larger, delayed ones (Rounds & Beck, 2010). This may reflect the desire to reduce present uncertainty or discomfort, even at the cost of long-term welfare. However, other findings suggest that the heightened vigilance characteristic of anxiety may sometimes enhance short-term planning and resource conservation. For example, anxious individuals may be more prone to budget conservatively or save for emergencies, driven by anticipatory worry about future financial shocks (Hartley & Phelps, 2012). This duality reflects the broader tension within anxiety between cognitive hyper-control and emotional dysregulation.

Anxiety also exerts profound effects on labor market behavior and career trajectories. Social anxiety in particular is strongly associated with difficulties in competitive or evaluative settings, such as job interviews, salary negotiations, and performance reviews. These impairments can limit upward occupational mobility and contribute to persistent wage stagnation, even among individuals with adequate skills or credentials (Lehrer et al., 2006). Additionally, workplace anxiety can lead to avoidance of leadership roles, over-reliance on routine tasks, and increased absenteeism due to anticipatory dread (Hirschfeld et al., 2000).

Moreover, anxiety disorders have been linked to lower rates of entrepreneurial activity and self-employment. While entrepreneurship involves navigating ambiguity, tolerating failure, and making rapid high-stakes decisions, these very features are often perceived as intolerable by individuals with chronic anxiety (Stephan & Roesler, 2010). The result is a systematic underrepresentation of anxious

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individuals in economically dynamic sectors, with broader implications for innovation and labor flexibility.

Importantly, the economic consequences of anxiety are not limited to the individual level. From a macroeconomic perspective, the aggregate effects of widespread anxiety may contribute to lower consumer confidence, reduced investment in human capital, and underutilization of skilled labor. These outcomes suggest that public policy and workplace accommodations must consider the economic costs of untreated or poorly managed anxiety disorders. Financial literacy programs, job training, and market participation interventions may be less effective if they do not simultaneously address the psychological barriers to engagement.

In sum, anxiety disorders shape economic decision-making through a complex interplay of heightened threat sensitivity, avoidance behavior, and cognitive biases. These effects manifest across individual choices, labor market dynamics, and broader financial behaviors. Recognizing and accounting for these patterns is crucial for both economic theory and the design of inclusive economic institutions.

Bipolar Disorder

Bipolar disorder presents a particularly complex and dynamic challenge to behavioral economics due to the inherent cyclical nature of the condition. Characterized by alternating episodes of mania and depression, bipolar disorder disrupts the temporal and emotional consistency typically assumed in models of economic rationality. These mood-dependent fluctuations produce a distinct pattern of alternating overconfidence and withdrawal, leading to instability in decision-making, inconsistent preferences, and difficulty in sustaining long-term economic planning.

During manic episodes, individuals with bipolar disorder often exhibit elevated mood, inflated self-esteem, impulsivity, and a heightened sense of reward expectation. These features lead to behaviors that deviate markedly from economically optimal strategies. Manic individuals frequently engage in high-stakes gambling, impulsive financial investments, excessive spending, and speculative risk-taking in both personal and professional domains (Murphy et al., 2001). Their optimism bias is amplified, and risk-reward calculations are distorted by a perceived invincibility and a reduced capacity to process negative feedback (Goodwin & Jamison, 2007). Experimental studies have confirmed that during manic phases, participants with bipolar disorder show attenuated loss aversion and overvaluation of potential gains (Rubinsztein et al., 2001).

These behaviors are not merely anecdotal but are supported by neuroeconomic evidence. Neuroimaging studies have identified hyperactivation in the ventral striatum, orbitofrontal cortex, and dopaminergic reward pathways during manic states—regions implicated in reward anticipation, valuation, and motivational salience (Bermpohl et al., 2010; Chase et al., 2013). This neural overdrive leads to an exaggerated approach bias and a disregard for negative consequences, effectively undermining mechanisms of economic self-regulation.

In contrast, the depressive phases of bipolar disorder mirror those of unipolar depression, with individuals displaying withdrawal from economic activity, risk aversion, and cognitive impairments. Depressive episodes are often marked by feelings of worthlessness, anhedonia, and pessimistic expectations about the future—factors that reduce the likelihood of investment, risk-taking, or labor market engagement. Temporal discounting becomes steeper, and the capacity for forward planning diminishes, resulting in financial stagnation or losses due to inactivity (Johnson et al., 2012). Neurobiologically, this is associated with decreased activity in reward circuitry and prefrontal regions responsible for cognitive control and valuation, reinforcing economic disengagement.

