

THE IMPORTANCE OF SOCIAL SUPPORT FOR RURAL MENTAL HEALTH

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Abstract:

While the mentally ill are considered to be vulnerable as a group, those who are mentally ill and reside in rural communities are at a greater disadvantage due to limited access to health care, a scarcity of resources, and traditional cultural belief systems. Social support has been found to have a direct effect on the well-being of families and individuals. Specific strategies are presented which will assist rural health nurses in providing the support systems necessary to help rural residents in managing and coping with stress and mental health problems.

Article:

Healthy People 2010 (U.S. Department of Health and Human Services, 1999) lists the mentally ill as a vulnerable population within the United States. Compared to the average American, the vulnerable have less economic and social resources, have less education, are more likely to be unemployed, have inferior housing, and are exposed to multiple health risks. These vulnerable families have fewer resources to help them cope, and individual members are less able to respond effectively to the risks (Christoffel & Gallagher, 1999). Those with a mental illness who reside in rural communities are at a greater disadvantage with the burdens of limited access to health care, a scarcity of resources, and traditional cultural belief systems. Additionally, they experience lower incomes, report lower levels of insurance coverage, have higher rates of chronic disease, higher infant mortality rates, and use less preventive health screening (Coburn & Bolda, 1999).

Murray and Lopez (1996) report that mental disorders collectively account for 15% of the overall burden of disease in the United States, which is more than the burden associated with all forms of cancer. It is estimated that up to 20% of all people diagnosed with a medical diagnosis have some type of mental health illness. Incidences of mental illness are most often reported by visits to health care professionals. However, this approach does not allow for an adequate report of mental health problems in rural areas where services are few or nonexistent (Flax, Wagenfeld, Ivens, & Weiss, 1997). Roberts, Battaglia, Smithpeter, and Epstein (1999) report that 13–19% of rural residents experience significant psychiatric impairment. According to Bushy (2000) rural residents experience higher levels of depression, alcohol abuse, domestic violence, incest, and child abuse than their urban counterparts. Additionally, views of mental illness within the rural community are generally more negative and stigma attached to a mental illness is often more magnified, which prevents people from seeking health care at all.

In recent years, recognition of the importance of social support to decrease stress and enhance coping has become widely recognized by both health care professionals and the general population. The purpose of this article is to examine the importance of social support as it applies to the mental well being of rural families. Implications and strategies for the rural health nurse also are described.

DEFINING RURAL

Developing a conceptual definition for rural is not a simple task. Many definitions exist for the concept “rural,” including common factors of low population density, sparse settlement, and remoteness or distance from urban resources. Most definitions of rural used in policy analysis and research come from the Federal Government’s Office of Management and Budget (OMB) or the U.S. Census Bureau (Ricketts, Johnson-Webb, & Taylor, 1998). The U.S. Bureau of the Census (2000) defines rural as consisting of all territory, population, and housing units outside of an urbanized area or urban cluster (defined as block groups with a population density of at least 1,000 people per square mile and surrounding census blocks that have an overall density of at least 500 people per square mile) and having less than 2,500 residents. The OMB utilizes the terms “metropolitan” and “nonmetropolitan” instead of rural and urban. A nonmetropolitan area is outside of a metro area and has no cities with more than 50,000 residents. The Census Bureau bases their definition on a combination of population density, relationship to cities, and population size, while the OMB looks at population and integration with larger cities. A person living in a nonmetropolitan county as defined by the OMB may actually live in an urban town of greater than 2,500, using the census definition.

The implications of differing definitions of rural within the federal government are apparent when looking at stated percentages of rural residence. The Census Bureau classifies 61.7 million (25%) of the total population as rural, OMB classifies 55.9 million (23%) of the total population as nonmetropolitan (U.S. General Accounting Office, 1993). Additional definitions and typologies of rural, such as frontirrural, also may be found in the literature. When reading the literature on rural life in the United States it is important to review the definition of “rural” used. Additionally it must be remembered that there is great diversity from one area of the country to another and within different cultural groups.

