Title:
Mental Health Diagnoses, Locus of Control, and Chronic Health Conditions in Rural Women

Renee Bauer, PhD
Nursing, Indiana State University, Terre Haute, IN, USA
Jill Moore, PhD
Nursing, Social work, Indiana State University, Terre Haute, IN, USA

Session Title:
Scientific Posters Session 2

Keywords:
Anxiety, Depression and Rural women

References:


Abstract Summary:
Rural women are often a neglected sector of society. Our research demonstrates mental health issues and locus of control regarding how women view themselves. Our society needs to understand mental health needs of our under-represented population.

Learning Activity:

<table>
<thead>
<tr>
<th>LEARNING OBJECTIVES</th>
<th>EXPANDED CONTENT OUTLINE</th>
</tr>
</thead>
<tbody>
<tr>
<td>The learner will understand locus of control and rural women.</td>
<td>Results of research obtained by social workers and nurses.</td>
</tr>
<tr>
<td>The learner will understand state-trait anxiety and rural women.</td>
<td>Results of research addressing state-trait anxiety of rural women.</td>
</tr>
<tr>
<td>The learner will understand elements resulting in depression regarding rural women</td>
<td>Results of research obtained by interprofessional team.</td>
</tr>
</tbody>
</table>

Abstract Text:

A Descriptive Study Focusing on Mental Health Diagnoses, Locus of Control, and Chronic Health Conditions in Rural Women

Introduction
Rural women are underrepresented in the research regarding issues related to mental health (Groh, 2012). In addition, urban models of care have been the standard upon which rural care has been implemented. Although depression in women has been discussed at length, few studies focus specifically on the rural population (Groh, 2012) or the inclusion of mental health and anxiety. Because the Midwest United States consists of many rural inhabitants, this research team chooses to explore this aggregate and determine supportive measures that would benefit the population of rural women.

**Purpose**

The purpose of this study is threefold: (1) to determine the percentage of rural women with anxiety, depression, or both; (2) to determine the primary locus of control among rural women; and (3) to determine the relationship between mental health diagnoses, locus of control, and chronic health issues in rural women.

The results of the study will be used to impact patient care in primary care settings. Understanding the relationships between the identified conditions in rural women affect approaches that can be used in patient education, motivating change in patients, and identifying strategies for providers to use in working with patients.

**Literature Review**

The incidence of obesity and associated chronic conditions such as vascular and endocrine disorders has been linked with several factors that include anxiety, depression, locus of control trait, and self-efficacy perception (Brumpton, Langhammer, Romundstad, Chen, & Ma, 2013; Fisher & Kridli, 2014; Groh, 2012; Neymotin & Nemzer, 2014). Women who live in rural areas that deal with psychological disorders, obesity, and other chronic health issues often have limited access to appropriate care based on under diagnosis and inadequate treatment options (Groh, 2012). This abbreviated review of literature will examine anxiety depression, locus of control, and self-efficacy in terms of obesity and other chronic health conditions.

In tandem with a rise in obesity rates is an increase in mental health disorders with depression and anxiety accounting for a majority of psychological disorders (Brumpton, Langhammer, Romundstad, Chen, & Ma, 2013). Brumpton et al. (2013) found that both men and women diagnosed with anxiety and depression experienced larger weight gains than those individuals without anxiety and depression. While there was not a statistical difference between male and female for these findings, previous studies have found a stronger link for females with depression and the subsequent development of obesity (Luppino et al., 2010). Additionally, Hu (2008) and Brumpton et al. (2013) demonstrated a clear link between presence of obesity, anxiety, and depression with subsequent development of heart disease, cancer, diabetes, and vascular disease.

Locus of control is believed to be an enduring (stable) characteristic (trait) that was defined by Rotter (1954) as an individual’s perception of whether events could be determined by one’s actions (internal locus) or if they occurred regardless of one’s actions (external locus). Individuals with an external locus of control experience more anxiety and depression which has been associated with an increased risk for developing obesity (Neymotin & Nemzer, 2014). While people with an internal locus of control are often more successful at weight control and other health promotion activities those with an external locus of control obtain more benefit from healthcare provider interventions. However, these externally focused people often receive less time and attention healthcare professionals (Neymotin & Nemzer, 2014).

