Mental Health, Work, and Mental Health Service Use among Low-Income Mothers

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Abstract

This study analyzes how mental health problems impede low-income mothers' ability to work and the role of health insurance in improving their access to mental health treatment services. Using the 2002 National Survey of America's Families, we find that low-income mothers in poor mental health are significantly less likely to work and, if they do work, significantly less likely to work full time than those without these problems. We also find that more than a quarter of low-income mothers are uninsured, but those with public or private health insurance are significantly more likely to receive mental health treatment. These findings suggest mental health problems are an important barrier to work among low-income women and that access to treatment for these problems could be improved through increases in health insurance coverage for this group.

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There is a high incidence of poor mental health among low-income mothers, including those in the welfare system or at risk of entering this system. Many of these women are single parents and solely responsible for the well-being of their children. Mental health problems have the potential to limit these women's ability to work, affecting a major source of income for many of these families. But the treatment that could address mental health problems may be unavailable or too expensive for many of these mothers who lack access to health insurance. This study analyzes how mental health problems impede low-income mothers' ability to work and the role of health insurance in improving their access to mental health treatment services.

The study uses data from the 2002 National Survey of America's Families (NSAF). These data include measures of mental health, health insurance status, and mental health service use as well as income and employment. We examine two key questions:

- Does poor mental health negatively affect low-income mothers' work outcomes?
- Does health insurance coverage increase access to mental health services for low-income mothers?

To begin, we review other studies that have examined how mothers' mental health affects work. We then describe the NSAF data and our analytical sample. We go on to present results first on the connection between mental health and work and then results on the relationship between insurance coverage and mental health treatment. Our final section concludes and discusses the implications for policy.

Low-income mothers in poor mental health are significantly less likely to work than those in better mental health. Conditional on working, single mothers in poor mental health are significantly less likely to work full time than those without these problems. Further, more than a

quarter of low-income mothers are uninsured, but those with public or private health insurance are significantly more likely to receive mental health treatment. These findings suggest mental health problems are an important barrier to work among low-income women and that access to treatment for these problems could be improved through increases in health insurance coverage for this group.

Literature Review

Mental health has long been a subject of inquiry for both policymakers and social scientists. A range of estimates has been reported on the incidence of poor mental health in the U.S. population and in key subgroups. In part this variation results from differences in the measures used and the definition of poor mental health employed (e.g., specific diagnoses or more general measures). Even the most comprehensive national surveys of mental health provide varying estimates of incidence. For example, the Epidemiological Catchment Area Study (ECA) estimates that 2.9 percent of women and 1.6 percent of men in the United States are afflicted with major depression, as defined by the Diagnostic and Statistical Manual of Mental Disorders (DSM-III) criteria.[1] In contrast, the more recent National Comorbidity Study (NCS), also using DSM-III criteria, places the same estimates at 5.9 percent of women and 3.8 percent of men.[2] The studies we reviewed employed over 15 different standardized scales, as well as other nonstandard measures of mental illness.

While estimates of poor mental health vary, most studies find that women, the poor (especially those on welfare), and nonworkers are disproportionately afflicted. As shown in table 1, each study that calculates the incidence of mental health problems for men and women

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[1] The ECA uses the Diagnostic Interview Schedule to identify those with mental health disorders.
[2] The NCS uses the Composite International Diagnostic Interview . Both the ECA and NCS estimates can be found in Blazer et al. (1994).

separately reveals that women have higher rates of mental health problems, regardless of sample

or diagnostic scale. In addition, the NCS and the ECA reveal that individuals with lower

socioeconomic status are more likely to have mental health problems. In the ECA, those in the

lowest socioeconomic quartile were 2.86 times more likely to have a mental disorder than those

in the highest quartile. In the NCS, those with less than $20,000 in annual income were 1.92

times more likely to have a disorder than those with income at or above $70,000 (Yu and

Williams 1999). In an analysis of data from the National Household Survey of Drug Abuse,

Jayakody and Stauffer (2001) find that among single mothers, those with incomes below $20,000

are significantly more likely to have a mental health disorder, as are those on welfare. In

addition, single mothers are significantly more likely to have a disorder than their married

counterparts.

Several studies have measured the incidence of mental health problems among welfare

recipients. Hauan and Douglas (2004) report results from a set of studies on single-parent

welfare recipients in six different geographic areas that all use similar measures of mental health

(with a focus on depression). Hauan and Douglas find the incidence of mental health problems

ranging from 21 to 41 percent. Using national data, Zedlewski (1999) finds 35 percent of parents

receiving welfare have mental health problems. These studies generally show that low-income

women, especially those on welfare, have disproportionately high rates of mental health

problems compared to all women.

Recent research has established a significant negative correlation between poor mental

health and work. Table 1 shows that all studies examining this relationship find that either

nonworkers have worse mental health than workers or that those with worse mental health are

less likely to be working. This is true not only within the general population, but also among those on Temporary Assistance for Needy Families (TANF).

While the negative correlation between poor mental health and work is well documented, more detailed regression analysis has produced mixed findings regarding the significance of mental health on the probability of working after controlling for other factors. Hauan and Douglas (2004) find no significant relationship for women on welfare, while Corcoran, Danziger, and Tolman (2004); Dasinger, Speigelman, and Norris (2002); and White (2004) find mixed results. But all these studies involved surveys of smaller welfare-related subpopulations; as a result, the studies may return insignificant effects owing to small sample sizes. In contrast, studies that use larger samples from national data generally show a significant effect of mental health on employment.[3] None of these studies, however, focus on low-income women.

A large body of literature documents the positive effect of mental health treatment on disorders (U.S. Department of Health and Human Services 1999). This is particularly true for depression, due to the frequent use of clinical trials to evaluate new medications and treatment protocols. For example, Wells and colleagues (2000) conducted a randomized control trial addressing treatment outcomes. The test group was enrolled in a program that resulted in significantly more mental health visits (including an increased probability of longer-term visits with a specialist at 6 and 12 months) and proper adherence to treatment regimens compared with a standard managed care plan. The test group had significantly lower rates of depression at 6 and 12 months. This and other current literature indicates that better care results in better outcomes.