SOCIAL SUPPORT

Social support can be interpreted from distinct yet interlocking theories. Some of these theories include coping theory (Lazarus & Folkman, 1984), social comparison theory (Taylor, 1983), social learning theory (O’Leary, 1985), and social competence theory (Broadhead et al., 1983). Social support is considered a multidimensional construct. The concept of social support is operationalized in many different ways: on the basis of who is providing the support; quantity and quality of support; availability of support; and satisfaction with support. Most researchers concur that social support refers to social interactions that are perceived by the recipient to facilitate coping and assist in responding to stress. Cunningham and Barbee (2000) define a social support network as the set of people from whom an individual can reasonably expect to receive help in a time of need. Viewing social support from a rural health perspective, Bushy (2000) characterizes social support as a three-tier system. The first tier consists of support volunteered by families and friends. Local emergency services and community and religious organizations provide the second tier of support. The third tier consists of formal services which

usually require a fee for service. Historically, rural residents have preferred first and second tier supports, versus formal supports (Lee, 1998). This reluctance to accept formal service may be due to stigmatization, as well as the difficulties in maintaining confidentiality in rural communities (Howland, 1995). A further challenge for those with mental illness may be reluctance to accept social support from families and friends for fear they may learn of their mental health problems.

A large number of available supports is not as important as the quality of the support. Current research has found that the size of the support network is not related to satisfaction or to enhanced outcomes (Underwood, 2000). Indeed, the individual's subjective belief that support is available is the better predictor of major outcomes than are objective measures of the identified supports. It is how actions are perceived which determine whether they are felt to be supportive (Hinds & Moyer, 1997). Additionally, while support from family and friends may be valued, such individuals may not always be able to provide the intensity of support a professional can provide when mental health issues arise. A lack of mental health resources in rural communities makes this a major health concern.

RURAL MENTAL HEALTH

Recent reports demonstrate a persistent, endemic level of depression among rural residents. The term "farm stress" was developed in the 1980s to describe the emotional and physical stresses experienced by farmers and their families due to the slumping agricultural industry. The term is now applied to communities suffering from declines in lumber, fishing, mining, or loss of the major employer of the town (Elkind, Carlson, & Schnable, 1998). Symptoms of farm stress include difficulty sleeping, depression, alcohol and drug abuse, spousal and child abuse, an increase in accidents, and physiologic symptoms such as headaches and chest and abdominal pains. Farm stress continues to be a major concern, especially with the current weakened national economy and soaring fuel and energy costs making it more difficult for rural residents to get by.

Rural residents are not homogeneous in terms of where they live, their economic base, or cultural group. However, there are stressors that are common among most rural residents. In a report on the behavioral health care needs of rural women from the American Psychological Association, Mulder et al. (2001) provide the following facts on rural dwellers: In 1996, rural poverty was 15.9% compared to 13.2% in urban areas, and this gap is widening; 60% of rural areas are designated mental health profession shortage areas; 56.9% of families with children are below the poverty line; suicide rates, particularly in the rural west, are as much as three times as high as urban rates; rural teens have a 30–40% higher pregnancy rate than their urban counterparts; 41 % of rural women are depressed or anxious compared to urban rates of 13–20%; and rural adolescents report higher rates of drug and alcohol abuse. Additionally, Larson, Hart and Rosenblatt (1997) reported that the highest infant and maternal mortality rates in the United States are in isolated rural families. Particularly at risk are women who live on or near Indian reservations, women who are migrant farm workers, and women of African American descent who live in rural communities in the deep South (Bushy, 1998).

SOCIAL SUPPORT AND HEALTH AND WELL BEING

Social support is known to have a direct relationship on health and well being. People with high levels of social support experience less stress when in stressful situations and are able to cope

with stress more successfully (Taylor, 1995). Studies have shown that social support provides individuals with security, worthiness, and a sense of identity during times of crisis (Reinhardt, 1996) and decreases feelings of hopelessness (Van Servellen, Sarna, Padilla, & Brecht, 1996).

