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Mental Health and Wealth: Depression, Gender, Poverty, and Parenting

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Abstract

Depression is a common and debilitating condition that adversely affects functioning and the capacity to work and establish economic stability. Women are disproportionately burdened by depression, and low-income pregnant and parenting women have particularly high rates of depression and often lack access to treatment. As depression can be treated, it is a modifiable risk factor for poor economic outcomes for women, and thus for children and families. Recent national and state health care policy changes offer the opportunity for community-based psychological and economic interventions that can reduce the number of pregnant and parenting women with clinically significant depressive symptoms. Moreover, there is strong evidence that in addition to benefiting women's well-being, such reforms bolster children's emotional and social development and learning and help families rise out of poverty. This review summarizes the mental health and economic literature regarding how maternal depression perpetuates intergenerational poverty and discusses recommendations regarding policies to treat maternal depression in large-scale social services systems.

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Contents

INTRODUCTION	182
POVERTY AND WOMEN IN THE UNITED STATES.....	184
POVERTY AND PARENTING	184
MECHANISMS LINKING DEPRESSION AND ECONOMIC MOBILITY IN	
LOW-INCOME PREGNANT AND PARENTING WOMEN	184
Social Causation Hypothesis	186
Social Selection Hypothesis	187
Interactionist Hypothesis	188
INTERVENTIONS BASED ON THE SOCIAL CAUSATION HYPOTHESIS ...	190
Temporary Assistance for Needy Families	190
Employment	191
Increasing Earnings and Wages.....	191
Individual Development Accounts	191
Earned Income Tax Credit	192
Conditional Cash Transfers	193
Summary of Findings on Interventions Based on Social Causation Hypothesis	194
INTERVENTIONS BASED ON THE SOCIAL SELECTION HYPOTHESIS ...	194
POLICY IMPLICATIONS	195
FUTURE POLICY DIRECTIONS	196
MENTAL HEALTH OUTREACH FOR MOTHERS	196
CONCLUSION	197

INTRODUCTION

Depression is one of the most frequent causes of disability and lost workdays worldwide, and women are more likely than men to suffer from this common mental disorder (Hasin et al. 2018, Kessler 2003, Marcus et al. 2012). In the United States, women are twice as likely to suffer from depression than men, and approximately 25% of women will be diagnosed with depression in their lifetime (Hasin et al. 2018, Kessler et al. 2003). Depression profoundly affects social functioning and results in lower rates of labor force participation, reduced work hours, and lower earnings (Bland et al. 1988, Jayakody & Stauffer 2000, Lerner & Henke 2008). Such reduction in one's capacity to be part of the labor force results in the economic deprivation and financial hardship that begin to define poverty, which also includes social, political, and cultural factors (UNESCO 2019), such as age, class, and race/ethnicity.

In the United States, women are more likely than men to live in poverty and are more likely than men to have food insecurity, inadequate nutritional intake, unstable housing, partner conflict, and other difficulties that affect mental health (Chant 2006, Edin & Kissane 2010). Managing sporadic income and making difficult decisions on purchasing and basic needs also increase cognitive load (often referred to as the amount of attention and working memory required for a task) (Mani et al. 2013). As these concerns preoccupy daily life, cognitive resources available to guide choice, behavior, and emotional regulation are reduced. Such stressors also increase allostatic load or “wear and tear on the body,” as characterized by McEwen & Stellar (1993, p. 2094; see also McEwen 2003), and the neurobiology of regions such as the hippocampus, amygdala, and prefrontal cortex undergoes structural remodeling, altering behavioral and physiological responses and making it even more difficult to function (McEwen et al. 2015, Nasca et al. 2017).

Another main factor associated with poverty and depression in women is parenting status (England & Sim 2009). Although the intersectionality of depression, parenting, and poverty in women has been acknowledged in the literature and reported across diverse geographical regions, societies, populations, and social contexts, there is limited literature that explores the links among mental health, parenting, and economic stability for women. Moreover, data are limited on how these life-altering factors relate to a broader intervention and policy agenda.

This review summarizes the mental health and economic literature regarding how maternal depression intersects with intergenerational poverty. We provide a conceptual model asserting that treatment of depression and integration of its treatment into social services systems with employment opportunities can improve work productivity and enhance the capacity to care for one's family. Finally, this review discusses challenges and recommendations regarding interventions and policies to treat maternal depression in large-scale social services systems.

The review utilizes three theories from social epidemiology that highlight the relationship between depression and economic status: social causation, social selection, and interactionist. According to the social causation theory, environmental and societal conditions lead to increased risk of depression. By contrast, the social selection hypothesis suggests that individual differences in the likelihood of depression influence the likelihood of employment and impact potential for earnings, making it more likely that a person with depression will be poor. The interactionist hypothesis combines the two theories of social causation and social selection and posits that individual differences influence economic outcomes, which in turn have impacts on depressive symptoms (Conger & Donnellan 2007, Wadsworth & Achenbach 2005).

We recognize that the causes of depression are multifactorial and include a combination of psychosocial, environmental, genetic, cognitive, and neurobiological factors and that an understanding of the complex and multidimensional nature of poverty and depression is necessary. We also acknowledge the need for public health, population-based approaches that address the fact that on average, women are twice as likely to be diagnosed with major depression compared with men over all ages and nations (Hyde & Mezulis 2020). Addressing genetic and neurocognitive and developmental factors at a population level remains difficult. As such, this review focuses on the research addressing relationships between maternal depression and economic status while considering the social causation, social selection, and interactionist theoretical frames. Included in this review are examples of programs intended to improve economic status and research on the effects of treating depression in low-income pregnant and parenting women, with resultant economic benefits (potential evidence for the social selection theory). The interactionist hypothesis and the policy implications of the reported relationship between depression and economic status specific to low-income mothers also are reviewed and discussed with a call for additional research that can help to establish the optimal sequencing and combination of depression treatment and poverty alleviation interventions and policies.

Current evidence indicates that all major racial and ethnic groups have reductions in employment associated with poor mental health (Demirhan & Demirhan 2019). Additionally, most of the research cited in this review is based on interventions in and policies of the United States. Although a few studies from other countries are included, addressing global policies is beyond the scope of this article. Compared with other countries, the United States has distinct policies, including employment and economic policies (Cambron et al. 2015). For example, even though parents and caregivers are working longer hours, America's child poverty rate is twice that of most wealthy countries (Hardy et al. 2018). For these reasons, the conclusions in this review are generalizable within the context of US policy affecting low-income pregnant and parenting women.

POVERTY AND WOMEN IN THE UNITED STATES

Women may be particularly influenced by the causes and effects of poverty, and women's experience of poverty differs from that of men (Aydiner-Avsar & Piovani 2019, Chant 2006). Chant (2006) described three factors that contribute to women's poverty relative to men. First, women have fewer possibilities to translate work into income because of (a) their extensive responsibility for reproductive, caregiving, and domestic roles, including cleaning, cooking, and child care; (b) the conceptualization of their productive activities as "helping" men; and (c) their concentration within sectors that are either an extension of their reproductive roles (and thus lower paid) and/or within the informal economy (Edin 2000, Edin & Kissane 2010). Second, even when women earn wages, family structures and social norms often interfere and influence women's decision-making capacity and decisions on how income is used. When women do make economic decisions, they are less likely to make decisions that improve their personal well-being (Edin 2000, Edin & Kissane 2010, Oliner 1995). Third, economic resources that enter the household via women are more likely to be spent on household and children's needs. In addition to these gender differences, there is evidence that the presence of major depression is more strongly associated with job loss in women than in men (Andreeva et al. 2015, Martínez et al. 2020).

POVERTY AND PARENTING

Longitudinal studies with large samples support the conclusion that alterations in the quality of caregiving are one pathway by which poverty adversely impacts child development. Support from friends and family can improve the parent-child relationship in the context of poverty (Elder et al. 1985, London et al. 2004, Lundberg & Pollak 2007, Moore et al. 2017, Perry et al. 2019, Zaslow et al. 2005). A large literature demonstrates that parenting quality in stressful circumstances, such as those of scarcity and ill health, influences children's biology and behavior. The detrimental effect of poverty in childhood on health and well-being has been widely documented (Aber et al. 1997, Caughy et al. 2003, Wood 2003), and researchers have argued that economic disadvantage increases the chances that children will fail to thrive (Shaefer et al. 2018). However, recent research demonstrates that although poorer households have poorer health, the impact of income is relatively small compared with the impact of the mother's own health and parenting quality, which plays a much larger role in determining child outcomes (Ciciolla et al. 2017, Luthar & Ciciolla 2015, Perry et al. 2019, Tirumalaraju et al. 2020, Washbrook et al. 2014).

MECHANISMS LINKING DEPRESSION AND ECONOMIC MOBILITY IN LOW-INCOME PREGNANT AND PARENTING WOMEN

At the population level, depression has been associated with work absenteeism, impaired work performance, and increased health care costs for employers (Fournier et al. 2015, Mojtabai et al. 2015, Moussavi et al. 2007). Among mothers, depression is the mental health problem most likely to be associated with poverty. Lower-income mothers are more likely to be depressed than higher-income mothers (28% versus 17%, respectively) (Golin et al. 2017), and depressive symptoms are four times more common among lower-income women who are parents than among middle-income mothers (Green et al. 2016).

Particular to women who are pregnant or parenting, depression and depressive symptoms have also been shown to have a negative impact on the transition from welfare to work (Bailey & Danziger 2013, Danziger et al. 2001) and subsequent lack of employment (Mojtabai et al. 2015, Whooley et al. 2002). In a longitudinal study of 2,235 nationally representative mothers, those who reported a poverty-level income were more likely to have high depressive symptoms than

the women who were never below the poverty level (Pascoe et al. 2006), and in several samples of parents who applied for social services to aid the poor, close to half of the parents had clinically significant depressive symptoms (Fuller & Kagan 2000, Gupta & Huston 2009, Pavetti et al. 1996, Quint 1994).

