



Determinants of Depressive Symptoms Among Women on Public Assistance in Louisiana

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Abstract

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Keywords

Depression; Mental; Job hunting; Poor; Poor women; Public welfare; Social networks; Welfare; Welfare reform

Cover Page Footnote

This is a revised version of a paper presented at the annual meetings of the Southern Sociological Society in Baltimore, April 2002. Financial support for this research was provided by the Louisiana Department of Social Services. We gratefully acknowledge helpful comments from John J. Beggs and Jeanne S. Hurlbert. All views expressed in this paper are solely those of the authors.



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ABSTRACT

Depression can be a significant barrier in the welfare-to-work transition of poor women. Fortunately, support from social networks can lessen symptoms and facilitate entry into the workplace. Inconsistency in the literature concerning the effects of social networks on the poor suggests further research is needed. Thus, we examine the level and determinants of depressive symptoms among participants in the Temporary Assistance to Needy Families program. Having a good job, being in good health, married, and black, and living in rural areas inhibit symptoms of depression. Remaining on TANF and having several children increases symptom levels. Those who report that they frequently have people to help them show lower levels of depression. The larger the social network, and the higher the percent of the network that is made up of neighbors, the higher the level of depression. While some of our findings suggest the success of 1996 welfare reform legislation others suggest important policy considerations. Good physical health (including access to health care), reduction of economic hardships, and effective social supports are ongoing issues to be addressed among low-income populations.

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INTRODUCTION

Depression can be a significant barrier to full participation in many areas of social life. For vulnerable populations, such as those transitioning from welfare-to-work, depression can be especially problematic. The passage of welfare reform legislation in 1996 dramatically altered the policy landscape for such vulnerable populations, placing time limits on benefit receipt and stressing work as the route to self-sufficiency. The deterioration of the social safety net, especially in the context of the recent weakening economy, suggests the need to revisit policy considerations for the economically marginalized, particularly those who experience psychological hardship.

Numerous challenges generate barriers to work participation among the poor including low educational attainment, inadequate job skills, lack of knowledge about workplace norms, lack of transportation and child care, and poor physical and mental health (Loprest, 2001; Zedlewski, 2002). While physical health has been identified as a significant barrier to employment, and is often evident to case workers, mental health can be less evident. Nonetheless, though depression poses a barrier to permanent welfare exits (Corcoran, Danziger, and Tolman, 2003), support from social networks can mediate depressive symptoms facilitating more successful outcomes. However, research has produced conflicting findings regarding the benefit of social networks for the poor (see Dressler, 1985; Pickens, 2003).

The present paper examines the influence of social networks and social support on the level and determinants of depressive symptoms among current and recent TANF participants in Louisiana. We hope to make two specific contributions to the extant literature. First, we estimate the net effects of several key mental health stressors that, to our knowledge in prior literature, have not been examined within one model. In this regard we hope to address some of the contradictions within the literature on social networks and support among the poor. Second, based on our findings we outline concrete suggestions for policy-makers working toward more successful welfare-to-work transitions in the current post-reform context.

Prevalence of Depression in the United States

Past research has documented that many people suffer from poor mental health. Two large-scale community surveys—the Epidemiologic Catchment Area study (ECA) and the National Comorbidity Survey (NCS)—addressed the prevalence of mental health disorders in the general population. According to data from both surveys, in any given year approximately 4 to 10 percent of adults suffer from major depression, while 7 to 17 percent of adults experience major depression in their lifetime. Clearly, the prevalence of depression is considerable and occurs in a significant amount of the general population (Kessler, McGonagle, Zhao, Nelson, Hughes, Eshleman, Wittchen, and Kendler, 1994; Lennon, Blome, and English, 2001).

In addition to this general trend, the ECA and the NCS demonstrated that the prevalence of psychiatric disorders is greater among certain segments of the population. For example, rates of depression among women are 1.5 to 3 times that of men. Age is also a factor with the highest rates of disorders among the age group 25-34 years. Regarding race, the ECA pointed to a higher lifetime prevalence of depression among whites. In addition, the researchers found a slight location differential in prevalence, with residents of major metropolitan areas more likely than residents of rural communities to have a 12-month comorbidity of psychiatric symptoms (Kessler et al., 1994; Lennon et al., 2001).

Socioeconomic status is also related to depression. An early study by Weissman and Myers (1978) revealed that persons in the lowest SES category had a depression rate of 4.1% as compared to 1.5% for those in the highest SES category. Williams, Takeuchi, and Adair (1992) and Link, Lennon,

and Dohrenwend (1993) found that respondents with higher SES tended to have lower degrees of depression. A study of the New Haven area of the ECA research showed that individuals below the poverty level were at an increased risk for new episodes of psychiatric illness (Bruce, Takeuchi, and Leaf, 1991). Similarly, Lennon et al. (2001) found rates of depression among members with low SES approximately twice those for respondents with higher SES.