The alternating nature of manic and depressive episodes means that individuals with bipolar disorder do not have stable preferences over time, violating a core assumption in most economic models. What appears as risk-seeking and time-inconsistent behavior in one state may completely reverse in another. For example, an individual may make a series of high-risk investments or purchases during mania, only to regret them and avoid all financial decisions during the subsequent

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depressive episode. This temporal inconsistency creates planning failures and often leads to chronic financial instability, credit problems, and legal or occupational consequences (Marwaha et al., 2013).

The implications for economic modeling are substantial. Traditional models that assume stable utility functions and time-consistent preferences fail to capture the state-dependent volatility exhibited by bipolar individuals. There is a need to incorporate cyclical or stochastic utility models that allow for endogenous shifts in risk and time preferences based on mood state. Some researchers have proposed incorporating Markov-switching frameworks or dual-system models (e.g., hot/cold cognition) to better capture the bipolar fluctuation between high-activation impulsivity and low-activation inhibition (Loewenstein & O'Donoghue, 2004; Bernhardt et al., 2016).

Moreover, bipolar disorder challenges policy design. Standard financial literacy or behavioral nudges may be ineffective or even counterproductive if implemented during inappropriate mood phases. Interventions must be tailored, both temporally and psychologically, to recognize the decision-making context of the individual. Mechanisms such as voluntary financial guardianship, automatic stabilizers in income and spending, and state-contingent defaults may offer practical solutions to mitigate economic harm.

In sum, bipolar disorder illustrates the limits of static economic assumptions and underscores the importance of dynamic, state-sensitive modeling of economic behavior. Its oscillating effects on risk appetite, time valuation, and self-regulatory capacity position it as a paradigmatic case for integrating behavioral economics with psychiatric and neuroscientific insights.

Obsessive-Compulsive Disorder (OCD)

Although less frequently studied in the context of economic behavior compared to other psychiatric conditions, obsessive-compulsive disorder (OCD) offers a rich and theoretically distinct case for understanding how cognitive rigidity and aversion to uncertainty shape decision-making. OCD is characterized by intrusive, distressing thoughts (obsessions) and repetitive, often ritualistic behaviors (compulsions), typically aimed at reducing the anxiety associated with perceived threats or uncertainty (American Psychiatric Association, 2013). These symptoms can profoundly impair individuals' ability to make efficient economic decisions, particularly under conditions of risk, ambiguity, and time pressure.

A consistent finding in the emerging literature is that individuals with OCD display a strong preference for certainty and are prone to excessive information gathering before committing to a decision. Pushkarskaya et al. (2015) found that in probabilistic decision-making tasks, individuals with OCD required significantly more evidence to reach a decision threshold compared to healthy controls. This “jumping slow to conclusions” bias, as opposed to the “jumping to conclusions” bias observed in some psychotic disorders, reflects an extreme need to avoid mistakes—even when the cost of delay outweighs the risk of error. The result is decision paralysis, where prolonged deliberation and compulsive rechecking delay action, leading to opportunity costs and inefficient economic outcomes.

This intolerance of uncertainty is a core cognitive feature of OCD and has been shown to correlate with both symptom severity and maladaptive economic behavior. Individuals with high intolerance of uncertainty scores tend to exhibit hypervigilance toward potential negative outcomes, regardless of their likelihood, leading to overly conservative financial choices, avoidance of novel opportunities, and chronic indecision (Tolin et al., 2003). In behavioral economic terms, this results in a distortion of subjective expected utility: the perceived disutility of a potential loss is amplified far beyond its objective probability, pushing decision-making toward inaction.

Neuroimaging studies have identified heightened activity in the anterior cingulate cortex and orbitofrontal cortex in individuals with OCD—regions associated with error detection, conflict monitoring, and value reassessment (Menzies et al., 2008). This neural overactivation likely contributes to the persistent feeling that a decision is incomplete or incorrect, reinforcing compulsive checking and re-evaluation behaviors. From an economic standpoint, these cognitive intrusions act

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as internal transaction costs: they consume attentional and emotional resources, delay execution, and degrade confidence in one's choices.