Policy makers are focused on enhancing women's economic status through increasing employment in the paid workforce as lack of employment has also been found to contribute to an increased risk of major depressive disorder (Dooley et al. 1994, Kessler et al. 1989, Pieters & Klasen 2020). Traditionally, the focus of increasing women's employment has been on social factors that may impact employment (e.g., child care) and other structural barriers like transportation and flexible scheduling. Factors that impact an individual woman's ability to participate in the workforce, such as level of education and training, are considered by many policy makers, yet policies and many studies on women's economic advancement make little mention of psychological difficulties (Cambron et al. 2015). Depression is an important barrier to economic advancement and to willingness to enter the labor force (Mossakowski 2009), and the existence, duration, and age of onset of depressive symptoms may prevent some pregnant and parenting women from leaving welfare for work in a timely manner (López-López et al. 2020). Despite the lack of focus on the mental health problems of women receiving social services for the poor, recent research indicates that women receiving welfare assistance may experience higher levels of depressive symptoms and general psychiatric distress than the general population and that this distress can affect economic self-sufficiency. Psychological factors thus play a critical role in the success of economic and social policy efforts and are often overlooked in the economic opportunity landscape for pregnant and parenting women (Coley et al. 2007, Danziger et al. 2001, Dooley & Prause 2002, Gibson et al. 2018).

Poverty and depression are likely to be bidirectional in terms of causation and are hypothesized to operate in a cycle that perpetuates poor economic and psychiatric outcomes (Lund et al. 2010). The onset of mental illness may increase the risk of poverty (social selection or drift), and conversely, the experience of poverty may increase the risk of depression (social causation). However, it could be that the cycle of poverty and depression is linked to a third set of factors related to the intersection of poverty, gender, and mental illness, such as exposure to violence, access to treatment and health care, and chronic medical conditions (Ridley et al. 2019). Another hypothesis is that poverty leads to stress and negative affect (social causation) and that, in turn, stress and negative affect increase risk aversion, which could make it more difficult to take the steps needed to escape poverty (Haushofer & Fehr 2014).

Research on the epidemiology of depression finds a consistent and robust relationship between depression and socioeconomic status as measured by income, education, and employment status (Gariépy et al. 2016). Researchers have argued that this relationship is the result of lower-socioeconomic-status individuals experiencing a greater number of stressful life events and having fewer financial resources to buffer the impact of the stressors (Lorant et al. 2003). In one of the most comprehensive reviews on the topic, Lund et al. (2010) surveyed 115 studies and found that although the direction and strength of the poverty–mental health relationship vary across studies, taken in its entirety, the evidence suggests that some aspects of poverty (e.g., lower education, food insecurity, financial stress, lower socioeconomic status) are consistently related to depression, and the association between depression and other measures of poverty, such as income and employment, is less clear. Specific to depression, those with more assets may be less likely to experience depressive symptoms, as assets provide financial resources that can be used to buffer the impact of stressful life events. Assets also may have a positive effect on depressive symptoms because they reduce economic pressure on individuals and offer more opportunities (Enns et al. 2016, 2019; Rohe et al. 2017).

Specific to low-income pregnant and parenting women, it is possible that having a job reduces the probability of having depressive symptoms, while the lack of employment results in an increased likelihood of depressive symptoms (Richard & Lee 2019). An alternative interpretation suggests that depressive symptoms may prevent low-income pregnant and parenting women from undertaking the tasks necessary to find employment or that parenting women with depressive symptoms may lack the agency and sense of efficacy needed to take on new challenges. Even after someone has obtained employment, depressive symptoms can play an important role in self-sufficiency outcomes. Some pregnant and parenting women may succeed in obtaining employment but have difficulty keeping their jobs or performing them effectively because of depressive symptoms that interfere with daily functioning (Jayakody & Stauffer 2000) and work–child care balance. Depressive symptoms and disorders affect a woman’s productivity and social functioning: The degree of impairment is statistically comparable to the impairment associated with chronic medical conditions (Aydiner-Avsar & Piovani 2019, Demirhan & Demirhan 2019, Raver 2003). Depression can also play a role in the success of education and job training programs because those suffering from depression are more vulnerable to interpersonal problems and irritability and may experience diminished social functioning (Schless et al. 1974, Seedat et al. 2009, Weissman et al. 1971). In the most severe forms, depression can make job search and work participation impossible. Furthermore, the experience of poverty among low-income pregnant and parenting women means that their children face the related dimensions of disadvantage and the environmental stressors associated with living in poverty.

Social Causation Hypothesis

The associations between economic circumstances and depressive symptoms in mothers are well documented, but important questions remain regarding fundamental causal processes. We focus on three hypotheses to frame how depressive symptoms are associated with economic outcomes in women and resultant interventions and policy approaches (Gupta & Huston 2009, Marcus et al. 2012): (a) low economic status causes depression (social causation) (Aydiner-Avsar & Piovani 2019); (b) depression causes low economic status (social selection) (Blane et al. 1993); or (c) there is an ongoing bidirectional bridging relationship between economic circumstances and depression, with each affecting the other (Bruce et al. 1991, Conger & Donnellan 2007, Dohrenwend & Dohrenwend 1969, Schofield et al. 2011).

According to the social causation model, environmental, sociopolitical, and job loss and income declines precipitate depression. From this perspective, taken at its extreme, if all women were exposed to the same social environments from birth, they would achieve a similar level of economic success. If this hypothesis held true, low-income mothers who faced significant adversity, discrimination, and other stressful circumstances would be likely to develop depressive symptoms. Although the cross-sectional nature of many studies prevents us from disentangling the causal direction of the high rates of depressive symptoms experienced by lower-income women compared with the general population (Morris 2008, Ribeiro et al. 2017, Silva et al. 2016), data on the links between early stressful life experiences and job loss and income declines lend support to the social causation framework. Natural experiments have demonstrated that loss of employment or income reduces mental health (Pierce & Schott 2020) and that large income increases improve mental health (Apouey & Clark 2015, Lindqvist et al. 2020, Wolfe et al. 2012). One randomized experiment in Oregon found that receiving health insurance reduced rates of depression by about a quarter among low-income individuals (Finkelstein et al. 2012). Longitudinal data with controls for individual characteristics and repeated measures allow for an examination of the relationship of depressive symptoms and economic outcomes across time.

Support for the social causation hypothesis is evident in one of the few longitudinal studies that simultaneously tracked family income, parenting style, and child outcomes using US cohort data as analyzed by Dearing et al. (2004). These authors found that reductions in income were significantly associated with maternal depression in the first 3 years of children's lives. Furthermore, they observed that it was the stress of poverty that caused depression (rather than the other way around) and that depression was likely to result in harsher and/or more inconsistent parenting.

Additionally, nationally representative samples found that earning a low income or being unemployed when in a low-income bracket appears to increase risk for depressive symptoms (Dooley et al. 1994). In a sample of low-income women from the Project on Devolution and Urban Change, those who were not employed had a higher risk of depressive symptoms, regardless of whether they received welfare assistance, compared with those who were employed (Polit et al. 2001). In the population-based US National Household Survey on Drug Abuse, low-income mothers had significantly higher rates of poor mental health compared with higher-income mothers, and the percentage of women with major depression in the not-working group was higher than in the working-at-all group (Jayakody & Stauffer 2000).

Social Selection Hypothesis

The social selection hypothesis posits that characteristics of individuals, including genetic composition and cognitive and behavioral attributes, predispose some individuals to poor mental health that leads them to reduced earnings and employment over the life course (Mojtabai et al. 2015, Whooley et al. 2002). According to the social selection hypothesis, a mother with depressive symptoms would be unable to obtain stable employment because of her psychological distress, including the motivation or ability to seek a new job, and her resultant lack of earnings would prevent her from escaping poverty (Dooley et al. 2000, Mossakowski 2009).

Specific to depressive symptoms, the social selection hypothesis posits that clinically significant levels of depressive symptoms may lead to lower earnings and/or increase the likelihood of unemployment. Unemployment and lower earnings could then result in an increase in use of social services programs that provide aid to the poor (Lerner & Henke 2008). For example, Noonan et al. (2016, p. 201) found that the presence of maternal depressive symptoms during the first year of a child's life "increases the likelihood that children and households experience food insecurity" from 50% to 80% by the time the child is 2 years old. Additionally, Noonan et al. (2016) found that elevated levels of maternal depressive symptoms increased the likelihood of enrollment in social services programs that aided the poor, including the Supplemental Nutrition Assistance Program (SNAP), Medicaid, and Temporary Assistance for Needy Families (TANF). In a representative population-based survey, the National Longitudinal Survey of Youth, mothers rated as at risk of depression on the Center for Epidemiologic Studies Depression Scale (CES-D) (a depressive symptom screening tool) were significantly more likely to enroll in cash assistance for the poor at a 2-year follow-up point compared with mothers with lower CES-D scores at baseline (Dooley & Prause 2002).

It is also possible that high levels of depressive symptoms in mothers might conversely lead to reduction in the receipt of welfare benefits as depressive symptoms may interfere with a mother's ability to adhere to requirements, such as employment and training requirements, of social services programs that aid lower-income families. Support of this theory was found in a cross-sectional study where mothers with positive depression screens were more likely to have been sanctioned for not meeting the participation requirements of a welfare program in the past 12 months compared with mothers with depressive symptoms (Casey et al. 2004, Lindhorst & Mancoske 2006).

Studies of young mothers with children enrolled in the federally funded Head Start program have found that mothers with higher depressive symptoms at baseline reported lower future earnings compared with mothers with lower depressive symptoms at baseline (Raver 2003). In another study of mothers with depressive symptoms participating in 20 federally funded welfare-to-work experimental programs, welfare-to-work programs increased earnings less for the most depressed mothers than for the moderately depressed and the least depressed over a 3-year period (Bloom & Michalopoulos 2001).

Although not specific to mothers, it is worth noting that recent data from the Avon Longitudinal Study of Parents and Children (ALSPAC) identified the chronicity, recency, and level of depressive symptoms in early childhood and adolescence as predictors of poor educational attainment and low income in early adulthood (López-López et al. 2020). Similarly, in another longitudinal sample of low-income employed mothers, those with high levels of depressive symptoms at the onset of the study had increased odds of unemployment during the subsequent 5 years compared with those not at risk for depression (Whooley et al. 2002).

Regarding TANF programs that maintain the strictest restrictions on work participation and sanctions for violations of TANF policy, a recent study found that low-income single mothers in receipt of TANF in states with the most stringent work requirements were much more likely to have worse mental health than their counterparts living in states with flexible work requirement and sanction policies (Davis 2019). A 2007 study that focused on low-income mothers with depressive symptoms when they first received welfare found that depressed mothers were less likely to report that they engaged in job search activities compared with those who did not have depressive symptoms at baseline (Zabkiewicz & Schmidt 2007).

