

Social Support and Health Promotion Lifestyles of Rural Women

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Abstract

Health promotion is presently receiving increased attention regarding the prominent role it plays in the health care arena. The purpose of the study is to ascertain if a relationship exists between social support and health promotion lifestyles of rural women. The organizing framework for the descriptive correlational study is Pender's (1996) revised Health Promotion Model. The study participants are 400 women whose names were obtained by a simple, random sampling of the voter registration list of a rural county in a southeastern state responding to questionnaires. Data was analyzed using descriptive and inferential statistics. The data strongly supported Pender's (1996) Health Promotion Model and the significant role that social support plays in promoting a healthy lifestyle. Recommendations for further research include examining the relationship of social support and health promotion lifestyles with rural non-Caucasian women,

replication of the study using participants who live in rural counties farther from metropolitan areas, and intervention development which may further enhance social support and health promoting lifestyles.

Keywords: health promotion, social support, rural women, healthy lifestyle, rural health, health promoting lifestyle, rural, health, health responsibility, healthy behaviors

Social Support and Health Promotion Lifestyles of Rural Women

Health promotion is receiving ever increasing attention regarding the prominent role it plays in health care. The high costs in health care have necessitated a shift in the emphasis of care to the prevention of disease, rather than strictly the treatment of disease. Historically, the relationship between health promotion and disease prevention has been the focus of study by nurses since the concept was presented by Florence Nightingale in the publication, *Notes on Nursing* (1859/1992). However, since the late 1980's, when public attention focused more readily on health promotion, the demand for information to explain the factors that motivate people to seek their health potential has risen (Pender, 1996). More recently, global attention to the specific components of health behavior and lifestyle that place the emphasis on quality of life, rather than duration of survival, has become the focus of health promotion research.

The World Health Organization contends that health promotion includes encouraging healthy lifestyles, creating supportive environments for health, strengthening community action, reorienting health services, and building public health policy (Goepfing, 1993; Pender, 1996). The National Institute of Nursing Research identifies health promotion as a research priority. Nurses should explore psychosocial factors underlying health promotion behaviors, the impact of lifestyle on health status, and strategies to develop personal responsibility for health (Bushy, 1991). Identification of these factors will serve as valuable pieces of information for both the general public and health care professionals.

Often, however, women are responsible for building and continuing the social networks that both men and women use (Rook, 1984). Unfortunately, the relationship between physical health and social support for women is complex and not well established (Hansen, Isacson, & Janzen, 1990; Lough & Shank, 1996). Therefore, due to conflicting results in various studies,

Pender (1996) called for further investigation of how social support impacts health promoting lifestyles of women. The purpose of the study was to ascertain if a relationship existed between social support and health promotion lifestyles of rural women.

Organizing Framework

The organizing framework for the study is Pender's (1996) Health Promotion Model (HPM) that originates from the expectancy-value theory and the social cognitive theory. The HPM was developed to provide a framework for predicting health promoting behaviors. The model seeks to explain individual characteristics and experiences as well as how behavior-specific cognition and affect influence these behavioral outcomes (Pender, 1996).

According to Pender (1996), there are two types of individual characteristics and experiences that affect behavioral outcomes. The first is prior related behaviors that an individual possesses. The second is personal characteristics that are comprised of biological, psychological, and socio-cultural experiences. These individual characteristics and experiences interact with the interpersonal and situational influences to shape the behavioral outcomes.

In addition, there are four behavior-specific variables with equally important influence upon behavioral outcomes. These four variables are the perceived benefits to action, perceived barriers to action, perceived self-efficacy, and activity-related affect. The variables in combination with interpersonal and situational influences are the ingredients for an individual's commitment to the plan of action. Hopefully, an individual's commitment to the plan of action will result in a health-promoting behavior. Unfortunately, the resulting health-promoting behavior is dependent upon immediate competing demands, over which an individual has low control, and preferences, over which an individual has a higher level of control.

