Depression is a common mental health problem in which a person may experience persistent sadness, be unable to enjoy formerly pleasurable activities, and feel worthless or hopeless. Undetected and untreated depression causes substantial physical and social limitation and may lead to suicidal thoughts or actions. More than 80% of people with depression improve with appropriate treatment (National Institute of Mental Health [NIMH], 2005).

Each year, one in ten Americans experiences depression (NIMH, 2005). Environmental risk factors for depression include unemployment, poverty, exposure to abuse and violence, and other life stressors. Women experience these risk factors at higher rates regardless of where they live or whether they have a disability, and they are twice as likely as men to have a major depressive episode (McGrath et al., 1990).

Approximately 26% of women living in rural areas have disabilities. They face two additional risks for depression: having a disability and living in a rural setting. According to “Healthy People 2010”, 30% of women with disabilities are prevented from being active by feelings of sadness or depression, compared to 8% of women without disabilities (US Department of Health and Human Services, 2000). Research suggests that depression is more prevalent in rural areas and barriers to accessing mental health services are more pervasive (Probst et al., 2005; Probst et al., 2006). Barriers include the overburdened primary health care system, poverty, inadequate funding for mental health services, lack of mental health providers, scarce public transportation, geographic isolation, stigma, and concerns about confidentiality (Sawyer, Gale, & Lambert, 2006; Levine et al., 2001; Mulder et al., 2000; Power, 2003).

Research shows that urban women with physical disabilities have a high prevalence of depression (Hughes et al., 2005; Hughes et al., 2004; Hughes et al., 2001). Rural women’s rate of depression is twice that of other women (Power, 2003) and rural women with disabilities
face additional risks and unique barriers, such as poorer health, less education, and greater dependence on government programs than their urban counterparts (Szalda-Petree et al., 1999). Moreover, the lack of trained personal care providers may force them to rely on family for personal assistance—a situation that may not be in their best interest (Nosek & Howland, 1992). To learn more, Dr. Rosemary Hughes and colleagues at Houston’s Center for Research on Women with Disabilities conducted a study called “Depression and Rural Women with Disabilities: Testing a Center for Independent Living-based Self-Management Program”.

Method: The study tested the effectiveness of a peer-led depression self-management intervention for rural women with physical disabilities. Part One of this series focuses on the analysis of data gathered from 134 women at the time they enrolled in the study: demographic and disability-related characteristics, patterns of treatment for depression, and demographic and disability-related correlates of depression and depression treatment (Hughes et al., 2007). Part Two of this series will report on the depression self-management program itself.

The following lists nine Centers for Independent Living (CILs) were recruited and selected for the study. Each serves consumers in rural areas. CILs recruited, screened, and enrolled participants, and conducted the depression self-management program.

1. Alpha One, South Portland, Maine
2. Arizona Bridge to Independent Living, Phoenix
3. Caring & Sharing CIL, Largo, Florida
4. Delta Resource CIL, Pine Bluff, Arkansas
5. North Country Independent Living, Superior, Wisconsin
6. San Juan Center for Independence, Farmington, New Mexico
7. The IL Center of Eastern Indiana, Richmond
8. The Whole Person, Inc., Prairie Village, Kansas
9. Western Alliance CIL, Asheville, North Carolina

Each CIL designated a female staff member with a physical disability to complete training on the recruitment process, confidentiality and privacy issues, informed consent procedures, and documentation protocols. To recruit participants, centers placed newsletter and newspaper ads, posted in-house flyers, and mailed flyers to consumers, churches, and others.

Participants were adult women (18 or older) with health conditions causing mobility or self-care limitation, disability of at least one year’s duration, and a score of a predetermined level on a depression measure. Women were ineligible if they were actively suicidal, presented with health conditions (e.g., active psychosis) that could interfere with group participation, or had lower than mild depression levels. Each participant provided information on age, race/ethnicity, income, employment, education level, and relationship status. Disability-related questionnaire items asked about type, severity and duration of primary disability; age at onset; and use of assistive devices and personal assistance. Other items asked about general health, mobility, social integration, and social support.

This study primarily focused on the severity and treatment of depression. Researchers measured depression severity with Beck, Steer and Brown’s (1996) 21-item “Beck Depression Inventory-II” (BDI-II). The BDI-II measures “depressive symptomatology”, but for brevity’s sake, this report uses the term “depression.” Participants noted whether they had been treated for depression within the previous three months, and if so, whether they had received medication, counseling, or both.