Possible pathways by which mental distress leads to reduced income include an inability to procure skills, training, and social benefits due to diminished energy and higher levels of discouragement (Krueger & Mueller 2011), poor physical health resulting from increased psychological distress (Scott et al. 2016), and a change in family structure or environment (housing instability) due to depression and, subsequently, a reduction in household resources (Cambron et al. 2015). In a study by Whooley et al. (2002), people at risk of depression at baseline were almost twice as likely to have low income (<\$25,000 in 1995–1996) 5 years later compared with those without risk of depression. Unfortunately, these results were not disaggregated by gender.

This research demonstrates the association of depression and low employment. Although depression may overlap with other personal traits and social factors, it is reasonable to expect that effective treatment of depressive symptoms could help women seek and maintain employment and increase earnings (Ridley et al. 2019).

Interactionist Hypothesis

The interactionist model conceptualizes reciprocal influences of mental health, wealth, and well-being by incorporating both social causation and social selection (Conger & Donnellan 2007). In this context, the term interactionist means bidirectional. **Figure 1** provides an illustration of our proposed model to guide research characterizing the links among health (particularly mental health), wealth, and social and economic well-being for pregnant and parenting women. In our model, both (a) characteristics of depressed mothers and (b) social opportunities and threats affect each other in an interactive way.

Conger & Donnellan (2007) used the term interactionist to describe reciprocal or bidirectional processes, although they did not necessarily examine interactions or statistical techniques of moderation. The authors noted that both individual differences and conditions of the social and economic environment affect economic well-being. They proposed that individual cognitive

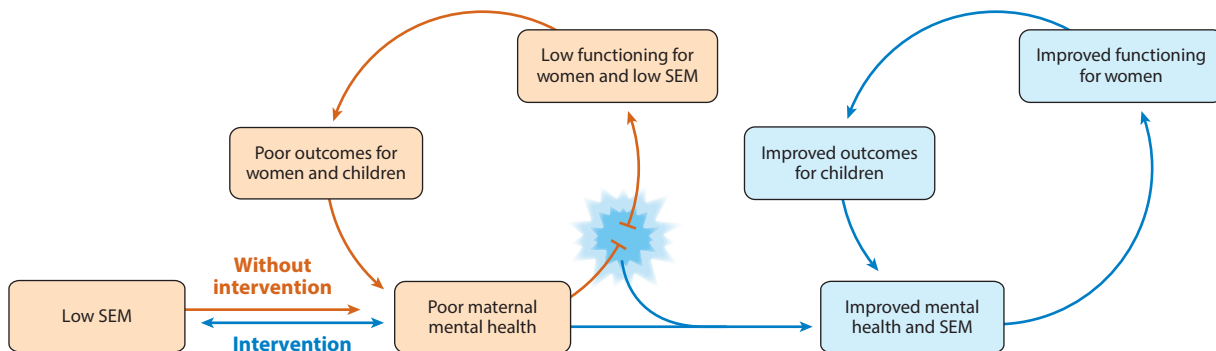


Figure 1

Smith–Mazure model: a focus on maternal mental health. The model follows the consequences of a coordinated intervention (*blue*) that improves mental health and economic capacity, resulting in improved functioning and increased SEM (e.g., job training, employment) for women and better outcomes for their children. Such interventions break the cycle of low SEM and poor maternal mental health (represented by *blue explosive shape*) leading to poor adult and child outcomes (*orange*). Abbreviation: SEM, social and economic mobility.

and personality characteristics affect the likelihood of attaining high or low socioeconomic status as an adult. In turn, adults' socioeconomic status most likely contributes to depressive and other psychiatric symptoms. For the purposes of this review, the model can be used to understand the consequences of an integrated, aligned intervention that improves women's depressive symptoms and economic status, increases social and economic mobility (e.g., education, employment, social capital), and improves outcomes for their children.

A bidirectional negative relationship between major depressive disorder and employment has been found in several studies (Andreeva et al. 2015, Dooley et al. 2000, Olesen et al. 2013). In a longitudinal analysis of low-income women participating in an employment-based antipoverty program from 1994 through 1998, Gupta (2006) examined depressive symptoms and earnings for women at two points in time across 3 years. Women who worked more hours and had higher incomes reported a larger decline in depressive symptoms from time 1 to time 2 compared with women who worked fewer hours and had lower incomes (Gupta 2006). In support of the social causation theory, there was a trend in Gupta's study suggesting that women with lower welfare receipt and higher earnings had lowered depressive symptoms from time 1 to time 2. The social selection hypothesis was also supported because women with lower levels of depressive symptoms at time 1 were more likely than those with higher levels of depressive symptoms to have reductions in welfare receipt and increased incomes over the subsequent 3 years (Gupta 2006).

Although not focused solely on depression, several studies have examined the impact of interventions for trauma and interpersonal violence in a TANF context. A study by Mascaro et al. (2007) detailed the complicated interaction between mental health and employment through an examination of depressive symptoms in women who had reported interpersonal violence and suicidality and were involved in a trauma intervention. At 6 months and 1 year after completion of the intervention, women who had gained employment were less likely to be depressed on a depression symptom screener compared with women who had remained unemployed or lost their employment. When the authors controlled for baseline employment status, this initial finding was attenuated: Women with high depressive symptoms at baseline were more likely to lose employment and less likely to gain employment over the course of the yearlong study compared with those women with low levels of depressive symptoms at baseline. The importance of examining subgroups of women has been noted in additional studies of women with high levels of trauma symptoms. Exposure to early trauma and adversity was associated with long-term unemployment

in a sample of low-income women, with the mechanisms that helped explain these associations being depressive symptoms (Cambron et al. 2015). Research on the social stigma associated with receipt of welfare also has highlighted the interactions that occur and can be statistically assessed in the relationships between receipt of welfare, depressive symptoms, and employment. A theoretical body of work on social status and psychological distress has identified a perception or “signal” of low social rank associated with low income as the primary mechanism to increase depression among low-income populations. Recently, Pak (2020) used data from the 2008–2014 Health and Retirement Study to examine depressive symptoms associated with food stamp participation and noted that the stress and stigma of receiving benefits were mechanisms identified in increasing the risk of major depressive disorder for men and not women.

Overall, the longitudinal research presented supports the interactionist hypothesis, which suggests a cascading effect of economic circumstances affecting depressive status, which in turn affects future economic mobility. Research on the relationship between mental health and economic outcomes could be amplified to test the interactionist hypothesis in understanding how depressive symptoms and economics interact with one another over time.

INTERVENTIONS BASED ON THE SOCIAL CAUSATION HYPOTHESIS

In this section, we examine evidence testing the social causation hypothesis to uncover how earnings, history of welfare receipt, employment, and income affect or predict depression and depressive symptoms in pregnant and parenting women.

Temporary Assistance for Needy Families

The Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) of 1996 created a shift from a welfare system based mainly on the provision of cash assistance without time limits to one requiring employment and imposing other participation criteria as well as time limits on cash assistance. One major goal of this legislation was to move single parents into the workforce. The changes in federal welfare laws in the United States resulted in a dramatic decrease in the welfare rolls and an increase in single mothers entering the workforce (Danziger et al. 2001, Mueser & Troske 2003, Slack et al. 2007). The shift in welfare laws also catalyzed an examination of structural barriers to employment faced by low-income single mothers. PRWORA was based on the key assumption that most welfare recipients could gain employment, but some researchers noted that depressive symptoms and other psychiatric problems would pose significant barriers to gaining and maintaining employment (Danziger et al. 2001, Hall et al. 2017, Jagannathan et al. 2010, Moore et al. 2017).

Although welfare receipt provides cash assistance, there is little evidence that the intervention improves mental health. Many studies suggest that women who are current or former recipients of cash assistance have higher levels of depressive symptoms compared with their counterparts who have never received cash assistance (Dooley & Prause 2002). Two larger studies have documented that the effects on depressive symptoms for women when leaving welfare for work appear to be mixed. In the Three-City Study (Coley et al. 2007), which followed close to 2,000 low-income single mothers in Boston, Chicago, and San Antonio across two waves (1999 and 2001), mothers who became employed or remained employed across both waves showed reduced depressive symptoms compared with mothers who left work or never became employed.

In the second study, the Minnesota Family Investment Program (MFIP), different components of welfare and their effects on family outcomes were examined by researchers prior to the 1996 federal welfare reform legislation. In a cohort of 879 mothers, Gennetian & Miller (2002) found

that MFIP increased employment rates, decreased poverty, and decreased maternal depressive symptoms. Through an experimental design, the authors found that incremental increases in income for mothers reduced depressive symptoms when compared with a control group that did not receive these increases.

Employment

The most rigorously designed experimental studies of policies to increase employment in low-income parenting women have demonstrated little impact on reducing depressive symptoms. Zaslow et al. (2001) reviewed 18 sites and a total of seven experiments across sites prior to the changes made in federal welfare regulations in 1996. Morris (2008) analyzed the same 18 sites several years later and noted that any impact on maternal depressive symptoms depended on both the age of the children in the family and the type of program tested. Women with school-age children demonstrated reduced depressive symptoms depending upon the program, whereas for women with preschool-age children, the programs increased depressive symptoms, but these effects depended partly on the policy tested. Of three programs that offered financial incentives for work (but did not mandate employment), two reduced depressive symptoms and a third had no impact according to follow-up measurements. Among parents of preschool children, programs that emphasized rapid employment were the most likely to increase maternal depressive symptoms (Morris 2008). The latter finding could be partially explained by the fact that the stressors associated with increased employment, such as the need for transportation and child care and maternal concern for the well-being of children, outweigh any beneficial effects of increased earnings on maternal mental health (Chase-Lansdale et al. 2003, Edin & Kissane 2010).

Increasing Earnings and Wages

Increased wages from employment appear to lessen depressive symptoms in women. For example, the work trajectories of women participating in an employment-based antipoverty program were categorized across 2 years (Yoshikawa et al. 2006). While controlling for family demographics and work experience, the study showed that those with full-time employment and wages that increased in value reported lower levels of depressive symptoms compared with women in either the part-time low-wage employment or the rapid-cycle (in and out of jobs) groups. Specifically, CES-D scores were on average five points lower in the full-time employed group with wage growth compared with the two other groups of women. Working more hours was also associated with lowered depressive symptoms. Raver (2003) found that mothers' increased work hours over a period of several months predicted lowered depressive symptoms.

