Poverty, depression, and anxiety: Causal evidence and mechanisms

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BACKGROUND: Depression and anxiety disorders are together responsible for 8% of years lived with disability globally. Contrary to widely held preconceptions, these are not diseases of affluence. Within a given location, those with the lowest incomes are typically 1.5 to 3 times more likely than the rich to experience depression or anxiety.

ADVANCES: Recent research has established a bidirectional causal relationship between poverty and mental illness. Researchers have begun to isolate the underlying mechanisms, which can guide effective policies to protect the mental health of those living in poverty.

We now know that loss of income causes mental illness. Negative income shocks, such as bad harvests due to poor rainfall or job losses due to factory closures, worsen mental health. Conversely, cash transfers and broader antipoverty programs reduce depression and anxiety in randomized trials. Multiple mechanisms mediate this causal chain. Poverty is associated with volatile income and expenditures. The resulting worries and uncertainty can worsen mental health. Providing health, employment, or weather insurance, or other ways of smoothing shocks, may thus lower depression and anxiety. Living in inadequate housing in low-income neighborhoods, the poor are also more exposed to environmental stresses such as pollution, temperature extremes, and challenging sleep environments, which can cause mental illness. Early-life conditions—poverty experienced in childhood and in utero—increase the likelihood of poor nutrition and other stressors, resulting in impaired cognitive development and adult mental illness. This makes a strong case for providing financial support to pregnant women and caregivers of young children. Poverty is also associated with worse physical health; greater exposure to trauma, violence, and crime; and lower social status, each of which may affect mental health.

Mental illness in turn worsens economic outcomes for individuals. Studies show that randomized interventions to treat mental illnesses increase days worked. Depression and anxiety directly affect the way people think, by capturing their attention and distorting their memory. Such effects are likely to influence economic preferences and beliefs and thus distort important economic decisions made by individuals, such as how much to work, invest, and consume. Reduced concentration and greater fatigue reduce work productivity, and the social stigma of mental illness is less likely to be mentally ill, richer countries do not have lower rates of mental illness. Thus, aggregate economic growth alone is unlikely to reduce mental illness. Climate change is likely to worsen mental health, both directly through the effect of higher temperatures on mood and through reductions in agricultural yields because of changes in rainfall and water supply, more frequent weather-related disasters, and an increased likelihood of violent conflict. Technological change and globalization create large overall economic gains but also concentrated groups of losers whose mental health may be compromised. The spread of social media and associated technologies may also be harming mental health, especially among adolescents.

Policy action on mental health is vital, as is interdisciplinary research on the mechanisms that link poverty and mental illness. Recently developed approaches to psychotherapy, delivered through non-specialist providers, provide a scalable and effective approach to improving mental health in low-income countries. Given the associated economic benefits of improved mental health, such interventions should be a part of the antipoverty toolkit alongside more traditional economic interventions. Understanding the most effective combination of economic and psychological support in different populations is an important next step. A priority for research is testing for a mental health-based “poverty trap.” If such poverty traps exist, powerful one-time interventions will have large long-run effects as gains in mental health and economic outcomes reinforce one another. Evaluations of economic interventions should routinely measure mental health, and long-run evaluations of mental health interventions should measure potential impacts on poverty and other key economic outcomes. The causal relationship between poverty and mental health is even more pertinent given the ongoing pandemic, which has disproportionately affected the poor and may have lasting impacts on their economic and mental well-being. A massive investment in mental health was already long overdue. It has now become critically urgent.

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Depression and anxiety are the most common mental illnesses: 3 to 4% of the world’s population suffers from each at any given time, and they are together responsible for 8% of years lived with disability globally (1). Contrary to widely held preconceptions from the 20th century, these are not “diseases of affluence” (2, 3). Within a given location, those living in poverty are at least as likely to suffer as the rich. By some measures, the poor are substantially more likely than the affluent to experience mental ill-health. Rates of depression, anxiety, and suicide correlate negatively with income (4–7) and employment (5, 6). Those with the lowest incomes in a community suffer 1.5 to 3 times more frequently from depression, anxiety, and other common mental illnesses than those with the highest incomes (5). For example, in India, 3.4% of those in the lowest income quintile experience depression at any given time, compared with 1.9% of those in the highest quintile (Fig. 1).