Little literature evaluates the effect of not receiving treatment on mental health outcomes. This is a particularly important distinction for low-income mothers, many of whom lack access

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[3] These studies include Zedlewski (1999); Jayakody and Stauffer (2001); Ettner, Frank, and Kessler (1997); and Dooley, Catalano, and Wilson (1994).

to health insurance. According to Almeida, Dubay, and Ko (2001), one-third of low-income women (those with family incomes under 200 percent of the poverty level) are uninsured. Further, these women face greater barriers in accessing health services (including not having a usual source of medical care) and are significantly more likely to report unmet needs for health services and lower use of health services generally than low-income women with insurance coverage. Similarly, Davidoff and Kenney (2005) show that more than half of uninsured adults with chronic conditions forgo needed medical care or prescription drugs owing to high cost. Literature focusing specifically on mental health tends to suggest that low-income adults are less likely to receive treatment from mental health specialists than higher-income adults and women on Medicaid are less likely to use mental health specialty services than those with private insurance (Lennon, Blome, and English 2001). In addition, private insurance typically provides less coverage for mental health treatment than other medical treatment and may have limitations on visits and/or high deductibles (Sing et al. 1999).

These studies point to problems low-income women may have in accessing any and appropriate mental health treatment services. The gap in access raises concerns because ample evidence documents that effective treatment exists, particularly for depression, that can improve mental health and potentially the ability to work.

Data and Measures

We use data from the third round of the NSAF conducted in 2002. The NSAF collects data on the economic, health, and social characteristics of American adults and children, with an emphasis on low-income families. When properly weighted, the NSAF is representative of the noninstitutionalized U.S. population under the age of 65 in 13 focal states and the nation (Abi-Habib, Safir, and Triplett 2003). We limit our sample to mothers with incomes under 200 percent

of the poverty level to focus on a group at risk for welfare when mental health interferes with the ability to work.[4] We also exclude low-income mothers who are receiving disability benefits from the Supplemental Security Income (SSI) program. These women are highly unlikely to work because of the severity of their disabilities and program rules that discourage work. They are also ineligible to receive welfare benefits while collecting SSI. This excludes 3.4 percent of low-income mothers.

When sampling families with children under the age of 18, the NSAF selects up to two focal children for detailed survey, one under the age of 6 and one age 6 to 17. The adult who knows the most about the child (the most knowledgeable adult, or MKA) responds to these questions. The MKA is the child's primary caregiver and generally the biological mother. As such, when we refer to mothers in our analysis, we are referring to female MKAs between the ages of 18 and 64. Our final sample includes 5,758 low-income mothers, representing approximately 10.4 million women nationwide.[5]

All estimates are weighted unless otherwise noted. We have used appropriate weights and statistical measures to reflect our subsample and control for the implications of the NSAF's complex design when performing regression analysis.[6]

Mental Health Status and Treatment Measures in the NSAF

The NSAF collects information on parents' mental health. All MKAs are asked five questions about the frequency of certain feelings over the past month (before the interview). These questions are adapted from the MHI-5, used in the Medical Outcomes Study (Ehrle and Moore

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[4] For an extensive literature review on poverty, welfare, and mental health see Lennon and coauthors (2001) and Belle (1990).
[5] In NSAF data, certain key questions for this analysis (e.g., receipt of mental health treatment) are only asked of one adult, randomly chosen, in two-parent households. Therefore, we do not include mothers who were not chosen for these questions. We have used appropriate weights to adjust for this exclusion.
[6] See Brick, Strickler, and Ferraro (2002) for detail on the variance estimation methodology used with the NSAF.

1999). The answers to these questions are summed and multiplied by five to create a 25–100

scale, with higher scores indicating better mental health. The MHI-5 consists of the five

questions that best predict the outcome of the 38-item Mental Health Inventory (MHI-38) and

cover anxiety, depression, loss of behavioral or emotional control, and psychological well-being.

While the MHI-5 cannot provide a clinical diagnosis, Berwick and colleagues (1991) find that it

performs as well as or better than several other short form mental health measures in detecting

major psychological disorders, including longer surveys such as the GHQ-30 and SSI-28.

Previous studies using the MHI-5 have established the baseline for poor mental health as

the bottom 20 percent of scores nationally (Stewart, Hays, and Ware 1988). Due to the

noncontinuous nature of our score, we cannot precisely identify the bottom 20 percent. In the

NSAF, however, 18.3 percent of all mothers in the country scored 67 or lower. This score also

comes closest to identifying the worst off 20 percent nationally in other studies using the MHI-5.

For this study, we consider three levels of mental health, the first being "very poor,"

defined as a mental health score of 55 or less and representing 6.5 percent of all mothers. The

second is "poor," defined as a score between 55 and 67, representing 11.8 percent of all mothers.

The third category is defined as "fair–good" mental health, and includes all women with a score

above 67, or 81.7 percent of all mothers. These categories reflect as closely as possible the 5th,

5th to 20th, and above the 20th percentiles of all women in the United States. In the remainder of

the study, when we refer to low-income mothers in very poor mental health, we are referring to

those who are roughly in the bottom 5th percentile of mental health for all women in the United

States. By these criteria, our sample has 659 low-income mothers in very poor mental health and

987 low-income mothers in poor health.

The survey also asks about use of mental health services. All women in our sample were asked how many times they had received mental health services in the past 12 months. A mental health visit was defined as a visit to a psychiatrist, psychologist, psychiatric nurse, clinical social worker, therapist, or doctor for the purpose of mental health care. Visits for drug abuse or smoking cessation were not included in the measure. We find that 9.6 percent of mothers and 10.4 percent of low-income mothers were treated for a mental health problem at least once in the past year.

Characteristics of Low-Income Mothers in Poor Mental Health

A higher proportion of low-income mothers in the United States has mental health problems than all mothers without regard to income. Figure 1 shows that 9.8 percent of low-income mothers are in very poor mental health, compared with 6.5 percent of all mothers. Similarly, a greater percentage of low-income mothers are in poor mental health (17.6 percent) relative to all mothers (11.8 percent).