Strong associations between income and mental health are reported in cross-sectional and longitudinal analyses, but the evidence concerning causal direction is less consistent (Gugushvili et al. 2019, Platt et al. 2016, Zimmerman & Bell 2006). The varied findings are likely due to different samples, measurement of income and depressive symptoms, and consideration of gender.

Individual Development Accounts

Individual development accounts (IDAs) have been posited to help the poor (and, specifically, poor women) develop assets, which, in turn, would have a number of economic, social, and psychological benefits for families. IDA programs provide participants with incentives to save for the purchase of specific assets, such as a home, an education, or the development or expansion of a business. If the participants' savings are used to purchase a program-approved asset, those savings are matched

with program funds. IDA programs typically require program participants to take both general financial literacy training and asset-specific financial education courses, such as home ownership education or small business management. Federal funding was allocated to support IDA programs with the enactment of the Assets for Independence Act (AFIA) in 1998. The Assets for Independence Program (Mani et al. 2013) is now the largest funding source of IDAs in the United States, with sponsored IDA programs in 49 states and the District of Columbia. Yet few studies have directly examined the impacts of IDAs on depression. One of the largest studies used longitudinal data collected as part of the American Dream Demonstration experiment, in which applicants to a large IDA program were randomly assigned to either an IDA program or a control group (Rohe et al. 2017). Assignment to the IDA program was not associated with reduced depressive symptoms; rather, the value of assets and perceived financial stress were inversely associated with depressive symptoms at 10-year follow-up. Results by gender are difficult to disentangle because the experiment did not specifically focus on women.

Another type of IDA, which has typically been more targeted at pregnant and parenting women, is a child development account (CDA)—a type of asset-building account created for children at birth. In Oklahoma, primary caregivers of children born during 2007 were randomly offered a CDA ($n = 1,358$) or no CDA (control group; $n = 1,346$). Baseline and follow-up surveys measured the participants' depressive symptoms with a shortened version of the CES-D and found that CES-D scores for the CDA group were significantly lower than for the control group when controlling for baseline CES-D score (Huang et al. 2014). Although often framed as an economic intervention for children, CDAs may improve mothers' psychological well-being, an effect that may be partially mediated through changes in children's social-emotional development.

Earned Income Tax Credit

The Earned Income Tax Credit (EITC) is a refundable tax credit that has lifted millions of families out of poverty (Simon et al. 2018). The credit provides a subsidy as a percentage of income and thus effectively increases the wages of the working poor. A broad base of research suggests that the EITC improves health outcomes and that its most robust results are seen among single mothers and children (Gangopadhyaya et al. 2019). The specific mechanism for these improvements is a reduction in maternal stress (Simon et al. 2018); other examined pathways include improvements in health insurance coverage and employment for mothers (Gangopadhyaya et al. 2019). Specifically, one study examining the impact of the EITC among lower-income mothers found increases in happiness and feelings of self-worth as a function of EITC receipt (Boyd-Swan et al. 2016). In this study, a reduction in self-reported symptoms of depression was found in married mothers but not in single mothers. Given the overall positive effects on health from the EITC, there have been recent calls to expand its use specific to low-income pregnant and parenting women. Such efforts have called for lower-income pregnant women to become automatically eligible for the EITC (Simon et al. 2018). Extant evidence suggests that expanding the EITC with a focus on mothers may be more likely to improve health than expansions focused on fathers or single men, but this conclusion may reflect a need for more research to uncover whether male health remains unchanged following receipt of EITC (Evans & Garthwaite 2014).

It also is worth noting that in Canada, there is a Canada Child Benefit (CCB) paid to parents of children aged 0–17 years. Unlike in the United States, benefits do not depend on earned income specifically, so families with no income still qualify for the benefit, and there is a National Child Benefit (NCB) that is province-specific in implementation. Milligan & Stabile (2011) used data on child benefits across province, time, and family type to study outcomes spanning test scores and maternal and child mental and physical health. Their findings suggested that child benefit

programs in Canada had significant positive effects on both children's test scores and maternal mental health.

The research on tax benefits and child benefits indicates broad benefits to maternal mental health and child outcomes in most developed countries. Child benefit programs, as well as social assistance programs that target groups such as single mothers with young children, expand the budgets of qualifying families. Economists note two potential mechanisms through which this increase of the family budget may improve outcomes for low-income mothers and their children. First, families may use the income to purchase more goods and services, including those goods that are valuable in maintaining child well-being and enhancing child development, such as food, clothing, educational resources, and books (Mayer 1997, Yeung et al. 2002). Second, indirect effects can occur, such as reduced stress and improved marital and family relations and support, increasing opportunities for employment, which may in turn benefit women and children (Currie et al. 2010, Dooley & Prause 2002, Mascaro et al. 2007).

Conditional Cash Transfers

Conditional cash transfer programs aim to reduce poverty by making welfare programs conditional upon a receiver's actions. Money is transferred only to persons who meet certain criteria. In 2007, the Center for Economic Opportunity of the New York City Mayor's Office initiated the first conditional cash transfer program in the United States, Opportunity NYC–Family Rewards (hereafter, Family Rewards), which provided assistance to 2,377 New York City families. The program was explicitly modeled after Mexico's *Oportunidades* (Aber 2009). The New York City program was privately funded and operated for 3 years (2007–2010) to provide cash rewards in the areas of children's education, preventive health care, and employment (Riccio et al. 2010). There were two main mechanisms through which it was hypothesized that Family Rewards could improve the health of low-income families. First, through health-related incentives, the program might encourage participating families to increase their use of preventive care services. Second, the increase in family income brought about by the cash transfer could increase the ability of families to invest in healthy lifestyles and reduce financial stress. The main study of Family Rewards compared the outcomes of the Family Rewards participants with those of a control group of 2,372 families. Ninety-four percent of Family Rewards participants were low-income mothers. The experiment led to improvements in health insurance coverage and in mothers' perceptions of their own health and hope for the future, mainly through improvements in reported financial well-being. Specifically, improved financial well-being explained 32% of the gap in "hope" scores between the intervention and control groups at 42 months, while preventive care use explained 21% of the difference (Courtin et al. 2018).

Outside of the United States, there is a larger evidence base developing on the indirect effect of cash transfers on poverty alleviation and mental health in women. Overall, this literature has demonstrated that positive "economic shocks" delivered to individuals through cash transfer programs (Haushofer & Shapiro 2016) or through economic transfers and poverty alleviation programs (Banerjee et al. 2015) yield mental health benefits in terms of reduced depressive and anxiety symptoms. In South Africa, Green et al. (2016) and Fernald et al. (2008) found no effects of entrepreneurship assistance on depressive symptoms in women. In Fernald and colleagues' (2008) study, a subgroup analysis suggested that credit access decreased depressive symptoms only among men. Green et al. (2016) hypothesized that the gains women derived from increased economic security were offset by stressors associated with planning, launching, and maintaining a new business.

Haushofer & Shapiro (2016) randomized Kenyan villages and households to receive unconditional cash transfers (programs that aim to reduce poverty by providing cash without any

conditions upon the receivers' actions) of \$400 or \$1,500 compared with a group that received no money; results showed that the cash transfers had a positive impact on self-reported distress and depressive symptoms among adults. Recipients of the largest transfers also exhibited reduced levels of the stress hormone cortisol. Similarly, Ozer et al. (2011) compared Mexican women who participated in *Oportunidades*, a government-sponsored conditional cash transfer program, with a matched sample of women not exposed to the program and found that women in the treatment group had lower self-reported depressive symptom scores. The authors also presented evidence that this quasi-experimental effect was mediated by reductions in perceived stress and increases in perceived control.

Summary of Findings on Interventions Based on Social Causation Hypothesis

In summary, there is some support for the social causation hypothesis (Gibson et al. 2018, Moore et al. 2017). Longitudinal studies that have used repeated measures designs have found that increases in income from earnings and wages or other mechanisms have led to reductions in depressive symptoms. Yet, results from studies incorporating additional methods are mixed, especially because employment and increased hours and employment-related demands can also increase role strain for pregnant and postpartum women.

Cash welfare receipt appears to have neither positive nor negative effects on mental well-being for mothers. Other features of employment and social services policy appear to be important. For example, welfare policies that require quick job entry for mothers with young children increase depressive symptoms, perhaps because of child care and other barriers and low-quality jobs. However, at the causal level, the evidence supporting the power of economic factors to change depressive symptoms is still sparse.

Earnings, employment, and tax and cash transfer policies need further examination to understand their effects on maternal mental health and which subgroups of mothers they are most likely to affect. In other words, what are the mechanisms (mediators and/or moderators) by which economic factors benefit maternal mental health? Some research examining the social causation hypothesis has been conducted globally. In this work, the impact of economic interventions on mental health symptoms and subsequent improvements in economic and social mobility has been examined, and cash transfer programs have been found to reduce depressive symptoms in mothers compared with controls (Samuels & Stavropoulou 2016).

INTERVENTIONS BASED ON THE SOCIAL SELECTION HYPOTHESIS

Tests of the social selection hypothesis can be found in studies that examine the impacts of the provision of depression treatment to low-income pregnant and parenting women and examine employment outcomes. While fewer studies exist that have examined economic outcomes of depression treatment for women, a few studies (Booshehri et al. 2018, Brenninkmeijer et al. 2019, Lagerveld et al. 2012) have indicated economic improvement after mental health treatment and provided support for the social selection hypothesis. Yet most of the studies have found that the treatment of depression alone does not substantially improve labor force participation (Bee et al. 2010, Brenninkmeijer et al. 2019, Hollinghurst et al. 2010, Nieuwenhuijsen et al. 2014).

In one longitudinal study (Simon et al. 2001), persons with major depression were randomly assigned to receive one of three different antidepressants, and improvements in depressive symptoms were significantly related to increased employment after 1 year of treatment. Specifically, those in remission and without depressive symptoms had a higher probability of paid employment

and missed 10 fewer days of work compared with those with persistent depressive symptoms that met criteria for major depressive disorder. Unfortunately, the data are not available by gender.

Outside of the United States, Bass et al. (2016) conducted a randomized controlled trial of a group-based economic intervention in the South Kivu province of eastern Democratic Republic of Congo. Bass et al. (2016) investigated the impact of village savings and loans associations on economic, social, and psychological outcomes among female sexual violence survivors (all mothers) with elevated mental health symptoms and impaired functioning. While female sexual violence survivors with mental health symptoms were successfully integrated into a community-based economic program, the immediate program impact was seen only for increased food consumption and reduced experience of stigma. Impacts on depression severity were not realized. Bass and colleagues (2016) suggested that targeted mental health interventions may be needed to improve psychological well-being among women.

