

Research Forum on Children,
Families, and the New Federalism

Executive Summary

**Depression and Low-Income Women:
Challenges for TANF
and Welfare-to-Work
Policies and Programs**

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Introduction

This report reviews the literature on the prevalence, treatment, and consequences of depression in low-income women, highlighting the relationship of depression to welfare and employment. Depression is a debilitating illness, characterized by profound feelings of sadness, low mood, and loss of interest in usual activities, that can have severe adverse effects, not only on the individual woman but also on her job and family life.

Recent changes in welfare policy in the United States, including the five-year lifetime limit on assistance and the requirement that recipients obtain jobs after two years of continuous support, have increased concern about depression and other problems facing many women on welfare. The research findings reviewed here have a range of implications for research and for TANF and welfare-to-work policies and programs, which are outlined in this report.

Prevalence Of Depression Nationally

Data from large-scale national and community surveys reveal that:

- In any given year, approximately 4 percent to 10 percent of adults suffer from major depression.
- Rates of depression among women are 1.5 to 3 times that of men.
- Women from low-income groups are about twice as likely as those from higher income groups to be depressed.

These results suggest that low-income women and women on welfare are at particularly high risk for developing depressive disorder.

Prevalence of Depression in Women on Welfare

Studies of women on public assistance that have used comparable and reliable measures of Major Depressive Disorder (MDD) to evaluate high levels of depressive symptoms find:

- Twelve-month prevalence rates of MDD between 12 percent to 36 percent (median: 22 percent).
- High levels of depressive symptoms exist in 25 percent to 57 percent of women (median: 47 percent).

While variation in rates across studies may reflect differences in local caseload

characteristics, in timing of the studies, or in assessment strategies, these levels of depression and its symptoms are quite high in welfare samples, as compared to community samples.

Relationship of Employment and Depression

Although considerations of depression among welfare recipients generally focus on depression as an obstacle to employment, but other explanations of the association between depression and employment have empirical support in the literature. This report summarizes research on the following possible causes and consequences of depression:

- Depression as a barrier to employment
- Depression as limiting the capacity to retain employment
- Depression as a consequence of poor-quality jobs
- Depression triggered by job loss

Because these possibilities are not mutually exclusive, it is important to better understand the conditions under which they-emerge.

Consequences of Maternal Depression for Children

For mothers, major depression compromises their ability to respond to their children and places children at considerable risk for psychopathology and developmental difficulties. The problems found in children of depressed mothers include: increased rates of clinical diagnoses, impairments in psychological functioning, difficulties in meeting social and academic demands, more internalizing and externalizing behaviors, and substantial risk for psychiatric diagnoses later in life. Thus, any intervention aimed at mothers should consider strategies for reaching at risk children.

Treatment Effectiveness

A large number of studies document the effectiveness of various treatment and prevention options for depression. Research findings from experimental assignment to treatment show:

- Equal effectiveness of psychopharmacological and psychotherapeutic treatments, as compared with placebo, for mild to moderately severe depression
- Possibly greater effectiveness when drugs and psychotherapy are combined to treat recurrent severe depression

Few studies have specifically focused on low-income populations or women. While little attention has been given to rigorous evaluations of nonmedical or nonpsychotherapeutic interventions in this population, two promising approaches are reviewed:

- Incorporating attention to mental health problems in job search programs
- Offering welfare recipients financial incentives to work

Research suggests that each of these strategies may both reduce depressive symptoms and increase self-sufficiency.

Treatment Availability

Despite the availability of effective therapies, depression in the general population remains largely mistreated or altogether untreated. Moreover, income, health insurance type, ethnicity, and gender affect treatment rates and the type of treatment received. A number of disparities are found in the literature, including:

- Individuals with low incomes are less likely to receive treatment from mental health specialists, such as psychiatrists and psychotherapists.
- Medicaid beneficiaries are less likely to receive newer forms of antidepressants, such as Prozac.
- Medicaid beneficiaries are less likely to obtain psychotherapy than are individuals with private insurance.

Additionally, racial disparities are apparent within depressed Medicaid recipients, with nonwhite patients receiving less optimal treatment than white patients.

Care received once access has been achieved

Unfortunately, adequate treatment of depression is not guaranteed by access to health care. In fact, studies consistently reveal:

- High patient attrition rates
- Poor treatment adherence rates
- Subtherapeutic dosing patterns in the management of depression

Many of these problems are exacerbated among individuals with low incomes.

Barriers to Treatment

Barriers to effective treatment for depression abound in the low-income population, including:

- High costs
- Lack of medical insurance
- Stigma
- Poor recognition of depression by physicians
- Patient barriers, such as language barriers or mistrust of strangers

Screening and Assessment^{3/4}

Implications for TANF and Welfare-to-Work Programs

Identifying and treating those in need of mental health services will require screening individuals to determine whether or not they have symptoms that warrant further (diagnostic) assessment. Currently, screening adults for depression, other mental disorders, or co-morbidity is not standard practice at welfare agencies or in welfare-to-work programs. This raises a number of issues for policymakers, including:

- What (if any) screening tools are available?
- How willing are welfare recipients to reveal information about depression?
- How can the confidentiality of results be insured?
- What system changes may be required to deliver adequate mental health services?

Implications for Research and Policy

This literature review uncovered a number of areas for future policy-relevant research and for policy and program development. Researchers need to:

- Evaluate the adequacy of the current diagnostic system for depression.
- Develop longitudinal, nationally representative samples of low-income women to study the onset, causes, and consequences of depression.
- Understand the sources of disparities in treatment.
- Evaluate how treatment of depressed mothers affects their children.
- Compare the costs and benefits of treating depression, including savings for welfare systems.

To ensure that there is timely and effective treatment and preventive intervention for depression faced by low-income women, policymakers and program administrators will want to:

- Ensure access to health insurance.
- Institute adequate coverage for mental health treatment and intervention.
- Develop screening tools and procedures.
- Utilize multiple points of entry to identify at-risk women and children.
- Ensure adequate income support.

For more information about this study and the full report, as well as research citations, please refer to *Depression and Low-Income Women: Challenges for TANF and Welfare-to-Work Policies and Programs*. Copies of the full publication are available on the Research Forum Web site: www.researchforum.org or by writing to NCCP, 154 Haven Avenue, New York, NY 10032; Tel: (212) 304-7100; Fax: (212) 544-4200 or 544-4201; E-mail: info@researchforum.org.

Research Forum on Children, Families, and the New Federalism

The Research Forum, an initiative of the National Center for Children in Poverty, hosted at the Mailman School of Public Health, Columbia University, encourages collaborative research and informed policy on welfare reform and vulnerable populations. The Research Forum's ultimate goal is to identify and promote strategies that protect and enhance the well-being of poor children and their families.

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Depression and Low-Income Women: Challenges for TANF and Welfare-to-Work Programs and Policies

INTRODUCTION

This report reviews the literature on the prevalence, treatment, and consequences of depression for low-income women and their children. It highlights the relation of depression to welfare, employment and job retention and describes findings on the relation of unemployment and poor quality jobs to depression. Depression is a debilitating illness, characterized by profound feelings of sadness, low mood, and loss of interest in usual activities, that can have severe adverse effects, not only on the individual but also on her job and family life.

The recent changes in welfare policy in the United States, including the five-year lifetime limit on assistance and the requirement that recipients obtain jobs after two years of continuous support, have generated concern about depression, and other problems, in women on welfare. The research findings reviewed have a range of implications for Temporary Assistance to Needy Families (TANF) and welfare-to-work policies and programs, which are outlined in this report. The research review also uncovers areas for new research focused specifically on low-income women and their mental health needs.

THE POLICY CONTEXT

With the passage of the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) in 1996, welfare policy in the United States changed dramatically. From the previous entitlement system (Aid to Families with Dependent Children-AFDC), welfare became a time-limited and employment-contingent program. PRWORA replaced AFDC with TANF – Temporary Aid to Needy Families. As specified in the name of the program, TANF

was designed to provide temporary support, unlike AFDC, which had no time limit on receipt of cash assistance to eligible individuals. The new federal legislation set a five-year lifetime limit for cash assistance and a work requirement after two consecutive years of aid. Within these (and other) broad federal mandates, states and localities could establish their own welfare policies and programs, using monies provided in the form of a block grant, along with their state's matching dollars (maintenance of effort).

Given state and local variations in welfare programs and in resources and service delivery systems, the expected effects of welfare reform will not be uniform across locales or individuals. While some TANF participants are able to establish ties to the work force, others find movement into employment more difficult, even with a strong economy. In this latter group, cognitive deficiencies, substance abuse, domestic violence, and mental illness or co-occurring conditions (dual diagnosis or comorbid cases) may compound limited education, training, and ties to the labor force. In addition, there are individuals who voluntarily exit or are diverted from TANF altogether, but who have not yet entered the work force; there are also others who are sanctioned for non-compliance with welfare regulations. They, too, may experience the same types of obstacles to employment. The possibility that mental health problems, especially depression and substance abuse, may be found among all of these groups has become salient for state policymakers and program operators who, faced with time-limited welfare, must decide how best to address these issues.

In addition to potentially interfering with employment opportunities and job retention, mental health problems in general, and depression in particular, may reduce the effectiveness of interventions designed to

improve education and employment. This is one of the key findings of the New Chance Demonstration Program, which provided a range of services to young women who had become mothers as teenagers (Quint, Bos, and Polit, 1997). The experimental intervention, tested in a randomized trial, raised education and employment levels -- but only among those women who were not depressed at the onset of the study. Among women with high depressive symptoms (more than half of the study participants), the experimental group did not differ from the control group in outcomes (Quint, Bos, and Polit, 1997). A similar finding in another experimental intervention was recently reported in the National Evaluation of Welfare-to-Work Strategies (Michalopoulos and Schwartz, 2000).

DEPRESSION AND ITS SYMPTOMS

According to the World Health Organization, depression is currently one of the world's most undertreated diseases, and is the leading cause of disability among women (Goldman, Nielsen, and Champion, 1999). Although effective therapies exist, a sizable majority of sufferers within the general population remain undiagnosed and untreated. Studies have shown that individuals with depression are often inadequately diagnosed, improperly treated, and, even more commonly, not treated at all (Hirschfeld et al., 1997). Consequently, the burden of depression on society is immense.

Unfortunately, this situation is exacerbated among women with low incomes. As will be demonstrated, this group has a high current prevalence of depressive disorder, with prevalence defined as any onset of depression (incidence refers to first onset cases) within a fixed time period. Moreover, differences in treatment within this population are wide-ranging and well documented (Sirey et al., 1999, Melfi et al., 1999, Katz et al., 1997). The literature points to several important factors to explain these variations in treatment, including

income, insurance status, and ethnicity. Likewise, barriers to optimal management of treatment in this population are widespread. Institutional, provider and patient-level barriers greatly inhibit access to adequate care (U.S. Department of Health and Human Services, 1999, Goldman et al., 1999). These include the failure to diagnose depression or, when diagnosed, to follow an effective treatment protocol.

The American Psychiatric Association (APA) defines Major Depressive Disorder (MDD) by its symptoms and their duration. To be diagnosed with a major depressive episode, adults must exhibit five of the following symptoms: depressed mood; loss of interest or pleasure; significant weight loss or gain; psychomotor agitation or retardation; sleep disturbance; fatigue or loss of energy; feelings of worthlessness or inappropriate guilt; poor concentration or indecisiveness; and recurrent thoughts of death (not just fear of dying) or suicide. Either symptom must have been present most of the day, nearly every day, for the same 2- week period. At least one of the symptoms must be depressed mood or loss of interest or pleasure (American Psychiatric Association, 1994).