Although over a quarter of low-income mothers are in either very poor or poor mental health, less than one-tenth reported receiving any mental health treatment (any visits for mental health services) in the past year. Table 2 shows that of low-income women in very poor mental health, less than one-third reported any mental health visits in the past year (29.3 percent).[7] For those low-income women in very poor mental health who received some mental health services, the average number of visits over the past year was 13.8. The median number of visits for low-income women in very poor mental health is only about half the average level, reflecting that a relatively small percentage of women reported a large number of mental health visits in the past

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[7] Given concerns that one mental health visit might be diagnostic and not actually be representative of receipt of treatment, we also calculate the percent of women with more than one visit in the past year. Although rates are about

year.[8] As expected for those in worse mental health, both rates of treatment and average number of visits in the past year are significantly higher for mothers in very poor mental health than for those in poor or fair–good mental health.

The socioeconomic characteristics of low-income mothers differ considerably by mental health status (table 3). Low-income mothers in very poor mental health tend to be older, are less likely to be married, and more likely to be the only adult in the household than mothers with poor or fair to good mental health. Mothers in very poor and poor mental health tend to have older children than mothers in fair–good mental health. There is relatively little difference in number of own children and race between these groups. Low-income mothers in very poor mental health are more likely to be on welfare (16.9 percent versus 10.3 percent) or have past welfare experience than mothers in poor mental health.

Mothers in very poor mental health have lower levels of education and work experience than other low-income mothers. More than a third of low-income mothers in poor mental health have less than a high school diploma, and about a third have no work experience in the past year. Low-income mothers with very poor mental health are almost seven times more likely to report poor general health as those in fair–good mental health and twice as likely as those in poor mental health.

Low-Income Mothers' Mental Health and Employment

Low-income mothers with very poor mental health are significantly less likely to work than those in better mental health. Table 4 shows that just over 50 percent of mothers with poor or

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20 percent lower using this measure, the vast majority of those receiving any mental health treatment had more than one visit in the past year.

[8] Approximately 3 percent of low-income women receiving any mental health treatment reported more than 52 visits in the past year. Our recalculations of average visits when recoding those reporting more than 52 visits yields similar results: the average number of visits for women in very poor mental health is 13.1.

fair–good mental health currently work for pay, compared with 42.7 percent of mothers with very poor mental health. Interestingly, among working low-income mothers, significantly fewer of those in very poor mental health were working part-time (less than 20 hours a week) (4.6 percent) than those in poor and fair–good mental health status (10.8 and 9.7 percent, respectively). In addition, among working low-income mothers, we find no differences in "job quality" across mental health status, including having paid leave, working a day shift, and working for an employer that offers health insurance.

This univariate relationship between employment and mental health potentially reflects factors other than mental health that are correlated to both poor mental health and work. We would expect that many differences in personal characteristics across mental health status that we reported earlier also affect employment status. For example, mothers in very poor mental health are more likely to lack a high school diploma or GED, which should independently contribute to significantly lower rates of employment.

To take into account these other factors and isolate the impact of mental health, we estimate the relationship between employment outcomes and mental health status using multiple regression techniques. In a logistic regression model predicting work of any amount at the time of the interview, we control for other factors that might independently affect work. These other variables include age, race/ethnicity, marital status, number of children, age of youngest child, education, work experience (percentage of past 10 years worked), spouse's employment, and poor overall health. We estimate this model separately for all low-income mothers and single mothers.

One advantage of using multiple regression is our ability to examine the connection between individuals' specific mental health score and work, without having to choose arbitrary

score cutoff categories. On the other hand, we expect that increases in mental health scores at the upper end of the distribution would have less impact than at the lower end. For this reason, we present results from two models: a model including the specific mental health score from our scale and a model with two separate indicator variables for the categories we use in our descriptive analysis, very poor mental health and poor mental health (with fair–good mental health the omitted category). A higher mental health score indicates better mental health. Results from these regressions are presented in table 5.

Our results indicate that low-income women with children are progressively less likely to work as the seriousness of their mental health problems increases. The coefficient on mental health score shows a significant increase in work with an increase in score. This estimate translates into an increase of 2.2 percentage points (or 4 percent) in the likelihood of work for an increase in 10 percentage points in mental health score. Our estimation using the indicator variables for very poor and poor mental health suggests that mainly those with the lowest mental health scores are less likely to work. Low-income mothers in very poor mental health (the lowest 5th percentile of women nationally) are significantly less likely to work than mothers in fair–good mental health. These results suggest that those in very poor mental health are 12.7 percentage points, or 25 percent, less likely to work than mothers in better mental health. The results for low-income mothers in poor mental health status are smaller and not statistically significant.

These results for mental health are controlling for poor general health, which is also associated with significantly lower probability of work. About 5 percent of all low-income women report being in poor general health, roughly half the share reporting being in very poor

mental health.[9] If low-income mothers in poor general health base their self-assessment in part on their mental health, inclusion of this control could reduce the estimated coefficient on poor mental health. Reestimation without including poor general health slightly increases the estimated relationship between mental health and work. These results indicate that very poor mental health has a strong negative connection to work for low-income women over and above the negative impact of poor general health status on work.

The other variable coefficients in the regression model of work are generally as expected. Women less likely to work include those who are older, black, Hispanic, married, with fewer or younger children, with lower levels of education, and with less work experience in the past 10 years. These results are generally consistent with the descriptive statistics shown earlier and the literature on employment of low-income women.

We also estimate the relationship between mental health status and work for the sample of low-income single mothers. A greater percentage of this group is employed (65.2 percent) compared with all low-income mothers. Our results for this subgroup are substantially the same as for all low-income mothers. Being in very poor mental health is associated with a 13.5 percentage point decline in employment, or a 21 percent decrease in employment. Again, poor mental health has a small and not statistically significant relationship to work for single mothers. The results of other factors are similar.