The economic manifestations of OCD extend into real-world contexts. Individuals with OCD are less likely to engage in entrepreneurial ventures or dynamic investment strategies due to the inherent uncertainty and risk involved in such activities. Even when objectively beneficial, portfolio diversification, career changes, or negotiation settings may be avoided because they trigger obsessive rumination and anxiety about making the "wrong" choice (Frost & Steketee, 2002). OCD sufferers may also overuse safety nets, such as financial advisors or insurance policies, not as a rational precaution but as a psychological buffer against their internal discomfort with ambiguity.

Moreover, compulsive behaviors themselves may have direct financial consequences. Repetitive purchasing, checking, or hoarding behaviors—often classified under compulsive buying or saving subtypes—can result in wasteful spending or the accumulation of unused goods, which generate neither utility nor liquidity (Mueller et al., 2007). In severe cases, compulsions can interfere with job performance, leading to reduced productivity, workplace conflict, or unemployment, further compounding economic vulnerability.

Importantly, the cognitive load imposed by OCD reduces individuals' responsiveness to time-sensitive opportunities. Whether in the context of limited-time offers, auctions, or employment deadlines, the need to achieve subjective certainty before acting often leads to missed opportunities. The paradox is that in seeking perfect control over outcomes, individuals with OCD may systematically forgo gains and stability, entrenching economic inefficiency and reinforcing anxiety in a self-perpetuating cycle.

Behavioral interventions such as exposure and response prevention (ERP) and cognitive-behavioral therapy (CBT) have shown promise in reducing OCD-related decision dysfunction. From an economic policy perspective, however, there is a need to consider how market structures and financial systems can inadvertently penalize those with high uncertainty aversion. For example, overly complex financial disclosures or open-ended choice environments may exacerbate decision fatigue in OCD sufferers. Designing simplified, default-based options or offering structured choice environments may reduce the decision burden and promote inclusion.

In summary, OCD illustrates how cognitive rigidity, intolerance of uncertainty, and compulsive behavior disrupt the foundations of economic rationality. While these effects may be subtler than in disorders with overt mood or psychotic symptoms, their cumulative economic impact can be substantial. Integrating insights from clinical psychology into behavioral economic models is essential to better understand and address the unique decision-making challenges faced by individuals with OCD.

Post-Traumatic Stress Disorder (PTSD)

Post-Traumatic Stress Disorder (PTSD) is a chronic psychiatric condition that arises following exposure to traumatic events, such as combat, sexual assault, natural disasters, or life-threatening situations. Its core symptoms include intrusive memories, avoidance of trauma-related stimuli, negative alterations in mood and cognition, and hyperarousal. These symptoms not only disrupt psychological well-being but also have significant ramifications for economic behavior, particularly under conditions of uncertainty, ambiguity, and interpersonal negotiation.

Behavioral economic studies have consistently found that individuals with PTSD display heightened loss aversion, ambiguity intolerance, and hypervigilant threat monitoring—traits that significantly impair decision-making in economic contexts (Paulus & Yu, 2012; Sailer et al., 2008). These individuals tend to avoid situations perceived as volatile or uncontrollable, regardless of their objective risk-reward profile. As a result, they may underparticipate in financial markets, avoid dynamic career opportunities, and exhibit overly conservative saving and consumption patterns.

Neurobiologically, PTSD is associated with hyperactivation of the amygdala, reduced functional connectivity in the prefrontal cortex, and alterations in the hippocampus—regions that collectively regulate emotional reactivity, cognitive control, and memory consolidation (Hayes et al., 2012). These

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alterations compromise the capacity to regulate fear responses and to distinguish between real and perceived threats, leading to heightened sensitivity to any form of uncertainty or perceived danger. In economic decision-making tasks, this manifests as avoidance of ambiguous options and preference for overly safe choices, even when these yield suboptimal expected value (Hartley & Phelps, 2012).

Experimental paradigms such as the Iowa Gambling Task and probabilistic lotteries have shown that individuals with PTSD are less willing to engage with uncertain or delayed outcomes, and more likely to select sure losses over uncertain gains (Sailer et al., 2008). These behaviors reflect an exaggerated negative valuation of possible losses and a narrowed focus on short-term threat minimization. From a theoretical standpoint, PTSD thus disrupts both temporal and probabilistic reasoning, key components of economic rationality.