In this Review, we explore the evidence for the bidirectional causal relationship between poverty and mental health and its underlying mechanisms. Poverty is also correlated with poor physical health (9, 10), but the relationship between mental illness and poverty has been overlooked and is worth emphasizing. Mental health has historically not been considered a priority by economists and policymakers, and until recently, mental health care had not been evaluated as an antipoverty tool. Mental health services are underresourced relative to physical health systems. On average, countries spend 1.7% of their health budgets on mental health, even though 14% of years lived with disability globally are known to be caused by depression, anxiety, and other mental illnesses (1). Low- and middle-income countries spend an even smaller share of already small health budgets on mental health (Fig. 2). Despite the existence of cost-effective treatments, such low investments in mental health have contributed to treatment gaps of more than 80% globally for common mental illnesses, which is much larger than for major physical health conditions (11–14). Mental and physical health are tightly connected: When mental health problems coexist with physical health problems, health outcomes, disability, and costs tend to be much worse (15–17). However, unlike most physical health conditions, mental disorders may directly distort economic decision-making in ways that perpetuate poverty, by directly affecting cognitive function, preferences, and beliefs.

What are the causal links between poverty and mental illness? Can economic policies improve psychological well-being? Can psychological interventions reduce poverty? Any attempt to understand this relationship must acknowledge the complexity and multidimensional nature of both mental health and poverty. Mental health in the broadest possible sense has been defined as “a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community” (18). This definition includes both happiness or life satisfaction, which also correlate positively with income (19), and symptoms associated with anxiety and mood disorders, such as depression. The two are clearly related; depression and anxiety are strong determinants of happiness (20), and ultimately, mental health and even mental illnesses such as depression and anxiety exist along a continuum.

We focus on the causal evidence that links poverty with depressive and anxiety disorders, the most common mental illnesses, which we refer to here using the more general terms “mental health” and “mental illness.” Definitions of these illnesses and a brief primer on their measurement are provided in Box 1.

Although other more serious mental illnesses, such as schizophrenia, are also correlated with poverty, and may have powerful effects on economic outcomes, we do not discuss them here (21).

Like mental health, poverty is multidimensional. We examine causal links between mental illness and important economic dimensions of poverty, particularly income and unemployment. We also touch on other dimensions

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**Fig. 1. Prevalence of depression by income quintile in India.** The average percentage of people in each income quintile in India who have had depression within the past 2 weeks (“current” prevalence). Error bars show ±1 SEM. These numbers come from (30), an analysis of the Indian National Mental Health Survey, 2015–2016.
of poverty, including a lack of capabilities resulting from low education and physical health, as well as relative poverty and associated low social status. Because of a relative scarcity of studies, we focus less on the relationship between mental health and the consumption of goods and services, which is a more direct economic measure of poverty. The existing evidence of this relationship is contentious, but the cross-sectional correlation of mental illness with consumption appears to be weaker than that between mental health and income (22–25). Income is more volatile than consumption in the short run. The stronger correlation of mental health with income suggests that mental health may be more affected by short-run changes in economic status than long-run or permanent changes.

We discuss evidence on poverty-alleviation programs and mental health treatments obtained from randomized controlled trials (RCTs). These generate variation in individuals’ poverty and mental health status, respectively, that is entirely by chance and therefore uncorrelated with all other shared risk factors. Such studies allow us to isolate evidence of causal relationships. We also discuss studies of “natural experiments” in which naturally occurring variation in economic circumstances or mental health is argued to be “as good as random.” Examples range from financial windfalls, such as lottery wins—for which lottery winners may be thought of as a treatment group and lottery losers as a control group—to weather shocks that affect some farmers’ incomes more than others.