Following are participants’ characteristics.

- **Age**: $M = 52.1\text{ yrs}; SD = 10.60; range = 23-75\text{ yrs}$
- **Race/Ethnicity**: White, non-Hispanic = 104; 77.6%
- **Education**: College/graduate school attendance or degree = 102; 76.1%
- **Employment**: No paid employment = 103; 76.9%
- **Disability duration**: $M = 14.98\text{ yrs}; SD =$
14.03; range = 1-57 yrs

- **Married or living as married:** 53; 39.6%
- **Use personal assistance:** 121; 90.3%
- **Use at least one assistive device:** 100; 74.6%
- **Primary disability:**
  - Joint/connective tissue disease = 61; 45.5%
  - Neuromuscular disease = 17; 12.7%
  - Multiple sclerosis = 15; 11.2%
  - Spinal impairment = 14; 10.4%
  - Other = 27; 20.1%

Nearly 75% of the women reported moderate to severe symptoms of depression and 20% reported suicidal thoughts.

Although all participants reported depression (many had high levels of symptomatology), more than a third had not been recently treated for depression. Of those currently in treatment for depression, most received medication only, a few received counseling only, and about 20% received both. At risk for severe depression were younger women, women with more pain and/or limited mobility, and/or those less satisfied with their social networks. Women who were socially integrated, with stronger social support and more satisfaction with social networks, reported lower levels of depression. Table 1 shows participants' BDI-II results.

<table>
<thead>
<tr>
<th>Scores</th>
<th>Level</th>
<th>Frequency (Percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-13</td>
<td>Minimal</td>
<td>16 (11.9%)</td>
</tr>
<tr>
<td>14-19</td>
<td>Mild</td>
<td>17 (12.7%)</td>
</tr>
<tr>
<td>20-28</td>
<td>Moderate</td>
<td>41 (30.6%)</td>
</tr>
<tr>
<td>29-63</td>
<td>Severe</td>
<td>60 (44.8%)</td>
</tr>
</tbody>
</table>

**Discussion and Limitations**

This is the first known study of depression and rural women with disabilities. Results strongly suggest that depression and its treatment are critical issues for rural women with physical disabilities. Most participants reported significant psychological distress (see Table 3). Given that higher suicide rates have been found in rural than in urban areas (Singh & Siahpush, 2002), the finding that nearly 20% of the women were having suicidal thoughts is alarming. At risk for severe depression were women who were younger, those with more pain, more limited mobility, and/or less satisfaction with their social networks.

Despite high levels of depression, only about one in three women had been recently treated for depression. According to the NIMH (2005), most people with depression do well on a combination of medication and psychotherapy. However, most of the study participants who were treated received medication only. This may reflect the multiple barriers to accessing mental health care services in rural areas. Although many participants said they received counseling for depression, the questionnaire did not define “counseling.” Some may have received limited help for depression or may have defined counseling as help from a non-professional. The use of a self-report measure of depression was another limitation. Appropriate use of a clinical, face-to-face evaluation could have more-accurately diagnosed clinical depression.

**Conclusions and Next Step**

To increase the early detection and treatment of depression in rural women with disabilities, a disability service provider should:

- Learn about depression and its symptoms.
- Organize support groups for rural women with disabilities.
- Look for signs of depression. Talk with consumers and others directly and privately about depression they may be experiencing.
- Suggest that a woman who appears depressed visit a doctor or other health or mental health care provider. Offer to accompany her to the provider's office.
• Train staff and consumers on the symptoms and treatment of depression.
• Provide resources on depression (e.g., web addresses for the American Psychological Association, the American Psychiatric Association, and NIMH)

Our next step will be to publish Part 2 of this report, which will describe a depression intervention program, report on the results of the clinical trial (Robinson-Whelen et al., 2007), and offer depression self-management tips. Our long term plan is to secure funding to continue our work on depression, including new lines of research on depression and rural men with disabilities, a clinical trial of depression self-management for rural men and women with varying types of disability, and a study of depression and abuse in the context of rurality.

References


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© 2007 RTC:Rural. Our research is supported by grant #H133B030501 from the National Institute on Disability and Rehabilitation Research, U.S. Dept. of Education. The opinions expressed those of the author and are not necessarily those of the funding agency.