Social support has been found to be an important factor in child and adolescent well being. For adolescents, poor social support has been correlated with higher levels of depression (Barrera & Garrison-Jones, 1992) and high levels of delinquency and poor school performance in high risk students (Rosenfeld, Richman, & Bowen, 1998). Hamburg (1991) suggested that an erosion of the family and poor social supports are major factors in violence and lawlessness among adolescents. Conversely, Markstrom, Marshall, and Tryon (2000) found that social support was a significant predictor of resiliency in a sample of low-income Caucasian and African-American adolescents. Social support has also been found to be an important variable in predicting hopefulness and self-esteem in adolescents (Yarcheski, Mahon, & Yarcheski, 2001). Finally, Letourneau et al. (2001) conducted randomized control trials of providing structured parental social support in 34 families of children at high-risk for mental health problems due to poverty or parents' lack of education and their youth and inexperience. Parent-child relationships were enhanced when social supports were developed.

Social support may be especially beneficial for the elderly. Continuous changes, the aging process, chronic illnesses, and multiple losses increase the need for social support in elders (Johnson, 1998). Studies demonstrate that elders with high levels of social support perform more health promotion activities, have higher perceived health status, and decreased mortality rates (Adams, Bowden, Humphrey, & McAdams, 2000; Martin & Panicucci, 1992).

Much of the research on social support has been done on an individual level, or looking at individuals within the family unit. Fink (1995) found that individuals sought support from within the family unit when caring for elderly parents. Social support, in addition to hardiness and socioeconomic factors, explained 65% of the variance for well-being in family caregivers. For families with disabled children, early intervention and development of strong social support networks are strong predictors of well being and health within the family unit (Dunst, Lee, & Trivette, 1988; Dunst, Trivette, Hamby, & Pollock, 1990).

Social Support and Rural Environments

Social support has been directly studied in relation to rural environments. Letvak (1997) conducted a phenomenologic study of eight elderly women who lived alone in rural communities to develop a description of their relational experiences. The rural setting was defined as towns with less than 2,500 residents. These rural-dwelling women were embedded in relationship with connections to family, friends, and God. Social support allowed them to live alone and maintain their independence. Perceived quality of social support was a major indicator in life satisfaction. Johnson (1998) examined stressful life events, social support, and perceived physical health status of 82 older adults living in isolated frontier areas of the western United States. Rural frontier was defined as a rural isolated community with a population of less than 2,500 or a farm or ranch. Stress and chronic strain were measured by the Stokes-Gordon Stress Scale and social support was measured by the Personal Resource Questionnaire. Moderate to high stress levels were reported in 67% of the participants; 47.5% indicated a low level of social support and 58%

rated their health as poor or very poor. Widowers over the age of 85 had the poorest health, the greatest levels of stress, and the lowest levels of social support.

Baxter et al. (1998) assessed demographic and social network factors associated with perceived quality of life in a sample of Hispanic and non-Hispanic rural elderly. A definition of rural was not provided. Utilizing a 20-item perceived quality of life scale, 1,443 respondents were interviewed in their homes. Study findings suggest that social network size and contact are important social factors which can improve the quality of life for Hispanic and non-Hispanic rural elders. Finally, Adams et al. (2000) conducted a descriptive study of 400 rural women utilizing the Health Promotion Lifestyle Profile II and the Personal Resource Questionnaire: Part II to determine if there was a relationship between social support and health promotion lifestyles in rural women. Rural was defined as a nonmetropolitan county without a city of at least 10,000 residents. Social support was found to be a strong predictor of whether an individual engaged in health promotion activities.

Social Support and Rural Mental Health

Research has been conducted specific to social support and rural mental health. McCullough (1995) studied the relationship between proximity of family and perceptions of social support to depression, anxiety, and positive and negative affect in older rural adults. Participants who were 65 or older were randomly selected from rural areas, defined as either farm or nonfarm open country, or towns of less than 2,500, for a sample size of 100. Family proximity was not significantly related to perceptions of social support or levels of depression, anxiety, or affect. Results of hierarchical multiple regressions found social support to be a significant predictor of mental health outcomes (depression, anxiety, positive affect, and negative affect). Okwumabua, Baker, Wong, and Pilgram (1997) interviewed 96 African American men and women over 60 to compare rural and urban differences in depression. No definition for rural was provided. Depression was measured by the Center for Epidemiological Studies-Depression Scale and social support by the Lubben Social Network Scale. There was a significant relationship between levels of depression and social support ($p < .015$). Social support provided the means to cope with loneliness and depression. Rural elders reported higher levels of social support, which was provided mainly by family, neighbors, friends, and church groups.