Poor mental health could also have an impact on the hours worked for those employed. Low-income mothers with mental health problems who do work may be less likely to work full time because of general difficulties working with mental health problems as well as the greater flexibility that may be afforded by part-time work to accommodate the episodic nature of many

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[9] The current health status question includes individuals' self-assessment of their current health, both physical and mental.

mental health problems. On the other hand, these low-income mothers may have greater need for employer health insurance and, all else equal, be more likely to work full time to secure eligibility for this benefit when offered. We estimate a logistic regression model predicting full-time work (35 hours a week or more). Because we want to separate the connection between mental health and any employment from the connection to hours of work or full-time employment, we restrict these models to low-income mothers who are working. We control for other factors that might independently affect full-time hours including poor general health, age, race/ethnicity, marital status, number of children, age of youngest child, and spouse's employment.[10]

The first two columns in table 6 show the results for all low-income mothers using the mental health score and the very poor and poor mental health indicators. The third column shows the results for single mothers. The results for all low-income mothers indicate that there is no significant relationship between mental health score and working full time. We also find no significant relationship between the mental health status variables and working full time. Both estimates are small and insignificant.

For low-income single mothers, the estimated coefficients on very poor and poor mental health status are much larger and for poor mental health statistically significant. A low-income single mother is 7.4 percentage points (or 11 percent) less likely to work full time than a mother in fair–good mental health. These results suggest that being in poor mental health is more likely to make full-time work difficult for low-income single mothers than for all low-income mothers.

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[10] A tobit regression model of characteristics on hours of work was also estimated. This model directly takes into account the left censoring of hours and the selection of individuals who are working. Results from this model are similar to results for the logit on employment. Since we are primarily interested in the connection between mental health and hours of work conditional on working, we choose to present only these conditional models.

For the broader group of low-income mothers, lack of a significant relationship between mental health status and full-time work could reflect that mothers with very poor or poor mental health who are working have some characteristic or circumstance we are not measuring that differ from those who are not working. This could be unmeasured aspects of their mental health problem, personal characteristics such as motivation, or other family or community supports. It could also signal that the two possible theories advanced above—the difficulty of full-time work with mental health and the increased need for health insurance of workers in poor mental health—are having opposite effects.[11]

Low-Income Mothers' Access to Mental Health Treatment

Given the negative relationship between poor mental health and work, it is important to assess the extent to which these mothers can access mental health treatment. As described earlier, less than a third of women in very poor mental health report receiving mental health treatment in the prior year. Low-income mothers without health insurance would likely have limited ability to pay out of pocket for these services. Here we assess the role health insurance coverage (or lack of coverage) plays in explaining this low level of treatment.

Figure 2 shows that about a quarter of low-income mothers in very poor mental health (24.6 percent) were uninsured for the entire year before the survey. This is not significantly different from the percentage of low-income mothers in fair–good mental health without insurance over the past year, about 26 percent. The percentage of low-income mothers without insurance over the entire prior year is much higher than for other adults. Zuckerman and Haley (2004) show that 10.7 percent of 18- to 35-year-olds and 17.2 percent of 36- to 54–year-olds were uninsured for the entire year in 2001.

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[11] Estimation of linear regression models on hours of work gave substantially similar results.

Part of the reason low-income mothers in very poor mental health have similar rates of being uninsured than other low-income mothers is their greater access to public health insurance. Low-income mothers in very poor mental health are significantly more likely to have public insurance than those in poor or fair–good mental health (45.5 percent compared with 38.2 and 27.2 percent) and less likely to have private insurance (29.9 percent compared with 35.4 and 46.6 percent). This is in part related to the disproportionate share of low-income women in very poor mental health that receive TANF, which generally confers eligibility for Medicaid.

To examine whether having health insurance coverage makes a significant difference in the use of mental health treatment, we first show descriptive results and then use multivariate regression estimates to control for other factors. Only 6.9 percent of low-income women in very poor mental health who are uninsured received any mental health treatment in the past year compared with 35.9 percent of those with private coverage and 37.1 percent of those with public coverage (table 7). Rates of treatment for uninsured low-income mothers are significantly lower than for those with insurance across all mental health status groups. In addition, low-income uninsured mothers in very poor mental health who receive some mental health treatment have significantly lower numbers of visits than those with insurance. Those uninsured women in very poor mental health had on average 5.6 visits in the past year, compared with 11.4 visits for women with private coverage and 16.1 visits for women with public coverage. These results suggest that having insurance coverage is related to receipt of treatment and number of treatment visits.

These results also show that low-income women on public and private insurance do not differ in the probability of getting mental health treatment.[12] For low-income mothers in very poor mental health, 37.1 percent with public insurance received mental health treatment, compared with 35.9 percent with private insurance. Further, among the treated, there is no significant difference between the two insurance groups in terms of the average number of visits in the prior year.

These results possibly reflect the characteristics of those who take up different types of health insurance coverage rather than the health insurance coverage itself. For example, those who are in worse general health may be more likely to seek out health insurance coverage and more likely to use mental health treatment. We are able to control for some of these other factors by estimating a logistic regression model predicting any mental health treatment in the past year. The factors we control for include mental health status, being in poor general health, age, and race/ethnicity. Those in very poor or poor mental health status may be more likely to seek treatment than those in fair–good mental health regardless of insurance coverage. Those who are older or belong to specific racial or ethnic groups may associate different levels of stigma with seeking mental health treatment that could increase or decrease the likelihood of seeking treatment. There may also be different levels of availability of these services across geographic areas regardless of insurance coverage. Race and ethnicity may also reflect differences in availability across neighborhoods.

Table 8 shows the results of our estimation for all low-income mothers and low-income single mothers. Low-income mothers who are uninsured are significantly less likely to receive mental health treatment, 8 percentage points less likely or 86 percent less likely than those with

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[12] The results of statistical tests across public and private insurance are not shown in the table. For women in very poor mental health, the difference in percentage receiving treatment and number of treatment visits for those with

private health insurance. In addition, we find that, controlling for other factors, those with public health insurance are 3.2 percentage points more likely to receive mental health treatment (30 percent) than those with private insurance coverage.