The causal impact of poverty on mental ill-health

Job loss and income declines are drivers of poverty and often precede episodes of mental illness (26, 27). Evidence from natural experiments confirms that this relationship is causal. For example, reduced agricultural output and income because of extreme rainfall caused increased rates of depression and suicide in rural parts of Indonesia (Fig. 3 and Box 2) (29). Similarly, job losses because of plant closures in Austria were associated with higher subsequent antidepressant use and mental health–related hospitalization (29). Areas in the United States more exposed to trade liberalization with China saw reduced income and employment for some groups of workers and increased mortality through drug overdoses among those same groups (31). Whether job loss worsens mental health beyond the impacts of the associated loss of income is unclear, but both mechanisms are argued to play a role in the phenomenon of “deaths of despair” (31). Conversely, income or wealth increases can improve mental health. For example, Native American tribes that opened casinos have seen substantial rises in income and reductions in anxiety relative to those that did not (32). Some studies have shown that lottery winners enjoy better mental health compared with those who win less or play but do not win (33). However, when fully controlling for the number and frequency of lottery tickets bought, winnings have small or no impacts on mental health (34, 35).

The most compelling causal evidence that poverty causes mental illness comes from...
RCTs that evaluate antipoverty programs. Several studies that evaluated cash transfer and broader antipoverty programs have found substantial positive impacts on mental health, including over long time horizons, after the effects of any initial celebratory reactions among recipients have worn off. A meta-analysis of these studies is provided in Fig. 4. For example, cash transfers to Kenyan households worth $400 to $1,500 at purchasing power parity (about 3 to 12 months of household income) increased consumption and happiness while reducing depression, stress, and worries (36, 37). Scores on a depression scale were 0.12 standard deviations (SD; closely related to Cohen's d) lower 4 months after completion and 0.16 SD lower after almost 3 years, with larger transfers causing substantially larger effects.

Similarly, multifaceted antipoverty programs beyond cash transfers yield mental health benefits. A recent large-scale randomized evaluation of a “graduation program” in six countries that provided extremely poor participants with a mix of assets, intensive training, temporary cash support, savings incentives, and help to access health care found increases in consumption and assets 3 years later. The program also improved an index of psychological well-being by 0.1 SD, which was driven by an increase in happiness and a decrease in mental distress (38). Programs in other settings with similar approaches have found similar effects (39, 40). Longer-run effects of such programs, when measured, appear to be even larger for both economic outcomes and mental health. In India, for example, an index of psychological well-being was 0.24 SD higher in the treatment group 7 years after the completion of a graduation program (41).

Hence, across a wide range of populations and study designs, positive economic shocks to individuals are shown to improve mental health, whereas negative economic shocks undermine mental health. This robust evidence, on the effects of changes in economic circumstances, indicates that poverty does cause mental illness. However, with two exceptions (35, 41), the above studies consider the consequences of changes in economic status for a few years at most. An important question is whether these short-run effects can persist or grow over time. For example, some of the causal mechanisms we discuss below could take decades to manifest. However, there may be a hedonic adaptation effect in which mental health eventually adapts to the change in circumstances, so that even permanent increases in one's income level have a limited long-run effect. Of course, it could also be that the positive economic shocks are themselves undone by future negative shocks, causing mental health to revert to initial levels or even worsening. Ongoing long-run evaluations of cash-transfer programs are expected to provide evidence on this question (42).

**Mechanisms for poverty causing mental ill-health**

How does poverty cause mental illness? We discuss several plausible causal mechanisms and the limited evidence for each. The worries and uncertainty that come with living in poverty seem to be an important driver of mental illness, as do the effects of poverty on childhood development and one's living environment. We have more limited causal evidence for other plausible channels, including worsening of physical health caused by poverty, increased exposure to violence or crime, and the effects of low relative social status and social isolation. Understanding which of these mechanisms are important may have implications for policy choices. For example, if worries and uncertainty play a major role, then providing health and unemployment insurance may be crucial, whereas if early-life conditions are the key drivers, then cash transfers to parents of young children could be the most appropriate policy response.