Depression tends to be episodic, with many individuals experiencing two or more episodes in their lifetimes. Researchers estimate that at least half of those individuals who have one episode of depression will experience another later in life (Kessler et al., 1994). Recurrent depression is especially likely if the initial episode is left untreated or when treatment is inadequate.

Individuals may experience depressed mood or depressive symptoms, without meeting the criteria for the diagnosis of MDD. For instance, they may have only a few of the symptoms listed above, or they may feel excessively irritable (a criterion for depression in young children) rather than sad. Mild, but chronic, depressive symptoms that last for two years may meet criteria for a diagnosis of dysthymia (American

Psychiatric Association, 1994). Much of the research considered in this paper examines either MDD or depressed mood.

This report reviews the literature on several topics, including:

- the prevalence of depression among low-income women;
- the relation of depression to welfare and work;
- the consequences of depression for children;
- the efficacy and availability of treatment and interventions;
- and barriers to effective care.

This review begins with information on the assessment and prevalence of depression in the U.S. population, and then examines the relation of depression to gender, socioeconomic status, welfare receipt, and employment. How children of depressed mothers fare constitutes the next section. This is followed by a consideration of treatment and interventions, and a review of potential barriers to care. Finally, new directions for research are suggested, and implications for policy are outlined.

ASSESSMENT OF DEPRESSION

More than three generations of studies have produced a comprehensive classification of mental disorders. The Diagnostic and Statistical Manual of Mental Disorders (DSM-IV; American Psychiatric Association, 1994) and the International Classification of Diseases (ICD-10; World Health Organization, 1992) describe the symptoms and diagnostic criteria for identifying mental disorders, including major depression. This established classification system has enabled researchers to develop assessment instruments to evaluate symptoms and aid in psychiatric diagnoses. (For a listing of assessment tools, see Switzer, Dew, and Bromet, 1999). Such instruments have been used in national epidemiologic surveys, as well as in

recent research on depression in the welfare population. They include: the Composite International Diagnostic Interview (CIDI; Robins et al., 1988), the Diagnostic Interview Schedule (DIS; Robins et al., 1981), and the Center for Epidemiological Studies Depression Scale (CES-D) (Radloff, 1977).

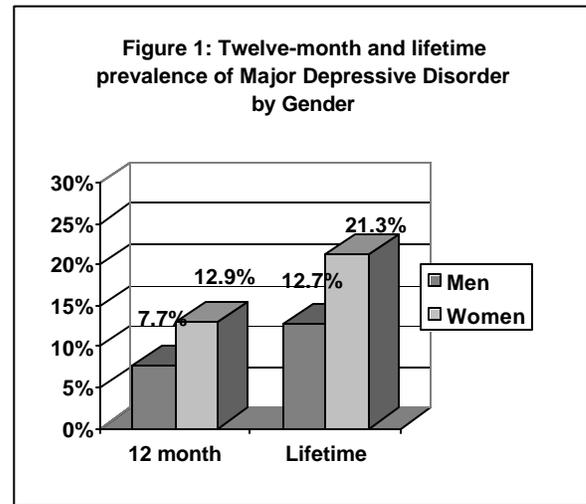
Both the CIDI and the DIS are diagnostic research tools that allow interviewers without psychiatric training to evaluate specific symptoms, based on criteria from the Diagnostic and Statistical Manual. The information is scored by computer algorithms that assess whether or not symptoms cluster in such a way as to suggest a psychiatric diagnosis. The instruments are fully structured; interviewers follow a strict interview format and cannot probe to gather additional information. Like other diagnostic instruments, the CIDI and the DIS classify individuals as either having or not having specific mental disorders (Switzer, Dew, and Bromet, 1999). Major depression is one of a number of diagnoses that can be made; both here in the United States and abroad it is one of the most common diagnoses.

In contrast, the CES-D is a self-report symptom inventory. This 20-item checklist requires individuals to report on the number and duration of their depressive symptoms. A score of 16 or higher, out of a possible score of 60, is generally considered to be suggestive of major depression (Radloff, 1977). Considered a “dimensional” rather than a diagnostic instrument (p. 85, Switzer, Dew, and Bromet, 1999), screening results generated by the CES-D cannot be equated with those of the CIDI or the DIS. The CES-D describes the relative level of symptoms, while the CIDI and the DIS suggest specific psychiatric diagnoses. Although there are many other symptom checklists of adequate reliability and validity, the CES-D is the most commonly used scale in studies of welfare populations.

PREVALENCE OF DEPRESSION IN THE U.S. POPULATION

Two large-scale community surveys -- the Epidemiological Catchment Area study (ECA; Regier et al., 1993) and the National Comorbidity Survey (NCS; Kessler, 1994) have tracked the prevalence of mental health disorders in the United States. Carried out between 1980 and 1985, the ECA study surveyed more than 20,000 adults, eighteen years and older, in five urban areas. In the early 1990's, the National Comorbidity Survey partially replicated the ECA study, surveying 8,098 respondents nationwide ranging in age from 15 to 54. Findings from the surveys, which yielded varying rates of psychiatric disorders, heightened awareness of the extent of mental health problems in the general U. S. population and the need to develop social and health policies addressing prevention and treatment interventions.

- Using rates from both surveys, in any given year approximately 4 percent to 10 percent of adults suffer from major depression, while 7 percent to 17 percent of adults experience major depression in their lifetime (Regier et al., 1998). Dysthymia, a milder form of depression, has lower lifetime prevalence, ranging from approximately 4 percent to 7 percent (Regier et al., 1998).
- Rates of depression among women are 1.5 to 3 times that of men (Weissman et al., 1984; Regier et al., 1993; Kessler et al., 1994; Kessler, 1998; Kessler and Zhao, 1999) although the overall course of depression remains the same (Kessler et al., 1993). Among women in the National Comorbidity Survey, 12.9 percent experienced depression within the past 12 months compared to 7.7 percent of men, with lifetime rates about twice the 12-month rates (see Figure 1); rates for dysthymia were 8 percent lifetime and 3 percent within any given year (Kessler, 1998).



- Given that women disproportionately suffer from depressive disorders, it is expected that women in the TANF population – given the added stresses of poverty, family violence, and other hardships ? will have even higher rates of depression.

Socioeconomic Status Matters

Despite inconsistencies in rates of depression found in epidemiological studies, and regardless of how depression or its symptoms are measured, most research shows an inverse relationship between socioeconomic status (SES) and depression, especially among women (Kohn, Dohrenwend, and Mirotznic, 1998; Dohrenwend et al., 1992). While evidence linking social class to depression is not as clear-cut as that linking gender to depression, mixed findings may be due to the variation in the criteria used to determine SES. It can be measured by years of education, income level, occupational prestige or a combination of these factors, such as the Nam criteria, which combines household income, education and occupation into a percentile score of social prestige (Nam and Power, 1965). In a review of the literature, Link, Lennon, and Dohrenwend (1993) found that rates of depression among members of low SES groups are approximately twice those of high SES groups.

Both the ECA and NCS surveys documented higher rates of depression among lower social classes. Using the Nam criteria (Nam and Power, 1965) to determine SES, the ECA survey found that rates of depression increase as ones moves from the highest socioeconomic quartile to the lowest; a similar pattern is found for dysthymia (Regier et al., 1993).

The National Comorbidity Survey, which used income and education separately to measure SES, also reported an inverse relationship between SES and rates of depression. As education decreases, the likelihood of depression increases, and the risk of comorbidity--experiencing a depressive episode concurrently with another psychiatric disorder--is significant (Blazer et al., 1994). Those without a high school education are 6.8 times more likely than college educated individuals to experience a depressive episode concurrently with another psychiatric disorder in the past month (Blazer et al., 1994). This finding is important: the social consequences of experiencing more than one mental illness simultaneously can be significant. Data from the NCS demonstrate that such comorbidity is associated with conflict in interpersonal relationships, low educational achievement, unemployment, and financial difficulties (Kessler, 1994).

MAJOR DEPRESSION AND DEPRESSIVE SYMPTOMS IN WOMEN ON WELFARE

Typically, research on welfare recipients has not included measurements of mental health in general or of depression, in particular. With the Family Support Act of 1988, which encouraged the employment of women on welfare, and the passage of the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PRWORA), which requires work, researchers have become increasingly concerned with identifying potential obstacles to employment and job retention. PRWORA created a five-year lifetime limit on receiving aid (some states have even shorter time limits), as well as a stringent

work requirement: recipients must work after two years of consecutive support

According to the U.S. Department of Health and Human Services, the number of welfare recipients declined by nearly 60 percent between January 1993 and June 2000 (U.S. Department of Health and Human Services, ACF, 2000). As individuals leave the welfare rolls, concern has shifted to those who remain on welfare and the obstacles that may prevent them from obtaining and retaining employment.

Early research suggests that mental health problems may be common among welfare recipients and can be a significant barrier to their employment. In a review of studies, Olson and Pavetti (1996) found that estimates for the prevalence of mental health problems among welfare recipients ranged from 2 percent (1989 National Health Interview Survey) to over 50 percent (New Chance Demonstration Project). Those who received welfare were three times more likely to be depressed between five and seven days a week than those who were not on welfare. This wide range of rates is due, in part, to the differences in how mental health problems were measured in the studies. Fortunately, recent research relies on more psychometrically sound and comparable measures to examine the prevalence of depression among women on welfare.

In interpreting the associations between welfare and depression (reviewed below), as well as those between work and depression and maternal depression and child well-being, it is important to keep in mind that correlations do not establish causal direction. This issue is discussed in-depth in the section on employment. It is possible that depressed women are unable to obtain jobs or other sources of support and become dependent upon welfare; it is also possible that the stigma and financial hardship associated with being a welfare recipient are depressing. Alternatively, the association between welfare and depression may reflect the causal impact of another factor, such as poverty, deprivation, or childhood sexual

abuse, factors that precede both welfare receipt and depression. Whenever possible, studies that help untangle these causal directions will be highlighted.

Studies of major depressive disorder

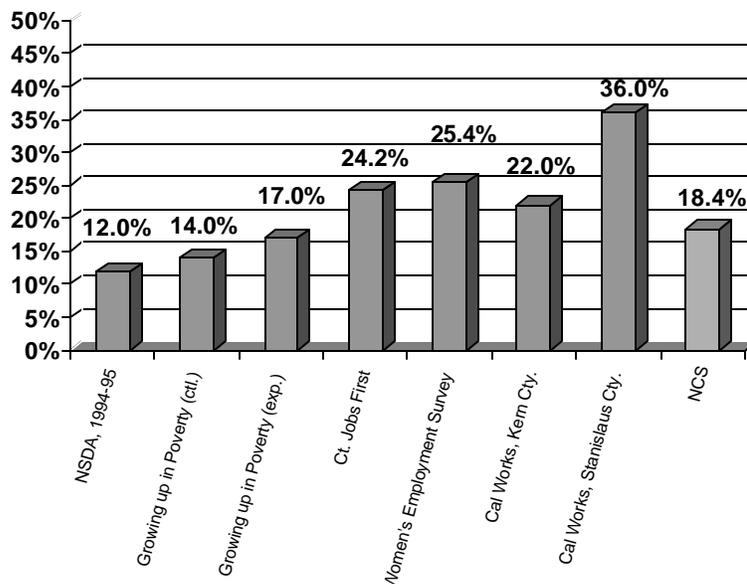
Studies of women on public assistance have documented high levels of Major Depressive Disorder (MDD). Each of the studies listed in Figure 2 used the Composite International Diagnostic Interview (CIDI; Andrews and Peters, 1998; Janca, Ustun, and Satorius, 1994; Wittchen et al., 1996), an interview instrument designed to arrive at psychiatric diagnostic assessments. In these investigations, 12-month prevalence of depression ranges from 12 percent to 36 percent; the median is 22 percent.