Those in very poor mental health or poor mental health are much more likely to receive mental health treatment in the past year than those in fair–good health, controlling for insurance coverage. Those in poor general health are also more likely to receive treatment. We also find that those who are black or Hispanic are significantly less likely to receive mental health treatment than white non-Hispanics, after controlling for insurance coverage. It is worth noting that the estimate for blacks is roughly the same as the estimate for uninsured.

When limiting the sample to single mothers, we find similar results. Again, those who are uninsured are significantly less likely to receive mental health treatment, 6.6 percentage points (or 62 percent) lower than those with private health insurance. Also, single mothers with public health insurance coverage are more likely to receive mental health treatment than those with private coverage. Even controlling for insurance coverage, black and Hispanic single mothers are significantly less likely to receive mental health treatment. Among single mothers, blacks have treatment rates 13 percentage points lower than whites after controls.

These results suggest that health insurance coverage plays an important role in increasing receipt of mental health treatment. Despite this role, mental health treatment remains low even among low-income mothers with health insurance. As table 7 shows, only about a third of low-income mothers in very poor mental health with insurance coverage received treatment in the past year.

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private and public insurance are not statistically significant.

Conclusion

This investigation of the relationships between mental health status, work, and mental health service use provides some provocative initial findings. Almost 10 percent of low-income mothers are in very poor mental health, defined as the bottom 5th percentile of all women in the United States. Another 18 percent are in poor mental health. Less than a third of these mothers in very poor mental health, and only 16 percent of those in poor mental health received any treatment in the past year. Low-income mothers in very poor mental health are at a disadvantage on a host of other socioeconomic risk factors.

Low-income mothers in very poor mental health are significantly less likely to work than other low-income mothers, even after controlling for many risk factors. In addition, low-income single mothers in poor mental health who do work are less likely to work full time. This reduced likelihood of work could lead to significant economic hardship for these women and their families, especially among single mothers.

Although about one-quarter of low-income mothers are in very poor or poor mental health, less than one-tenth received any mental health treatment services in the past year. Low-income mothers with very poor mental health are as likely to have health insurance coverage as their counterparts reporting better mental health. This is in part due to higher rates of public insurance coverage. Yet, 25 percent of low-income mothers in very poor mental health are uninsured. Having health insurance coverage significantly increases the likelihood of receiving mental health services (controlling for mental health status and other factors). In addition, those with public health insurance coverage have even higher rates of treatment than those with private coverage.

These results suggest that increasing access to public or private health insurance for low-income women could increase receipt of mental health treatment. In particular, expansion of

public insurance seems to guarantee as much or greater increase in receipt of this treatment than private insurance, at least the private coverage held by low-income mothers.

Even among low-income women with health insurance, absolute receipt of mental health treatment is still relatively low. Only a little more than a third of low-income mothers in very poor mental health with health insurance received any mental health services in the past year. Further investigation into the reasons for lack of receipt of mental health treatment even among the insured is warranted. The finding that blacks and Hispanics have significantly lower treatment rates even after controlling for insurance coverage suggests additional focus on access of these groups is important. In addition, this study focuses on receipt of treatment and says nothing about the adequacy of treatment. Other literature suggests that low-income women, even those receiving some mental health services, may lack access to mental health specialists and appropriate treatments.

More public policy is focusing on work as the avenue for disadvantaged families to move ahead. Welfare programs increasingly focus on work and work preparation, and the nation's largest income support program, the earned income tax credit, is available only to workers. Given the negative impact of mental health problems on work and the evidence that effective mental health treatments are available, it is important for policymakers to consider how to improve access to and use of treatment for low-income mothers.

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Table 1. Summary of Literature—Mental Health Incidence and Relationship to Employment

Authors	Sample	MH measure	MH incidence	MH significant in employment regression?	Employment measure	Employment of sample	Employment differentials
Welfare-only populations							
Corcoran et al. (2004)	TANF recipients in MI county (waves I–IV)	CIDI	16–25%[a] (across waves)	Yes (all women, blacks) No (whites)	Number months worked	39 months of 55	NA
Dasinger et al. (2002)	CalWORKS recipients in Oct. 98	54-item survey based on SCL-90	35%[b] (baseline), 28%[b] (wave III)	No (depression, waves II, III) Yes (anxiety, wave II)	Full time: 32+ hours/week; part time: < 32 hours/week	47% (full time, wave III)	Wave II: 31% (mental health case) v. 46%, Wave III: 43% v. 48%
Hauan and Douglas (2004)	Pooled data from DC, CO, IL, MD, MO, and SC on single-parent TANF recipients	K6, CIDI-SF	30%[b] (K6 or CIDI-SF)	No	Working for pay	34%	NA
Meckstroth et al. (2002)	Single-mother TANF cases in NE in Jan. 2000	CIDI-SF	33%[a]	NA	Working for pay	53%	Not given
Richardson (2002)	TANF recipients in NM, NC, and CA in 2000	Respondent self-report (depres-sion, excluding short-term)	43–50%[a] (among states)	NA	Working for pay	Not given	NM: 32% (depressed) v. 42% (not depressed), NC: 33% v. 36%, CA: 34 v. 45%
White (2004)	TANF recipients in three cities, waves I and II	BSI-18	NA	No (for employment loss) Yes (for job loss)	Working for pay, months worked	13 months worked of 24	14 months (no mental health problem) v. 12 months (problem) of 24 months
Zedlewski (1999)	National sample of parents receiving welfare in 1997	5-question scale adapted from MHI-5	35%[b]	NA	Working for employer or in a business	21%	52% (no barriers), 34% (1 barrier), 27% (2 barriers), 17% (3+ barriers)
Nonwelfare-only populations							
Blazer et al. (1994)	NCS (1990–92)—total sample	CIDI	6%[a] (women), 4%[a] (men)	NA	NA	NA	NA
Broadhead et al. (1990)	ECAS–NC component, elderly oversampled (1982–84)	DIS	Not given	Regression showed those with major depression were 4.36 times more likely to have a disability than nondepressed	Not given	Not given	Nondepressed: 70%, major depression: 55%
Conway and Kennedy (2004)	Non-Hispanic black and white mothers with infants, 1988	CES-D	42%[a] (blacks) 35%[a] (whites)	No (regression modeling work	NA	NA	Not given
Dooley et al. (1994)	ECAS–MD, NC, and CA samples that responded to one year follow-up	DIS	Not given	Yes (depression was not significant, but a MH diagnosis other than depression was)	Working for pay	Not given	Not given
Ettner et al. (1997)	NCS (1990–92)—adult nonstudents	CIDI	13%[a] (women), 7%[a] (men)	Yes	Working for pay	79% (women), 91% (men)	Women: 72% (depressed) v. 83% (nondepressed) 83% v. 94% Men:

Authors	Sample	MH measure	MH incidence	MH significant in employment regression?	Employment measure	Employment of sample	Employment differentials
Farahati et al (2002)	NCS (1990-92)--adult nonstudents	CIDI	14%[a] 33% (women), 7%[a] 30%[b] (men)	Yes	Working for pay	80% (women), 91% (men)	Women: 66% (depression/dysthymia) v. 85% (not depressed), 95% Men: 75% v.
Jayakody and Stauffer (2001)	Single mothers 18+ living with 1+ minor children from 1994 to 1996 NHSDA	CIDI	10%[a]	Yes	Working part or full time	26%	Not given
Jayakody et al. (2000)	Single mothers 18+ living with 1+ minor children from 1994 and 1995 NHSDA	CIDI	9%[a]	Yes—regression models welfare receipt, not employment	NA	NA	NA
Kessler et al. (1999)	1990-92 NCS and 1996 MIDUS	CIDI (NCS), CIDI-SF (MIDUS)	4%[d] (NCS), 2%[d] (MIDUS)	Yes (modeling disability days taken)	Not given	Not given	MIDUS: 37% depressed took short term disability v. 17% nondepressed, NCS: 48% v. 21%

[a] Measure targets depression only
[b] Measure is nonspecific
NA = not applicable

Mental Health Measures
BSI   Brief Symptom Inventory
CES-D   Center for Epidemiological Studies - Depression
CIDI   Composite International Diagnostic Interview
CIDI-SF   Composite International Diagnostic Interview Short Form
DIS   Diagnostic Interview Schedule
MHI-5   Mental Health Inventory 5-item questionnaire
SCL-90   Symptom Checklist - 90
SF-12   Short Form 12
UM-CIDI   University of Michigan Composite International Diagnostic Interview
Surveys
ECAS   Epidemiological Catchment Area Study
MIDUS   Midlife Development in the United States Survey
NCS   National Comorbidity Survey

Table 2. Mental Health Treatment Rates and Visits by Mental Health Status

Insurance	Mental Health Status		
	Very poor	Poor	Fair-good
% Treated	29.3	15.5 **	6.5 **
% Treated More than Once	24.2	12.3 **	4.7 **
Number of Visits for Those Treated			
Mean	13.8	6.9 **	6.7 **
Median	7.0	3.0	3.0

Source: 2002 National Survey of America's Families.

Notes: Distributions reflect weighted data. Results for families with incomes ≤ 200% of poverty level. Significances were not calculated for the median number of mental health visits.

* Significantly different from very poor mental health at 90% level.

** Significantly different from very poor mental health at 95% level.

Table 3. Characteristics of Low-Income Mothers by Mental Health Status (percent)

Characteristic	Mental Health Status		
	Very poor	Poor	Fair-good
Of all low-income mothers	9.8	17.6 **	72.6 **
Age			
<25	11.6	17.7 **	15.5 **
25-34	36.3	32.8	40.3
35-44	35.5	37.4	32.3
45+	16.7	12.1 *	11.9 **
Marital status			
Married	26.0	37.6 **	48.4 **
Never married	29.1	30.0	26.6
Divorced/Separated/Widowed	42.9	31.0 **	23.7 **
Living situation			
With spouse	26.0	37.6 **	48.4 **
Only adult in houseshold	44.6	33.2 **	26.9 **
Cohabiting	6.7	10.0	8.1
With other adult	22.7	19.2 *	16.6 **
Number of own children			
0	4.8	7.6	4.5
1	39.4	35.6	31.0 **
2	28.6	31.8	31.9
3+	27.2	27.0	32.6
Age of youngest child			
Under 1 year	8.1	10.9	13.8 **
1-5 years	34.8	40	44.4 **
6-11 years	32.4	26.8	25.5 **
12+ years	24.7	22.9	16.6 **
Race/ethnicity			
Black	23.1	21.0	22.7
Hispanic	25.9	32.8 **	29.4
White	48.8	43.9	45.1
Other	2.1	2.4	2.8
Welfare status			
Current recipient	16.9	10.3 **	7.1 **
On welfare in past 2 years	7.7	6.9	4.1 **
Past welfare experience	23.4	18.2	15.1 **
Never on welfare	51.9	64.6 **	73.6 **

(table continues)

Table 3 (continued)

Characteristic	Mental Health Status		
	Very poor	**Poor**	**Fair-good**
Highest educational attainment			
Less then high school (HS)	37.2	34.1	27.6 **
HS diploma/GED, no college	42.3	41.9	41.3
Some college	15.6	18.8	23.0 **
Bachelor's degree or greater	3.1	4.6	7.6 **
Work experience			
No work 3+ yrs	32.7	22.6 **	29.4
Work in past 3 yrs	67.3	77.4 **	70.6
Current health status			
Poor	18.6	8.6 **	2.7 **
Fair	35.4	28.4 *	13.5 **
Good-excellent	46.0	63.0 **	83.8 **

Source: 2002 National Survey of America's Families.

Note: Distributions reflect weighted data. Results for families with incomes ≤ 200% of the poverty level.

* Significantly different from very poor mental health at 90% level.