**Worries and uncertainty**

The anticipation of economic shocks, not just their occurrence, may cause mental illness. People living in poverty face substantial uncertainty and income volatility and juggle what are, in effect, complex financial portfolios, often without access to formal insurance (43). Sustained long-run exposure to stress from managing this volatility may
threaten mental health (44). Consistent with this hypothesis, a large-scale randomized experiment among low-income individuals in Oregon found that receiving largely free health insurance worth $550 to $750 per year reduced rates of depression by about a quarter within a few months (45). This effect did not appear to be explained by increased mental health care or changes in physical health. Although the increase in recipients’ effective income may have played a role, it represented a much smaller relative increase than the cash transfer programs described above and yet generated a similar effect size on depression. Further suggestive evidence for uncertainty as a mechanism comes from the small or zero effect of wealth shocks on mental health in countries with generous and comprehensive systems of social insurance, such as Sweden (34, 35).

**Environmental factors**

Those living in poverty are generally more exposed to environmental irritants posed by pollution, temperature extremes, and challenging sleep environments (46). Many of these factors have been linked directly to mental illness. Days with extreme heat see worse self-reported mental health and increased rates of self-harm and suicide (47, 48). Similarly, sleep deprivation is widespread among the urban poor in developing countries (49), and sleep is thought to be a mechanism affecting mental health (50, 51). Some evidence exists that clinical interventions to improve sleep reduce depression (49, 52). Exposure to air pollution is associated with living in poverty and may influence mental health through multiple channels, through restriction of physical activity or directly owing to neurotoxicity (53). Changes in air pollution in China have been associated with changes in mental health (54). In the United States, randomly selected low-income households that were paid to move to more affluent neighborhoods...
saw reductions in depression and anxiety despite little effect on income (35). However, it is not clear whether environmental factors or other features of high-income neighborhoods generated this effect.

**Physical health**

Lower income is robustly associated with worse physical health (9). Poverty increases exposure to the environmental factors described above and often also implies lower access to health care, which increases the burden of acute and chronic health conditions. Worse physical health may affect mental health through various channels. Chronic pain, worries about health and mortality, the financial costs of illness, and reduced physical activity may all worsen mental health. It is therefore unsurprising that physical ill-health often co-occurs with depressive and anxiety disorders (15). However, only limited causal evidence exists of poverty affecting mental health through changes in physical health. Many of the randomized interventions described in the previous section had no detectable effect on physical health even as they reduced mental illness (36, 38, 56). However, changes in physical well-being may manifest over a longer time frame, which may not be captured by these short-run studies.

**Early-life conditions**

Exposure to poverty early in life can threaten mental health in later years. Such effects can be generated in utero, by exposing pregnant women to malnutrition or stress. For example, the death of a mother’s relative during pregnancy (compared with after childbirth) predicts depression and anxiety among her grown children later in life (37). Poverty may also disproportionately expose children to adverse shocks while their brains are highly plastic. Such shocks can profoundly affect brain development, cognitive ability, and mental health in adolescence and adulthood (58, 59). Economic stresses around the time of birth also have long-term mental health costs; in Ghana, a decrease in crop prices by 1 SD at an individual’s time of birth was found to increase incidence of anxiety or depression in adulthood by 50%, associating with maternal nutrition, breastfeeding duration, vaccination rates, and improved adult health (60). These results imply that programs that provide financial support for households with pregnant women or young children may have high long-run mental health and economic returns.

**Trauma, violence, and crime**

Living in poverty disproportionately exposes individuals to crime, including violent offenses (61). People living in poverty are also more likely to suffer traumatic events such as the early deaths of loved ones (62). Likewise, with-
optimistic beliefs about themselves by ignoring negative information (80), correlational evidence suggests that the depressed update their beliefs more pessimistically (87). Anxiety, meanwhile, is associated with greater selective attention toward threatening stimuli (82), which could lead to overestimation of risks and thus reduced risk-taking. Such evidence is consistent with mental illness causing pessimistic beliefs, pessimistic beliefs causing mental illness, or both. Causal evidence on how treatment of depression or anxiety affects beliefs would help disentangle these potential explanations.