Given the relatively high rates of depression among the poor, it can be expected that the most disadvantaged of the poor, those on public assistance, show even higher rates. Several studies provide support for that expectation. In their study of Michigan welfare recipients, Danziger, Corcoran, Danziger, Heflin, Kalil, Levin, Rosen, Seefeldt, Siefert, and Tolman, (2000) found that 25.4 percent reported depression. Jayakody, Danziger, and Pollack (2000) showed that 12 percent of women on welfare had a Major Depressive Disorder (according to the DSM-III-R), as compared to 8 percent of non-recipients. Sixteen percent of all single mothers experienced one of the four disorders in the past year, with depression being the most common at 9 percent. About one-fifth of welfare recipients experienced one of the four disorders over the past year, compared to just 13 percent of non-recipients. In addition, according to Jayakody and Stauffer (2000), 17% of all single mothers, 22% of welfare recipients, and 20% of non-working single mothers had experienced at least one DSM-III-R psychiatric disorder within the past 12 months. The above stated findings have important implications in the post-reform era as removal of the safety net combined with a weakening economy may increase reliance on social networks.

Social Support, Social Networks and Depression

The post-welfare reform context suggests a pronounced need to better understand the factors that hinder and facilitate successful engagement with the labor market. Social support can be a key resource in this process. Thus, this research is informed by a theoretical framework that considers social support provided by networks, or social ties, to be an important resource economically, materially, and emotionally (Wellman and Wortley, 1990). This is a stratified resource, however, in that the networks among those with lower socioeconomic status tend to be less effective and possess fewer resources (Granovetter, 1973). Nonetheless, the support provided by networks can be indispensable among low-income populations and can lessen the impact that economic hardship has on depression, as demonstrated in previous studies (Cairney, Boyle, Offord and Racine, 2003; Dressler, 1985; Knowlton and Latkin, 2007). The benefits secured can vary, however, by the structure and function of one's network. Features of network structure, such as size, density, frequency of contact, and whether one's network is made up of acquaintances or close friends and family have been shown to impact depression and well-being (Dressler, 1985; Campbell and Lee, 1992; Cattell, 2001). In addition, network function, involving enacted and perceived support, has consequences for well-being (Knowlton and Latkin, 2007; Taylor, Seaton, and Dominguez, 2008). Guided by this framework, we expect network structure and function to influence the level of depressive symptoms among the women in our sample. The following section addresses those factors that, in previous studies, have been shown to affect depression.

Factors Affecting Depression

This section reviews past research about those factors that have been shown to influence depression. While these factors are salient in the general population, we suspect they will have particular relevance among low-income and TANF populations. Indeed, any findings that are based on low-income or TANF populations are described. We discuss the following: social networks and social support, work status, physical health, education, economic hardship, marital status, urban-rural residence, and race.

Social networks and social support. Low-income populations rely on a variety of supports from friends and family, or social networks, for their survival (Edin and Lein, 1997). Social network analysis is key to understanding features of social support among the poor and how these might mediate mental health outcomes.

Previous research findings about the effects of social networks on depressive symptoms are somewhat conflicting. First, some of the research shows discrepancies regarding the effect of kin networks on mental health. For example, Dressler (1985) studied mental health in a black community and found that extended kin network support lowered depression among women over age 35. In contrast, in a study of non-blacks by Phillips and Fischer (1981), non-kin support was identified as the most important predictor of happiness. Second, findings on neighborhood networks are inconsistent. Campbell and Lee (1992) found that economically disadvantaged persons were involved in smaller neighborhood networks than their more advantaged counterparts. These network ties were long-lasting and involved more frequent contact, suggesting that the limited opportunities of the poor require that they rely more heavily on neighbors for friendship and support. Belle (1982) likewise found that poor women had more frequent contact with their neighbors, yet while neighbors provided various forms of instrumental support, the frequency of contact did not have an effect on the likelihood of depression. The authors speculated that the effects of being poor outweighed the positive effect on mental well-being of contacts with neighbors, as has been found in other studies. In contrast, Ross, Reynolds, and Geis (2000) concluded that contact with neighbors was positively associated with mental health.

Finally, there is inconsistency in findings regarding real benefits received from social networks. Lindblad-Goldberg and Dukes (1985) studied the social support networks of black single-parent families and demonstrated that networks are not always a benefit to individuals, particularly if there is a lack of reciprocity between the parent and the network member. Similarly, Robertson et al. (1991) determined that women who seek external support often experience conflict with their spouse. A qualitative study by Pickens (2003), however, found network relationships to be a source of both support and conflict. Given these contradictions, more investigation on the effect of social networks on the mental health of poor women is needed.