Only one study included a comparison group of low-income women not on welfare. Using data on single mothers aged 18 years or older with at least one minor child from the National Survey of Drug Abuse (NSDA), 1994-1995, Jayakody, Danziger, and Pollack (2000) found that 12 percent of welfare recipients met diagnostic criteria for depression, compared to 8 percent of non-recipients, a statistically significant

difference. This survey used a short form of the CIDI to assess psychiatric status, as did the Cal Works study.

The lowest one-year prevalence of depression among welfare recipients – 12 percent -- is reported by Jayakody and colleagues, followed by the Growing up in Poverty Project (Fuller and Kagan, 2000), which reported a prevalence of 14 percent in the control (AFDC) group and 17 percent in an experimental group interviewed in 1998 (Connecticut Jobs First). The highest rate of major depression is found in a recent study in Stanislaus County, California. Among applicants for the Cal Works program, 36 percent met criteria for major depression. In another county (Kern), 22 percent of Cal Works recipients were depressed (Chandler and Meisel, 2000). Similarly high rates were found in two other studies: the Women’s Employment Survey (25.4%), a random sample of 753 single mothers who received welfare benefits in an urban county in Michigan (Danziger et al., 2000), and a study of JOBS First recipients in Connecticut (24.2%) with children aged 3 to 10¹ (Horwitz and Kerker, in press). The range of rates may reflect differences in local caseload characteristics,

Figure 2: Major Depressive Disorder among welfare populations (CIDI)



timing of the studies, and assessment strategies.

To provide another point of comparison, we estimated the 12-month prevalence of Major Depressive Disorder using data from the National Comorbidity Survey (NCS) conducted in 1990-92 (Kessler, 2000). As noted earlier, this large-scale national survey was designed to assess the prevalence of mental disorders and their comorbidity in the U.S. population aged 15 to 54. (Diagnoses are based on the University of Michigan version of the CIDI). Among poor single women, the twelve-month prevalence of MDD was 18.4 percent². Unfortunately, NCS does not include information on public assistance receipt, so it is not possible to compare low-income women on and off welfare. This national rate is lower than that found in most samples of women on welfare but higher than the national rate reported by Jayakody and colleagues. The different results may reflect the reliance by Jayakody and colleagues on the short form of the CIDI and differences in criteria for selecting the subsamples analyzed.

Studies of depressive symptoms

In recent years, a handful of evaluations of welfare-to-work and other programs have included the Center for Epidemiologic Studies Depression (CES-D) Scale to assess depressive symptoms. In the studies presented in Figure 3, between 24.9 percent and 56.7 percent of the samples report high levels of depressive symptoms, with the median being 47 percent. There are seven studies that have reported data in comparable ways; three provide separate rates either by site or program group. The highest rate of depressive symptoms – 56.7 percent -- was found in Utah in a sample of 325 Family Employment Program (FEP) recipients, most of whom (87%) had received welfare for at least three years. This study also used an indicator of symptoms based on the Diagnostic and Statistical Manual (but not the CIDI) and reported that 42.3 percent scored positively for clinical depression (Barusch, Taylor, Abu-Bader, and Derr, 1999), a much higher rate than those described in the previous section. This high prevalence is most

likely due to the selection of long-term recipients for study.

Two other programs with very high rates of depressive symptomatology, New Chance and the Teen Parent Demonstration Project, focused on young women who had become mothers as teenagers, a group at particularly high risk for depression.

New Chance is a multi-site welfare-to-work program that emphasized job training and education. Designed to help young mothers receiving Aid to Families with Dependent Children (AFDC), the program offered comprehensive services such as parenting classes, adult education, health education and services, and child care. More than half of the New Chance participants (52.2 percent) scored 16 or higher on the CES-D, compared to 55.9 percent of women in the control group (Quint, Bos, and Polit, 1997), rates that are not statistically different.

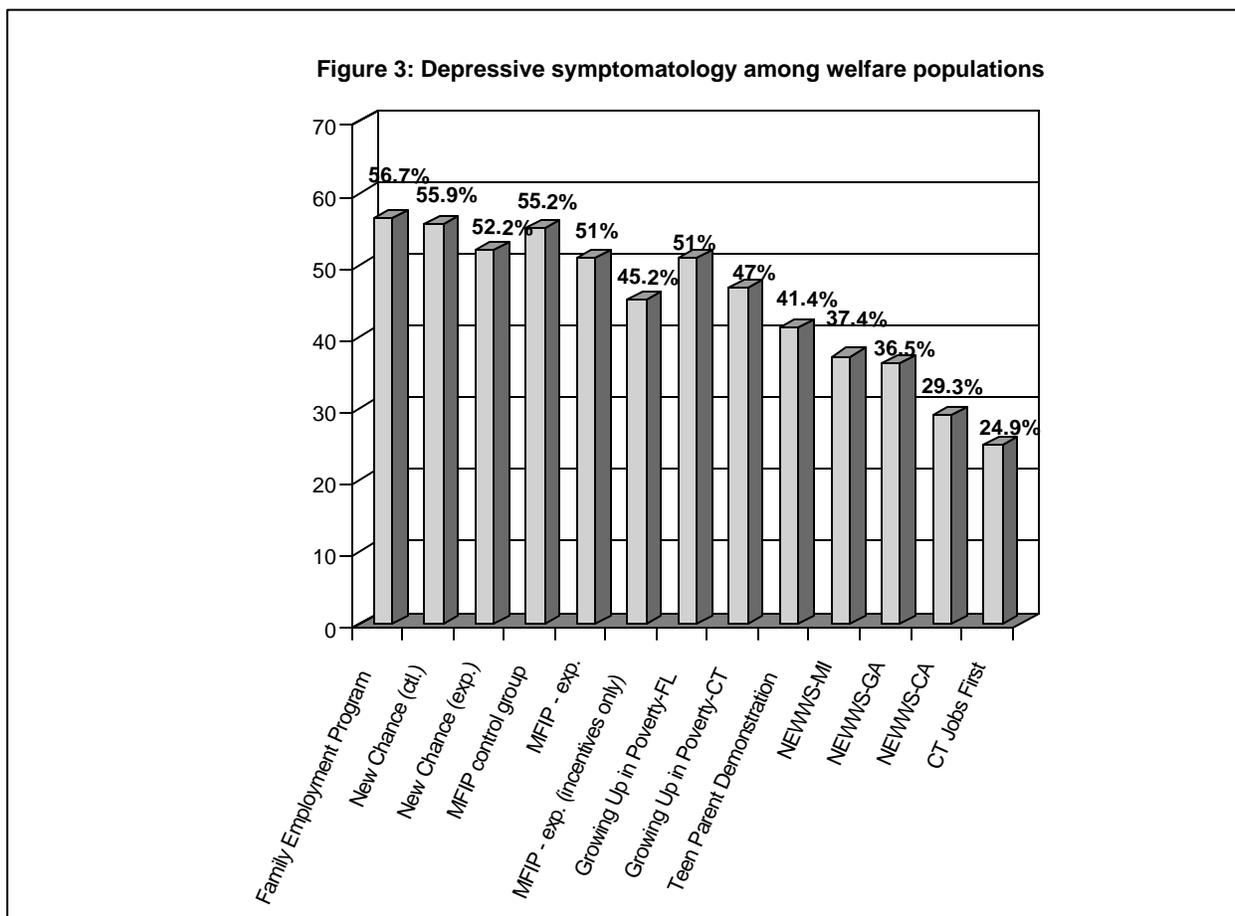
The Teen Parent Demonstration Project, operated in Illinois and New Jersey, targeted teenagers receiving AFDC who were first-time mothers or were in the third trimester of pregnancy. The program required women to work while offering them case management, child care and transportation services. Three sites were evaluated: Camden and Newark, New Jersey, and Chicago, Illinois. On average, 41 percent of women participating in the program scored high enough on the CES-D to indicate possible clinical depression (Kisker, Rangarajan, and Boller, 1998).

Designed to increase the financial incentives to work, the Minnesota Family Investment Program (MFIP) documented high rates of depressive symptoms in single-parent families with children 5 to 12 years old. The program offered special benefits: increased earned income disregards, increased benefits to those who worked, child care subsidies paid directly to providers, single monthly payment of consolidated benefits (i.e., AFDC, Food Stamps and Family General

Assistance), employment and training activities (which were required in the MFIP group) and elimination of prohibitive work rules regarding primary earners. One experimental group (the MFIP group) received financial incentives and were required to participate in job activities; a second experimental group (incentives only), had

MFIP group, 45.2 percent of the MFIP incentives-only group and 55.2 percent of the AFDC group (Gennetian, personal communication).

Other welfare-to-work programs also reported high rates of depressive symptoms. They include



access to incentives but were not required to participate in job activities. The control group was subject to AFDC requirements.

The CES-D scale was administered to women in single-parent families who had children ages 2 to 9 at the time of study entry (5 to 12 years old at the time of the three-year follow-up). The study found high rates of depressive symptoms among all three groups, with the highest rates found in the control group. Those with scores of 16 and above on the CES-D included: 51 percent of the

the Growing Up in Poverty Project (Fuller and Kagan, 2000) which targets welfare recipients and welfare applicants in low-income households composed of unmarried mothers with children 30 to 42 months old. The overall goal of the project is to assess the impact of welfare reform on children's early development and readiness for school. Using the CES-D in a 1998 survey, sites in Florida and California reported high depressive symptoms in 51 percent and 47 percent of the samples, respectively (Fuller and Kagan, 2000).

The National Evaluation of Welfare to Work Strategies (NEWWS) was another project reporting high levels of depressive symptoms in its Child Outcomes Study. This study examined the development of children in families participating in welfare-to-work programs. To be eligible for the study, mothers had to be either receiving or applying for AFDC and have at least one child approximately 3 to 5 years of age at baseline. In an analysis of the two-year follow-up data from the Child Outcomes Study that the Research Forum commissioned as part of this literature review, Child Trends found that 29.3 percent to 37.4 percent of the mothers in the control group at three sites reported high levels of depressive symptoms (Hair, Zaslow, and Ahluwalia, 2000). Researchers used a modified, 12-item CES-D scale that was prorated to assess the equivalent of a score of 16 or above on the full 20-item scale. Consistent with the Utah study were the findings that longer time on welfare is associated with more symptoms of depression.

Analyzing earlier data from one site (Fulton County, Georgia) of the Child Outcomes Study, Moore and colleagues (1995) reported that 42 percent of the 790 program participants had high levels of depressive symptoms on the basis of their CES-D scores. Also using the Child Outcomes Study – but data from a later interview -- Coiro (in press) found that 40 percent of single mothers in the sample scored above the cutoff for possible clinical depression. This high rate was found despite the loss of women who left the study before the second wave of the survey; these women had higher levels of depressive symptoms than those who stayed in the study. The higher levels of symptoms were associated with growing up in a family with AFDC, receiving AFDC for more than five years, and perceiving less available social support (Coiro, in press).

In their analysis of the Connecticut Jobs First evaluation, Horwitz and Kerker (in press) reported that only 24.9 percent of the sample of mothers of children 3 to 10 years old scored high

for depressive symptoms on the CES-D scale. This relatively low rate is surprising, especially given that one in four women in this study met criteria for depression under the CIDI assessment. The author speculates that the placement of the CES-D items after the CIDI questions may have discouraged the reporting of symptoms by women who felt they had already answered the questions (Horwitz, personal correspondence).

Two additional evaluations reported mean CES-D scores, but not the percentage scoring 16 or higher on that scale. New Hope, a program open to both married and single individuals, provided earnings supplements, affordable health insurance and child care subsidies to participants over 18 years of age. Eligibility was restricted to individuals with incomes at or below 150 percent of the poverty line and to those willing to work 30 or more hours a week. Individuals who could not find a job were provided employment with a community service organization. The program participants and the control group had mean CES-D scores of 17.8 and 17.4, respectively, similar to the score of 18.1 found in the New Chance Demonstration (Rosman and Yoshikawa, in press). In each of these studies, the average CES-D score exceeded the cutoff of score of 16 – a level suggestive of major depression.