The factors that influence health behaviors are multidimensional. All factors are interrelated and therefore, produce results that exert both direct and indirect influences on health promoting behaviors. These factors cooperatively support the processes that influence individuals to make decisions and participate in health promoting behaviors. Identification of the interrelationships and an understanding of the dynamics that facilitate health specific behaviors provide insight to both health compromising and health enhancing behaviors, and is what makes the model useful to researchers (Pender, 1996).

According to Pender (1996), social support is viewed as an interpersonal influence, a cognition focused on the behaviors, beliefs, or attitudes of other individuals. Social support is defined as " a subjective feeling of belonging, being loved, esteemed, valued, and needed for oneself, not for what one can do for others" (Pender, 1996, p. 256). Individuals assess socially supportive resources and then accept or reject them based on perceived societal norms and individual needs. Involvement or participation in socially supportive groups is a likely resource of social support for many individuals. Often, social support groups serve to assist with personal strengths of members and help in the accomplishment of long-term goals (Pender, 1996).

Social support groups are considered a protective mechanism of health promoting and health maintenance behaviors. Conceptually, social groups can create growth promoting environments, decrease stressful life events, provide feedback or confirmation of actions, and buffer the negative effects of stressful life events. When individuals perceive adequate group support, the resulting goals of health promotion, health maintenance, and disease prevention are more likely to be achieved.

Health promotion must move beyond the individual to families and communities. Therefore, identification of the factors that predict positive health outcomes is a valuable piece of

information. Social support, when perceived as helpful, can enhance individual health and wellbeing (Gillis, 1993). The loss of social support, however, is linked to a variety of disease states and indicates that an absence of social support may increase the incidence of illness (Pender, 1996).

Review of Literature

Research concerning the relationship between social support and health promotion lifestyles using Pender's theoretical framework is limited. Most recent research has focused on social support and specific health promotion/disease prevention behaviors such as smoking cessation. In this review of literature, research involving health promotion lifestyles, rural health, and social support was examined in regard to the relationship to health and health practices.

Health Promotion Lifestyles

Health promotion lifestyles in relation to a number of variables have been the focus of nursing research in the nineties (Ahijevych & Bernhard, 1994; Duffy, Rossow, & Hernandez, 1996; Gillis, 1993; Lusk, Kerr, & Ronis, 1995). Researchers have examined individuals with varying health problems, diverse cultural groups, women, older adults, and health in the workplace (Duffy, 1993; Frank-Stromberg, Pender, Walker, & Sechrist, 1990; Stuifbergen & Becker, 1994; Stuifbergen, 1995; Weitzel & Waller, 1990; Woods, Lentz, & Mitchell, 1993).

Gillis (1993) reviewed the research literature from 1983 to 1991 and concentrated on the determinants of a health promoting lifestyle (HPL). Self-efficacy, social support, perceived benefits, self-concepts, perceived barriers, and health definitions were found to be the strongest predictors of a health-promoting lifestyle. Self-efficacy was found to be an important predictor of a HPL for Hispanics, African Americans, and Caucasians in a study by Weitzel and Waller

(1990). Internal and chance locus of control served as stronger predictors for the Caucasian group. Adults with disabilities were more likely to engage in HPL if perceived self-efficacy was present (Stuifbergen & Becker, 1994).

Kerr and Richey (1990) investigated the HPL of English and Spanish-speaking Mexican Americans. Self-actualization and interpersonal support received the highest scores among both groups with the Spanish-speaking group scoring higher. Health responsibility and exercise ranked lowest. Similar results were found in a study conducted by Duffy, Rossow, and Hernandez (1996) with Mexican-American women and other minority groups. The variable pairs of age and educational level and locus of control and current health status provided the strongest differences in scores among the groups. Differing results occurred in a study comparing African-Americans and other research involving HPL with a primarily Caucasian sample (Ahijevych & Bernhard, 1994). Self-actualization and interpersonal support received the highest scores among African-American women. When compared with other groups in the sample, health responsibility ranked the highest. African-American women received the lowest scores on self-actualization, exercise, and nutrition when compared to other groups.