POLICY IMPLICATIONS

How we conceptualize the association between poverty and depression in pregnant and parenting women has important implications for policy. In reviewing the evidence, we have focused on studies in the United States. Most public policies for low-income mothers have included job and skill training or work requirements. Sometimes policies will also include economic incentives and work supports such as child care and transportation, but few have focused centrally on treatment for depression as a way of helping women to escape poverty.

One policy response to the social selection hypothesis is to increase access to and coverage of depression treatment (Green et al. 2016) or paid family leave (Ybarra & Noyes 2019), and the available evidence, although still quite limited, suggests that such interventions can improve economic outcomes (Lund et al. 2010). From this perspective, high levels of depressive symptoms among low-income pregnant and parenting women can be framed as a large barrier to overall economic and social mobility for families (Cambron et al. 2015, Jayakody & Stauffer 2000, Miranda & Patel 2005, Radey et al. 2020, Thornicroft & Patel 2014). The addition of employment-directed interventions to clinical interventions for depression has been shown to improve occupational outcomes and depressive symptoms but has not been widely investigated among low-income women (Lagerveld et al. 2012, Nieuwenhuijsen et al. 2014).

Studies testing treatment for depression offer some evidence that mental health assistance and treatment have positive effects on employment success and earnings, but these studies are not specific to the population of low-income pregnant and parenting women. The findings may apply, but we need additional research to determine their generalizability. For the populations sampled, it appears that reductions in depressive symptoms allow for a greater likelihood of obtaining and sustaining employment, yet for reasons we have outlined we may expect different intervention effects for women.

While a strong argument can be made for increasing access to and coverage of mental health treatment, the severe shortage in human resources (Patel et al. 2018) makes universal access difficult. For this reason, some have argued (Brownell et al. 2016, Forget 2013, Shaefer et al. 2018, Van Parijs 2004) that it would be beneficial to introduce broad-based poverty alleviation programs such as universal income policies as these could have a positive impact on the mental health of low-income pregnant and parenting women. In other words, these universal, broad-based poverty alleviation programs represent a pathway for indirect effects on maternal mental health. This strategy is based on the social causation hypothesis that poverty leads to mental ill health and thus suggests that investments in poverty alleviation programs can be framed as indirect methods of improving maternal mental health outcomes (Courtin et al. 2020, Topitzes et al. 2019).

FUTURE POLICY DIRECTIONS

Overall, these findings support the need for policies that integrate welfare and employment with mental health services for low-income pregnant and parenting women and thus suggest a bidirectional and interactive relationship between income and depressive symptoms for mothers. Yet the two systems of (a) welfare and employment policy and (b) mental health services and health care policy typically operate within different agencies and departments with very little overlap in programs and regulations. The evidence reported here supports the idea that depression can adversely affect employment and income and that improvement in depression positively affects economic opportunities. Specifically, this research suggests that one pathway to employment and higher incomes for low-income pregnant and parenting women is better mental health. Therefore, widely available assistance for mental health, especially for low-income pregnant and parenting women, could provide major contributions to programs designed to increase earnings and incomes.

Policies designed to increase employment should acknowledge the individual characteristics and barriers faced by low-income pregnant and parenting women. Policies that increase total income for employed mothers are more likely to improve well-being than those that involve simply an exchange of welfare for work (Morris 2008). The concerns reported by working mothers about child well-being that, in turn, lead to increased depressive symptoms speak loudly to the need for public policies that create work supports (adequate child care in particular) and supports to manage the stress associated with balancing multiple demands from new roles, thus enabling mothers to balance work and parenting. Policies to address this issue include paid family leave, child care subsidies, earnings supplements, health insurance, universal access to mental health visits and support groups, and workplaces with sufficient flexibility to allow mothers to deal with family concerns and needs.

Simply gaining employment is not a remedy that will alleviate economic or mental health burden. In fact, policies that emphasize immediate job entry for mothers with few skills lead not only to increased depressive symptoms but also to unstable employment (Morris 2008).

MENTAL HEALTH OUTREACH FOR MOTHERS

Limited evidence is available regarding interventions that address the complex burdens of depression and employment among low-income pregnant and parenting women (Moore et al. 2017). Yet, one such intervention, the Mental health Outreach for MotherS (MOMS) Partnership, has successfully reduced depressive symptoms among overburdened, underresourced pregnant and parenting women. Launched in New Haven, Connecticut, and now being replicated in five other states, the MOMS Partnership offers 8 weeks of cognitive behavioral therapy (CBT) for treatment of depressive symptoms. MOMS uses a model that engages mothers from the community and trains them to codeliver CBT-based interventions alongside clinicians. Importantly, this MOMS model is fully embedded in the TANF system in two states, thus demonstrating the feasibility of the innovative use of government TANF funds to broadly and simultaneously support maternal mental health and economic mobility.

A recent pilot project in the Washington, DC, TANF system deployed the MOMS 8-week CBT program among two cohorts ($n = 36$) of pregnant and parenting female TANF participants. TANF staff, consisting of a social worker and a community mental health ambassador (a mother from the local community), were trained to deliver the CBT intervention to TANF participants. Participants completed baseline, midpoint, and endpoint measures to assess depressive symptoms, parenting stress, basic needs, employment, and acceptability. Fidelity of the intervention was tracked via audio recordings of sessions. Results examined from baseline to 8 weeks postintervention demonstrated the acceptability and feasibility of the MOMS approach. TANF participants

reported being highly satisfied. Depressive symptoms and parenting stress were significantly reduced from the beginning to the end of the intervention, and mothers reported being more able to meet their family's basic needs from the beginning to the end of the intervention. Additionally, employment (20 hours or more) increased significantly, by 30%, from the beginning to the end of the intervention. Moreover, TANF staff delivered the intervention with high fidelity (Smith et al. 2021).

A major implication of the MOMS pilot project findings for policy is the value of integrating welfare and employment opportunities with mental health services for pregnant and parenting women. Furthermore, the findings suggest that in addition to the effects of the MOMS CBT group-based treatment and the use of a community mental health ambassador, group-based economic activities, such as those employed by MOMS, may also provide a means of affecting economic outcomes and depressive symptoms for low-income parenting women. In one study (Pronyk et al. 2008), participants reported that having an environment for social connection made them feel supported and connected; such benefits may in turn lead to improvements in maternal mental health. Traditional intervention research for people with common mental disorders living in poverty has focused on alleviating the burden of symptoms through psychotherapy and/or psychosocial programming (Lund et al. 2010). Research now needs to examine more fully the integration of economic and mental health interventions for low-income pregnant and parenting women.

CONCLUSION

Since our specific focus in this review is on the mental health of low-income pregnant and parenting women, most of our attention is on the links among poverty, depression, and social and economic mobility for women. It is important to see interventions in these specific areas as part of an ambitious set of policies to reduce poverty itself and to improve outcomes for low-income mothers.

Our results make at least two important contributions to the literature on poverty, mental health, and parenting specific to women. First, we have summarized the gendered nature of the mental health and wealth relationship and the large body of work showing that poverty and mental health are in fact related in pregnant and parenting women (Lund et al. 2010). A gendered understanding of poverty and depression is crucial for exploring the differing impacts and resultant policy interventions. Women face the dual burden of widespread poverty and heightened risk for depression.

Second, particular to low-income women who are pregnant and parenting, depressive symptoms have been shown to have negative impacts on the successful transition from welfare to work. Applicants to programs that aid the poor, such as the TANF program, experience depressive symptoms at much higher rates than do members of the general public. Yet the traditional focus in studies of barriers to employment among women has been on structural barriers, including access to child care and transportation, and assessment of individual barriers has often been limited to demographic factors, such as lack of schooling and work experience or physical health limitations. However, depression appears to be an important barrier to economic mobility, and the existence of depressive symptoms may prevent women from leaving welfare for work and remaining employed.

The mechanisms that might explain this link between poverty and depressive symptoms, however, remain uncertain for low-income pregnant and parenting women (Burns 2015). Additional evidence is greatly needed to guide policy makers. For example, it is likely that raising income levels will affect depressive symptoms in women differently than in men. Women who have the personal resources to access networks of support will be disproportionately helped by raising their income, whereas women who lack access to social capital and supports are likely to be less affected

by changes in their income and will require additional support to change employment trajectories, parenting practices, and, in turn, child outcomes.

Research on the relationship between poverty, stress, and parenting must take into account the reciprocal relationships and interdependence between parents and children who are facing adversity together and the particular role of gender in intergenerational poverty and mental health (Gugushvili et al. 2019). Future research needs to focus not only on the overall effects on women but also on the interactive effects of poverty alleviation policies and programs on women and children together.

Poverty is only one of a number of factors that affect parenting, so it should not be assumed that changes in income (especially minimal changes, such as those that typically result from government initiatives) will necessarily reduce low-income pregnant and parenting women's depressive symptoms sufficiently to change parenting style (Belsky & Vondra 1989). For example, Fram's (2003) study of mothers receiving welfare payments in the United States found that social support acted as a buffer against the effect of mothers' stress and disciplinary practices characteristic of parenting style. Fram (2003) found that when a combination of factors supporting resiliency—more education, more earnings, and better neighborhoods—came together, parenting practices and child outcomes tended to be better. Despite the strong body of research linking poverty to poor child outcomes, there is equally good evidence to show that mothers living in poverty possess strong coping skills in the face of adversity.

Because psychological factors play a critical role in the success of economic policy efforts, efforts to address depression in parenting women are a potentially important function of welfare and social services receipt that have often been overlooked. In this article, we have reported on findings from a pilot study to embed high-quality depression treatment for mothers into the Washington, DC, TANF system. The MOMS findings suggest that one pathway to employment and higher incomes for low-income pregnant and parenting women is better mental health. Therefore, widely available assessments and interventions for depression and other psychological distress through the TANF system could prove to be a scalable method to help mothers increase earnings and employment and reduce the cycle of intergenerational poverty.

SUMMARY POINTS

1. A gendered understanding of poverty and depression is critical for exploring policy interventions.
2. Depression has been shown to have negative impacts on the successful transition from welfare to work for low-income women who are pregnant and parenting.
3. Psychological factors play a critical role in the success of economic policy efforts, and thus mental health problems are a potentially important function of welfare and social services receipt that have often been overlooked. Findings suggest that one pathway to employment and higher incomes for low-income pregnant and parenting women is better mental health.