EMPLOYMENT: ITS RELATION TO DEPRESSION

This section of the report outlines the relation between depression and employment. Most studies of depression among welfare recipients focus on the condition as an obstacle to attaining employment. With the dramatic decline in caseloads, policymakers have begun to focus on the ‘hard to place’ -- those with severe or multiple obstacles to employment. This is because time limits and work requirements make it critical to identify factors that may prevent remaining recipients from obtaining employment.

There are, however, other possibilities for policymakers and program administrators to consider. One of the rationales for requiring that welfare recipients engage in paid work was that such activity would enhance self-esteem. While little systematic research has been conducted to test this supposition, non-experimental research suggests that being employed may be beneficial for psychological well-being. Studies (cited below) showing that job loss is associated with increased depressive symptoms provide indirect evidence on the psychological benefits of paid employment. Such studies also raise the possibility that an increase in joblessness may be accompanied by an increase in depression among low-income women if an economic downturn takes place.

Other research has found that depression may interfere with a woman's capacity to retain employment. While some depressed women are able to leave welfare for work, others may be unable to either keep their jobs or to advance in their jobs. Various other scenarios are plausible as well. A stressful event, such as a divorce for example, might simultaneously lead to the need for welfare and the risk of depression. While there is evidence in the literature to support each of these possibilities outlined, much more needs to be known about the conditions under which the alternative scenarios may become manifest. This would require prospective research on women's mental health, following a cohort from an early age and examining associations within a range of economic contexts.

Depression as a Barrier to Employment

In general, depending on their nature and severity, mental disorders may impede an individual's ability to obtain employment. (For research using national surveys see O'Neill and Bertollo, 1998). There has been little research, however, that focuses on whether depressed individuals, in particular, have a more difficult time than others getting a job. Given that those with severe or chronic mental illness demonstrate a reduced capacity to work, we would expect that women with depression would face difficulties in

obtaining employment. Newly emerging research on welfare recipients indicates that depression may indeed be linked to reduced employment opportunities.

In the Michigan study of 753 single mothers on welfare described earlier, women with a diagnosis of major depression were significantly less likely to be working 20 or more hours a week. (Danziger et al., 2000). Other mental conditions such as post-traumatic stress disorder and general anxiety disorder did not appear to affect employment chances. With the presence of additional barriers, such as few work skills and transportation difficulties, the likelihood of working decreased even further (Danziger et al., 2000). The NEWWS evaluation reported similar findings, with the least depressed women the most employment throughout the four-year follow-up period (Martinson, 2000).

Data from the National Household Survey of Drug Abuse lends further support to the notion that depression may be an obstacle to employment. Jayakody and colleagues (2000) found a significant relationship between the presence of a psychiatric disorder and being on welfare. Single mothers with any of four psychiatric disorders--major depression, generalized anxiety disorder, agoraphobia, or panic attack--were 1.38 times more likely to be on welfare (Jayakody et al., 2000) than were mothers without a psychiatric diagnosis. While results of these studies are suggestive, they cannot rule out alternative explanations, some of which are considered below.

Depression as a Barrier to Job Retention

Aside from being a barrier to employment, depression may also affect performance on the job. Depressed individuals may suffer from fatigue, irritability, inability to concentrate, and difficulty performing daily tasks. Normal workplace stresses, which might otherwise have little impact, may become debilitating. Evidence from two national surveys found that depressed workers have between 1.5 and 3.2 more short-

term work disability days in a 30-day period than other workers (Kessler et al., 1999).

ECA findings in North Carolina indicate that people with major depression had almost five times the risk of disability as asymptomatic individuals. Even a lesser form of depression (dysthymia) led to a 1.6 times greater risk of disability (Broadhead et al., 1990). (A disability day was defined as a day in which the individual spends some or all of the day in bed or is unable to carry out his or her usual activities because of illness.)

In addition, depression may affect overall workplace performance. In a review of ten treatment studies, approximately half the depressed patients suffered some work impairment, a category that included absenteeism, performance and interpersonal problems, and overall lower functioning. (Mintz et al., 1992).

Potential Relationships of Depression to Employment

An association between depression and employment may arise for many reasons. The literature supports the following possibilities:

- Depression may be a barrier to employment
- Depression may limit the capacity to retain employment
- Depression may be a consequence of poor quality jobs
- Depression may be triggered by job loss

By reducing one's capacity to perform job requirements, depression may make it more difficult to retain employment. This becomes important when we consider the types of jobs women on welfare are likely to obtain, and the skills they are likely to bring to their jobs. Limited by a high school education or less and little job experience, such women are likely to be

employed in low-paid retail or service-sector jobs (Brauner and Loprest, 1999), where benefits are often lacking. Absenteeism, due to illness, the need for treatment, or a child care emergency is unlikely to be tolerated.

A survey by the National Partnership for Women and Families (1998) confirms this. More than half of 215 job trainers and service providers cited employer inflexibility to family needs, including the client's own illness, as a barrier to employment for women on welfare. So while many former welfare recipients are obtaining employment, they may be finding it difficult to keep their jobs.

It has been shown in randomized trials that treatment of depression increases the likelihood of continued employment (Simon et al., 2000; Wells et al., 2000). The investigation by Simon and colleagues also showed that depressed employees with greater clinical improvement rates reported missing fewer days from work for illness or health care visits. Further research is needed to see if these findings extend to low-income populations in general, and to welfare-to-work populations in particular.

Depression as Result of Job Characteristics

Job conditions may also affect an individual's level of depression. Research on the association between employment and mental health has long viewed control over work as central to psychological well-being (Ganster, 1989; Karasek, 1987; Karasek and Theorell, 1990; Link, Lennon, and Dohrenwend, 1993). While the term 'control' has a variety of meanings, in general it refers to an ability to direct aspects of one's work, such as supervising other employees, setting the pace at which work is performed, or making decisions about work activities without direct interference from others (Lennon, 1999). The ability to control the structure of work in order to meet work demands is important for psychological well-being (Bromet et al., 1988; Kohn and Schooler, 1983; Niedhammer et al., 1998).

Studies of gender, race and class have found that women, minorities, and those with little education or training are more likely than others to hold jobs characterized by low levels of control. Although women have increasingly entered the labor market, they remain disproportionately concentrated in low-paid, low-skilled work (Gittleman and Howell, 1995; Kilbourne et al., 1994). Additionally, these jobs often lack benefits and are often contingent or temporary positions, providing little sense of job security – which contributes to psychological distress because of fear of unemployment (Heaney, Ireal, and House, 1994).

Looking specifically at depression, Link, Lennon and Dohrenwend (1993) investigated the role of occupational characteristics to explain the association between socioeconomic status and depression. They hypothesized that jobs with “direction, control, and planning” (DCP) of work activities would increase an individual’s sense of mastery and personal control and thus protect against depression and psychological distress. Using data from a case-control study, they showed that individuals from lower SES groups are less likely to occupy positions where direction, control and planning are feasible. They also showed that occupations without direction, control and planning are associated with major depression and psychological distress (Link, Lennon, and Dohrenwend, 1993). Moreover, these relationships could not fully be explained by social selection processes, as assessed by family history of mental disorder, remote life-threatening illness or injury, or being raised by a single mother. Importantly, the effects of DCP are the same for women and men, indicating that this form of control appears to protect against depression regardless of gender.

Depression as a Result of Unemployment

Numerous studies have investigated the relationship between unemployment and health and well-being. (See reviews by Dooley, Fielding, and Levi, 1996; Kasl, Rodriguez, and Lasch, 1998; Lennon, 1999). Whether cross-sectional, longitudinal or prospective in design,

research has consistently demonstrated the negative physical and mental health consequences of unemployment. Unemployment leads to increases in alcohol use (Dooley, Catalano, and Hough, , 1992), anxiety (Linn, Sandifer, and Stein, 1985), and depression (Dooley et al., 1994). However, the paucity of longitudinal studies among women in general and among low-income women in particular makes it difficult to determine the degree to which unemployment affects depression in this specific population.

Research based on the ECA study offers support for the argument that depression results directly from unemployment. Examining longitudinal data on individuals who had no prior diagnosis of major depression, Dooley and colleagues (1994) found that individuals who became unemployed faced more than twice the risk of increased depressive symptoms and an increased (but not statistically significant) risk of becoming clinically depressed compared to those who continued to be employed. Such depression can be long lasting and associated with subsequent unemployment (Hamilton, et al., 1993).

For former welfare recipients, who often work in sectors of the economy where employment is unstable or the wage is too low to lift them out of poverty, the threat of (re)unemployment remains. Job loss may occur due to the structure of the labor market, the characteristics of the job itself or the characteristics of the individual. So while initial employment for those on cash assistance may lessen symptoms of depression as a sense of mastery is gained, social connections are expanded and financial resources and security are increased, unemployment can bring with it an increase in depression and other symptoms of psychological distress. Reports of welfare-to-work participants losing their jobs make this a distinct possibility. For instance, state-based studies of welfare leavers sponsored by the U.S. Department of Health and Human Services find that between 62 percent and 75.3 percent are employed for one out of four quarterly periods but only 34.8 percent to 40.3 percent are

employed for all four quarters (U.S. Department of Health and Human Services, 2000). This suggests that a majority of women who leave welfare do not retain their jobs for at least one year and many do not regain employment easily.

THE TROUBLING CONSEQUENCES OF MATERNAL DEPRESSION FOR CHILDREN

Aside from impairing the quality of life for the individual, major depression may affect an individual's relationships with others. For mothers, major depression compromises their ability to respond to their children and places children at considerable risk for psychopathology and developmental difficulties. More than two decades of research has been devoted to understanding the deleterious effects of maternal depression on children (Bearsdlee, Versage, and Gladstone, 1998; Cummings and Davies, 1994; Downey and Coyne, 1990; Field, 1992, 1995; Gelfand and Teti, 1990; Goodman, 1992). Children of depressed mothers show increased risk of psychiatric disorders, impairments in psychological functioning, difficulties in meeting social and academic demands, and poorer physical health (Bearsdlee, Versage, and Gladstone, 1998; Downey and Coyne, 1990). They also exhibit more internalizing (socially withdrawn, passive) and externalizing (aggressive, acting out) behaviors (Cummings and Davies, 1994; Downey and Coyne, 1990). These types of behaviors influence children's ability to interact with their peers. Children of depressed mothers are often too aggressive or alternatively too shy and withdrawn in social situations (Goodman, 1992). They're unable to regulate their emotions and are likely to judge themselves more harshly than their counterparts (Goodman, 1992). Such children are also more likely to develop behavior problems than children of non-depressed parents, and this association remains whether we look at parental reports, teacher reports or children's self-reports (Coyne, Downey, and Boergers, 1992; Downey and Coyne, 1990).

In addition to disturbances in behavior and psychological functioning, having a depressed parent puts children at high risk for psychiatric disorders. In a review of nine studies comparing children of depressed parents with children of well parents, Downey and Coyne (1990) found throughout the studies that children of depressed parents were more likely to receive a psychiatric diagnosis than controls, although only affective diagnoses (such as depression and anxiety) were made significantly more often. Children of parents with depression were three times more likely than children with well parents to suffer from an affective disorder. They were six times more likely to be diagnosed with Major Depressive Disorder (Downey and Coyne, 1990). A longitudinal study by Wickramaratne and Weissman (1998) confirms this. The authors studied 182 children from 91 families, in which either one parent, both parents or neither parent had Major Depressive Disorder. In a 10-year follow-up, parental depression was associated with an increased risk for childhood onset of a number of disorders. Children of depressed parents were: eight times more likely to develop Major Depression, three times more likely to develop anxiety disorder, and five times more likely to develop conduct disorder *during childhood* (Wickramaratne and Weissman, 1998). If parents developed Major Depressive Disorder before the age of 30, children were 13 times more likely to develop childhood onset of major depression and seven times more likely to develop major depression as an adult. Additionally, longitudinal studies have shown that children of depressed mothers are at higher risk of suicidal thoughts and behaviors (Klimes-Dougan et al., 1999) and at higher risk for medical problems and hospitalization (Kramer et al. 1998).