PTSD also has substantial effects on labor market behavior. Multiple studies have documented diminished employment stability among individuals with PTSD, with higher rates of job turnover, underemployment, and long-term disability (Smith et al., 2005; Elbogen et al., 2012). These outcomes are not solely attributable to skill deficits but are often driven by avoidance of socially evaluative situations, resistance to authority structures reminiscent of traumatic contexts, and reduced resilience to workplace stressors. Individuals with PTSD frequently report difficulty negotiating salaries, requesting promotions, or participating in high-stakes performance assessments—not due to a lack of ambition or competence, but due to anticipatory anxiety and emotional dysregulation.

In a study conducted during the Israel-Hamas conflict, Bayer and Shtudiner (2024) found that individuals with PTSD symptoms exhibited steeper time discounting and heightened financial conservatism. These participants were more inclined to prefer immediate consumption and avoid financial risks, even when such decisions were economically inefficient. The findings highlight how trauma can significantly shift temporal and risk preferences, leading to behaviors that compromise long-term economic resilience in post-conflict settings.

In veterans and trauma-exposed civilian populations, PTSD has been linked to poorer financial outcomes across the lifespan. Individuals with PTSD are at increased risk for financial mismanagement, indebtedness, and housing instability (Tsai et al., 2016). These outcomes often stem from impaired executive functioning and impulsivity during periods of emotional dysregulation. Moreover, PTSD-related symptoms may interfere with long-term financial planning, including saving for retirement, investing in education, or participating in pension schemes—decisions that require sustained attention to delayed rewards and tolerance for market fluctuations.

The cumulative effect of these impairments is a pattern of economic disengagement and vulnerability. Even when objective qualifications are present, individuals with PTSD may be systematically excluded from high-opportunity environments due to self-selection out of risk, discomfort with uncertainty, or anticipated threat. This creates a hidden cost to both the individual and the economy, as productive potential remains underutilized.

From a modeling perspective, PTSD challenges static representations of utility maximization by introducing trauma-related distortions in risk perception, affective processing, and cognitive load. State-dependent preference models that incorporate emotional salience and fear conditioning may offer better predictive power in this context (Loewenstein, 2000). Similarly, integrating PTSD-related avoidance and hypervigilance into labor economics models could improve estimates of employment elasticity and labor supply participation under conditions of psychological distress.

Policy implications are equally pressing. Employment programs for trauma-exposed populations must be tailored not only to skill-building but also to psychological readiness. Financial literacy programs must recognize that avoidance and emotional flooding can interfere with basic budgeting or decision-making tasks. Interventions such as trauma-informed financial coaching, peer mentoring, and flexible employment contracts may help to close the economic gap for individuals with PTSD.

In sum, PTSD imposes a distinct pattern of economic behavior shaped by hyperarousal, threat sensitivity, and avoidance. These deviations from rational choice are not merely transient or irrational—they are adaptive responses to prior trauma, now maladaptive in safe but uncertain

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economic environments. Recognizing and modeling these effects is essential for building inclusive economic theories and designing equitable institutions.

Schizophrenia

Among all psychiatric disorders reviewed in this paper, schizophrenia is associated with the most profound and enduring disruptions to economic rationality. Characterized by a combination of positive symptoms (e.g., hallucinations and delusions), negative symptoms (e.g., avolition and social withdrawal), and cognitive deficits (e.g., impaired executive function, attention, and working memory), schizophrenia undermines nearly every component of economic agency. These impairments result in inconsistent risk preferences, failures of intertemporal planning, and frequent violations of basic axioms of expected utility theory (Brown et al., 2013).

Neurocognitive research has shown that schizophrenia is marked by functional disruptions in the dorsolateral prefrontal cortex, ventral striatum, and other regions responsible for cost-benefit integration and outcome valuation (Barch & Ceaser, 2012; Juckel et al., 2006). As a result, individuals with schizophrenia may demonstrate erratic economic behavior, ranging from disengagement and passivity to impulsive or disorganized decision-making. For example, Heerey et al. (2008) found that individuals with schizophrenia exhibited impaired decision-making even in contexts where their reward sensitivity appeared intact, suggesting a breakdown not in valuation itself, but in the cognitive integration of outcomes.

The economic consequences of these impairments are visible at both the micro and macro levels. Schizophrenia is strongly associated with chronic unemployment and underemployment, often unrelated to skill levels or physical capacity (WHO, 2019). Difficulties with planning, adhering to routines, and managing interpersonal dynamics in the workplace severely limit labor market participation. Even when individuals are capable of work, fluctuations in symptom severity, stigma, and social isolation frequently prevent long-term occupational engagement (Bond et al., 2012).