Preferences
Mental illness may affect economic preferences, such as the extent to which people are willing to defer gratification (time preferences), tolerate risk for higher expected rewards (risk preferences), or split rewards between themselves and others (social preferences). For example, depression may diminish a person’s patience and altruism. Similarly, anxiety disorders may reduce people’s willingness to take on even modest levels of potentially profitable risk. Such impacts could in turn change a variety of economic behaviors, such as labor supply decisions, savings and investment choices, consumption behavior, and the take-up of social programs. The limited evidence on correlations between mental illness and economic preferences is mixed (83–85).

Labor supply and productivity
Depression and anxiety often affect individuals in the prime of their economic lives and can be highly recurrent (86). The depressed beliefs and distorted preferences described above may reduce motivation and labor supply. In addition, depression can have a direct effect on productivity, such as through increased fatigue and lack of concentration. Depressed individuals may therefore work fewer and shorter days and produce less per hour (87). Depressed workers might also be more easily discouraged during their job search or when facing setbacks at work.

As described above, substantial causal evidence exists that treatment of mental illnesses increases employment (79). However, there is little evidence on whether this happens through higher at-work productivity, greater job search intensity, changed beliefs, or other mechanisms.

Stigma
Mentally ill individuals contend with substantial social stigma and negative stereotyping (88). This may result in discrimination in employment (89), which could lower wages and limit employment opportunities relative to equally productive mentally healthy workers. On top of this, those living with a mental illness are excluded from disability benefit schemes in many low-income countries (90). More generally, others’ reluctance to interact socially with mentally ill people (88) may exclude them from social networks that provide economic opportunities. Stigma may also affect the formation and dissolution of households in ways that disadvantage the mentally ill (97). Depression and anxiety may come with a “discount” on the marriage market, causing mentally ill individuals to form households with less well-off partners, increasing the chances of living in poverty.

Health expenditures
Mental illnesses may deepen poverty through its impacts on health and health expenditures. In developing countries, people living in poverty usually pay most of their health costs out of pocket (92). Globally, 150 million people are estimated to have catastrophic health expenditures each year, which are defined as health care payments totaling more than 40% of a household’s nonsubsistence expenditures (93). Costs associated with treatment of mental illness rarely account for large shares of individuals’ budgets because most affected individuals remain untreated. However, depression and anxiety frequently co-occur with other health conditions (15), and such
comorbidity with depression is associated with substantially higher health expenditures for a range of health conditions \(16, 17\). Indeed, treatment of depression has been found to reduce overall health care costs \(94\).

**Women’s empowerment**

The burden of mental illness falls disproportionately on women \(9\). A large-scale \((n = 903\) participants) RCT that evaluated CBT intervention for depressed pregnant women in Pakistan found a 17% reduction in depression rates compared with a control group 7 years after the intervention \(95\). Reduced depression among these women was accompanied by increased economic empowerment by 0.29 SD as measured in increased control over household and personal expenditures. Such impacts may have implications for women’s consumption and relative poverty within the household.

**Intergenerational effects**

Improving a parent’s mental health can benefit the next generation. In the above study in Pakistan, women who had received the intervention sent their children to better schools and had more learning materials in their homes \(95\). Similarly, other RCTs found that treatment of mothers’ depression improves their interaction with their children and their children’s mental health \(96\). Although little direct evidence shows that such interventions lead to improved educational outcomes or earnings, there is reason to believe they may. A substantial body of work from other contexts shows that early-childhood investments have large effects on children’s income as adults \(97\).

**Human capital accumulation**

The onset of common mental illnesses often coincides with secondary and tertiary education and the early stages of an adult’s work career \(86\). Mental illness may therefore cause long-run economic hardship by reducing school and college completion rates, worsening early-career job placements and hindering skill acquisition \(98\). This suggests the possibility of particularly high economic returns from improving mental health among adolescents and young adults. Although longitudinal studies show a substantial correlation between mental illness among students and subsequent educational outcomes, there is little experimental evidence to date that treatment of depression or anxiety among adolescents leads to improved educational outcomes \(99\).