Weinert (2000) utilized computers and the Internet as a means of providing social support for women with chronic illness who lived in rural areas (defined as areas at least 25 miles outside of a "major" population center). While quantitative data on psychological adjustment to illness, quality of life, social support, and life stress were still being collected in this study, the participants overwhelmingly expressed satisfaction and increased feelings of social support when utilizing online chat groups and discussion forums in an online community. Finally, Koopman et al. (2001) examined distress, coping, and social support among 100 rural-dwelling women who were newly diagnosed with breast cancer. Rural was not clearly defined although 67% of residents were reported as living within 5 miles of towns with less than 10,000 in population. Utilizing the Psychiatric Epidemiology Research Interview Life Events Scale, Profile of Mood States, PTSD Checklist-Specific and the Mental Adjustment to Cancer Scale it was found that participants suffered considerable traumatic stress (15% meeting the requirements for PTSD) although this distress did not manifest as a mood disorder. High levels of social support were

provided by spiritual or church groups and from within family units which helped the women cope with their diagnoses.

In summary, there is much research to support the importance of social support to the well being of individuals and families. The effect of social support on health outcomes is the most widely researched coping resource both in nursing and in related disciplines (Underwood, 2000). Because rural residents are considered a vulnerable population with unique stressors, this research on social support can be used by nurses in planning interventions to meet the mental health needs of rural residents.

NURSING IMPLICATIONS

Mental health nurses in rural communities are faced with the daily challenges of isolation, high poverty rates, and lack of mental health resources. Mental health nurses are faced with the tasks of providing mental health promotion, case finding, early diagnosis and intervention programs, crisis and acute care services, as well as follow-up care. Gaining access to those in need of services may be difficult as rural dwellers historically have chosen to “take care of our own” instead of seeking formal services (Bushy, 2000). The stigma attached to mental health problems also prevents rural individuals from seeking proper care. Nurses must first gain the acceptance and trust of the rural community. Long (1993) states that health care professionals may be distrusted initially and seen as outsiders. An understanding and appreciation of the given rural culture will help develop trust from the community.

Confidentiality and anonymity must also be assured. Roberts et al. (1999) offer the following suggestions for preserving confidentiality in small communities: speaking often to staff about the role of confidentiality, following up on any “leaks” that may occur from time to time, keeping records out of public view, documenting sensitive data only when clinically or legally indicated, and maintaining separate “shadow charts.” Additionally, it is ideal if collaborative clinics are setup that offer medical and psychiatric care so it is less obvious one is seeking mental health services, thus minimizing the stigma associated with seeking such care.

Rural health nurses must have a thorough understanding of available mental health services within the community as well as an understanding of how impoverished residents may obtain these services. A recent study by Fox, Blank, Rovnyak, and Barnett (2001) of 646 impoverished rural adults was conducted to screen for depression, anxiety, and alcohol abuse as well as barriers to seeking mental health care. Cost, lack of insurance, inconvenient clinic hours, and lack of services were most often cited as barriers for seeking care. After providing pertinent education in these areas, almost all the barriers were endorsed less frequently at follow-up. Unfortunately, those participants with identified mental health problems still did not pursue treatment, as they felt there was no need. This study demonstrates the importance of community education to inform and convince rural residents that they can be effectively treated for depression, anxiety, and alcohol abuse.

Education regarding available services within the school systems as well as from public and private agencies must be provided to rural residents. Bushy (2000) cautions against duplicating services within rural communities. Interdisciplinary collaboration is critical. For hospitalized

residents, discharge plans must be meaningful and obtainable. Case management and contingency planning is imperative.