** Significantly different from very poor mental health at 95% level.

Table 4. Employment of Low-Income Mothers by Mental Health Status (percent)

Respondent's characteristics	Mental Health Status		
	Very poor	Poor	Fair-good
Currently working for pay			
Yes	43.2	54.7 **	50.4 **
Hours/week currently working[a]			
<20 hrs/week	4.6	10.8 **	9.7 **
20-34 hrs/wk	30.7	27.1	22.7
35+ hrs/week	64.7	62.1	67.4
Unknown	0.0	0.0 **	0.2 *
Job offers paid leave[a]			
Yes	51.5	53.1	58.0
Typical schedule[a]			
Day shift	75.8	74.7	76.6
Night shift	24.2	25.3	23.4
Employer offers health insurance[a]			
Yes	57.5	58.0	63.3

Source: 2002 National Survey of America's Families.

Note: Distributions reflect weighted data. Results for families with incomes ≤ 200% of the poverty level. Working includes those who were temporarily not working due to vacation, sick leave, a strike, bad weather, or a short-term layoff.

[a] Sample is those currently working.

* Significantly different from very poor mental health at 90% level.

** Significantly different from very poor mental health at 95% level.

Table 5. Logit Regression Results on Probability of Work

Variable	1 All mothers	2 All mothers	3 Single mothers
Mental health score	0.009**		
	(0.004)		
Very poor mental health		-0.510**	-0.596**
		(0.181)	(0.153)
Poor mental health		-0.168	-0.029
		(0.166)	(0.168)
Poor general health	-0.508**	-0.541**	-0.337**
	(0.163)	(0.165)	(0.132)
Age	-0.024**	-0.024**	-0.030**
	(0.007)	(0.007)	(0.008)
Black	-0.073	-0.061	-0.213
	(0.163)	(0.164)	(0.142)
Hispanic	0.391**	0.373**	0.230
	(0.159)	(0.157)	(0.166)
Other minority	-0.006	-0.002	-0.454
	0.308	0.326	(0.312)
Married	-0.716**	-0.739**	
	(0.224)	(0.231)	
Number of own children	0.092*	0.099*	0.070
	(0.056)	(0.057)	(0.055)
Age of youngest child	0.098**	0.097**	0.075**
	(0.016)	(0.015)	(0.018)
No high school degree	-0.716**	-0.705**	-0.676**
	(0.166)	(0.161)	(0.169)
High school, no college	-0.381**	-0.378**	-0.409**
	(0.156)	(0.156)	(0.120)
Past work experience	2.932**	2.936**	2.690**
	(0.148)	(0.146)	(0.172)
Spouse/partner employed	-0.162	-0.138	
	(0.175)	(0.179)	
Constant	-1.508**	-.818**	-0.096
	(0.450)	(0.354)	(0.360)
Percent employed	50.5	50.5	65.2

Source: 2002 National Survey of America's Families.
Note: Results for families with incomes ≤ 200% of the poverty level. Standard errors appear in parentheses.
* Significant at 90% level.
** Significant at 95% level.

Table 6. Logit Regression Results on Probability of Full-Time Work

Variable	1 All mothers	2 All mothers	3 Single mothers
Mental health score	0.004		
	(0.004)		
Very poor mental health		-0.008	-0.216
		(0.253)	(0.263)
Poor mental health		-0.029	-0.338**
		(0.178)	(0.144)
Poor general health	-0.404**	-0.432**	-0.548**
	(0.149)	(0.147)	(0.179)
Age	0.002	0.002	0.014
	(0.009)	(0.009)	(0.009)
Black	0.123	0.135	0.185
	(0.175)	(0.173)	(0.179)
Hispanic	0.332**	0.338**	0.150
	(0.166)	(0.163)	(0.180)
Other minority	-0.382	-0.371	0.106
	(0.364)	(0.361)	(0.447)
Married	-0.237	-0.232	
	(0.151)	(0.151)	
Number of own children	0.088	0.086	0.151**
	(0.056)	(0.055)	(0.064)
Age of youngest child	0.037**	0.037**	0.001
	(0.019)	(0.019)	(0.019)
Constant	-0.001	0.275	0.902
	(0.438)	(0.332)	(0.335)
Pct of employed working full-time	66.4	66.4	67.6

Source: 2002 National Survey of America's Families.
Note: Results for families with incomes ≤ 200% of the poverty level. Full-time defined as 35 hours or more. Standard errors appear in parentheses.
* Significant at 90% level
** Significant at 95% level

Table 7. Mental Health Treatment Rates and Visits by Mental Health Status

Insurance	Mental Health Status		
	Very poor	Poor	Fair-good
Percent Treated			
Private	35.9	15.8**	6.5**
Public	37.1	23.0**	8.9**
Uninsured	6.9^	4.1^	3.9^
Mean Number of Visits for Those Treated			
Private	11.4	8.2	5.5*
Public	16.1	6.2**	8.8**
Uninsured	5.6^	5.5^^	5.4^^^

Source: 2002 National Survey of America's Families.

Note: Distributions reflect weighted data. Results for families with incomes ≤ 200% of the poverty level.

* Significantly different from very poor mental health at 90% level.

** Significantly different from very poor mental health at 95% level.

^ Significantly different from private and public insurance at 95% level.

^^ Significantly different from private insurance at 95% level.

^^^ Significantly different from public insurance at 95% level.