Employment status. Work activity is a prominent focus in the post-reform era. For this reason, it is crucial to understand the relationship between employment and depressive symptoms. Considerable research has established that people who are employed are less likely to suffer from depressive symptoms than those not in the work force (Mirowsky and Ross, 1992; Ross and Mirowsky, 1995). Much of this research focuses on low-income and/or welfare populations. In their study of 188 low-income single black mothers, Gyamfi, Brooks-Gunn, and Jackson (2001) found that employed mothers reported fewer depressive symptoms than non-employed mothers. Raver (2003) showed that not only did employment lower depressive symptoms, it also decreased the use of coercive parenting styles among poor women. Danziger et al. (2001), in their Michigan study of men and women whose benefits had been sanctioned, noted that those who were employed in the recent post-assistance period had a reduced likelihood of being at risk of depression. They concluded that employment promotes positive mental health, as found in earlier research (Danziger et al., 2000; Tebbets, 1982).

However, not all studies have identified a negative effect of employment on depressive symptoms. Petterson and Friel (2001), in their study comparing the rates of depression based on the National Longitudinal Survey of Youth (NLSY) and the National Survey of Families and Households (NSFH), found that adding employment in their model when predicting depression did not produce a significant effect. Likewise, Coiro's (2001) study of welfare mothers did not find any work-status differential in the level of depression.

Physical health. Recent research on physical health has shown that poor physical health has a positive effect on levels of depressive symptomatology among those receiving welfare. For example, Danziger et al. (2001) found that persons who report having one or more chronic health problems are almost twice as likely to be at risk of depression than those who do not have any health problems. Also, Billings and Moos (1985), in their study of 424 adults, reported that having a medical condition contributed to levels of depression. These same findings hold in a recent study demonstrating poor physical health as one of the most important predictors of depression among TANF recipients (Abu-Bader and Crewe, 2006).

Education. Low levels of education, a key correlate with poverty, tend to increase levels of depression. Ross and Mirowsky (1989) found that those with more education were more likely to feel in control of their lives, therefore exhibiting lower rates of depression. Perceived control reduces depression partly because people who feel that they are in control of their lives are more likely to try to figure out the cause of problems and solve them. Similarly, in their research on low-income inner-city women, Ensminger and Juon (2001) concluded that women who have less education report more psychological stress when compared to those with higher levels of education.

In contrast to these findings about the negative effect of education on depression among the poor, some studies find no such effect. For example, Lindblad-Goldberg and Dukes (1985), in their study of low-income single-parent families, found that education did not have a significant effect on the depressive symptomatology among their respondents. Coiro (2001) and Danziger et al. (2001) were also unable to obtain a significant effect of educational attainment on levels of depression.

Economic hardship. Economic and material hardships, common among welfare populations (Bauman, 2000), represent another factor that explain levels of depression. Belle (1990) showed that persons with low incomes are at greater risk of experiencing high levels of depressive symptomatology. Siefert, Heflin, Corcoran, and Williams (2001) studied food insufficiency and found that those who struggle with this hardship are increasingly more likely to suffer from recent major depression than those who have enough to eat. Likewise, in their evaluation of parental divorce, Ross and Mirowsky (1999) noted that when people have high levels of economic hardship, they are significantly more likely to be depressed.

Marital status. In addition to higher poverty rates and material hardship (see Lerman, 2002), unmarried parents are at higher risk for depression. Research by Petterson and Friel (2001) found that being married is associated with less risk of depression among the low-income population. Likewise, O'Hara, Kohout, and Wallace (1985) reported that subjects who are divorced, separated, or widowed are more likely to have higher levels of depressive symptomatology compared to those who had never been married or who were currently married.

Urban-rural residence. A variety of social processes operate differently in rural areas (see Tickamyer and Duncan, 1990) and research suggests that the prevalence of depression differs by geographic location. Studying older adults, O'Hara et al. (1985) found that female respondents who lived in a rural environment were less depressed than those who were in urban environments. They concluded that rural women may have been socialized to be more independent than their urban counterparts because of farm responsibilities and the general need for their assistance in the development of family economic resources (1985:587). Recent research by Wang (2004) mirrors these findings as rural residents showed lower levels of major depressive episode (MDE) than urban residents. Considering the effect of race, Amato and Zuo (1992) showed that African Americans had higher psychological well-being in rural areas compared to urban.

Race. The results of research on race, social support, and depression have been contradictory. Some research has shown blacks to have lower rates of depression compared to whites, and others have

shown the reverse. Analyzing data from eight epidemiologic surveys, Kessler and Neighbors (1986) demonstrated an interactive effect between race and social class on psychological distress. At low levels of income, blacks were more distressed than whites. Turner and Avison (2003) found that African Americans and lower SES groups had higher levels of exposure to social stress and therefore higher levels of depressive symptoms. Comparing blacks and whites, Jones-Webb and Snowden (1993) concluded that blacks who were widowed, members of the middle and lower-middle classes, and unemployed were at a significantly lower risk of depressive symptoms than whites in these same categories.