Woods, Lentz, and Mitchell (1993) investigated the health promoting and health damaging behaviors of 470 women. Access to education, partnership, employment, and exposure to fewer stressors promoted the health behaviors of exercise and nutrition. In the older adult, individuals who were married and had higher incomes were more likely to engage in exercise, health responsibility, and stress management (Duffy, 1993).

The health-promoting lifestyles of blue-collar, skill trade, and white-collar workers were examined by Lusk, Kerr, & Ronis (1995). White-collar workers scored higher in areas of self-actualization, exercise, and interpersonal support. Self-actualization, exercise, and interpersonal

support scores ranked higher among younger workers, while older workers scored higher on health responsibility and nutrition. Women scored higher on the overall lifestyle profile and in the areas of health responsibility, exercise, and interpersonal support. Individuals with higher education levels consistently scored higher particularly in the areas of health responsibility, exercise, nutrition, and stress management.

Social Support

Ducharme, Stevens, and Rowat (1994) addressed conceptual and methodology issues relevant to the study of social support. It was suggested that in order to have sound nursing research, a nursing theoretical framework was needed. The review supported the need for using a valid instrument, such as the Personal Resource Questionnaire (PRQ 85), to measure social support.

The majority of research has focused on the relationship of social support and mental health, but there is also evidence that social support influences physical health (Dean, Holst, Kruner, Schoenborn, & Wilson, 1994). Sherbourne and Hays (1990) tested the hypothesis that married persons have more favorable health outcomes than unmarried individuals as a result of social support. The sample consisted of individuals with chronic illnesses such as hypertension, diabetes, coronary artery disease, and depression. Married persons reported significantly more social support, better physical functioning, fewer feelings of depression and loss of control, and less life stress.

Social support and health promoting behaviors have been the subject of numerous studies (Aaronson, 1989; Hanson, Isacson, & Janzon, 1990; Lough & Shank, 1996; Morse, 1997; Riffle, Yoho & Sams, 1989). Aaronson (1989) found that perceived and received support contributed to a pregnant woman sustaining both good health practices and recommended health

behaviors. Riffle, Yoho, and Sams (1989) examined the relationship of health-promoting behaviors, perceived social support, and self-reported health of the older adult. The results revealed a positive correlation of the health promoting behaviors, self-actualization, health responsibility, interpersonal support, and stress management, to perceived social support and self-reported health. There was no relationship between perceived social support and self-reported health. In a study investigating health status and social support of the older adult, the results showed that the perceptions of positive health status and social support do not decline with age (Lough & Schank, 1996). Social support was viewed as beneficial in both smoking cessation programs and decreasing symptoms related to premenstrual syndrome (Hanson, Isacson, & Janzon, 1990; Morse, 1997).

Rural Health

Mansfield, Preston, and Crawford (1989) compared the health practices of rural women with those of a large metropolitan area. The results of the study found that rural women adopted more health practices overall than their urban counterparts. Younger women in both groups exhibited more awareness of health promotion.

An individual's place of residence was not found to be independently predictive of health practices in a study by Speake, Cowart, and Stephens (1991). Perceived health status and locus of control were predictive of health practices involving stress management, exercise, nutrition, health responsibility, self-actualization, and interpersonal support. Long and Weinert (1992) supported the finding when comparing the health descriptions and perceptions of adults with multiple sclerosis living in rural and urban areas.

Research Questions

The following research questions were addressed:

1. Is there a relationship between social support and health promotion lifestyles of rural women?
2. Is there a relationship between social support and spiritual growth of rural women?
3. Is there a relationship between social support and health responsibility of rural women?
4. Is there a relationship between social support and nutrition of rural women?
5. Is there a relationship between social support and physical activity of rural women?
6. Is there a relationship between social support and stress management of rural women?
7. Is there a relationship between social support and interpersonal relations of rural women?

Methodology

Design

The study uses a descriptive correlational design. A power analysis was performed to determine a sufficient sample size in order to reduce the possibility of a Type II error. The minimum acceptable power for a study is .80 (Burns & Grove, 1997). The present study required a sample size of 100 study participants to have a power level of .80.