DISCLOSURE STATEMENT

M.V.S. is the founder and director of the Mental health Outreach for MotherS (MOMS) Partnership and the principal investigator of Elevate, a policy lab at Yale University. Apart from that, the authors are not aware of any affiliations, memberships, funding, or financial holdings that might be perceived as affecting the objectivity of this review.

LITERATURE CITED

- Aber JL, Bennett NG, Conley DC, Li J. 1997. The effects of poverty on child health and development. *Annu. Rev. Public Health* 18:463–83
- Aber L. 2009. Experiments in 21st century antipoverty policy. *Public Policy Res.* 16(1):57–63
- Andreeva E, Hanson LLM, Westerlund H, Theorell T, Brenner MH. 2015. Depressive symptoms as a cause and effect of job loss in men and women: evidence in the context of organisational downsizing from the Swedish Longitudinal Occupational Survey of Health. *BMC Public Health* 15:1045
- Apouey B, Clark AE. 2015. Winning big but feeling no better? The effect of lottery prizes on physical and mental health. *Health Econ.* 24(5):516–38
- Aydiner-Avsar N, Piovani C. 2019. The gender impact of unemployment on mental health: a micro analysis for the United States. *Forum Soc. Econ.* <https://doi.org/10.1080/07360932.2018.1535991>
- Bailey MJ, Danziger S. 2013. *Legacies of the War on Poverty*. New York: Russell Sage Found.
- Banerjee A, Duflo E, Goldberg N, Karlan D, Osei R, et al. 2015. A multifaceted program causes lasting progress for the very poor: evidence from six countries. *Science* 348(6236):1260799
- Bass J, Murray S, Cole G, Bolton P, Poulton C, et al. 2016. Economic, social and mental health impacts of an economic intervention for female sexual violence survivors in Eastern Democratic Republic of Congo. *Glob. Ment. Health* 3:e19
- Bee PE, Bower P, Gilbody S, Lovell K. 2010. Improving health and productivity of depressed workers: a pilot randomized controlled trial of telephone cognitive behavioral therapy delivery in workplace settings. *Gen. Hosp. Psychiatry* 32(3):337–40
- Belsky J, Vondra J. 1989. Lessons from child abuse: the determinants of parenting. In *Child Maltreatment: Theory and Research on the Causes and Consequences of Child Abuse and Neglect*, ed. D Cicchetti, V Carlson, pp. 153–202. Cambridge, UK: Cambridge Univ. Press
- Bland RC, Stebelsky G, Orn H, Newman SC. 1988. Psychiatric disorders and unemployment in Edmonton. *Acta Psychiatr. Scand.* 77(S338):72–80
- Blane D, Smith GD, Bartley M. 1993. Social selection: what does it contribute to social class differences in health? *Sociol. Health Illn.* 15(1):1–15
- Bloom D, Michalopoulos C. 2001. *How welfare and work policies affect employment and income: a synthesis of research*. Rep., MDRRC, New York
- Booshehri LG, Dugan J, Patel F, Bloom S, Chilton M. 2018. Trauma-informed Temporary Assistance for Needy Families (TANF): a randomized controlled trial with a two-generation impact. *J. Child Fam. Stud.* 27(5):1594–604
- Boyd-Swan C, Herbst CM, Ifcher J, Zarghamee H. 2016. The earned income tax credit, mental health, and happiness. *J. Econ. Behav. Organ.* 126:18–38
- Brenninkmeijer V, Lagerveld SE, Blonk RW, Schaufeli WB, Wijngaards-de Meij LD. 2019. Predicting the effectiveness of work-focused CBT for common mental disorders: the influence of baseline self-efficacy, depression and anxiety. *J. Occup. Rehabil.* 29(1):31–41
- Brownell MD, Chartier MJ, Nickel NC, Chateau D, Martens PJ, et al. 2016. Unconditional prenatal income supplement and birth outcomes. *Pediatrics* 137(6):e20152992
- Bruce ML, Takeuchi DT, Leaf PJ. 1991. Poverty and psychiatric status: longitudinal evidence from the New Haven Epidemiologic Catchment Area Study. *Arch. Gen. Psychiatry* 48(5):470–74
- Burns JK. 2015. Poverty, inequality and a political economy of mental health. *Epidemiol. Psychiatr. Sci.* 24(2):107–13
- Cambron C, Gringeri C, Vogel-Ferguson MB. 2015. Adverse childhood experiences, depression and mental health barriers to work among low-income women. *Soc. Work Public Health* 30(6):504–15
- Casey P, Goolsby S, Berkowitz C, Frank D, Cook J, et al. 2004. Maternal depression, changing public assistance, food security, and child health status. *Pediatrics* 113(2):298–304
- Caughy MO, O'Campo PJ, Muntaner C. 2003. When being alone might be better: neighborhood poverty, social capital, and child mental health. *Soc. Sci. Med.* 57(2):227–37
- Chant S. 2006. Re-thinking the “feminization of poverty” in relation to aggregate gender indices. *J. Hum. Dev.* 7(2):201–20

- Chase-Lansdale PL, Moffitt RA, Lohman BJ, Cherlin AJ, Coley RL, et al. 2003. Mothers' transitions from welfare to work and the well-being of preschoolers and adolescents. *Science* 299(5612):1548–52
- Ciciolla L, Curlee AS, Luthar SS. 2017. What women want: employment preference and adjustment among mothers. *J. Fam. Econ. Issues* 38(4):494–513
- Coley RL, Lohman BJ, Votruba-Drzal E, Pittman LD, Chase-Lansdale PL. 2007. Maternal functioning, time, and money: the world of work and welfare. *Child. Youth Serv. Rev.* 29(6):721–41
- Conger RD, Donnellan MB. 2007. An interactionist perspective on the socioeconomic context of human development. *Annu. Rev. Psychol.* 58:175–99
- Courtin E, Kim S, Song S, Yu W, Muennig P. 2020. Can social policies improve health? A systematic review and meta-analysis of 38 randomized trials. *Milbank Q.* 98(2):297–371
- Courtin E, Muennig P, Verma N, Riccio JA, Lagarde M, et al. 2018. Conditional cash transfers and health of low-income families in the US: evaluating the Family Rewards experiment. *Health Aff.* 37(3):438–46
- Currie J, Stabile M, Manivong P, Roos LL. 2010. Child health and young adult outcomes. *J. Hum. Resour.* 45(3):517–48
- Danziger SK, Carlson MJ, Henly JR. 2001. Post-welfare employment and psychological well-being. *Women Health* 32(1–2):47–78
- Davis O. 2019. What is the relationship between benefit conditionality and mental health? Evidence from the United States on TANF policies. *J. Soc. Policy* 48(2):249–69
- Dearing E, Taylor BA, McCartney K. 2004. Implications of family income dynamics for women's depressive symptoms during the first 3 years after childbirth. *Am. J. Public Health* 94(8):1372–77
- Demirhan B, Demirhan E. 2019. The determinants of female labor force participation: evidence from aggregated and disaggregated panel data of developing countries. In *Gender and Diversity: Concepts, Methodologies, Tools, and Applications*, Vol. 1, pp. 336–54. Hershey, PA: IGI Glob.
- Dohrenwend BP, Dohrenwend BS. 1969. *Social Status and Psychological Disorder: A Causal Inquiry*. New York: John Wiley & Sons
- Dooley D, Catalano R, Wilson G. 1994. Depression and unemployment: panel findings from the Epidemiologic Catchment Area study. *Am. J. Community Psychol.* 22(6):745–65
- Dooley D, Prause J. 2002. Mental health and welfare transitions: depression and alcohol abuse in AFDC women. *Am. J. Community Psychol.* 30(6):787–813
- Dooley D, Prause J, Ham-Rowbottom KA. 2000. Underemployment and depression: longitudinal relationships. *J. Health Soc. Behav.* 41(4):421–36
- Edin K. 2000. What do low-income single mothers say about marriage? *Soc. Probl.* 47(1):112–33
- Edin K, Kissane RJ. 2010. Poverty and the American family: a decade in review. *J. Marriage Fam.* 72(3):460–79
- Elder GH Jr., Van Nguyen T, Caspi A. 1985. Linking family hardship to children's lives. *Child Dev.* 56(2):361–75
- England MJ, Sim LJ, eds. 2009. Associations between depression in parents and parenting, child health, and child psychological functioning. In *Depression in Parents, Parenting, and Children: Opportunities to Improve Identification, Treatment, and Prevention*, pp. 119–81. Washington, DC: Natl. Acad.
- Enns JE, Holmqvist M, Wener P, Halas G, Rothney J, et al. 2016. Mapping interventions that promote mental health in the general population: a scoping review of reviews. *Prev. Med.* 87:70–80
- Enns JE, Holmqvist M, Wener P, Rothney J, Halas G, et al. 2019. Interventions aimed at reducing poverty for primary prevention of mental illness: a scoping review. *Ment. Health Prev.* 15:200165
- Evans WN, Garthwaite CL. 2014. Giving mom a break: the impact of higher EITC payments on maternal health. *Am. Econ. J. Econ. Policy* 6(2):258–90
- Fernald L, Hamad R, Karlan D, Ozer EJ, Zinman J. 2008. Small individual loans and mental health: a randomized controlled trial among South African adults. *BMC Public Health* 8:409
- Finkelstein A, Taubman S, Wright B, Bernstein M, Gruber J, et al. (Oregon Health Study Group). 2012. The Oregon health insurance experiment: evidence from the first year. *Q. J. Econ.* 127(3):1057–1106
- Forget EL. 2013. New questions, new data, old interventions: the health effects of a guaranteed annual income. *Prev. Med.* 57(6):925–28
- Fournier JC, DeRubeis RJ, Amsterdam J, Shelton RC, Hollon SD. 2015. Gains in employment status following antidepressant medication or cognitive therapy for depression. *Br. J. Psychiatry* 206(4):332–38