Research has claimed that low-income blacks have particularly strong social networks that provide crucial supports and improve well-being (Edin and Lein, 1997; Stack, 1974). These claims are not always supported in other studies, however. Among urban blacks experiencing economic hardship, Brown, Gary, Greene, and Milburn (1992) found that close family ties were unable to minimize the negative impact of persistent economic stress. When controlling for social class, Griffin, Amodeo, Clay, Fassler, and Ellis, (2006) found that there were few differences between whites and blacks on the structure of networks and satisfaction with social support, suggesting that blacks may not have stronger kin support after all.

The literature cited indicates a need to better understand the factors that contribute to depressive symptoms. In the context of welfare-to-work policy, this need is even more pronounced as depression is shown to be a barrier to continued employment (Corcoran et al., 2003). While research has assessed the connection between networks and depression, many of the findings are inconclusive. Further, while low-income and African American populations have been examined, we are still learning about post-welfare reform populations. The present study contributes to the literature by analyzing, along with key demographic factors, the effect of social networks and social support on depressive symptoms among a sample of current and recent TANF participants. Data and measures used for the analysis are described in the following section.

Expected Relationships

Despite some contradictions in the previously described literature, we make several predictions about expected relationships.

First, regarding key independent variables, we expect that those who are employed, report good physical health, have higher levels of education, report fewer economic hardships, are married, and reside in rural areas will exhibit fewer depressive symptoms. We also expect Blacks will have lower levels of depressive symptoms than Whites.

Second, concerning the social support and network measures, we expect that those who report more social support will have lower levels of depressive symptoms. However, we expect that the larger and the more frequent the contact with one's network, the more depressive symptoms will be reported. We also expect that a higher percent kin in one's network will increase depressive symptoms, and a higher percent neighbors will decrease depressive symptoms.

Finally, regarding our controls, we expect that those on TANF, those with more children in the household, and those with more adults in the household will have higher levels of depressive symptoms.

METHODS

Data Sources

Data. The data for this paper come from the Louisiana Welfare Panel Survey. In 1998 we obtained a random sample of current (or very recent) TANF recipients in three New Orleans welfare districts and 12 parishes in northeastern Louisiana (called the Delta from here on). The twelve parishes in

the Delta region form two contiguous labor market areas: Monroe is a metropolitan region with a population just above 50,000, the other is a largely non-metropolitan labor market without a metropolitan core. The sample does not represent all of Louisiana, but two distinct labor market areas selected to facilitate a rural-urban comparison of reform outcomes. We chose our Louisiana Welfare survey for the analysis because it contains information on a range of variables not available elsewhere for welfare recipients, especially regarding social network data and rural residence. While data for a single state raises the issue of generalization, Louisiana, with its low cash benefits and generally punitive approach to welfare is typical for the welfare regime in Southern states. Since less research on welfare has been conducted in the South, we believe this paper adds to our understanding of the welfare population in that region.

The initial survey population consisted of persons 18 years of age or older who, according to administrative records, had been on public assistance as of May 1998. Contact and interviewing was done mainly via CATI - computer assisted telephone interviewing. However, because of the nature of the population, respondents were not always easily reached by telephone. For that reason, we interviewed respondents face-to-face when they did not have a telephone. The first wave included 998 respondents (496 in the Delta and 502 in New Orleans). This paper is based on Wave 3 which contains a special module for social networks. Wave 3 was conducted during July-November 2000; we were able to reach 585 respondents (Delta=303/New Orleans=282) from the original sample, for a panel survival rate of 58.6 percent. This rate is acceptable for low-income populations (see, for example, Fitzgerald, Gottschalk and Moffitt, 1998, and, Weinberg, 1999 who report similar survival rates for the entire PSID sample, not just the low-income portion). All respondents in Wave 3 are women who either participated in the TANF program at the time of the survey or did so at the beginning of the panel survey in 1998.¹

Dependent Variable

Depressive symptoms. Depressive symptoms are assessed using a modified version of the CES-D scale developed by Ross and Mirowsky (1984) that correlates highly with the full CES-D scale. The purpose of the CES-D scale was to measure current levels of depressive symptomatology with an emphasis on depressed mood (Radloff, 1977). This modified version consists of seven items associated with symptoms of depression: "How many days during the past week would you say..." (1) You felt you just couldn't get going; (2) You felt sad; (3) You had trouble getting or staying asleep; (4) You felt that everything you did was an effort; (5) You felt lonely; (6) You felt that you could not shake the blues; and (7) You had trouble keeping your mind on what you were doing. The answers are coded 0 (never) to 7 (every day). We combined all seven items into an overall measure of depressive symptoms ranging from 0-7. Cronbach's alpha reliability for the overall scale is .86, and principal component analysis shows each of the variables to load on the same factor.

Independent Variables

We include a series of variables that have been shown to affect successful and permanent exits from welfare, but may also contribute to depression independently of social support. These include work status, physical health, education level, hardships, marital status, rural residence, and race.