For the study, health promotion lifestyle was defined as a measurement of a positive state that a rural woman pursues in regard to spiritual growth, health responsibility, nutrition, physical

activity, stress management, and interpersonal relations as measured by the Health-Promoting Lifestyle Profile II (S. Walker, personal communication, April 22, 1997). Social support was a positive state a rural woman pursues via interpersonal networks such as family, friends, neighbors, school, church, and various community groups, associations, and organizations. It was measured by using the Personal Resource Questionnaire (PRQ85), Part Two (Weinert, 1987). Rural women were defined as females who resided in a non-metropolitan county without a city of at least 10,000 residents (Ghtaelfi & Parker, 1995). The study participants were obtained by a simple random sampling of the voter registration list of a rural county in a southeastern state. Of the 6,367 registered female voters, 400 women were selected with the inclusionary criteria of the ability to read and write English.

Instruments

The survey instruments consisted of a demographic data form, the Health Promotion Lifestyle Profile II (HPLP II), and the Personal Resource Questionnaire: Part II (PRQ 85). The demographic data form gathered information about the study participant's age, educational level, race, religion, lifestyle status, and employment status.

Walker, Sechrist, and Pender (1987) developed the Health-Promoting Lifestyle Profile to measure current health promoting practices. The HPLP II is a 48-item 4-point Likert scale tool which contains the subscales of self-actualization, health responsibility, exercise, nutrition, interpersonal support, and stress management. Based on the research and feedback from other users of the instrument, the HPLP was revised to reflect current literature, practice, and to achieve balance among the subscales. The HPLP II, developed within the framework of the Health Promotion Model (Pender, 1996) measures current health promoting behaviors using a 52-item, 4-point Likert scale which contains the six subscales of spiritual growth, health

responsibility, nutrition, physical activity, stress management, and interpersonal relations. All items are scored on a scale from 1 to 4; 1 = never, 2 = sometimes, 3 = often, 4 = routinely. A composite score was obtained as well as individual subscale scores. The Cronbach alpha for the total HPLP II was .943. Alphas for each of the subscales are as follows: spiritual growth (.864), health responsibility (.861), nutrition (.800), physical activity (.850), stress management (.793), and interpersonal relations (.872). In this study, the alpha coefficient for the total HPLP II scale was .9469 and the subscales ranged from .7293 to .8889 (S. Walker, personal communication, April 22,1997).

The PRQ85 designed by Brandt and Weinert (Weinert, 1987) was used to measure social support. Part one consists of ten life situations in which the individual might be expected to need some assistance and provides information concerning the individual resources and satisfaction received from those resources. Part two is a multidimensional measurement of perceived social support. It is based on Weiss's (1974) five dimensions of intimacy, assistance, social integration, affirmation of worth, and nurturance. It is a 25-item, 7-point Likert scale ranging from strongly agree to strongly disagree that measures the individual's perceived level of support.

Long and Weinert (1992) reported an alpha coefficient of .91 when using the PRQ85 in a study focusing on the perceptions of health among rural and urban adults with multiple sclerosis. Dilorio, Faherty, and Manteuffel (1992) studied the relationship of self-efficacy and social support to self-management of epilepsy and reported a Cronbach alpha of .88. Part two of the PRQ-85 was used in this study. An alpha coefficient of .8197 was obtained in the present study. Table 1 is a summary of the Cronbach's alpha coefficients for the study. Approvals for the use of the PRQ85 and HPLP II was obtained prior to use.

Procedures

After sample selection and Institutional Review Board approval, the 400 potential participants in the study were sent the instrumentation packet with a returned-addressed stamped envelope. The packet contained a demographic data form, the HPLP II, the PRQ85, and a cover letter stating the purpose of the study and perceived benefits from participation. Each instrumentation packet was coded prior to mailing to enable the researcher to send a follow-up letter and a second instrumentation packet to the participants not initially responding on the first request. Consent for study participation was acknowledged by remittance of the instruments in the self-addressed stamped envelope.