Children at all developmental stages are vulnerable to maladjustment and psychopathology when living with a depressed mother (see Gelfand and Teti, 1990 and Goodman, 1992 for reviews of cohort effects.) While much of the research has focused on school age or adolescent children, even infants

are vulnerable to developmental difficulties. In a review of studies of infants of depressed mothers, Field (1992) found that infants develop a depressive mood style, exhibiting “less positive affect and lower activity level” (p. 51 Field, 1992), as early as three months of age. These infants remained depressed in their interactions with other nondepressed adults, and if the mother’s depression remained unremitting during the first year, the infant’s depressive style persisted, continuing to mirror the mother’s depressive state (Field, 1992).

Pathways of Influence

There are various explanations for the link between maternal depression and poor child outcomes. Some research hypothesizes that problems stem from direct exposure to a depressed parent. Others blame a shared environment, with factors that led to parental depression also leading to child psychopathology, absent any causal link between parent and child. Those favoring genetic explanations consider biological vulnerability to depression a major causal pathway, although twin and adoption studies demonstrate that while genes play an important role in the intergenerational transmission of depression, they cannot fully explain the general maladjustment seen in children of depressed parents (Downey and Coyne, 1990). In contrast, an interactional model emphasizes the parents’ behaviors and interaction style, e.g., their lack of responsiveness and warmth and their poor management techniques, such as coercion and intrusion. These differing etiologies suggest different interventions.

Despite the lack of agreement over causality, research shows that maternal depression detrimentally affects children. Precisely how it affects children remains unclear, but as Downey and Coyne (1990) suggest, “The more appropriate question is, how do genetic and other biological vulnerabilities combine with contextual factors to influence child adjustment?”

Stresses associated with depression include poverty (Belle, 1990) unemployment (Blazer et al., 1994; McLoyd et al., 1994; Regier et al., 1993), and lack of social support (Turner, 1999). Women on welfare often experience multiple stresses, including today’s threat of benefit loss should they fail to find employment. These stress factors may operate independently of any illness but may exacerbate or modify the effects of parental depression on children.

Methodological Issues Limiting Generalizations

Methodological issues preclude conclusive statements about the degree to which generalizations can be drawn from studies of depressed parents and their children. (See Downey and Coyne 1990 for a thorough critique.) Research limitations include: the lack of control groups and sample matching or other strategies to limit “selection bias”; changes in diagnostic criteria over time; variations in the severity of parental depression; and the use of self-report measures instead of structured diagnostic interviews (Downey and Coyne, 1990). As Coyne, Downey, and Boergers (1992) note, research is often carried out in treatment settings that fail to reflect the larger population of depressed persons. For instance, patients in hospital, clinic, and community settings differ in their degree of impairment and their life circumstances. Hospitals and clinics typically serve those with “recurrent, severe, or treatment resistant” depression (p. 213, Coyne, Downey, and Boergers, 1992). Those who remain untreated for depression may ultimately differ in the degree to which their depression affects their children. Concomitantly, heterogeneous groupings of children of different ages, and thus different developmental stages, confound findings on effects.

Comorbidity of psychiatric disorders further complicates study results. Affective disorders such as depression are commonly associated with other conditions, such as anxiety disorders, personality disorders (Downey and Coyne, 1990), alcoholism, drug dependence (Rutter and Quinton, 1984), and post traumatic stress

disorder. It may be these conditions and not depression itself, which constitutes the main risk for children. Related to this is the problem of “specificity” (Downey and Coyne, 1990, p.56), in that the correlates of depression—and not depression *per se*--may be responsible for the poor outcomes for children whose mothers are depressed. For example, parenting difficulties may be the result of depression, but they may also be pathways for different types of stress, or attributable to a correlate of depression. And while children of depressed parents are at higher risk for maladjustment, studies have shown that children of medically ill or non-depressed psychiatrically ill parents may share many of the same characteristics (Downey and Coyne, 1990). Regardless of these methodological issues, however, it is clearly important to consider the consequences of depression (or any other serious illness) for children when devising treatment and intervention strategies for parents and to implement strategies for reaching those children who are at risk for adverse outcomes.

TREATMENT OF DEPRESSION

A large number of studies, outlined below, document the effectiveness of various treatment and prevention options for depression. While much research has been done on this topic, fewer studies have specifically focused on low-income populations or women. Much of the research with experimental assignment to treatment concerns either psychopharmacological or psychotherapeutic treatment, and little of this analyzes social class or gender. Little attention has been given to rigorous evaluations of non-medical or non-psychotherapeutic interventions in this population. Thus, while effective treatments for depression do exist, it will be essential to understand their relevance to low-income women, whose chronically difficult life circumstances may very well provoke feelings of depression and hopelessness that may be intractable to symptomatic treatment.

This section of the report will first summarize the current recommendations for effective treatment of depression. A synopsis of identified treatment disparities within the low-income population will follow. Finally, potential barriers to treatment will be outlined.

Guidelines for the Treatment of Depression

The Agency for Healthcare Research and Quality (AHRQ), formerly known as the Agency for Health Care Policy and Research (AHCPR), has delineated recommended protocols for the treatment of depression. These guidelines were established in 1993 and are based on a comprehensive, science-based review of relevant randomized controlled trials. The protocols were updated in 1998 to include a newer class of antidepressant medications. These recommendations are intended to guide practitioners in the optimal management of depression which generally includes pharmacological treatment and/or psychotherapy.

According to these recommendations, depression is to be treated in three phases: acute, continuation, and maintenance. The acute phase extends for 6-12 weeks, and its chief goal is to achieve a remission of symptoms. Immediately following the acute phase is the continuation phase where treatment is lengthened for four to nine months to prevent recurrence of symptoms. Finally, a maintenance phase of treatment is recommended for those individuals who have experienced three or more prior episodes of depression. This phase is extended for a minimum of one additional year of therapy beyond the continuation phase (Rush et al., 1993).

Treatment Efficacy

AHRQ posits three classes of effective therapies for the management of depression: pharmacotherapy, psychotherapy, and a combination of both therapies. Studies have demonstrated equivalent efficacies for both pharmacotherapy and psychotherapy (Rush et al., 1993; Muller-Oerlinghausen, 1999). Therefore, the determination of which therapy is most

appropriate is to be based on provider evaluation and patient preference. (Of course, as noted later, health insurance plans often place limits on what treatment services may be covered.)

Nevertheless, an important consideration is that AHRQ only recommends psychotherapy as monotherapy for mild to moderate depression (Rush et al., 1993). While studies have disputed this recommendation, to date no revisions have been made in the established protocols (Schulberg et al., 1999).

Among the various forms of psychotherapy, three have been shown to be effective in the treatment of depression. They include cognitive-based therapy, interpersonal therapy, and behavioral therapy. There are no significant differences in efficacy rates for each type of therapy (See Table 1; Rush et al., 1993). However, although psychotherapy is equally recommended for mild to moderate depression, studies have demonstrated that an initial response to this form of treatment is often delayed when compared to pharmacotherapy (Schulberg et al., 1996; Rush et al., 1993).

Therapy	Efficacy
Behavioral	55.3%
Cognitive	46.6%
Interpersonal	52.3%
Placebo	9.4% - 22.6%

Concern has been expressed in the literature that evaluations of psychotherapy's efficacy may not be generalizable to a broad range of clinical settings. Many randomized trials take place in universities, with specifically trained psychotherapists who follow guidelines for treatment – conditions are not likely found in most clinical treatment settings (Weisz, Weiss and Donenberg 1992; Shadish et al. 1997). However, recent work by Shadish and colleagues (1997; 2000) suggests that these therapies are

effective over a range of clinical conditions. Moreover, there appears to be a dose-response relationship between treatment and outcomes, with better outcomes achieved with more sessions of psychotherapy (Shadish et al., 2000).

Extensive research has evaluated the efficacy of drug treatments. Two primary classes of antidepressant medications are recommended for appropriate depression management. These include the older tricyclic antidepressants (TCAs), which include such agents as amitriptyline (Elavil) and nortriptyline (Pamelor), and the newer selective serotonin reuptake inhibitors (SSRIs), which include fluoxetine (Prozac), paroxetine (Paxil), and sertraline (Zoloft). As shown in Table 2, no significant differences in efficacies were identified between these two classes of medications (Mulrow et al., 1999); and each class is two to three times more effective than a placebo.

Drug Class	Efficacy
Tricyclics	45.2% - 64.4%
SSRIs	47.4% - 53.7%
Placebo	15.0% - 25.7%

While the efficacy rates of the two primary classes of antidepressant medications are equal, distinct advantages and disadvantages are apparent for each class of medication. The significant advantage of the tricyclic antidepressants is their low acquisition cost. However, this benefit is often offset by a host of disadvantages (Le Pen et al., 1994). First, the tricyclic class of medications has more adverse effects, such as somnolence, chronic dry mouth, and weight gain, which may result in a premature discontinuation of therapy. Additionally, an overdose of these medications may cause critical toxicities and/or a successful suicide, thereby

substantially elevating inpatient costs associated with this therapeutic class. Finally, the dosage of these medications must be titrated (i.e., increased slowly in increments over a three-week period) to attain a therapeutic level, thus requiring more frequent outpatient visits for the adjustment of dosage levels (Mulrow et al., 1999).

The primary disadvantage of the newer selective serotonin reuptake inhibitors is their high acquisition cost. However, numerous cost/benefit analyses contend that these initial expenses are readily offset by a plethora of advantages (Revicki et al., 1997, Le Pen et al., 1994). First, the SSRIs have fewer and more manageable adverse effects, thus lowering early discontinuation rates of therapy (Szewczyk and Chennault, 1997). In addition, these medications are relatively safe in overdose. Consequently, fewer inpatient costs are associated with the use of this class of medications. Finally, initial dosages of SSRIs are generally given at therapeutic levels (AHRQ, 1998).

Consequently, while the acquisition cost of the tricyclic class of antidepressants is substantially lower, cost savings rarely materialize with their use. The costs associated with early discontinuation and weak adherence due to poor tolerability are high (Revicki et al., 1997, Le Pen et al., 1994). Similarly, inpatient expenditures as a result of adverse events, toxicity, and suicide attempts are daunting (Le Pen et al., 1994). Finally, the failure to achieve therapeutic dosages dissipates acquisition cost savings, and raises overall expenses. Therefore, due to simple dosing patterns, a mild adverse effect profile and low toxicity in overdose, the overall costs associated with selective serotonin reuptake inhibitors are equivalent to those of tricyclics after comprehensive cost-benefit analysis.

Finally, it is possible to treat depression of all types with a combination of both psychotherapy and pharmacotherapy. While combination therapy has rarely been analyzed, one recent study has shown it to be far more efficacious than either drugs or psychotherapy alone (85 %

rate of response vs. 55 % pharmacotherapy and 52 % psychotherapy; Keller, 2000; see also Thase et al., 1997). AHRQ hypothesizes that this form of treatment may be most appropriate for individuals with multiple past episodes of depression that do not resolve with either medication or psychotherapy alone.

Nevertheless, further studies are needed to replicate these promising findings, especially studies of low-income women.