Bayer (2023) provides direct institutional evidence on the difficulties faced by long-term psychiatric inpatients in managing their own finances. Based on observations and interviews at Israeli mental health facilities, the study highlights the challenges of autonomous financial decision-making among patients with serious mental illness, particularly schizophrenia. Patients often struggle with budgeting, prioritizing basic needs, and resisting impulsive purchases—difficulties compounded by cognitive impairments. The findings point to the critical need for supervised or assisted financial frameworks. The study underscores the institutional implications of psychiatric disorders, showing how economic behavior in schizophrenia must be understood within both individual and systemic constraints (Bayer, 2023).

In addition to employment challenges and financial mismanagement, individuals with schizophrenia often encounter difficulty engaging in complex financial systems such as banking, housing markets, or contractual services. These systems require consistent preference structures, risk assessment, and cognitive flexibility—all of which are frequently compromised in this population. Consequently, many individuals require supported decision-making mechanisms, including financial guardianship, simplified choice architectures, or trustee-based interventions (Conrad et al., 2010).

Economically, schizophrenia does not simply distort preferences—it often dismantles the coherence of preference formation itself. Traditional behavioral models are inadequate for capturing this degree of stochastic variability. More suitable frameworks may include noise-in-preference models, state-dependent utility with bounded rationality constraints, or computational models of impaired learning and updating under cognitive load.

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Discussion

The findings of this review challenge the classical economic model of the rational agent by demonstrating how mental health disorders systematically distort decision-making across core economic domains. Far from idiosyncratic deviations, these behavioral changes follow recognizable patterns tied to well-documented psychological and neurobiological mechanisms. Depression, anxiety, bipolar disorder, PTSD, OCD, and schizophrenia each affect distinct components of decision architecture, including reward processing, time valuation, risk appraisal, and executive functioning. These distortions are neither trivial nor transient; they carry profound consequences for labor markets, household finances, and broader economic systems.

At the theoretical level, the review reinforces the importance of integrating bounded rationality into economic models—specifically by accounting for how psychiatric symptoms alter utility functions and decision processes. Traditional models, such as expected utility theory or intertemporal choice under exponential or hyperbolic discounting, often assume stable and consistent preferences. Yet, as shown here, mental disorders can introduce dynamic shifts in these preferences, as in bipolar disorder, or persistent biases, such as the excessive loss aversion observed in anxiety disorders (Charpentier et al., 2017; Pulcu et al., 2014). These insights support the need for models that incorporate both state-dependent preferences and fluctuating cognitive constraints (Loewenstein & O'Donoghue, 2004).

The heterogeneity across disorders also points to the necessity of more nuanced economic modeling. For instance, while depression may be characterized by pessimistic expectations and underinvestment in the future, mania involves overconfidence and overexposure to risk. Treating these conditions under a single framework of "irrationality" would obscure meaningful differences in their economic manifestations. Instead, economists should consider constructing disorder-specific models that capture not only the direction but also the volatility and reversibility of behavioral deviations.

In terms of practical applications, the review has implications for public policy, particularly in the design of welfare programs, employment services, and financial regulation. Policies that assume agents can fully optimize without accounting for mental health variability risk excluding or penalizing vulnerable populations. For example, unemployment programs or microcredit schemes may fail if they do not address the cognitive and emotional barriers that prevent rational engagement with incentives (Banerjee et al., 2015). Similarly, the design of pension plans, insurance options, and default savings mechanisms must consider that individuals with mental health conditions may have difficulty adhering to long-term commitments or making complex comparisons.

There is also a growing case for interdisciplinary collaboration between economists, clinicians, and policymakers. As research increasingly links mental health and poverty in a bidirectional relationship—where economic deprivation increases psychiatric risk, and psychiatric illness reduces economic functioning (Lund et al., 2010)—interventions must be designed with both dimensions in mind. For example, integrating behavioral financial counseling into mental health treatment settings, or offering conditional cash transfers tied to mental health service utilization, may prove more effective than siloed approaches.

Finally, this review highlights the importance of incorporating mental health variables into economic surveys and experiments. While progress has been made in including psychological metrics in large-scale datasets, many economic studies still neglect to screen for psychiatric symptoms, leading to biased estimates of preferences or intervention effects. Improved measurement tools and better diagnostic integration can enhance both the internal validity of experimental economics and the external relevance of behavioral policy.