Table 1
Reliability Scale (Cronbach's Alpha Coefficient)

Variable	α
Health Promoting Lifestyle	.9469
Subscales	
Health Responsibility	.8499
Physical Activity	.8406
Nutrition	.7293
Spiritual Growth	.8889
Interpersonal Relationships	.8560
Stress Management	.7849
PRQ 85	.8197

Results

Demographic Analysis

Descriptive statistics were used to analyze the demographic data. The participants consisted of 102 rural women, one of whom failed to complete the demographic portion of the instrument as instructed. The age range for the participants was from 19 to 86 years, with a

mean age of 47.208. The employment status of the sample revealed 61 individuals (59.8 %) were employed full-time and 15 (14.7%) were employed part-time. Twenty-six (25.5 %) of the participants reported their employment status as "other".

The demographic data indicated that 88.2 percent of the sample were Caucasian. The majority of the participants were married and Baptist (70.6%). The highest level of education completed was high school (27.5%) with 21.5% of the sample reporting completion of technical or vocational training. There was a statistically significant relationship between both social support ($r = .268$; $p < .01$) and health promotion lifestyles of rural women ($r = .288$; $p < .01$) and health responsibility ($r = .222$; $p < .05$) when correlated with the demographic variable of levels of education.

Research Questions

Data were analyzed within the SPSS 7.5.2 statistical package using descriptive and inferential statistics. Frequencies, measures of central tendency, and correlation coefficients were used to address the research questions.

The first research question stated, "Is there a relationship between social support and health promotion lifestyles of rural women?" The correlation coefficient was computed on the PRQ 85 and the overall HPLP II using the Pearson R. There was a statistically significant relationship between social support and health promotion lifestyles of rural women ($r = .579$; $p < .01$). Table 2 describes the ranges, means and standard deviations for social support and health promotion lifestyles.

Table 2
Ranges, Means, and Standard Deviation for Social Support Scale and Overall Health-Promoting Lifestyle Profile II and Subscales

	Possible Range of Scores	Actual Range of Scores	Mean	S/D
Variables				
Health Promoting Lifestyle II	52-208	85-208	131.45	25.4
Subscales				
Health Responsibility	9-36	9-34	21.4	5.48
Physical Activity	8-32	8-32	15.98	7.49
Nutrition	9-36	10-32	22.84	4.8
Spiritual Growth	9-36	10-36	26.34	5.68
Interpersonal Relations	9-36	15-36	26.09	5.26
Stress Management	8-32	11-30	18.47	4.43
PRQ 85	25-175	69-158	121.73	1.409

The second research question stated, "Is there a relationship between social support and spiritual growth of rural women?" The correlation coefficient was computed on the PRQ 85 and the spiritual subscale of the HPLP II. There was a statistically significant relationship between social support and spiritual growth ($r = .469$; $p < .01$).

The third research question stated, "Is there a relationship between social support and health responsibility of rural women?" The correlation coefficient was computed on the PRQ 85 and the health responsibility subscale. The relationship between social support and health responsibility was statistically significant ($r = .416$; $p < .01$).

The fourth research question stated, "Is there a relationship between social support and nutrition of rural women?" The correlation coefficient was computed on the PRQ 85 and the nutrition subscale. The relationship between social support and nutrition was statistically significant ($r = .398$; $p < .01$).

The fifth research question stated, "Is there a relationship between social support and physical activity of rural women?" The correlation coefficient was computed on the PRQ 85 and

the physical activity subscale. The relationship between social support and physical activity was statistically significant ($r = .257$; $p = < .05$).

The sixth research question stated, "Is there a relationship between social support and stress management of rural women?" The correlation coefficient was computed on the PRQ 85 and the stress management subscale. The relationship between social support and stress management was statistically significant ($r = .434$; $p = < .01$).

The seventh question was, "Is there a relationship between social support and interpersonal relations of rural women?" The correlation coefficient was computed on the PRQ 85 and the interpersonal relations subscale. The relationship between social support and interpersonal relations was statistically significant ($r = .543$; $p = \leq .01$).