Given that formal mental health services may be lacking in rural communities, the need for strong social support becomes imperative. Social support systems must be assessed and evaluated with the initial health history. The nurse must keep in mind that it is the quality of the support which is meaningful, and not simply a list of supports provided by an individual. Nurses can have a strong impact on setting up social networks through church and community services available within the community. Friendly visitor programs for the elderly can be developed. Pets may be suggested for companionship. Homes need to be assessed for working telephones, which can be preprogrammed with important numbers. Volunteer opportunities can be presented as a means of helping others while gaining social supports from community agencies. Parenting and anticipatory guidance must be taught to young families, assuring that children and adolescents feel supported at home. Education can be provided in the school system to alert teachers and guidance counselors to the needs for social support for our youth. Tutors and mentors from within the community can work with high-risk children and adolescents. Families must be strengthened so positive support can come from within the family unit.

Nurses must be aware of and advocate for public policy issues concerning rural mental health. Although organized consumer-oriented movements for rural health have been successful in urban areas, they are yet to be implemented in rural areas (Bjorklund & Pippard, 1999). Development of rural self-help models utilizing community strengths can enhance mental health care services while also empowering the community for self-help. Additional policy issues include deinstitutionalization, parity in insurance benefits for mental health care, and integration of mental health care services with general health care.

Nursing has an obligation to conduct research on mental health issues in rural communities. Most research to date has been limited to small geographic regions. Large-scale studies need to be conducted in order for findings to begin to be generalized across cultures and geographic boundaries. Specific interventions to enhance social support are needed, as is a greater understanding of how social supports are maintained and nurtured in various cultural groups. Few studies address the specific needs of children and families in relation to social support. Specifically, the Office of Rural Mental Health Research, National Institute of Mental Health (2001), offers the following research priorities:

- Mental health care delivery in primary care settings
- The role of telecommunications (telehealth) in the delivery of mental health services to rural and frontier populations
- Prevention of mental health problems in rural and frontier America
- Delivery of culturally competent mental health care to all populations in rural and frontier America
- The role of managed care in the delivery of rural mental health services; and
- Conceptual and research methodologies to enhance the understanding and measurement of mental health service in rural and frontier communities.

Lastly, nurses must continue their own education on the needs of rural communities and the mental health needs of their residents. They must advocate for resources for rural residents who are unable to advocate for themselves. They must lobby for policy changes that will enhance the care of the rural mental health client. Community education must be provided on mental health issues to decrease stigma. Nurse educators must provide theory and clinical experience to nursing students in rural health communities. An understanding of rural health care practice may encourage young nurses to practice in these underserved areas.

CONCLUSION

Mental health is indispensable to personal well-being as is active membership within a community. As a vulnerable population, rural dwellers are exposed to a variety of stressors that place them at risk for mental health problems. Geographic isolation, limited resources, and the stigma attached to mental illness also prevent rural residents from seeking adequate mental health care. While the importance of social support is well documented in the literature, not enough has been done to formally develop community supports and integrate them as resources in rural systems of care (Kane & Ennis, 1996). Nurses have the ability to assist rural residents in developing support systems, managing and coping with stress and mental health problems, and achieving a greater sense of health and well-being.

REFERENCES

- Adams, M. H., Bowden, A. G., Humphrey, D. S., & McAdams, L. B. (2000). Social support and health promotion lifestyles of rural women. *Online Journal of Rural Nursing, and Health Care, 1*(1). [On-line]. Available: <http://www.rno.org/journals>
- Barrera, M., & Garrison-Jones, C. (1992). Family and peer social support as specific correlates of depressive symptoms. *Journal of Abnormal Clinical Psychology, 20*(1), 1–16.
- Baxter, J., Shetterly, S. M., Eby, C., Mason, L., Cortese, C. F., & Hamman, R. F. (1998). Social network factors associated with perceived quality of life: The San Luis Valley health and aging study. *Journal of Aging and Health, 10*(3), 287–310.
- Bjorkland, R. W., & Pippard, J. L. (1999). The mental health consumer movement: Implications for rural practice. *Community Mental Health Journal, 35*(4), 347–359.
- Broadhead, W. E., Kaplan, B. H., Sherman, A. J., Wagner, E. H., Schoenbach, V. J., Grimsom, R., Heyden, S., Tibblin, G., & Gehlbach, S. H. (1983). The epidemiological evidence for a relationship between social support and health. *American Journal of Epidemiology, 117*, 521–537.
- Bushy, A. (1998). Health issues of women in rural environments: An overview. *Journal of the American Medical Women's Association, 53*(2), 53–56.
- Bushy, A. (2000). *Orientation to nursing in the rural community*. Thousand Oaks, CA: Sage.
- Christoffel, T., & Gallagher, S. (1999). *Injury prevention and public health: Practical knowledge, skills and strategies*. Gaithersburg, MD: Aspen.
- Coburn, A. F., & Bolda, E. J. (1999). The rural elderly and long term care. In T. C. Ricketts (Ed.), *Rural health in the United States* (pp. 179–189). New York: Oxford University Press.
- Cunningham, M. R., & Barbee, A. P. (2000). Social support. In C. Hendrick & S. S. Hendrick (Eds.), *Close relationships: A sourcebook* (pp. 273–285). Thousand Oaks,