ALTERNATIVE INTERVENTIONS

Recent evaluations of adult-focused interventions offer encouraging results for reducing depressive symptoms among low-income individuals. One promising approach was developed by the Michigan Prevention Research Center (Caplan, et al., 1989) which incorporated attention to mental health problems into job programs for the unemployed. In this Job Opportunities and Basic Skills Training (JOBS) program, participants attended workshops that focused on strategies for job searching and improving their coping capacities, especially in response to setbacks. Attention was given to building self-esteem, mastery, motivation and persistence. The intervention was delivered by supportive staff who focused on building strengths, and sought to provide problem-solving and decision-making skills in addition to job-seeking tools.

This program has been evaluated in randomized trials. It was shown to be effective in achieving more rapid reemployment, higher earnings and better quality jobs (Caplan et al., 1989; Vinokur et al., 2000). Importantly, in the context of this report, it reduced depression, most effectively among those at high risk (Price, Van Ryn, and Vinokur, 1992; Vinokur, Price and Schul, 1995; Vinokur et al., 2000).

A new program called Welfare to Jobs and Independence, focusing directly on welfare-to-work populations, has been developed by the Poverty Center and the Michigan Prevention Research at the University of Michigan, to help

welfare recipients find and retain jobs and cope with the financial demands of an independent working life. This new program, modeled on the Michigan JOBS program, is informed by analyses of data on current and former welfare recipients and on the Michigan welfare system (Danziger et al., 2000); and by consultations with providers of welfare services and with welfare recipients. (See, <http://www.ssw.umich.edu/poverty/projects.html>.)

Another promising approach, not geared toward improving mental health *per se*, involves assuring that women obtain an income sufficient to raise their families out of poverty. Responding to evidence that women who left welfare for work lost so many benefits that employment left them worse off than welfare, the Minnesota Family Investment Program set out to increase incentives to work (Knox, Miller, and Gennetian, 2000). Instead of losing benefits as earnings increased—the traditional policy under AFDC -- families were eligible for welfare until their income reached 140 percent of the poverty line. If employed, they received a 20 percent increase in cash assistance to meet work-related costs. They also received child care subsidies, which were paid directly to providers. For one of the experimental groups, mandatory employment and training programs were provided with an emphasis on entering the work force; in the second experimental group, work activities were not mandatory. Lastly, MFIP simplified AFDC practices regarding benefits and work requirements. The program reduced the confusing nature of benefit programs (i.e. AFDC, Food Stamps, and Family General Assistance) with their disparate eligibility rules by consolidating them into one program that provided a single monthly payment. The AFDC policy of denying benefits to families where the primary earner worked more than 100 hours a month or lacked an employment history was also abandoned (Knox et al., 2000).

When comparing single-parent long-term recipients participating in MFIP with those receiving MFIP incentives only (with no mandatory work or activity requirements) and

those on AFDC, differences in the risk of depression were found. After three years, 55.2 percent of the women who received traditional AFDC benefits had high levels of depressive symptoms (CES-D score of 16 or above) compared with 51 percent of the MFIP participants and 45.2 percent of the MFIP incentives-only group. (Gennetian, personal communication; see also Knox et al., 2000). It is interesting to note that the differences between the MFIP incentives sample and the AFDC sample was statistically significant, indicating the importance of earning disregards and income level (without mandatory work activities) to psychological well-being. While the study did not assess depressive symptoms at baseline (and hence cannot assess the impact of the program on symptoms), its results are promising. Since the MFIP evaluation did show positive effects of the program on employment and earnings, it is plausible that the Minnesota program also reduced depression. Future research should be designed to test this supposition.

TREATMENT IN THE GENERAL POPULATION

Despite the availability of effective therapies, depression in the general population remains largely mistreated or altogether untreated. An analysis of data from large-scale national surveys illustrates this point. First, in the National Comorbidity Survey, only 30 percent of individuals with major depression received any health care services, and only 21 percent received mental health specialty treatment in a 12-month period (Blumenthal and Endicott, 1997). Similar rates were found in the Medical Outcomes Study, which followed individuals in outpatient clinics in Boston, Chicago and Los Angeles. In this survey, only 40 percent of depressed patients received any treatment, and just 23 percent received an antidepressant. Furthermore, among those receiving antidepressant medications, over 50 percent received sub-therapeutic daily dosages (Wells, 1996).

The Epidemiologic Catchment Area Study also observed poor treatment rates. Fewer than one-third of the respondents who met diagnostic criteria reported using any health care service in the previous six months. Even more striking was that only 10 percent of those with depression were identified as receiving adequate therapy consistent with recommended guidelines (Hirschfeld et al., 1997, Robins, 1991).

Recently, Young and colleagues (2001) conducted a national survey to assess quality of care for depression and anxiety in the United States. They reported that while 80 percent of individuals who met criteria for depression had contact with the medical system in the prior year, only 25 percent received adequate care for depression -- defined as either four counseling sessions or a minimum dosage of medication for two or more months. This is far less treatment than what is recommended by AHRQ's Treatment Guidelines Panel.

DISPARITIES IN THE TREATMENT OF DEPRESSION

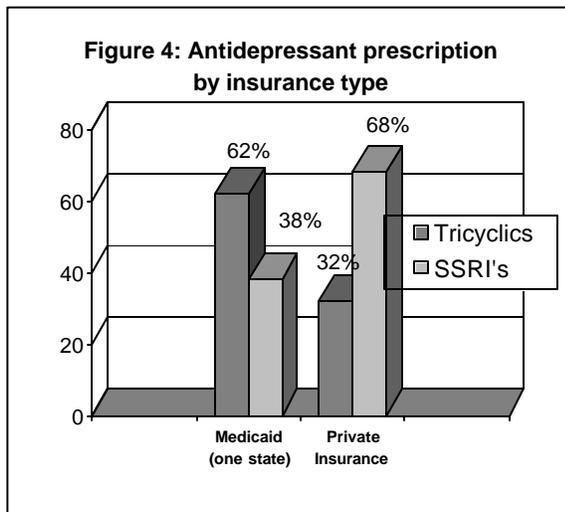
While it is clear that treatment rates within the general population are low, further disparities emerge when observing the treatment patterns of depressed people with low incomes. Studies indicate that income, ethnicity, gender, and insurance status each have an effect on treatment rates and the type of treatment received (Melfi et al., 2000, Sirey et al., 1999, Katz et al., 1997). Katz and colleagues performed a comparative study of the United States and Canada on the relationship between rates of depression treatment and income. Data were analyzed from the National Comorbidity Survey and the similar Ontario Health Survey. A major finding of this study was a positive association of income and the use of mental health services, but only in the United States. Specifically, as shown in Table 3, individuals with annual incomes greater than or equal to \$61,000 were 3.3 times more likely to

receive mental health specialty services than those with incomes less than \$15,300 (Katz et al., 1997). Conversely, in Ontario, where universal and comprehensive health care coverage is the norm, the trend, if any, was a negative association. This study also observed that having no insurance and being on Medicaid each resulted in a significantly lower likelihood of utilizing mental health specialty services within the United States (Katz et al., 1997).

Table 3: Mental health specialty treatment in the United States and Ontario

Income	U.S.	Canada
Less than \$15,000	1.0	1.0
\$15,300 - <38,100	1.2	0.7
\$38,100 - <61,000	1.5	0.6
\$61,000 or more	3.3	0.8

A recent series of studies by Melfi and colleagues analyzed a database on treatment patterns in a population of non-elderly individuals on Medicaid in one (unidentified) state. This study compared treatment received by depressed Medicaid beneficiaries with that received by depressed individuals with private insurance. The later data came from a nationwide database of privately insured individuals. A number of treatment differences were uncovered. First, as shown in Figure 4, Medicaid beneficiaries were significantly more likely to receive the older tricyclic antidepressants than individuals with private insurance (Melfi et al., 1997). Secondly, the treatment of Medicaid beneficiaries was much less likely to extend into the required continuous phase of therapy (21% Medicaid vs. 34% private insurance). Finally, rates of receiving psychotherapy treatment were also significantly less for the Medicaid group (20%) than in the private insurance group (45%; Melfi et al.1999).



Because there are many other (unmeasured) differences between individuals on private insurance and those on Medicaid (such as SES, race, or employment status), treatment differences may be due to these factors, rather than to type of insurance. Moreover, the Melfi et al. investigation is based on just one state's Medicaid data and requires replication before generalizations may be made about treatment under Medicaid. That said, there is some support for the idea that Medicaid patients may receive less than optimal care. Various mental health advocacy groups (e.g., Bazeton Center for Mental Health Law, 1999; National Mental Health Association, 1998) have expressed concern about formularies used by Medicaid and managed care organizations. According to the Bazeton Center, many states restrict access to costly psychotropic medications for Medicaid patients (although a few have removed restrictions on the SSRIs.) Moreover, the movement in Medicaid toward managed care may increase the use of medication formularies to control costs. Such formularies give preference to the less expensive older forms of medications, which have more adverse side effects and poorer adherence.

In further analysis of their data, Melfi and colleagues analyzed intra-Medicaid variations by race, and discovered a notable disparity. African American Medicaid beneficiaries were 55

percent less likely to receive an antidepressant at the time of initial diagnosis of depression than were white beneficiaries (Melfi et al., 2000). Additionally, African American beneficiaries were 25 percent less likely to receive the newer, SSRI class of medications than whites. Finally, rates of early discontinuation of antidepressant therapy were elevated among African American Medicaid beneficiaries (48% African Americans vs. 32% whites; Melfi et al., 2000).

Other studies have reported similar findings with regard to race/ethnicity. A study conducted among a non-elderly Medicaid population in New York State showed that white Medicaid beneficiaries utilized mental health services at twice the rate of nonwhite beneficiaries (Temkin-Greener and Clark, 1998). Another study in New York analyzed predictors of antidepressant recommendation for depressed outpatients in Westchester County. A key finding in this study was that antidepressants were recommended to non-minority patients at a significantly greater rate than to minority patients (84% vs. 45%; Sirey et al., 1999). Furthermore, once severity of depression, clinic site and recent use of medication were statistically controlled, non-minorities were three times more likely to receive an antidepressant recommendation than minorities (Sirey et al., 1999).

These disparities associated with race are particularly disconcerting given the evidence to support the notion that African Americans may have an adverse response to the older tricyclic class of medications. Lin, Andersen, and Poland (1999) posit that African Americans have a slower metabolism of tricyclic antidepressants and, thus, are at a greater risk of experiencing toxicity and side effects from elevated plasma levels of the medication. Clearly, the disproportionate prescribing patterns of tricyclic antidepressants to this population require the attention of researchers and providers.

A few important considerations must also be taken into account regarding the treatment of depression in women. First of all, depressed

women experience higher rates of comorbidity with depression than men (Pajer, 1995). As a result, the identification of depression in women is complicated, and treatment may be delayed (Goldman, Nielsen, and Champion, 1999). Studies also suggest that women experience a slower metabolism of the tricyclic antidepressants, and may suffer from adverse events and toxicity at a disproportionate rate (Goldman, Nielsen, and Champion, 1999, Kornstein, 1997, Pajer, 1995). Therefore, as with African Americans, a case can be made for prescribing selective serotonin reuptake inhibitors to women rather than the older forms of antidepressant medication.

CARE RECEIVED ONCE ACCESS HAS BEEN ACHIEVED

Unfortunately, once access to health care has been achieved, adequate treatment of depression is not guaranteed. In fact, studies consistently reveal high patient attrition rates, poor treatment adherence rates, and subtherapeutic dosing patterns in the management of depression (Lin, 2000, Goldman, Nielsen, and Champion, 1999, Hirschfeld et al., 1997, Katon et al., 1992). As previously mentioned, while more than one-third of individuals in the ECA survey sought treatment for major depression, only 1 in 10 received care consistent with AHRQ guidelines (Robins and Regier, 1991). Similarly, the Melfi et al. (1999) study of Medicaid patients found that fewer than one-third who were receiving any treatment had completed the required continuous phase of care. Lin et al. (1995) discovered that nearly one-half of depressed patients stopped taking antidepressant medications after just three months of treatment, and a study of California Medicaid recipients (non-elderly) demonstrated that only 3.5 percent of patients displayed antidepressant use patterns consistent with recommended protocols (McCombs et al., 1990).