Table 8. Logit Regression Results on Probability of Mental Health Treatment

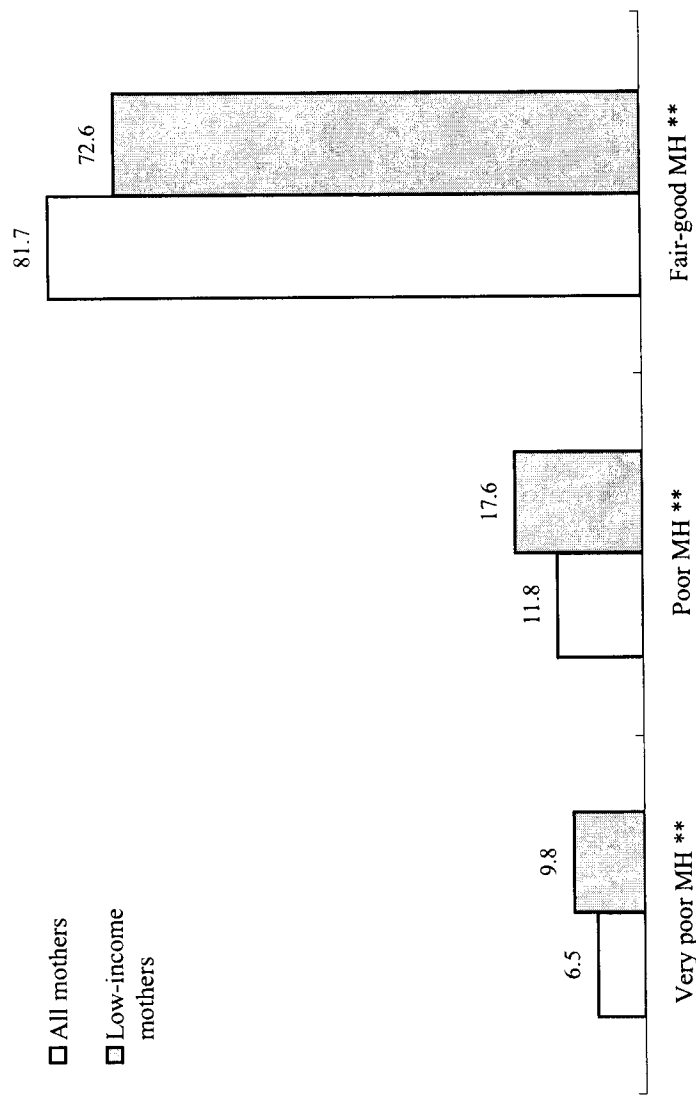| Variable	1 All mothers	2 Single mothers
Very poor mental health	1.561**	1.372**
	(0.196)	(0.220)
Poor mental health	0.613**	0.647**
	(0.226)	(0.229)
Uninsured	-.954**	-.683**
	(0.353)	(0.279)
Public health insurance	0.380**	0.501**
	(0.186)	(0.158)
Poor general health	0.585**	0.590**
	(0.169)	(0.168)
Age	-0.002	0.007
	(0.007)	(0.009)
Black	-.893**	-1.349**
	(0.242)	(0.218)
Hispanic	-0.782**	-0.679**
	(0.164)	(0.201)
Other minority	-0.729	-0.516
	(0.448)	(0.570)
Constant	-2.36**	-2.56**
	(0.545)	(0.364)
Percent received mental health treatment	9.2	10.7

Source: 2002 National Survey of America's Families.
Note: Distributions reflect weighted data. Results for families with incomes ≤ 200% of the poverty level. Standard errors appear in
* Significant at 90% level
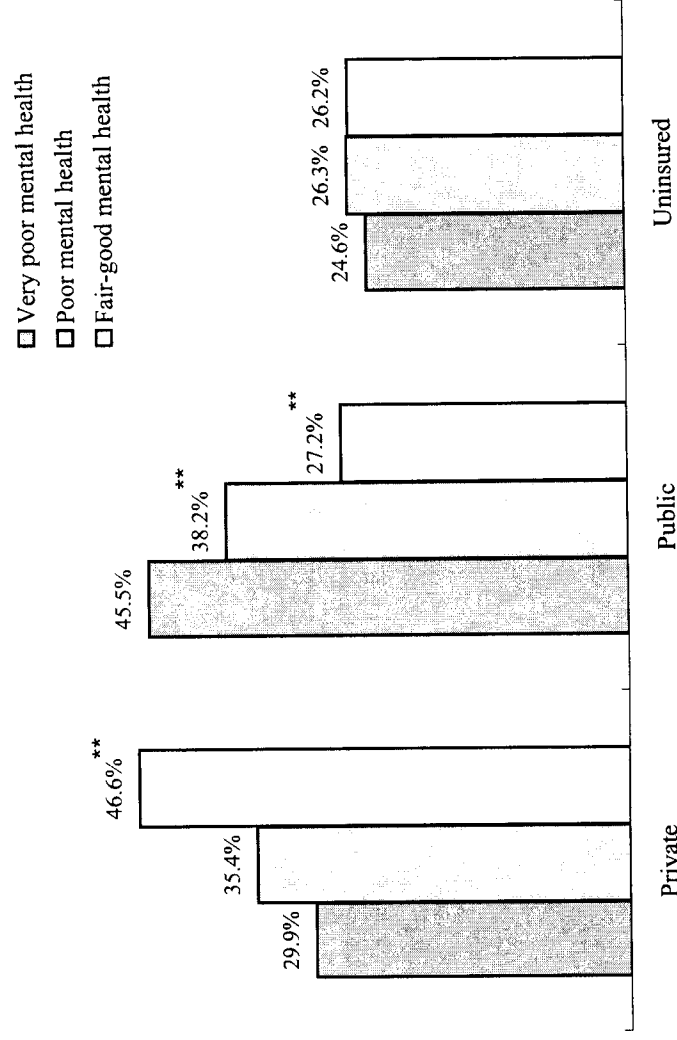** Significant at 95% level

Figure 1. Mothers' Mental Health (MH) by Income Status (percent of mothers)

☐ All mothers

☐ Low-income mothers

	All mothers	Low-income mothers
Very poor MH **	6.5	9.8
Poor MH **	11.8	17.6
Fair-good MH **	81.7	72.6

Source: 2002 National Survey of America's Families.
** Difference between low-income and all mothers statistically significant at the 95% level.

Figure 2. Insurance Status of Low-Income Mothers by Mental Health Status

Legend:
- □ Very poor mental health
- □ Poor mental health
- □ Fair-good mental health

Private: 29.9%, 35.4%, 46.6% **
Public: 45.5%, 38.2% **, 27.2% **
Uninsured: 24.6%, 26.3%, 26.2%

Source: 2002 National Survey of America's Families.
** Significantly different from very poor mental health at the 95% level.