**Outlook**

Having discussed some of the mechanisms that influence the relationship between poverty and mental health, we can speculate more broadly on how the relationship between poverty and mental illness may evolve, what this means for policy, and what directions may be fruitful for research.

**Aggregate economic conditions**

Economic growth and other ongoing global trends are unlikely to improve mental health by themselves. Higher income causes better mental health at the individual level, yet on average, the prevalence of mental illness is not lower in rich countries. To the contrary, existing evidence shows a higher prevalence of common mental illness in richer countries \(8\) \(100\). This cross-country difference cannot be interpreted causally, and concerns remain about differences in methodology, diagnosis, or reporting across contexts \(101\). However, one way to reconcile the contrast within-country and cross-country relationships is the possibility that relative, rather than absolute, poverty is the more relevant cause of mental illness. Risk factors, including inequality and relative poverty, or the stresses of urban environments, may deteriorate rather than improve as whole economies expand. Within-country inequality has increased in many countries in recent decades, despite substantial reductions in extreme poverty and global inequality \(102\). Complacency about mental health among the poor is therefore not warranted even in the presence of aggregate economic growth. For example, the burden of disease attributable to mental and neurological disorders in India and China increased by 61 and 28%, respectively, between 1990 and 2013, despite impressive economic growth \(103\).

**Climate change**

The more frequent occurrence of extreme heat because of climate change is anticipated to exacerbate mental illness directly \(104, 105\). The increased frequency of weather-related disasters, such as floods and hurricanes, poses a threat to mental health through greater exposure to trauma \(106\). Climate change also threatens mental health through its negative economic consequences, which are likely to be more pronounced in low-income countries \(104\). Extreme temperatures during the agricultural growing season that damage crops and thus economic well-being have been reported to increase suicides in agricultural regions in India \(107\). Predicted increases in water scarcity and droughts are also likely to worsen economic and in turn psychological well-being. Climate change is also expected to lead to increased violence and political conflict over the next century through increased pressure on resources, such as productive land and, possibly, psychological effects of heat on aggression \(108\). This combination of economic and political consequences of climate change may increase the flow of refugees and economic migrants, with concomitant challenges to mental health \(109\).

**Technological change and globalization**

For many of those living in poverty across the world, technological change and globalization offer enormous economic opportunities; however, both phenomena produce winners and losers. The costs to losers, especially low-wage workers in high- and middle-income countries who lose jobs as a result of changes in patterns of trade or automation, can be long lasting and substantial \(110\), resulting in worse mental health \(29, 30\). Although most economic research on these topics focuses on rich countries, there is an urgent need to understand the mental-health effects of these economic changes in poorer countries.

Offering social insurance and welfare, skills training, and job transition programs, including psychotherapies for workers exposed to the harmful effects of technological change and globalization, will be important to protect mental health. One example is the ongoing Building Bridges and Bonds evaluation, which provides a tailored CBT intervention to unemployed (formerly incarcerated) men in the United States, in conjunction with traditional job-seeking services, in an attempt to increase employment and wages.

**Pandemics**

Public-health crises such as the ongoing COVID-19 pandemic tend to disproportionately affect those living in poverty \(111\). They may worsen mental health on average and particularly among the poor. Income and employment losses as a result of morbidity can be large, which in turn can reduce mental health through the mechanisms described above. In addition, the exposure to trauma, increased worries and uncertainty, and worse physical health will tend to impair mental health, in turn reducing income and employment. However, ongoing progress in reducing the burden of other diseases that disproportionately affect the poor—such as cholera and diarrhoeal infections, tuberculosis, malaria, and other insect-borne diseases—will provide a counteracting force likely to improve mental health among the poor. The COVID-19 pandemic has the potential to set back progress in reducing the enormous burden of these diseases.