Work status. This is a dichotomous variable (working=1); work refers to either being employed or working for money. We expect that respondents who are working will have lower levels of depressive symptoms than non-working respondents.

1 Tests for attrition bias indicate no significant variation on key attributes such as depressive symptoms, physical health, marital status, socioeconomic status, or residence. In that sense, respondents in Wave 3 are representative of the initial sample that we drew in 1998.

Physical health. Respondents were asked, “How would you say your own health is? Would you say it’s poor, fair, good, or excellent?”. This question measures respondents’ perceived physical health. Because of the limited range of response categories, we dichotomized this variable (fair or poor = 0, good or excellent = 1). Given the well documented relationship between physical and mental health, we expect physical health to have a negative effect on depressive symptoms.

Educational attainment. Owing to the truncated nature of educational attainment among persons on public assistance, we dichotomized this variable, with High School completion and above = 1. Consistent with past research that has shown persons with higher educational attainment to be less at risk of depression, we expect respondents with HS completion to have lower levels of depressive symptoms than respondents who did not complete HS.

Economic hardships. Persons who face economic stresses such as inability to meet essential expenses or lack of food are more at risk of depression than persons with no such hardships. We measure this variable with an 11-item scale of hardships developed by the Urban Institute: (1) could not meet essential expenses; (2) could not pay full rent/mortgage; (3) evicted for nonpayment; (4) could not pay full utilities; (5) had utilities disconnected; (6) had phone disconnected; (7-8) needed to see doctor/dentist but could not go; (9-10) kid(s) needed to see doctor/dentist but could not go; (11) not enough to eat. For each of the 11 possible hardships, the reference period is the past 6 months. We combined the 11 items into one scale ($\alpha=.713$) with a range of 0-11.

Marital status. This variable is dichotomous, with 1 = married or separated. Our preliminary analysis showed that there is little difference in the levels of depression between married and separated respondents (who, after all, are still married). Following the above discussion, we expect married respondents to have lower levels of depressive symptoms than divorced, widowed, or never married respondents.

Rural. In view of the reported finding that levels of depression tend to be higher in urban than in rural areas, we include a measure of residence in our model, with 1 = rural. Rural residents are those who reside in the northeastern region of Louisiana known as the Delta. The reference group, metropolitan residents, include the three New Orleans parishes and the northeastern city of Monroe, which is the only metropolitan area in the Delta region.

Race. The various studies that we reviewed above point to a high level of depression among low-income people or those on welfare. While blacks nationwide do not make up a majority of TANF case loads, their rate of being on TANF is greater than it is for whites. In southern states, blacks often do account for the majority of TANF case loads, in part because these states have much higher proportions of the population that is black, and in part because many eligible whites choose not to apply for TANF. Many poor whites view AFDC/TANF as “black” programs (see Quadagno, 1994) and do not want to be included in such public assistance. Given the low level of cash assistance (which is independent of food stamps and the medical card for children that are much more valuable) in southern states, the choice not to participate in TANF is less costly than it would be in other regions of the United States. In Louisiana, over 90 percent of TANF participants are black. We thus believe that being in the TANF program is likely to cause a greater stress for whites than for blacks. We measure race as 0 = other and 1 = black; almost all “other” are white.

Social Support and Social Networks Variables

Social support. Social network function is based on a measure of perceived support. Individuals who feel that they have enough people to turn to when they need help may experience less depressive symptoms. To obtain information about this determinant, we asked the following question: “About how much of the time would you say you have enough people to help you?” The

answers are on a four-point scale, with 1=never to 4=a lot of the time.

Social networks. We include four variables in our model that tap different aspects of social network structure: size of network, frequency of contact with network members (alters), percent of network made up by kin, and percent of network made up by neighbors. (a) *Size of network* is obtained by using the General Social Survey (GSS) name generator. This measure is the total number of persons given by the respondents to answer the question: "Who are the individuals with whom you have discussed important matters in the last six months?" The GSS name generator tends to elicit stronger rather than weaker ties. While a larger social network is often seen as beneficial for the individual, a large number of strong ties can also represent competing demands on an individual that she might find hard to meet. In this sense, we expect network size to be positively related to levels of depressive symptoms. (b) *Frequency of contact with alters* measures the total number of days that respondents had contacts with all members of their network. Again, while these contacts can be seen as helpful to the individual (and they certainly often are helpful), we think that the demands from these contacts - with persons close to the respondent, as provided by the GSS generator - tends to outweigh possible release from pressures. We also expect frequency of contact with alters to positively affect levels of depressive symptoms. (c) *Percent of social network made up by kin* measures the family involvement in the social network. Family members represent very strong ties. On the basis of the previous discussion, we anticipate the percent kin to have a positive effect on symptoms of depression. (d) *Percent of social network made up by neighbors* is expected to have the opposite effect from that of percent kin. The more the network consists of neighbors, the less likely is a person to be at risk of depression (Ross et al., 2000). The reason for this effect lies in the fact that neighbors as ties are less likely than kin to place demands on an individual and therefore could be helpful to mediate stressors that can lead to depression.