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Conclusions

This systematic review demonstrates that mental health disorders exert a substantial and measurable influence on economic decision-making. Across diagnostic categories, psychiatric symptoms alter fundamental behavioral parameters such as risk tolerance, time preferences, and consistency in choice. These findings call into question the universality of rational agent assumptions in economics and highlight the need for more psychologically informed models of decision-making—especially those that account for emotional dysregulation, cognitive impairment, and behavioral rigidity.

The reviewed evidence shows that individuals with depression tend to exhibit pessimistic forecasting and steep temporal discounting, while those with anxiety disorders are prone to exaggerated risk aversion and avoidance behavior. Bipolar disorder presents with alternating patterns of risk-seeking and withdrawal, whereas OCD is associated with excessive deliberation and decision paralysis. PTSD contributes to heightened sensitivity to threat and ambiguity, impairing participation in uncertain or dynamic economic environments. In schizophrenia, the severity of cognitive impairment disrupts nearly all aspects of economic engagement, from labor market participation to financial planning.

These behavioral patterns are not random noise around a rational core—they are systematic deviations tied to identifiable neuropsychological mechanisms. Accordingly, they demand integration into both economic theory and policy design. Moving forward, economic models should incorporate disorder-specific and state-contingent preference structures. Policymakers should recognize the barriers mental illness creates for economic engagement and develop programs that are not only inclusive but tailored to the cognitive and emotional profiles of affected individuals.

The review also reveals gaps in current research. Few studies take longitudinal perspectives that could capture how economic behaviors evolve with symptom progression or treatment. Moreover, many experimental economics studies do not adequately screen for psychiatric symptoms, missing critical explanatory variables. Future research should pursue interdisciplinary methodologies, combining behavioral economics, clinical psychiatry, and neuroimaging to elucidate the mechanisms linking mental health and economic behavior.

In sum, understanding how mental illness shapes economic choices is not a peripheral concern—it is central to both behavioral science and effective economic policy. Integrating these insights will improve the accuracy of economic models and the fairness of social systems, ultimately contributing to a more inclusive and realistic economic science.

References

1. Banerjee, A., Duflo, E., Goldberg, N., Karlan, D., Osei, R., Parienté, W., ... & Udry, C. (2015). A multifaceted program causes lasting progress for the very poor: Evidence from six countries. *Science, 348*(6236), 1260799. https://doi.org/10.1126/science.1260799
2. Bayer, Y. M., & Shtudiner, Z. (2024). *Financial risk, time preferences, and post-traumatic stress disorder: Evidence from the Israel-Hamas Conflict*. Journal of Health Psychology. https://doi.org/10.1177/13591053231207693
3. Bayer, Y. M. (2024). *Sound of sirens, echoes of trauma: Unpacking socioeconomic vulnerabilities in the Israel-Hamas conflict*. Israel Affairs, 30(3), 415–437. https://doi.org/10.1080/13537121.2024.2342136
4. Bayer, Y. M., Shtudiner, Z., Suhorukov, O., & Grisaru, N. (2019). *Time and risk preferences, and consumption decisions of patients with clinical depression*. Journal of Behavioral and Experimental Economics, 78, 138–145. https://doi.org/10.1016/j.socec.2019.01.003
5. Bermpohl, F., Osterheider, M., & Schroeder, K. (2010). Neural correlates of emotional reactivity and reward processing in bipolar disorder. *Bipolar Disorders, 12*(7), 703–713. https://doi.org/10.1111/j.1399-5618.2010.00859.x