CA: Sage.

- Dunst, C. J., Lee, H., & Trivette, C. M. (1988). Family resources, personal well being, and early intervention. *Journal of Special Education, 22*, 108–116.
- Dunst, C. J., Trivette, C. M., Hamby, D., & Pollock, B. (1990). Family systems correlates of the behavior of young children with handicaps. *Journal of Early Childhood Intervention, 14*, 204–218.
- Elkind, P., Carlson, J., & Schnable, B. (1998). Agricultural hazards reduction through stress management. *Journal of Agromedicine, 5*(2), 23–32.
- Fink, S. (1995). The influence of family demands on the strains and well being of care giving families. *Nursing Research, 44*, 139–146.
- Flax, J., Wagenfeld, M., Ivens, R., & Weiss, R. (1997). *Mental health and rural America: An overview and annotated bibliography*. Washington, DC: National Institute of Mental Health.
- Fox, J. C., Blank, M., Rovnyak, V. G., Barnett, R. Y. (2001). Barriers to help seeking for mental disorders in a rural impoverished population. *Community Mental Health Journal, 37*(5), 421–436.
- Hamburg, D. A. (1991). Health and behavior: An evolutionary perspective on contemporary problems. In R. Jessor (Ed.), *Perspectives on behavioral science—the Colorado lecture* (pp. 177–200). New York: Westview.
- Hinds, C., & Moyer, A. (1997). Support as experienced by patients with cancer during radiotherapy treatments. *Journal of Advanced Nursing, 26*, 371–379.
- Howland, R. H. (1995). The treatment of persons with dual diagnoses in a rural community. *Psychiatric Quarterly, 66*(1), 33–49.
- Johnson, J. E. (1998). Stress, social support, and health in frontier elders. *Journal of Gerontological Nursing, 24*(5), 29–35.
- Kane, C. F., & Ennis, J. M. (1996). Health care reform and rural mental health: Severe mental illness. *Community Mental Health Journal, 32*(5), 445–462.
- Koopman, C., Angell, K., Turner-Cobb, J. M., Kreshka, M. A., Donnelly, P., McCoy, R., Turkseven, A., Graddy, B. A., Giese-Davis, J., & Spiegel, D. (2001). Distress, coping and social support among rural women recently diagnosed with primary breast cancer. *The Breast Journal, 7*(1), 25–33.
- Larson, E. H., Hart, L. G., & Rosenblatt, R. A. (1997). Is nonmetropolitan residence a risk factor for poor birth weight outcome in the U.S.? *Social Science and Medicine, 45*, 171–188.
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal and coping*. New York: Springer.
- Lee, H. (1998). *Conceptual basis for rural nursing*. New York: Springer.
- Letourneau, N., Drummond, J., Fleming, D., Kysela, G., McDonald, L., & Steuart, M. (2001). Supporting parents: Can intervention improve parent-child relationships? *Journal of Family Nursing, 7*(2), 159–167.
- Letvak, S. (1997). Relational experiences of elderly women living alone in rural communities: A phenomenologic inquiry. *Journal of the New York State Nurses Association, 28*(2), 20–25.
- Long, K. A. (1993). The concept of health. *Nursing Clinics of North America, 28*(1), 123–130.
- Markstrom, C. A., Marshall, S. K., & Tryon, R. J. (2000). Resiliency, social support, and coping in rural low-income Appalachian adolescents from two racial groups. *Journal of Adolescence, 23*(6), 693–703.