Control Variables

We control for TANF status and household structure in order to assess the independent and combined effects of demographic factors and social support factors on depressive symptoms.

Receiving TANF. Welfare regulations require TANF participants in most states to work at least 20 hours a week.² Being on TANF and working thus are not mutually exclusive. But we think that being on TANF has an independent effect on depression in that it makes many persons feel that they have not succeeded and are left behind. This sense of failure is fostered by the pervasive rhetoric of the success of welfare reform in terms of case-load reductions. This implies that leaving TANF is success and remaining in the program a failure. TANF participation is a dichotomous measure with 1 = yes.

Number of children. Large families produce more stressors than smaller families. Having many children may exceed the capacity of a mother to cope, especially when she is single and without means. To capture this effect on the risk of depressive symptoms, we dichotomized the number of children that a respondent has into 0 = 0-4 children and 1 = 5 children or more.

Number of adults in the household. As with percent kin of the network and large numbers of children, the number of other adults in a respondent's household can make demands on the respondent that she might find difficult to meet. We thus expect number of adults in the household to increase the level of depressive symptoms expressed by the respondent.

² The most recent reauthorization of PRWORA, while not directly addressing hours, increases work participation rates in 5% increments yearly through 2010 (see "TANF Reauthorization" Factsheet, 2006, Communications Workers of America, AFL-CIO).

RESULTS

We present the descriptive information for the dependent, independent, and control variables in Table 1. The mean level of depression for all respondents is 2.42. More descriptive analyses (not shown in the table) indicate that 7.5 percent of all respondents have high levels of depressive symptomatology, with three or more days of depression for all seven items.

Table 1. Means and Standard Deviations.

Variables	Means	Standard Deviations	Min	Max
Level of Depression	2.42	1.669	.00	7.00
<i>Independent Variables:</i>				
Employed	.49	.500	.00	1.00
Physical health	.59	.492	.00	1.00
High School	.62	.487	.00	1.00
Total economic hardships	2.16	2.154	.00	10.00
Marital Status	.18	.386	.00	1.00
Rural	.50	.500	.00	1.00
Black	.91	.289	.00	1.00
<i>Social Support & Networks</i>				
Social support	.60	.490	.00	1.00
Network size	1.41	1.058	.00	5.00
Frequency of contact with alters	197.51	115.321	.75	365.00
% of network kin	.47	.327	.00	1.00
% of network neighbors	.17	.274	.00	1.00
<i>Control Variables:</i>				
On TANF	.45	.498	.00	1.00
% with 5 children or more in HH	.05	.220	.00	1.00
Number of adults in HH	.76	.977	.00	6.00
n = 511				

Forty-seven percent of the respondents are working. Their self reported physical health averages between fair and good; 9 percent said their health is poor and 31 percent that it is fair. Sixty percent of the respondents have at least a high school diploma, although there are very few women in the sample that have post-secondary education. The average number of hardships from among the 11-item list is 2.7; 29 percent of all respondents did not report any hardship at all, but 15 percent reported five or more during the past six months. Only 18 percent of the respondents are married and half of these are separated; two-thirds of all respondents have never been married. The sample splits almost evenly between urban and rural, with 52 percent living in rural areas. Finally, reflecting Louisiana's racial composition of TANF case loads, Table 1 shows that 91 percent of all respondents are black.

Regarding social support, respondents state, on average, that they have enough people to help them between "only once in a while" and "some of the time". About 10 percent of all respondents say they never have enough people to help them, whereas 22 percent say they have enough help a lot of the time. Poor people tend to have smaller social networks than middle-class persons, and our findings are no exception (Campbell and Lee, 1992). On average, each respondent names 1.33 persons in response to the GSS name generator. Their network size ranges from 0 to 5. Respondents report an overall average of 196 days during the year when they have contacts with network members. Relating frequency of contact with network size shows that, on average, respondents see each alter for 148 days in a year, which is almost every other day. This provides further evidence that the GSS name generator largely yields strong ties, i.e. persons to whom the respondent is quite close, such as kin or close friends. Almost one half of the respondents' networks consist of kin, with another 17 percent being neighbors.

In terms of the control variables, 55 percent of the respondents remain on TANF. However, this means that over the two-year period from 1998 to 2000, about 45 percent of all respondents did leave the TANF program.³ Six percent of all respondents have five children or more. This provides further evidence that most TANF households do not have large numbers of children. Other information for our sample shows that on average, respondents have had 3.3 children, with 1.9 children currently in their household.⁴ The average number of other adults living with respondents is 0.75. Finally, slightly over one half of all respondents have no other adult living in the household, another 29 percent live with one other adult, and 6 percent of all respondents live in households with 3-6 other adults.