- Fram MS. 2003. *Managing to parent: social support, social capital, and parenting practices among welfare-participating mothers with young children*, Discuss. Pap. 1263-03, Inst. Res. Poverty, Univ. Wis.-Madison, Madison
- Fuller B, Kagan SL. 2000. *Remember the Children: Mothers Balance Work and Child Care Under Welfare Reform: Growing Up in Poverty Project 2000, Wave 1 Findings—California, Connecticut, Florida*. Berkeley: Grad. Sch. Educ.-PACE, Univ. Calif.
- Gangopadhyaya A, Blavin F, Gates J, Braga B. 2019. *Credit where it's due: investigating pathways from EITC expansion to maternal mental health*. IZA Discuss. Pap. 12233, IZA Inst. Labor Econ., Bonn, Ger. <http://ftp.iza.org/dp12233.pdf>
- Gariépy G, Honkaniemi H, Quesnel-Vallée A. 2016. Social support and protection from depression: systematic review of current findings in Western countries. *Br. J. Psychiatry* 209(4):284–93
- Gennettian LA, Miller C. 2002. Children and welfare reform: a view from an experimental welfare program in Minnesota. *Child Dev.* 73(2):601–20
- Gibson M, Thomson H, Banas K, Lutje V, McKee MJ, et al. 2018. Welfare-to-work interventions and their effects on the mental and physical health of lone parents and their children. *Cochrane Database Syst. Rev.* <https://doi.org/10.1002/14651858.CD009820.pub3>
- Golin CE, Amola O, Dardick A, Montgomery B, Bishop L, et al. 2017. Poverty, personal experiences of violence, and mental health: understanding their complex intersections among low-income women. In *Poverty in the United States: Women's Voices*, ed. A O'Leary, PM Frew, pp. 63–91. Cham, Switz.: Springer Int.
- Green EP, Blattman C, Jamison J, Annan J. 2016. Does poverty alleviation decrease depression symptoms in post-conflict settings? A cluster-randomized trial of microenterprise assistance in Northern Uganda. *Glob. Ment. Health* 3:e7
- Gugushvili A, Zhao Y, Bukodi E. 2019. 'Falling from grace' and 'rising from rags': intergenerational educational mobility and depressive symptoms. *Soc. Sci. Med.* 222:294–304
- Gupta AE. 2006. *Relations of depressive symptoms to employment and income among low-income adults*. MA Thesis, Univ. Tex., Austin
- Gupta AE, Huston AC. 2009. Depressive symptoms and economic outcomes of low-income women: a review of the social causation, social selection, and interactionist hypotheses. *Soc. Issues Policy Rev.* 3(1):103–40
- Hall A, Hickox S, Kuan J, Sung C. 2017. Barriers to employment: individual and organizational perspectives. In *Research in Personnel and Human Resources Management*, Vol. 35, ed. MR Buckley, AR Wheeler, JRB Halbesleben, pp. 243–86. Bingley, UK: Emerald
- Hardy B, Smeeding T, Ziliak JP. 2018. The changing safety net for low-income parents and their children: structural or cyclical changes in income support policy? *Demography* 55(1):189–221
- Hasin DS, Sarvet AL, Meyers JL, Saha TD, Ruan WJ, et al. 2018. Epidemiology of adult DSM-5 major depressive disorder and its specifiers in the United States. *JAMA Psychiatry* 75(4):336–46
- Haushofer J, Fehr E. 2014. On the psychology of poverty. *Science* 344:862–67
- Haushofer J, Shapiro J. 2016. The short-term impact of unconditional cash transfers to the poor: experimental evidence from Kenya. *Q. J. Econ.* 131(4):1973–2042
- Hollinghurst S, Peters TJ, Kaur S, Wiles N, Lewis G, Kessler D. 2010. Cost-effectiveness of therapist-delivered online cognitive-behavioural therapy for depression: randomised controlled trial. *Br. J. Psychiatry* 197(4):297–304
- Huang J, Sherraden M, Purnell JQ. 2014. Impacts of Child Development Accounts on maternal depressive symptoms: evidence from a randomized statewide policy experiment. *Soc. Sci. Med.* 112:30–38
- Hyde JS, Mezulis AH. 2020. Gender differences in depression: biological, affective, cognitive, and sociocultural factors. *Harvard Rev. Psychiatry* 28(1):4–13
- Jagannathan R, Camasso MJ, Sambamoorthi U. 2010. Experimental evidence of welfare reform impact on clinical anxiety and depression levels among poor women. *Soc. Sci. Med.* 71(1):152–60
- Jayakody R, Stauffer D. 2000. Mental health problems among single mothers: implications for work and welfare reform. *J. Soc. Issues* 56(4):617–34
- Kessler RC. 2003. Epidemiology of women and depression. *J. Affect. Disord.* 74(1):5–13
- Kessler RC, Berglund P, Demler O, Jin R, Koretz D, et al. 2003. The epidemiology of major depressive disorder: results from the National Comorbidity Survey Replication (NCS-R). *JAMA* 289(23):3095–105

- Kessler RC, Turner JB, House JS. 1989. Unemployment, reemployment, and emotional functioning in a community sample. *Am. Sociol. Rev.* 54(4):648–57
- Krueger AB, Mueller A. 2011. Job search, emotional well-being, and job finding in a period of mass unemployment: evidence from high-frequency longitudinal data. *Brookings Papers on Economic Activity*. <https://www.brookings.edu/bpea-articles/job-search-emotional-well-being-and-job-finding-in-a-period-of-mass-unemployment-evidence-from-high-frequency-longitudinal-data/>
- Lagerveld SE, Blonk RW, Brenninkmeijer V, Wijngaards-de Meij L, Schaufeli WB. 2012. Work-focused treatment of common mental disorders and return to work: a comparative outcome study. *J. Occup. Health Psychol.* 17(2):220–34
- Lerner D, Henke RM. 2008. What does research tell us about depression, job performance, and work productivity? *J. Occup. Environ. Med.* 50(4):401–10
- Lindhorst T, Mancoske RJ. 2006. The social and economic impact of sanctions and time limits on recipients of Temporary Assistance to Needy Families. *J. Sociol. Soc. Welf.* 33(1):93–114
- Lindqvist E, Östling R, Cesarini D. 2020. Long-run effects of lottery wealth on psychological well-being. *Rev. Econ. Stud.* <https://doi.org/10.1093/restud/rdaa006>
- London AS, Scott EK, Edin K, Hunter V. 2004. Welfare reform, work-family tradeoffs, and child well-being. *Fam. Relat.* 53(2):148–58
- López-López JA, Kwong AS, Washbrook E, Pearson RM, Tilling K, et al. 2020. Trajectories of depressive symptoms and adult educational and employment outcomes. *BjPsych Open* 6(1):e6
- Lorant V, Delière D, Eaton W, Robert A, Philippot P, Ansseau M. 2003. Socioeconomic inequalities in depression: a meta-analysis. *Am. J. Epidemiol.* 157(2):98–112
- Lund C, Breen A, Flisher AJ, Kakuma R, Corrigall J, et al. 2010. Poverty and common mental disorders in low and middle income countries: a systematic review. *Soc. Sci. Med.* 71(3):517–28
- Lundberg S, Pollak RA. 2007. The American family and family economics. *J. Econ. Perspect.* 21(2):3–26
- Luthar SS, Cicciolla L. 2015. Who mothers mommy? Factors that contribute to mothers' well-being. *Dev. Psychol.* 51(12):1812–23
- Mani A, Mullainathan S, Shafrir E, Zhao J. 2013. Poverty impedes cognitive function. *Science* 341(6149):976–80
- Marcus M, Yasamy MT, van Ommeren M, Chisholm D, Saxena S. 2012. *Depression: a global public health concern*. Rep., WHO Dep. Ment. Health Subst. Abus., Geneva. https://www.who.int/mental_health/management/depression/who_paper_depression_wfmh_2012.pdf
- Martínez PG, Blanco C, Wall MM, Liu SM, Olsson M. 2020. Sex differences on the relation between major depressive disorder and labor market outcomes: a national prospective study. *J. Psychiatr. Res.* 124:144–50
- Mascaro N, Arnette NC, Santana CM, Kaslow NJ. 2007. Longitudinal relations between employment and depressive symptoms in low-income, suicidal African American women. *J. Clin. Psychol.* 63(6):541–53
- Mayer SE. 1997. *What Money Can't Buy: Family Income and Children's Life Chances*. Cambridge, MA: Harvard Univ. Press
- McEwen BS. 2003. Mood disorders and allostatic load. *Biol. Psychiatry* 54(3):200–7
- McEwen BS, Nasca C, Gray JD. 2015. Stress effects on neuronal structure: hippocampus, amygdala, and prefrontal cortex. *Neuropsychopharmacology* 41(1):3–23
- McEwen BS, Stellar E. 1993. Stress and the individual: mechanisms leading to disease. *Arch. Intern. Med.* 153:2093–101
- Milligan K, Stabile M. 2011. Do child tax benefits affect the well-being of children? Evidence from Canadian child benefit expansions. *Am. Econ. J. Econ. Policy* 3(3):175–205
- Miranda JJ, Patel V. 2005. Achieving the Millennium Development Goals: Does mental health play a role? *PLOS Med.* 2(10):e291
- Mojtabai R, Stuart EA, Hwang I, Susukida R, Eaton WW, et al. 2015. Long-term effects of mental disorders on employment in the National Comorbidity Survey ten-year follow-up. *Soc. Psychiatry Psychiatr. Epidemiol.* 50(11):1657–68
- Moore THM, Kapur N, Hawton K, Richards A, Metcalfe C, Gunnell D. 2017. Interventions to reduce the impact of unemployment and economic hardship on mental health in the general population: a systematic review. *Psychol. Med.* 47(6):1062–84
- Morris PA. 2008. Welfare program implementation and parents' depression. *Soc. Serv. Rev.* 82(4):579–614