**Social media**

The spread of mobile phones and the internet opens up opportunities for poverty alleviation \(112\) and new ways to deliver mental health care. However, some of these technologies may pose new threats to mental health. Although more causal evidence is needed, some studies have found that depression is correlated with internet addiction and with the intensity of use of social media among young
adults and adolescents (113, 114). Recent randomized interventions show that deactivating social media accounts for 4 weeks led to 0.1 SD reductions in depression and anxiety scores (115, 116). Increased access to the internet and social media among the global poor, although presenting enormously valuable benefits, may therefore also pose some threat to mental health among the poor (117).

Implications for research and policy

Because mental health and poverty are intimately linked, interdisciplinary collaborations between mental-health researchers and social scientists studying poverty are essential (Box 4). Evaluations of economic interventions should carefully measure impacts on mental health, and vice versa. An example of such work is Bhat et al., in which a team of psychiatrists and economists followed up on psychotherapy clinical trials in India and deployed the tools of behavioral economics and psychiatry to study long-run effects of psychotherapy on mental health, economic well-being, and decision-making (118).

Policy tools

There is a strong economic case for investing in the mental health of people in poverty. A recent meta-analysis showed that mental health interventions in low- and middle-income countries, including psychotherapy and pharmacotherapy, had similar or larger effects on employment than economic interventions such as cash transfers, job training programs, and multifaceted antipoverty programs (73). Yet, they were an order of magnitude less expensive to deliver. Such treatments could therefore be the most cost-effective antipoverty intervention, at least among the subset of people who are mentally ill. However, we know little about how to optimally combine, dose, sequence, and target economic and mental health interventions. For example, combining psychological and economic interventions may lead to treatment effects that are greater than the sum of their parts. In particular, improved mental health could increase the economic returns of receiving cash or asset transfers by improving decision-making and productivity.

Recently, innovative studies have compared the effects of providing psychotherapy, cash support, or both among low-income populations. An RCT measured the effect of 8 weeks of CBT and/or $200 in cash support to 999 criminally engaged men in Liberia (119). Although the psychotherapy targeted antisocial behavior rather than mental illness per se, the study found that the combination of cash transfer and psychotherapy improved an index of self-regard and mental health by 0.2 SD a year later (P = 0.024), accompanied by a modest reduction in depression and psychological distress (−0.11 SD, P = 0.24). The combined treatment not only reduced antisocial behavior but also increased patience and self-control, whereas neither cash nor therapy alone had detectable effects. However, none of the treatments apparently influenced consumption or income a year later. More studies along these lines would be valuable.

Treatment gaps

In poor countries, the fraction of individuals diagnosed with depression and anxiety who do not receive treatment often exceeds 90% (11–14). Such treatment gaps likely result from a combination of poor supply and low demand for mental health services.

Increasing supply

Resources for mental health care are extremely limited in low-income countries (Fig. 7), and people living in poverty often lack access to basic mental health care (120). For example, some estimates suggest that India has only 3900 psychiatrists for more than 1.3 billion people, and 13 psychiatrists serve Zimbabwe’s 14 million people (121). However, cost-effective and scalable strategies for treating mental illness in low-resource settings do exist. Evidence from multiple countries shows that “psychosocial” treatments such as manualized talk therapies can be highly effective at low cost, even when delivered by nonspecialist community health workers (122, 123). An even more pared-down—but still effective—approach is the “friendship
Box 4. Priorities for future research on poverty and common mental illnesses.

1. Measurement of mental health in economic surveys to estimate
   The comparative impacts of diverse economic interventions, such as insurance, social safety, and employment support, relative to cash transfers
   The longer-run effects of antipoverty programs
   The effects of absolute versus relative poverty
   The effect of technological change and globalization on high and low-wage workers
   The impact of the looming global economic recession resulting from COVID-19

2. Measurement of economic outcomes in intervention studies for depression and anxiety, which includes
   Income, labor supply, productivity, and profits from self-employment
   Economic preferences and beliefs; investment and savings behaviors
   Household expenditures and consumption, including within-household allocation of resources