We now turn to the linear regression results in Table 2. An initial regression tested the factors that affect depressive symptoms. In the second regression analysis, social support and network variables were added. Model 1, which does not include the social support and network variables explains 18 percent of variance in the levels of depressive symptoms among current and recent TANF participants. Its estimates largely support our expectations. Having a job, good health, being married, living in rural areas, and being black all tend to inhibit symptoms of depression, whereas respondents facing many economic hardships are likely to be more depressed than those with fewer or no hardships. Physical health and economic hardships are especially important determinants of levels of depressive symptoms. Educational attainment of the respondents has no effect on their levels of depressive symptoms. Regarding the control variables, all except the number of other adults in the household show the expected effects on levels of depressive symptoms. Remaining

3 We have shown in another paper that most of those who left TANF did so because they found employment. Only a small percentage lost TANF involuntarily through sanctions and/or time limits. Time limits have become a more critical issue as of late.

4 Many of the respondents, however, are still in their child-bearing ages and are likely to have another child in the future.

on TANF and having five or more children significantly increases symptoms of depression. But the number of other adults living with the respondents had no effect on the respondents' symptom levels.

Table 2. Unstandardized Coefficients and Standard Errors for Depressive Symptoms

Independent Variables	B	stand. error	p	B	stand. error	p
	<i>Model 1</i>			<i>Model 2</i>		
Constant	3.440		***	3.402		***
Employed	-.479	.143	**	-.503	.144	**
Physical health	-.687	.140	***	-.646	.141	***
High School	-.168	.142		-.156	.146	
Total economic hardships	.142	.032	***	.141	.032	***
Marital Status	-.561	.175	**	-.619	.176	***
Rural	-.415	.137	**	-.415	.140	**
Black	-.553	.237	*	-.541	.239	*
<i>Social Support & Networks:</i>						
Social support				-.362	.141	**
Network size				.124	.066	+
Frequency of contact with alters				.000	.001	
% of network kin				-.202	.214	
% of network neighbors				.466	.257	+
<i>Controls:</i>						
On TANF	.417	.140	**	.333	.141	*
Number of children	.595	.275	*	.617	.308	
Number of adults in HH	.003	.070		.049	.071	
Adjusted R ²	.182			.202		

p: + <.10 * <.05 ** <.01 *** <.001.

Model 2 shows that social support and network variables add to our understanding of depression among low-income respondents and those on public assistance⁵. The full model explains 21 percent of variance in the levels of depressive symptoms, an increase of about 15 percent. Respondents who report that they frequently have people to help them, show lower levels of symptoms than those who lack such social support. The larger the social network of the respondents, the higher are their symptom levels. Neither the frequency of contact with network members nor the percent kin of the network have any effects on symptom levels. But the higher the percent neighbors of the network, the greater is the level of depressive symptoms of the respondents. The addition of the social support and network variables did not cause any of the other independent variables to become insignificant, and generally speaking, the magnitude of the coefficients remained similar, suggesting independent effects from the support measures. Of note, education did not become significant. In both models, educational attainment did not discriminate between levels of depressive symptoms. Similarly, there was no change in the control variables except that in the full model, the number of children ceased to have a positive effect on symptoms, suggesting that support does reduce the positive effect of number of children.

DISCUSSION AND POLICY IMPLICATIONS

This paper analyzed the effect of social networks, demographic, and economic factors on depressive symptoms among current and recent TANF participants. The model results clearly show that levels of depressive symptoms are a function of *demographic* factors such as marital status, number of children, urban-rural residence, and race; *economic factors* such as having a job and the presence of hardships that measure the inability to pay for essential items; *physical health* conditions; and *social factors* such as amount of social support and some structural aspects of an individual's social network. Education, however, does not have any effect on symptom levels net of those other factors. One possible reason could be the truncated nature of educational attainment among the respondents, but other studies of the poor that found an education effect would have had similar educational attainment in their samples. We suspect that what in the past was measured as education effect might well have been the unmeasured effects of other variables that are included in Model 1.

Regarding the ability of social networks and social support to ease the impact of other stressors on depressive symptoms, generally speaking, this is not the case. However, it should be noted that social support does seem to eliminate the stressors brought on by higher numbers of children in the household and reduce slightly the effect of being on TANF. Even though we have used a measure of perceived support, this suggests that actual support may come in the form of childcare and financial help from others. As suggested by the theoretical literature (Granovetter, 1973; Wellman and Wortley, 1990), social support from networks is an important independent determinant of mental health, but it does not appear to alleviate most other stressors. An overall conclusion can be drawn that traditional stressors such as physical health, employment status, and the like, remain quite impactful among vulnerable populations, even with the presence of network support.