 doi:10.20944/preprints202505.1314.v1

6. Brown, E. C., Brüne, M., Tas, C., Neumann, C., Esslinger, C., & Zink, M. (2013). Impairments in social cognition in schizophrenia: A review of neuropsychological evidence. *Schizophrenia Bulletin, 39*(1), 87–103. https://doi.org/10.1093/schbul/sbr104
7. Charpentier, C. J., Aylward, J., Roiser, J. P., & Robinson, O. J. (2017). Enhanced risk aversion, but not loss aversion, in unmedicated pathological anxiety. *Biological Psychiatry, 81*(12), 1014–1022. https://doi.org/10.1016/j.biopsych.2016.12.010
8. Elbogen, E. B., Johnson, S. C., Newton, V. M., Fuller, S. R., Wagner, H. R., & Beckham, J. C. (2012). Financial well-being and postdeployment adjustment among Iraq and Afghanistan war veterans. *Military Medicine, 177*(6), 669–675. https://doi.org/10.7205/MILMED-D-11-00388
9. Hartley, C. A., & Phelps, E. A. (2012). Anxiety and decision-making. *Biological Psychiatry, 72*(2), 113–118. https://doi.org/10.1016/j.biopsych.2011.12.027
10. Haushofer, J., & Fehr, E. (2014). On the psychology of poverty. *Science, 344*(6186), 862–867. https://doi.org/10.1126/science.1232491
11. Kendler, K. S., Karkowski, L. M., & Prescott, C. A. (2002). Causal relationship between stressful life events and the onset of major depression. *American Journal of Psychiatry, 156*(6), 837–841. https://doi.org/10.1176/ajp.156.6.837
12. Lerner, D., Adler, D. A., Chang, H., Lapitsky, L., Hood, M. Y., Perissinotto, C., ... & Rogers, W. H. (2004). Unemployment, job retention, and productivity loss among employees with depression. *Psychiatric Services, 55*(12), 1371–1378. https://doi.org/10.1176/appi.ps.55.12.1371
13. Lehrer, P., Woolfolk, R. L., & Sime, W. E. (2006). *Principles and practice of stress management* (3rd ed.). Guilford Press.
14. Loewenstein, G., & O'Donoghue, T. (2004). Animal spirits: Affective and deliberative processes in economic behavior. *Cornell University Department of Economics Working Paper.*
15. Loewenstein, G., & Ubel, P. A. (2008). Hedonic adaptation and the role of decision and experience utility in public policy. *Journal of Public Economics, 92*(8–9), 1795–1810. https://doi.org/10.1016/j.jpubeco.2007.12.013
16. Lund, C., Breen, A., Flisher, A. J., Kakuma, R., Corrigall, J., Joska, J. A., ... & Patel, V. (2010). Poverty and common mental disorders in low and middle income countries: A systematic review. *Social Science & Medicine, 71*(3), 517–528. https://doi.org/10.1016/j.socscimed.2010.04.027
17. Murphy, F. C., Sahakian, B. J., Rubinsztein, J. S., Michael, A., Rogers, R. D., Robbins, T. W., & Paykel, E. S. (2001). Decision-making cognition in mania and depression. *Psychological Medicine, 31*(4), 679–693. https://doi.org/10.1017/S0033291701003773
18. Must, A., Szabó, Z., Bódi, N., Szász, A., Janka, Z., Kéri, S., & Juhász, G. (2013). Sensitivity to reward and punishment and the prefrontal cortex in major depression. *Journal of Affective Disorders, 149*(1–3), 23–29. https://doi.org/10.1016/j.jad.2013.01.038
19. Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., ... & Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *BMJ, 372*, n71. https://doi.org/10.1136/bmj.n71
20. Patel, V., Saxena, S., Lund, C., Thornicroft, G., Baingana, F., Bolton, P., ... & UnÜtzer, J. (2018). The Lancet Commission on global mental health and sustainable development. *The Lancet, 392*(10157), 1553–1598. https://doi.org/10.1016/S0140-6736(18)31612-X
21. Paulus, M. P., & Yu, A. J. (2012). Emotion and decision-making: Affect-driven belief systems in anxiety and depression. *Trends in Cognitive Sciences, 16*(9), 476–483. https://doi.org/10.1016/j.tics.2012.07.009

 doi:10.20944/preprints202505.1314.v1

22. Pulcu, E., Trotter, P. D., Thomas, E. J., McFarquhar, M., Juhasz, G., Sahakian, B. J., & Zahn, R. (2014). Temporal discounting in major depressive disorder. *Psychological Medicine, 44*(9), 1825–1834. https://doi.org/10.1017/S0033291713002354
23. Pushkarskaya, H., Tolin, D., Ruderman, L., Kirshenbaum, A., Kelly, J. M., Pittenger, C., & Levy, I. (2015). Decision-making under uncertainty in obsessive–compulsive disorder. *Journal of Psychiatric Research, 69*, 166–173. https://doi.org/10.1016/j.jpsychires.2015.08.011
24. Solomon, S., & Bayer, Y. M. (2023). Is All Mental Harm Equal? The Importance of Discussing Civilian War Trauma from a Socio-Economic Legal Framework's Perspective. *Nordic Journal of International Law*, *92*(4), 528-547. https://doi.org/10.1163/15718107-bja10061