- Mossakowski KN. 2009. The influence of past unemployment duration on symptoms of depression among young women and men in the United States. *Am. J. Public Health* 99(10):1826–32
- Moussavi S, Chatterji S, Verdes E, Tandon A, Patel V, Ustun B. 2007. Depression, chronic diseases, and decrements in health: results from the World Health Surveys. *Lancet* 370(9590):851–58
- Mueser P, Troske KR. 2003. *Welfare reform and its effect on the dynamics of welfare receipt, employment, and earnings*. Rep., Employ. Policies Inst., Washington, DC
- Nasca C, Davis E, Bigio B, Sandi C, McEwen BS. 2017. Effects of stress throughout the lifespan on the brain and behavior. In *Hormones, Brain and Behavior*, ed. DW Pfaff, M Joëls, pp. 443–63. Oxford, UK: Academic. 3rd ed.
- Nieuwenhuisen K, Faber B, Verbeek JH, Neumeyer-Gromen A, Hees HL, et al. 2014. Interventions to improve return to work in depressed people. *Cochrane Database Syst. Rev.* <https://doi.org/10.1002/14651858.CD006237.pub3>
- Noonan K, Corman H, Reichman NE. 2016. Effects of maternal depression on family food insecurity. *Econ. Hum. Biol.* 22:201–15
- Olesen SC, Butterworth P, Leach LS, Kelaher M, Pirkis J. 2013. Mental health affects future employment as job loss affects mental health: findings from a longitudinal population study. *BMC Psychiatry* 13:144
- Oliker SJ. 1995. The proximate contexts of workfare and work: a framework for studying poor women's economic choices. *Sociol. Q.* 36(2):251–72
- Ozer EJ, Fernald L, Weber A, Flynn EP, VanderWeele TJ. 2011. Does alleviating poverty affect mothers' depressive symptoms? A quasi-experimental investigation of Mexico's *Oportunidades* programme. *Int. J. Epidemiol.* 40(6):1565–76
- Pak TY. 2020. Welfare stigma as a risk factor for major depressive disorder: evidence from the Supplemental Nutrition Assistance Program. *J. Affect. Disord.* 260:53–60
- Pascoe JM, Stolfi A, Ormond MB. 2006. Correlates of mothers' persistent depressive symptoms: a national study. *J. Pediatr. Health Care* 20(4):261–69
- Patel V, Saxena S, Lund C, Thornicroft G, Baingana F, et al. 2018. The *Lancet* Commission on global mental health and sustainable development. *Lancet* 392(10157):1553–98
- Pavetti L, Olson K, Pindus N, Pernas M. 1996. *Designing welfare-to-work programs for families facing personal or family challenges: lessons from the field*. Rep., Urban Inst., Washington, DC
- Perry RE, Finegood ED, Braren SH, DeJoseph ML, Putrino DF, et al. 2019. Developing a neurobehavioral animal model of poverty: drawing cross-species connections between environments of scarcity-adversity, parenting quality, and infant outcome. *Dev. Psychopathol.* 31(2):399–418
- Pierce JR, Schott PK. 2020. Trade liberalization and mortality: evidence from US counties. *Am. Econ. Rev. Insights* 2(1):47–64
- Pieters J, Klasen S. 2020. Randomization for women's economic empowerment? Lessons and limitations of randomized experiments. *World Dev.* 127:104820
- Platt J, Prins S, Bates L, Keyes K. 2016. Unequal depression for equal work? How the wage gap explains gendered disparities in mood disorders. *Soc. Sci. Med.* 149:1–8
- Polit DF, London AS, Martinez JM. 2001. *The health of poor urban women: findings from the Project on Devolution and Urban Change*. Rep., MDRC, New York
- Pronyk PM, Harpham T, Busza J, Phetla G, Morison LA, et al. 2008. Can social capital be intentionally generated? A randomized trial from rural South Africa. *Soc Sci Med.* 67(10):1559–70
- Quint JC. 1994. *New chance: interim findings on a comprehensive program for disadvantaged young mothers and their children*. WWC Interv. Rep., U.S. Dep. Educ., Washington, DC
- Radey M, McWey L, Cui M. 2020. Psychological distress among low-income mothers: the role of public and private safety nets. *Women Health* 60(6):692–706
- Raver C. 2003. Does work pay psychologically as well as economically? The role of employment in predicting depressive symptoms and parenting among low-income families. *Child Dev.* 74(6):1720–36
- Ribeiro WS, Bauer A, Andrade MCR, York-Smith M, Pan PM, et al. 2017. Income inequality and mental illness-related morbidity and resilience: a systematic review and meta-analysis. *Lancet Psychiatry* 4(7):554–62
- Riccio JA, Dechausay N, Greenberg DM, Miller C, Rucks Z, Verma N. 2010. *Toward reduced poverty across generations: early findings from New York City's conditional cash transfer program*. Rep., MDRC, New York

- Richard JY, Lee H-S. 2019. A qualitative study of racial minority single mothers' work experiences. *J. Couns. Psychol.* 66(2):143–57
- Ridley M, Rao G, Vikram P, Schilbach F. 2019. *Poverty and mental illness: causal evidence*. Work. Pap., MIT/Harvard Univ., Cambridge, MA
- Rohe WM, Key C, Grinstein-Weiss M, Schreiner M, Sherraden M. 2017. The impacts of individual development accounts, assets, and debt on future orientation and psychological depression. *J. Policy Pract.* 16(1):24–45
- Samuels F, Stavropoulou M. 2016. 'Being able to breathe again': the effects of cash transfer programmes on psychosocial wellbeing. *J. Dev. Stud.* 52:1099–114
- Schless AP, Schwartz L, Goetz C, Mendels J. 1974. How depressives view the significance of life events. *Br. J. Psychiatry* 125(587):406–10
- Schofield TJ, Martin MJ, Conger KJ, Neppl TM, Donnellan MB, Conger RD. 2011. Intergenerational transmission of adaptive functioning: a test of the interactionist model of SES and human development. *Child Dev.* 82(1):33–47
- Scott KM, Lim C, Al-Hamzawi A, Alonso J, Bruffaerts R, et al. 2016. Association of mental disorders with subsequent chronic physical conditions: world mental health surveys from 17 countries. *JAMA Psychiatry* 73(2):150–58
- Seedat S, Scott KM, Angermeyer MC, Berglund P, Bromet EJ, et al. 2009. Cross-national associations between gender and mental disorders in the World Health Organization World Mental Health Surveys. *Arch. Gen. Psychiatry* 66(7):785–95
- Shaefer HL, Collyer S, Duncan G, Edin K, Garfinkel I, et al. 2018. A universal child allowance: a plan to reduce poverty and income instability among children in the United States. *RSF* 4(2):22–42
- Silva M, Loureiro A, Cardoso G. 2016. Social determinants of mental health: a review of the evidence. *Eur. J. Psychiatry* 30(4):259–92
- Simon D, McInerney M, Goodell S. 2018. *The Earned Income Tax Credit, poverty, and health*. Policy Brief, Health Aff., Bethesda, MD
- Simon GE, Barber C, Birnbaum HG, Frank RG, Greenberg PE, et al. 2001. Depression and work productivity: the comparative costs of treatment versus nontreatment. *J. Occup. Environ. Med.* 43(1):2–9
- Slack KS, Magnuson KA, Berger LM, Yoo J, Coley RL, et al. 2007. Family economic well-being following the 1996 welfare reform: trend data from five non-experimental panel studies. *Child. Youth Serv. Rev.* 29(6):698–720
- Smith MV, Callinan LS, Posner CS, Holmes SC, Ebling R. 2021. Improving maternal mental health as a pathway to economic mobility in the TANF system. *Psychiatr. Serv.* In press
- Thornicroft G, Patel V. 2014. Including mental health among the new sustainable development goals. *BMJ* 349:g5189
- Tirumalaraju V, Suchting R, Evans J, Goetzl L, Refuerzo J, et al. 2020. Risk of depression in the adolescent and adult offspring of mothers with perinatal depression: a systematic review and meta-analysis. *JAMA Netw. Open* 3(6):e208783
- Topitzes J, Mersky JP, Mueller DJ, Bacalso E, Williams C. 2019. Implementing trauma screening, brief intervention, and referral to treatment (T-SBIRT) within employment services: a feasibility trial. *Am. J. Community Psychol.* 64(3–4):298–309
- UNESCO. 2019. Poverty. *United Nations Educational, Scientific and Cultural Organization*. <http://www.unesco.org/new/en/social-and-human-sciences/themes/international-migration/glossary/poverty>
- Van Parijs P. 2004. Basic income: a simple and powerful idea for the twenty-first century. *Politics Soc.* 32(1):7–39
- Wadsworth ME, Achenbach TM. 2005. Explaining the link between low socioeconomic status and psychopathology: testing two mechanisms of the social causation hypothesis. *J. Consult. Clin. Psychol.* 73(6):1146–53
- Washbrook E, Gregg P, Propper C. 2014. A decomposition analysis of the relationship between parental income and multiple child outcomes. *J. R. Stat. Soc. A* 177(4):757–82
- Weissman MM, Paykel ES, Siegel R, Klerman GL. 1971. The social role performance of depressed women: comparisons with a normal group. *Am. J. Orthopsychiatry* 41(3):390–405
- Whooley MA, Kiefe CI, Chesney MA, Markovitz JH, Matthews K, Huley SB. 2002. Depressive symptoms, unemployment, and loss of income: the CARDIA study. *Arch. Intern. Med.* 162(22):2614–20

- Wolfe B, Jakubowski J, Haveman R, Courey M. 2012. The income and health effects of tribal casino gaming on American Indians. *Demography* 49(2):499–524
- Wood D. 2003. Effect of child and family poverty on child health in the United States. *Pediatrics* 112(Suppl. 3):707–11
- Ybarra M, Noyes JL. 2019. Program and economic outcomes by TANF work exemption status. *J. Soc. Soc. Work Res.* 10(1):97–125
- Yeung WJ, Linver MR, Brooks-Gunn J. 2002. How money matters for young children's development: parental investment and family processes. *Child Dev.* 73(6):1861–79
- Yoshikawa H, Weisner TS, Lowe ED. 2006. *Making It Work: Low-Wage Employment, Family Life, and Child Development*. New York: Russell Sage Found.
- Zabkiewicz D, Schmidt LA. 2007. Behavioral health problems as barriers to work: results from a 6-year panel study of welfare recipients. *J. Behav. Health Serv. Res.* 34(2):168–85
- Zaslow MJ, Hair EC, Dion MR, Ahluwalia SK, Sargent J. 2001. Maternal depressive symptoms and low literacy as potential barriers to employment in a sample of families receiving welfare: Are there two-generational implications? *Women Health* 32(3):211–51
- Zaslow MJ, Jekielek SM, Gallagher M. 2005. Work-family mismatch through a child development lens. In *Work, Family, Health, and Well-Being*, ed. SM Bianchi, LM Casper, RB King, pp. 255–74. Mahwah, NJ: Lawrence Erlbaum
- Zimmerman FJ, Bell JF. 2006. Income inequality and physical and mental health: testing associations consistent with proposed causal pathways. *J. Epidemiol. Community Health* 60(6):513–21