Self-efficacy is grounded in a person's perception of his or her ability to achieve a goal (Bandura, 1993). According to Chang, Brown, Baumann, and Nitzke (2008) the status of an individual's self-efficacy is influenced by personal traits, behaviors, and the environment in which the individual lives. Fisher and Kridli (2014) found that women experience a decrease in self-efficacy as their body mass index (BMI)
increased. This decrease is self-efficacy would have a direct impact on a person’s ability to obtain goals related to weight loss and other health promotion activities.

The above identified factors have a direct impact on the health of all individuals. In many instances women experience a greater effect on overall health and weight status when anxiety, depression, and/or a feeling of decreased self-efficacy is present (Brumpton et al., 2013; Fisher & Kridli, 2014; Groh, 2012). Lastly, women who live in rural areas often experience a greater impact from the presence of the identified factors than women who live in urban or suburban environments because of under diagnosis and limited resources and treatment options (Groh, 2012).

Methods

Sample and Eligibility Criteria: A convenience sample will be collected by records review of people who receive healthcare at a Federally Qualified Health Center (FQHC) in rural Midwest United States. Only persons meeting the following criteria will be included in the study: (1) women, (2) aged between 18-55 years old, (3) live in the county where the FQHC is located, (4) who have completed the identified four screening instruments (see Instruments section), and (5) received healthcare services at the FQHC between May and July 2016.

Design: The research team will conduct a records review of historic data to complete the study. The descriptive study will utilize demographic information and a review of participants’ health records which includes (among other items) four specifically selected non-experimental surveys.

Instruments: The instruments to be used in the study will include the Patient Health Questionnaire (PHQ-9), State-Trait Anxiety Inventory for Adults (STAI), the Generalized Self-Efficacy Scale (GSE), and the Rotter's Locus of Control Scale. These instruments are free with the exception of the STAI which costs $50.00 for the manual and $34 for 50 instruments.

PHQ-9 this multipurpose instrument screens for depression and assigns weight to the degree to which depressive problems have affected the patient’s level of function. It is brief, free, and rapidly scored by the clinician (Kroenke, Spitzer, Williams, 2001).

State-Trait Anxiety Inventory for Adults (STAI) - This is a commonly used measure diagnosing anxiety and trying to distinguish it from depressive syndromes. It is appropriate for those who have at least a sixth grade reading level. All items are on a 4-point Likert scale and higher scores indicate greater anxiety (Spielberger, C.D., 1989).

Generalized Self-Efficacy Scale (GSE) - This instrument is a 10-item scale designed to assess optimistic self-beliefs used to cope with a variety of demands in life (Schwarzer & Jerusalem, 1995).

Rotter's Locus of Control Scale- This instrument measures the degree to which one feels they operate on an external locus of control vs an internal locus of control.

Procedures: The proposed project will be reviewed and approved by the ISU IRB before receiving any data for research purposes. The research will involve collection of information from patient health records. Data will be collected using a random numbers generator to produce patient identification numbers and a coding system to record instrument results along with demographic information. The data collection sheet will be used to analyze results. No identifying information for patients will be removed from the FQHC; the data collection sheet will be stored electronically in a password protected file at ISU. The data will be kept for three years post study and then destroyed.

Data Collection: The following data will be collected from a records review for each participant that meets the eligibility criteria: (1) Scores for each of the 4 instruments: STAI score (positive or negative),
PHQ-9 score (positive or negative), GSE score (positive or negative), and Rotter’s Locus of Control Score (positive or negative), (2) Demographic Information: age, ethnicity, marital status, employment status, if the participant has health insurance, and household income, and (3) if the participant has chronic health problems including arthritis, female problems, heart disease, headaches, hypertension, obesity, or pain.

**Data Analyses:** The data collected will be coded and entered into a current version of SPSS. Several types of analyses will be utilized to determine relationships between demographic factors, results of each of the screening instruments, and chronic health conditions.