- Martin, J. C., & Panicucci, C. L. (1992). Health related practices and priorities: The health behaviors and beliefs of community living black older women. *Journal of Gerontological Nursing*, 22(4), 411–418.
- McCulloch, J. (1995). The relationship of family proximity and social support to the mental health of older rural adults: the Appalachian context. *Journal of Aging Studies*, 9(1), 65–81.
- Mulder, P. L., Kenken, M. B., Shellenberger, S., Constantine, M. G., Streigel, R., Sears, S. F., Jumper-Thurman, P., Kalodner, M., Danda, C. E., & Hager, A. (2001). *The behavioral health care needs of rural women*. [On-line]. Available: <http://www.apa.org/rural/ruralwomen.pdf>
- Murray, C. J. L., & Lopez, A. D. (1996). *The global burden of disease. A comprehensive assessment of mortality and disability from diseases, injuries and risk factors in 1990 and projected to 2020*. Cambridge, MA: Harvard School of Public Health.
- Office of Rural Mental Health Research, National Institute of Mental Health. (2001). Research agenda. [On-line]. Available: <http://www.nrharural.org/dc/issuepapers/ipaper14.html>
- Okwumabua, J. E., Baker, F. M., Wong, S. P., & Pilgram, B. O. (1997). Characteristics of depressive symptoms in elderly urban and rural African Americans. *The Journals of Gerontology*, 52A(4), 241–246.
- O’Leary, A. (1985). Self-efficacy and health. *Behavioral Research Therapy*, 4, 437–451.
- Reinhardt, J. P. (1996). The importance of friendship and family support in adaptation to chronic vision impairment. *Journal of Gerontology: Psychological Sciences*, 5, 268–278.
- Ricketts, T. C., Johnson-Webb, K. D., & Taylor, P. (1998). Definitions of rural: A handbook for health policy makers and researchers. Prepared for the Federal Office of Rural Health Policy, Health Resources and Services Administration: U.S. Department of Health and Human Services. Chapel Hill, NC: Cecil G. Sheps Center.
- Roberts, L. W., Battaglia, J., Smithpeter, M., & Epstein, R. S. (1999). An office on main street: Health care dilemmas in small communities. *The Hastings Center Report*, 29(4), 28–37.
- Rosenfeld, L. B., Richman, J. M., & Bowen, G. L. (1998). Low social support among at-risk adolescents. *Social Work in Education*, 20(4), 245–253.
- Taylor, S. E. (1983). Adjustment to threatening events: A theory of cognitive adaptation. *American Psychology*, 11, 1161–1173.
- Taylor, S. E. (1995). *Healthy psychology* (3rd ed.). New York: Mc-Graw Hill.
- Underwood, P. W. (2000). Social support: The promise and the reality. In V. H. Rice (Ed.), *Handbook of stress coping and health* (pp. 367–391). Thousand (Oaks, CA: Sage.
- U.S. Bureau of the Census. (2000). *Urban and rural classification*. [On-line]. Available: <http://www.census.gov/geo/www/ua/ua2k.html>
- U.S. Department of Health and Human Services. (1999). *Healthy people 2010. National health promotion and disease prevention objectives*. Washington, DC: Government Printing Office.
- U.S. General Accounting Office. (1993). *Rural development: Profile of rural areas. Fact Sheet for Congressional Requestors*. (pp. 26–30) GAO/RECD-93-40FS. Washington, DC: Government Printing Office.
- Van Servellen, G., Sarna, L., Padilla, G., & Brecht, M. L. (1996). Emotional distress in men with life threatening illness. *International Journal of Nursing Studies*, 1(3), 117–125.

Weinert, C. (2000). Social support in cyberspace for women with chronic illness. *Rehabilitation Nursing, 25*(4), 129–135.

Yarcheski, A., Mahon, N. E., & Yarcheski, J. (2001). Social support and well being in early adolescents. *Clinical Nursing Research, 10*(2), 163–181.