3. Evaluations of interventions to reduce stigma and to boost demand for mental health care, which includes
   Diverse mental health literacy approaches, from mass-media campaigns to grass-root awareness building
   Subsidies and incentives for seeking and engaging with mental health care
   The effects of interventions on marginalized and underserved communities

4. Evaluation of technologies to increase the coverage of effective psychotherapies, which includes
   Text, phone, or video delivery
   Digital approaches to training, supervision, and quality assurance for frontline providers
   Artificial intelligence bot-based and other guided self-help approaches, adapted to different languages and cultural contexts

5. Evaluation of interventions to interrupt the intergenerational transmission of poverty and mental illness, such as through
   School mental health–promotion programs and measurement of effects also on educational attainment, labor supply, productivity, and earnings
   Treatment of parental mental illness and measurement of effects on children’s cognitive and educational outcomes

benchings” of Zimbabwe, in which nonspecialist health workers (popularly known as “community grandmothers”) provide problem-solving therapy with components of behavior activation to patients (224).

Reliance on in-person training and supervision of the community health workers by experts is a major barrier to scaling these approaches. The Empower initiative seeks to address these structural barriers through the deployment of digital platforms to enable frontline workers to learn, deliver, and master evidence-based brief psychological treatments for mental health problems, using innovative practices such as coach-supported learning and peer-supervised quality assurance, all delivered through digital tools (225). Empower will roll out the brief behavioral activation treatment developed and evaluated in India and Nepal (Box 3) to community health workers in India and the United States from 2021 onward.

Stimulating demand

Even in settings with affordable and effective mental health services, many people do not seek or adhere to treatment (226). People often lack mental health literacy and may not possess basic information about mental health conditions and their risk factors, symptoms, and potential treatment options (227). Stigma and shame can further depress demand for mental health services. But there are examples of successful community-based programs that increase mental-health literacy and boost the share of mentally ill individuals who seek treatment; for example, the VISHRAM (Vidarbha Stress and Health Programme) initiative, rolled out in 30 villages in rural India, deployed “change agents”—typically, persons already playing leadership roles in the villages—to engage the community in conversations around mental health and illness, using a range of contextually appropriate strategies such as group discussions; the program led to a sixfold increase in help-seeking by persons with depression in just 18 months (228). A priority for future work should be the evaluation of such programs at scale, as well as testing approaches that bundle mental health treatments with other un-stigmatized services, subsidizing or even rewarding the take-up of treatment, or using remote technologies such as app-based therapy that are less likely to expose individuals to stigma.

Poverty traps

A classic idea in development economics is the existence of a “poverty trap” (229). This is the idea that below a certain threshold level of wealth, people are not able to earn and save their way out of poverty. They remain trapped in poverty precisely because of the deprivations associated with poverty and not because of any intrinsic lack of ability. Such poverty traps could exist for many reasons. For example, the very poor may not be able to afford enough food to be productive at work. Recent evaluations of multifaceted antipoverty programs have provided some evidence for the existence of such poverty traps (39, 41). However, the underlying mechanisms are unclear. The evidence of a bidirectional causal relationship between poverty and mental health presented in this Review suggests that mental health could be a key mechanism: There could be psychological poverty traps. Some of those living in poverty may be ensnared in a vicious cycle of poverty and mental illness (5). If this is the case, a one-time economic or psychological intervention of sufficient magnitude may “push” people into a state of sustainably higher income and better mental health.

Conclusion

The causal relationship between poverty and mental health we have described could not be more pertinent than in the ongoing pandemic, which has already adversely affected both of these outcomes. Given the surge of deaths of despair in the United States in the wake of the Great Recession of 2008 (31), we have grave concerns about the mental-health implications of the economic recession confronting the world. The pandemic has disproportionately affected the poor and may have lasting adverse impacts on their economic and mental well-being. A massive investment in mental health was long overdue even before the pandemic and has become critically urgent now. Beyond more money, this is also an important opportunity to invest wisely in lower-cost innovations that provide quality care to low-income and disadvantaged communities and
to integrate economic interventions with mental health care to reduce historic disparities in both wealth and mental health.

REFERENCES AND NOTES


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