Regarding network structure, an unexpected result was the positive effect of percent neighbors of the respondent's network on symptoms of depression, for some research has shown that a higher percent neighbors tended to alleviate stress and reduce the risk of depression (Ross et al., 2000). While we cannot be certain about the causes of this effect, it is possible that many of the neighbors represent strong ties with the respondents, and strong ties have been found to increase pressure

5 The findings regarding network size and percent of network made up of neighbors should be interpreted with caution as the p-values are less than .10. Significance levels for network size and percent of network neighbors are .065 and .069, respectively.

on the individual, thereby increasing the risk of depression. However, that explanation would also suggest the percent kin of the network to increase depression, and no such effect was found. Nonetheless, research has established that reliance on networks who are themselves disadvantaged can exacerbate stress and depression (Edin & Lein, 1997). It is possible that given the length of time since the passage of PRWORA, women's kin networks are stretched to their limits and turning to neighbors for assistance represents attempts to use social resources that in easier times, would less likely be tapped.

The results of this analysis have several policy implications for addressing the mental well-being of persons on public assistance and/or with below-poverty incomes. First, having people around that can provide support most of the time when help is needed makes people healthier mentally. While it may not alleviate other salient stressors, social support is clearly impactful on well-being. Given the demonstrated importance of well-being on successful welfare exits, this factor should be incorporated into future TANF policy. Along with transition assistance regarding job-training and human capital building, practitioners should incorporate emotional support. Regular and consistent counseling that incorporates mental-health professionals *and* family members could be an effective way to build a diverse support structure for vulnerable individuals.

Interestingly, our model results show that having a larger social network, at least when it mostly represents strong ties and consists to a large extent of kin, does not help much with mental health. In fact, the larger the social network, the higher the level of depressive symptoms among respondents. As we noted earlier, there is evidence to suggest that strong ties and kin provide more stressors than relief to stress and thereby increase the level of depression. But this remains tenuous. A weakness of this paper is the inability to establish the direction of this relationship. Literature has shown that women who are depressed may perceive lower levels of social support (Cohen, Towbes, and Flocco, 1988; Vinokur, Schul, and Caplan, 1987). Clearly, much more information is needed to provide better grounded results regarding the relationship between levels of depression and the various dimensions of social networks. Nonetheless, our first policy recommendation may be constructive in this regard. If an individual's family members are unable to provide support due to their own stress, family counseling could build a more effective support structure for all involved.

Second, good physical health clearly matters. While poor health is not exclusive to poor people, they suffer from it at far greater proportions than persons with more means. However, findings from recent research demonstrate that the loss of TANF often results in the loss of Medicaid benefits (Levin-Epstein, 2003). Our hardship indicators show that about one third of the respondents were unable to see a dentist and one fourth to see a physician. Even where medical care is available free of charge, information from Wave 4 showed that respondents often had difficulties using that care because of transportation or child-care problems, or because of conflicting work and clinic hours. Getting not just free but accessible health care to the low-income population would not only reduce symptoms of depression but also increase the chances for employment, reinforcing the connection between physical and mental health and work status (see also Moffitt, 2002).

Third, having a job and not being on TANF improves mental health. In this sense, case load reductions and the emphasis by PRWORA on work are a success. Nonetheless, work supports are crucial. Related to the issue of access to healthcare, reliable and affordable childcare, safe and affordable public housing, as well as support from friends and family all facilitate work activity (see Powers and Livermore, 2003).

Fourth, reducing economic hardships faced by current and former TANF participants will also improve their mental health. However, our data indicate that neither working nor TANF status differentiate the exposure to economic hardships, suggesting that the real issue is income (from whatever source), not just work or support from TANF (which in Louisiana is less than \$200 a month

for a woman with two children). Case-load reductions without reductions in poverty, thus, are not the success that many reform proponents have postulated.

Fifth, being married and not having to care for many children (five or more) improves mental health. This appears to support the emphasis on marriage by some in the current debate about the re-authorization of PRWORA. While there is no disagreement in the literature, including the findings of this analysis, that married people have better mental health than never married people, we believe that focusing policies on early pregnancy prevention is at least as important as is the current federal attention to healthy marriages (see also McLanahan, Garfinkel, and Mincy, 2001). Our data show that many respondents had their first child very early, and that pregnancy is the main reason for applying for public assistance. Early pregnancy is also the main reason respondents stated for not finishing high school. Those findings suggest to us that early first pregnancy and, often, early second pregnancy reduces the chances for women to complete high school. Presence of children and low educational attainment often make women less attractive in the marriage market.

In sum, this analysis yielded information on various determinants of levels of depressive symptoms among low-income persons. The importance of these findings cannot be overstated, especially given the recent regulations issued by the Department of Health and Human Services that severely limit states' ability to place parents with special employment barriers into specialized services that would facilitate employment (Center on Budget and Policy Priorities, 2006). As we suggest above, many of the determinants of depressive symptoms could be addressed in the context of future reauthorization. Indeed, they must be addressed if overall well-being of low-income families depends upon establishing stable employment and decreasing reliance on social networks.

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