The recent national survey by Young and colleagues (2001) found that poorer quality care for depression was reported by African

Americans, men, and those with low levels of education. Having health insurance was associated with having seen a physician, but, among those who saw a physician, adequate care was unrelated to insurance coverage.

A significant gap clearly exists between successful access to care and the receipt of optimal therapy. A few studies have attempted to determine the feasibility and practicality of incorporating the AHRQ guidelines into routine clinical care. One study found that only 33 percent of patients assigned to receive antidepressants completed a full regimen consistent with AHRQ guidelines (Schulberg et al., 1995). While rates of receiving appropriate care were low, this study did reveal that such treatment is attainable. Also worth noting is that 70 percent of these patients who received care consistent with AHRQ guidelines fully recovered from depression, compared to 20 percent who received the usual and customary care (Schulberg et al., 1996).

BARRIERS TO TREATMENT

Barriers to effective treatment for depression abound in the low-income population. These impediments exist on three levels: institutional, provider, and patient. Arguably those most malleable and receptive to policy changes are at the institutional and provider level. However, all three levels will be considered.

Institutional Barriers

The first and perhaps most significant barrier to treatment of depression among people of low incomes is cost. It has been well documented that low-income families pay a higher share (7%-11%) of their income out-of-pocket on health care than do upper income families (1%-2%; Lillie-Blanton and Alfara-Correa, 1995). Similarly, in the study reviewed earlier comparing the relationship between mental health service utilization and income in the United States and Ontario, the "Ontario/U.S. adjusted odds ratios for contact among persons

with the lowest incomes was 7.8 . . . , but for the highest income it was 2.1” (Katz et al., 1998, p.81).

Individuals with low incomes are also significantly more likely to be uninsured, which in itself is an important barrier to health care. A recent assessment identified uninsured, low-income adults as significantly worse off on several measures of health care access and utilization (Holahan and Brennan, 2000). Currently, 42.5 million Americans are uninsured (Mills, 2000), and another 15-30 million individuals have limited coverage, especially for mental health services. The Kaiser-Commonwealth Low-Income Survey found that two of every five poor adults were uninsured at the time of the survey, or had a period of uninsurance over the last two years (Schoen, 1998). An additional consideration is the racial distribution found among the uninsured. Hispanics (33%) and African Americans (23%) bear a disproportionate risk of being uninsured when compared to whites (13%; Lillie-Blanton, 1995).

Medicaid itself may impose certain barriers to care. First the transition from fee-for-service to managed care Medicaid has imposed numerous limitations, and created a highly disjointed health network. For example, as noted earlier, imposed medication formularies may restrict the availability of certain therapies and/or limit the duration of a prescribed antidepressant regimen (Hirschfeld et al., 1997). They may also limit the amount of medication monitoring during the course of therapy. Similarly, restrictions on the number of sessions of psychotherapy allotted through managed care may yield a scenario where minimum requirements established in the AHRQ guidelines are not met (Goldman, Nielsen, and Champion, 1999).

The transition to managed-care Medicaid has also altered the number and location of available services. Because of low Medicaid reimbursement rates, a number of providers are no longer providing services to individuals in

this population (Glieb and Kofman, 1995). Additionally, mental health services are now frequently provided through “carve-out” services. These programs are often out of synch with a patient’s primary care for a number of reasons (the geographical distance between the two sites may be considerable, for example.) Likewise, poor communication between personnel may disrupt effective linking of services between the two sites.

These carve-out services also place a sizable burden on general practitioners. Primary care physicians assume the role of gatekeeper, which can further compromise patient care. Studies consistently find that primary care physicians are less likely to identify depression than mental health specialists (Goldman, Nielsen, and Champion, 1999; Wells et al., 1989). In one study, the difference was highly significant: psychiatrists properly diagnosed 78 percent-87 percent of depressed patients, general practitioners just half (Wells et al., 1989). Additionally, a study in 1990 demonstrated that only 21 percent of privately insured beneficiaries have mental health inpatient coverage on par with that for their general medical illnesses, and only 2 percent have similar outpatient coverage (Glieb and Kofman, 1995). Moreover, coverage for mental health treatment has declined over the past decade in managed-care insurance plans (Hay Group, 1999). Substantial cuts in Medicaid rolls, especially since 1994, have also posed a powerful barrier to care for this population. A study analyzing the fate of individuals who lost Medicaid coverage from 1995-1997 revealed that nearly 50 percent of women and 30 percent of their children were uninsured one year after leaving welfare (Garrett and Holahan, 2000).

Another profound barrier to mental health treatment is the stigma attached to a psychiatric diagnosis. The pervasiveness of discrimination against the mentally ill has precipitated the inclusion of an anti-stigma campaign into the Surgeon General’s first report on mental illness (U.S. Department of Health and Human

Services, 1999). Discrimination against those with mental illnesses including depression inhibits various individuals from seeking care. Despite years of research and education, a recent study discovered that the public's perceptions of mental illness have changed little since similar studies were conducted in the 1950s (Link et al., 1999). The researchers of this study concluded that the public's association of violent tendencies to the mentally ill, coupled with its desire to maintain a social distance from them indicates that the powerful stigma is still in place. Other studies have demonstrated a strong association of mental illness with perceived exclusion from the job market (Link, 1992).

Provider Barriers

In addition to institutional barriers, numerous provider-specific barriers inhibit access to effective treatment. The most apparent of these is the failure to properly identify depression. As previously stated, general practitioners are less likely than mental health specialists to adequately identify depression (Goldman, Nielsen, and Champion, 1999, Wells, 1989). Similarly, studies show that once treatment has been initiated, psychiatrists are more adept at properly managing disease, especially when utilizing tricyclic antidepressants (Simon et al., 1993, Fairman et al., 1998).

In one study of patients administered tricyclic antidepressants, researchers found that therapeutic dosages were more readily administered to patients under the management of a psychiatrist (70%) than under the care of a non-psychiatrist (25%) (Fairman et al., 1998). In addition, compliance rates among tricyclic-treated patients were significantly higher under the care of a psychiatrist (72%) than a non-psychiatrist (62%) (Fairman et al., 1998). The study did not find significant differences in adherence and/or ability to achieve therapeutic dosages when treating patients with SSRIs.

Another study reported similar results. Patients treated by psychiatrists were more likely to achieve therapeutic dosages of antidepressants

(35% vs. 25%) and were more likely to adhere to their medication (48% vs. 40%) (Simon et al., 1993). Unfortunately, the current regulations dictated by managed care are shifting mental health treatment away from the specialist and toward general practitioners (Wells, 1997). However, these apparent disparities in delivery of appropriate care may reflect differences in provider education and training (Hirschfeld et al., 1997). Therefore, without substantial corrections at this level, inadequate care will increase as more care is delivered in the primary-care setting.

In seeking to address this problem, one study delivered just five brief educational messages from the primary care provider to depressed patients. Patients who received this intervention were more likely to comply with their treatment regimen during the crucial first month of therapy (Lin et al., 1995). Similarly, Katon et al. (1995) discovered that collaboration between general practitioners and mental health specialists resulted in better overall outcomes than usual primary care (see also Schulberg et al., 1999). However, inadequate time to evaluate and treat depression poses a real barrier to the provision of such effective remedies (Hirschfeld et al., 1997). Other provider barriers exist. Clinician bias impedes access to adequate treatment among patients with mental illness. This bias is displayed in various manners. First, providers may refuse to acknowledge mental illness as a true medical condition, and subsequently refuse to treat it as such (Hirschfeld et al., 1997). Additionally, practitioners may show bias in their care based on the patient's insurance type (Wells, 1997, Hirschfeld et al., 1997). In one study, depressed fee-for service individuals (54%) were more readily diagnosed with depression than were depressed patients with prepaid health insurance (42%; Wells et al. 1989). It is hypothesized that certain physicians may opt to provide fee-for service care as opposed to prepaid care. Under fee-for-service plans, payment is received for each medical visit, whereas prepaid plans provide only a flat rate of reimbursement regardless of the number of clinic

visits. Moreover, some plans may penalize physicians for making referrals to specialty care. Thus, due to the substantial investment in time required to appropriately manage depression, clinicians may opt to avoid perceived financial losses, which may be incurred through prepaid health plans.

Finally, cultural competence is a key area of concern for clinicians. Minority groups are poorly represented among mental health professionals (Glied and Kofman, 1995). As a result, language and cultural barriers often preclude appropriate treatment. (U.S. Department of Health and Human Services, 2000). Identifying cultural differences is crucial, as these factors also weigh heavily on individual help-seeking behaviors.

Patient Barriers

It is indisputable that a host of patient barriers limit adequate care of depression. Family and peer influences, language barriers, perceptions of illness, belief in medication, physician mistrust, and stigma may each preclude access to mental health care. Likewise, a failure of patients to recognize their symptoms of depression and/or to underestimate the severity of the illness greatly impacts help-seeking (Hirschfeld et al., 1998). Women commonly fail to recognize depression, and instead focus on somatic disturbances (Szewczyk and Chennault, 1997).

Studies have demonstrated that the gap between need and mental health service utilization is the greatest for Hispanic and African Americans (Padgett et al., 1994, Sussman, Robins, and Earls, 1987). Padgett and colleagues (1994) discovered that among federal employees, African American and Hispanic women utilized mental health care less than whites (Padgett et al., 1994). Cultural and attitudinal factors were cited as the likely causes of lower mental health service utilization in this nonpoor, insured population. Similarly, after an analysis of the Los Angeles data of the ECA, Wells et al. (1998) found that Hispanics were far less likely to utilize mental health services than whites.

Similar patterns of lower use were identified among African Americans in an analysis of the St. Louis arm of the ECA (Sussman, Robins and Earls, 1987). The researchers of this study also identified fear of treatment and hospitalization as likely causes for decreased treatment-seeking among African Americans.

Some identified predictors of help-seeking include: higher education, a history of prior treatment and longer episodes of depression (Blumenthal and Endicott, 1997, Horowitz, 1996). Researchers also find that a greater severity of symptoms and/or comorbidity increase mental health service use (Kessler, 1999). In addition, data from the National Medical Expenditures Survey revealed that being African American and having fewer than 12 years of education significantly decreased the likelihood of receiving long term psychotherapy (Olfson and Pincus, 1994).

Finally, women may have diverse reasons for not seeking care. One study in the early 1990s found that more than 40 percent of women believe that depression is a result of personal weakness (cited in Glied and Kofman, 1995). In addition, researchers contend that women often delay seeking treatment or disclosing their mental illness out of fear of losing custody of their children (Belle, 1984).

SCREENING AND ASSESSMENT: IMPLICATIONS FOR TANF AND WELFARE- TO-WORK PROGRAMS

Policies aimed at reducing rates of depression among welfare recipients will succeed only to the extent that such policies are supported by accurate assessment and prevention/treatment interventions that effectively identify and treat those in need of mental health services. This will require screening individuals to determine whether or not they have symptoms that warrant further assessment. Currently, practices of screening adults for depression, other mental disorders, or co-morbidity appear to be

inadequate. This raises a number of issues for policymakers³, including:

Screening Tools: Given the complexity of assessing depression and comorbid conditions, this question needs to be raised: should eligibility workers be expected to successfully conduct mental status assessments, much less have the knowledge to refer to needed preventive and treatment services? Additionally, localities differ in their service-delivery capacity, raising questions about sources of assessment, preventive interventions and treatment services in many communities.