Multiple regression was used to ascertain which independent variables, if any, explained the difference in the variance of the value of the dependent variables (Burns & Grove, 1997). The individual demographic information and the PRQ 85 Part II score served as the independent variables. The dependent variable was the overall health promoting lifestyle score. The demographic variable of race showed a relationship with the HPLP II scores. However, social support, using the PRQ 85 score was the statistically significant predictor of health promoting lifestyles of rural women. Table 3 depicts the results of the multiple regression analysis.

Table 3
Predictors of Health Promotion Lifestyles of Rural Women

Predictor	F	Beta	Simple r	R ²
PRQ-85	40.587	.991	.562	.316
Race	7.104	-6.736	.630	.397

$p = .000$

Discussion

Social support was found to be a strong predictor of whether an individual engaged in health promotion. These findings are supported in the research literature. Several studies have identified the positive relationship of social support and health behaviors (Gillis, 1993; Kerr & Richey, 1990).

Pender's (1996) perspective that social support is directly related to health and well-being was affirmed by this research. In the revised Health Promotion Model (Pender, 1996), interpersonal influence is viewed as a behavioral cognition which affects an individual's commitment to a plan of action and therefore, to a health promoting behavior. Based on the findings of this study, social support, as a source of interpersonal influence, corroborates one of the basic beliefs proposed by the model.

Race was initially identified as a demographic variable that predicted health promoting lifestyles. However, the researchers are hesitant to rely on the statistical association. There seems to be a sampling limitation with regard to race. The sample respondents were only 10.8 % non-Caucasian. Therefore, no conclusions regarding race as a demographic variable that predicts health promoting lifestyle will be drawn.

Education was one of the factors that showed a statistically significant relationship critical to social support, health promotion lifestyles, and the subscale of health responsibility. The factor of educational preparation was addressed in the research by Riffle, Yoho, and Sams (1989) with similar results.

The researchers postulate that one possible explanation for the sample's high level of educational preparation may be the county's close approximation to a major metropolitan area

and a major university. In addition, the use of registered voters as study participants may skew the sample in relation to race and education ultimately limiting the generalizability.

Interestingly, when the demographic data of the sample is compared to the actual population of the rural community, the sample surveyed revealed a mean age of 47.208, whereas, 43.6 percent of the residents in the county are younger than 20 or older than 65 years of age. Therefore, 56.4 percent of the sample is between the ages of 20 and 65. The sample reflects the median age of the county surveyed (Alabama Department of Archives and History, 1997).

Conclusions

The study determined that a relationship existed between social support and health-promoting lifestyles of rural women. The assumption was that by determining if such a relationship exists, further investigation into the elements that enhance social support could be used as predictors for a health promotion lifestyle.

There are two additional conclusions that can be drawn from the findings. First, each of the major components of a healthy lifestyle (health responsibility, spiritual growth, nutrition, physical activity, interpersonal relations, and stress management) correlated with the PRQ 85 Part II score of the sample. Secondly, there was a statistically significant relationship between levels of education and the variables of social support, health promotion lifestyles, and health responsibility.

Implications for Nursing Practice

As a result of the study, it is clear that social support has a strong correlational relationship to the health promoting lifestyles of rural women. Based on this correlation, several implications for nursing practice are identified:

- Social support systems for individuals should be assessed and evaluated with the initial health history.
- Social support interventions should be included in the overall health promotion plan and complement an individual's ability to achieve total wellness.
- Evaluation of social support interventions using qualitative and quantitative research methodologies should be used to validate strategies that health professionals use to promote wellness for their clients.

Recommendations

Based on the findings of the study, a number of recommendations for future research were identified:

- Research which focuses on the interventions that further enhance social support and health promotion lifestyles.
- Further research focusing on the relationship between social support and health promotion lifestyles of rural non-Caucasian women.
- Research using study participants who live in rural counties farther from large metropolitan areas.

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