Screening tools differ in whether they assess symptom levels or suggest clinical diagnoses. They also differ in time required to administer, complexity, and degree of staff training needed. The use of self-report scales, while easier in terms of staffing, may be hampered by issues of literacy, comprehension, and inconsistent responses. It's likely, given the traditionally limited resources of welfare-related agencies, that any instrument used will need to be easy to administer and require little time for completion. Additionally, the question remains as to whether lay staff or trained professionals outside the welfare system should perform even the initial screening.

That said, there have been a number of screening instruments developed for use in primary care settings that may be adaptable to social service or welfare agencies. Recent attempts have been made to make these instruments easier to administer. For example, Brody et al. (1998) found that a two-item screening questionnaire, followed by an assessment of four symptoms of depression, was an effective way to identify primary care patients who may be depressed. Another study by Williams and colleagues (1999) compared the effectiveness of using the CES-D scale to that of a single question--"Have you felt depressed or sad much of the time in the past year?". The two approaches, tested in a randomized trial, were of equal sensitivity (the probability of a positive result among people

who meet criteria for depression), and the CES-D was more specific than the single question (specificity being the probability of obtaining a negative result from screening in people without depression).

It is not clear whether these screening techniques would work in a nonmedical setting. Individuals seeking medical care are likely to be more motivated to reveal problems to a doctor than women seeking public assistance would be to reveal troubles to any eligibility worker. The types of individuals seen in medical settings may also differ from those seen in welfare offices, making it difficult to generalize from the studies described above. Nonetheless, it would be possible to conduct randomized trials in welfare and social service settings similar to that conducted by Williams and his colleagues (1999) to test the feasibility of using short screening instruments in these settings.

Revealing Personal Information: Will welfare recipients feel comfortable in revealing information that may lead to their being identified as in need of mental health services (a possibly stigmatizing process) or threaten their parental rights by leaving them open to charges of parental unfitness? This is a common concern, whether assessment is done in a welfare setting, a community mental health agency, or in a clinic.

Being identified as having a mental disorder can threaten one's sense of self. Women who already suffer from the burden of being poor, who face ethnic or racial discrimination, and who are stigmatized as welfare recipients, might understandably be reluctant to report the true extent of their depressive symptoms. To do so might further stigmatize them. Despite efforts at public education, stigma remains a significant and recognized barrier to treatment (U.S. Department of Health and Human Services, 1999). Policies and practices also need to address women's fears that diagnosis will lead to being perceived as unfit parents who should not retain custody of their children.

Confidentiality: What system changes need to be enacted to ensure the confidentiality of screening and assessment results? As noted earlier, confidentiality is essential if women are to reveal the presence of a stigmatized condition. It is important that decisions about public assistance, child welfare, or employment not be negatively affected by the outcome of an assessment for depression or other psychiatric condition.

Diagnostic Assessment: In contrast to screening, which is meant to identify individuals who are likely to be depressed, assessment is the process of evaluating individuals in relation to established criteria for mental disorders. Several questions arise with regard to assessment. How will diagnostic assessment be carried out? Who will carry it out? Will welfare and work force development systems refer individuals to community health clinics, physicians, or mental health specialists? Does the community have the service delivery capacity to address client needs identified in assessments?

Delivery of Services: A number of questions may be raised regarding service delivery. How should mental health services offered be integrated or linked to current welfare and work force development systems? What are promising practices or exemplary service integration models? Integrating service systems so that clients can be optimally served through referral and follow-up remains a challenging problem.

System Changes: What community capacity and resources are required and what organizational changes will be needed to integrate mental health services into traditional welfare case management practices? Who is appropriate to refer to job placement centers? What range of family support and worker support programs are associated with obtaining and retaining employment? What will be needed in job placement centers?

RESEARCH ISSUES

The literature reviewed in this paper has multiple implications for future research efforts that will inform policy decisions. Only a few of these are addressed here. Further diagnostic assessment may be required in order to understand potential sources of variation within groups who meet criteria for major depressive disorder. For example, there are apparent differences in social functioning when some depressed women are able to obtain jobs while others are not. It will be important for research to determine the extent to which these differences arise from situational factors (e.g., lack of financial resources; lack of social support), from individual factors (e.g., genetic predispositions; personality factors), or from potential limitations of the classification system. The latter could occur if the diagnostic label (Major Depressive Disorder) encompasses several different types or severities of depression. Treatment and intervention strategies may need to be tailored to these differences in types or severity of depression.

Among the most important research needs is having large enough samples from low-income populations to understand the generalizability of research results about the following areas:

- the relation of depression to welfare receipt and to unemployment;
- the relation of unemployment to depression;
- the relation of job conditions to depression; and
- the relation of job insecurity and job loss to depression.

While the literature suggests that job-related factors are associated with depression and its symptoms, it is important that future research begin to compare low-income populations with higher income populations to attempt to understand causal direction. Prospective investigations, in which a cohort of youngsters is followed through adulthood, are essential for

Research Issues

- Adequacy of the diagnostic system for depression
- Need for longitudinal, nationally representative samples of low-income women
- Disparities in treatment
- Evaluating how treatment of depressed mothers affects their children
- Costs and benefits of treating depression, including savings for welfare systems

uncovering the relative contribution of SES, psychiatric status, and employment-related factors at various stage of life.

The different treatment configurations for African Americans as compared to whites and various ethnic groups also require thorough investigation. It is important to understand the role of culturally situated preferences on the part of those diagnosed with depression, as well as culturally situated biases and assumptions on the part of providers. Issues related to help-seeking, in general, are important. The role of stigma in a psychiatric diagnosis in low-income populations would be a fruitful area for future research, as well.

The research findings about treatment disparities require careful follow-up study. Since the studies cited were conducted in only a few states, they need replication to understand their generalizability. It will also be important to determine whether differences in pharmacological and psychological treatment received by Medicaid vs. privately insured patients are related to specific state policies and practices.

Another area where research results could inform policy is in understanding the suitability of existing therapies for low-income women. The

traditional treatments of psychopharmacology and psychotherapy, as well as alternative treatment arrangements, need to be tested more broadly than they have been in this population. It is important to determine the conditions under which traditional forms of treatment are effective, and where they are not. To the extent that depression is situationally based (i.e., due to poverty, unemployment, or stress), alternative interventions may be required to prevent depression from developing and to sustain improvements that may occur with traditional treatments.

In addition, it is important to understand how treatment of mothers may affect their children. Interventions that focus on the family as a unit and that attempt to address the needs of mothers and their children may produce more enduring benefits than those focused on either party alone. Research is needed to help understand how to best deliver such services and what the effects of various delivery strategies are on maternal and child interactions and psychological well-being.

Finally, it is important for researchers to assess the costs and benefits of treating depression in this population. While research has shown that substantial savings may be achieved by the timely and appropriate treatment of depression, to the authors' knowledge, little research has looked specifically at low-income women.

Research by Steiner and colleagues (2000) in Canada suggests that substantial savings in welfare and health costs may be achieved by treating dysthymia in low-income women. In fact, in that study, the reduced use of health and social services paid for the cost of the treatment (a combination of psychopharmacology and psychotherapy). Thus, in studying the cost effectiveness of treatment for depression in low-income women, future researchers should take into account not only savings in health care costs, but also in public assistance and other social services.

Assessment of the costs and benefits of treating depression should also consider potential savings in future educational, medical, and social service expenses for the children of depressed mothers. Experiments could be devised to evaluate the short-term and long-term benefits when only mothers are treated and compare these to the benefits of treating both depressed mothers and their children who are exhibiting serious behavioral and psychological problems.

POLICY ISSUES

Given the pervasiveness of depression and its symptoms, a number of policy considerations emerge from this study. Among the most important is health care coverage. Issues of availability of insurance and mental health coverage are critical. With regard to availability, the growth in the proportion of individuals who lack any health insurance requires concerted attention. Within this population are women who have lost Medicaid coverage when they moved from welfare to work. Some of these women become ineligible for Medicaid because of higher earnings; those who are eligible may not be aware of this or may face diversion policies in their localities that discourage enrollment in Medicaid. The broader population contains many working families whose employers do not provide affordable insurance.

As we have seen, however, even if insurance is available, coverage for mental health problems is frequently inadequate, especially among Medicaid recipients. In addition to disparities in treatment found between Medicaid and private insurance plans, even within private insurance plans coverage for mental health services varies. For example, patients who are covered by fee-for-service plans are more likely to be diagnosed as depressed than are those insured under a prepaid managed care plan. In addition, there is some evidence that access to care may be inhibited under managed care, especially those with incentive systems that limit referrals to specialty care (National Institute of Mental

Health, 1998). Moreover, even when treatment is available, it seldom meets the criteria for adequate care. Given the dramatic differences in remission rates between individuals who are treated according to the AHRQ guidelines and those who are not, it is important to educate providers on how to recognize and treat depression.

With regard to welfare recipients, it is important that appropriate screening tools be developed and incorporated into intake interviews. Issues of capacity are critical. The suitability of eligibility or job placement workers for this task is questionable. Unless an easily administered screening tool can be devised, it will not be possible for untrained workers to evaluate the possibility of mental health problems. More problematic is the expectation that untrained workers can assess families not only for mental health problems, but for substance abuse, family violence, and other problems.

Policy Issues

- Insuring access to health insurance
- Instituting adequate coverage for treatment and intervention
- Developing screening tools and procedures
- Utilizing multiple points of entry to identification at risk women and children
- Insuring adequate income support

Early screening is important, however, since it is clear that depression may be a barrier not only to employment but also to job retention. Diagnostic assessment is required to determine whether the severity of mental disorders is sufficient to qualify the individual for Supplemental Security Income (SSI), a supported work program, or some other intervention. Linking TANF agencies to mental health

agencies poses another set of challenges for states.

It is clear from the literature that many women with major depression do become employed, although possibly not as often as those without these problems. However, given the potential detrimental consequences of maternal depression for children, job performance, and general quality of life, therapeutic and material support for depressed low-income working women and their families may be required.

Various entry points at which needs can be identified are possible, from health care settings (either the child's or the mother's), to TANF offices, to job placement centers, to the workplace, to early childhood educational institutions and schools. It is important to consider both policy and funding strategies that can enhance the well-being of children, improve parent-child relationships, and ensure the safety of the children assisting parents making the transition from welfare to work (Knitzer, 1999).

The MFIP results point to the importance of income to mental health. It is clear from the MFIP findings, as well as from other experimental evaluations (Berlin, 2000) that earnings supplements benefit employment, earnings, and child well-being. The possibility that they may reduce the risk of depression adds to the evidence that policies that reduce poverty may improve not only the economic circumstances but also the quality of life of low-income women and their families.

Finally, the Michigan JOBS program shows the importance of job search skills, coping skills, and supportive interventions in enhancing employment and reducing mental health problems. The important efforts to replicate this experiment in welfare populations will provide much needed information about ways to improve both economic and psychological outcomes among low-income women. This cost-effective intervention may help achieve economic self-sufficiency among women at risk for depression.

FOOTNOTES

¹ Both Fuller and Kagan (2000) and Horwitz and Kerker (in press) sampled women from Connecticut's evaluation of their Jobs First Program. The former study focuses on single mothers of very young children, while the latter focuses on mothers of older children. The lower prevalence in the Fuller and Kagan study is puzzling. It may be due to the fact that mothers of young children have been on the caseload much less time than the mothers of older children studied by Horwitz and Kerker.

² This rate characterizes women aged 18-44, not living alone or with a spouse and falling under the U.S. poverty threshold.

³ See Sweeney (2000) for a discussion of disabilities among welfare-to-work populations and the implications for program design. Thompson and Mikelson (2000) discuss issues related to screening and assessment practices of TANF and Welfare-to-Work agencies.

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