Predictors of Depression among Midlife Women in South Korea

Ok-Kyung Ham, PhD, MPH, MCHES
Inha University, Incheon, Korea
Eun-Ok Im, PhD, MPH, FAAN
University of Pennsylvania, PA, USA

Introduction

- Across the globe, depressive symptoms are more prevalent in women.

- Prevalence of depressive symptoms ranged from 22 to 29% among Korea women (Shin *et al.* 2010; Son & Kim, 2012).

- Women with special characteristics (e.g., low income) were more likely to report depressive symptoms (Jun *et al.* 2004).

Introduction

- Studies reported that education level, employment, income, couple satisfaction were significantly associated with depressive symptoms among Korean women (Jun *et al.* 2004).

- Others reported that depressive symptoms are common in people with CVD, and depressive symptoms are predictors of CVD (Holt *et al.* 2013).

Theoretical Framework

- Social Structure & Personality Research framework.

- This perspective posits that social structure influences individual values and behavior.

- Thus, socioeoconomic differences in morbidity and mortality are due in part to conditions originate from an individuals' structural position (House, 1981; Williams, 1990).

Purpose

- To describe prevalence of depressive symptoms
- To identify factors associated with depressive symptoms
  - Among low-income midlife women in Korea.
- Hypothesis
  - Women in the low socioeconomic status will exhibit more depressive symptoms than their counterpart

Methods

- Study design
  - A cross-sectional descriptive study was conducted
  - It was a part of needs assessment in the development of cardiovascular health promotion program for women

Methods

- Study participants
  - A convenient sample of 200 midlife women (35-65 years) was recruited.
  - From community health center and a branch office of the Planned Population Federation of Korea (PPFK)
    - Located in a single metropolitan area
  - Power analyses using the G*power 3.1 program
- Power analysis for multiple regression analysis
  - With 6 predictors; 98 participants were required
  - With a medium effect size (f^2 = 0.15) &
  - 80% power (a =.05).

Study Participants

- Eligibility criteria
  - Being female
  - Aged between 35 and 65 years
  - Able to read and understand the Korean language
  - Residing in the designated district

Methods

- Instruments
  - Socioeconomic characteristics
  - Lifestyle behavior
  - Biological characteristics
    - BMI (Kg/m^2)
    - Blood pressure
    - Cholesterol (total, HDL, LDL, TG)
    - Glucose
  - Beck Depression Inventory (BDI, Beck *et al.* 1996)
    - The Cronbach's alpha was .90 in the current study and .87 in a previous study (Shin 1999).

Methods

- Data collection
  - Self-report questionnaires were used.
  - Data collection was performed in 2007

- Data analysis
  - Descriptive statistics
    - Means, standard deviations
    - Frequencies, percentages.
  - Multiple regression analysis

Results

- Demographic characteristics
  - Mean age : 52.48 (SD = 8.82, range 35-65)
  - Family income
    - 67.2% had ≤ 1million won (below poverty level)
    - 1 million = US $1,000
  - Marital status
    - 38.5% were living without a spouse (single, separated, widowed, or divorced)
  - Education
    - 48.5% were middle or high-school graduates

Depressive Symptoms

BDI	n	%
Normal (0-9)	110	55.0
Mild (10-18)	54	27.0
Moderate (19-29)	24	12.0
Severe (≥ 30)	12	6.0

Depressive symptoms according to general characteristics

		M (SD)	t (p)
Education	≤ Middle school ≥ High school	11.20(9.93) 10.85(9.39)	0.254(.800)
Family income	≤ 1 million won > 1 million won	12.66(10.40) 6.57(4.71)	5.448(<.001)
Marital status	Married Widowed/divorced/ separated/single	8.44(7.60) 14.91(10.99)	4.921(<.001)
Health insurance	Medical-aid Health insurance	15.19(11.06) 8.07(7.03)	5.526(<.001)
Menopause	Yes No	12.00(10.06) 9.77(9.21)	-1.559(.121)

Results

- Factors associated with depressive symptoms
    - There were no significant correlation between depressive symptoms and cardiovascular risks (BP, glucose, total cholesterol, HDL, LDL cholesterol, & TG) (p > .05).
    - Lifestyle factors (smoking, alcohol, & exercise) were not significantly associated with depressive symptoms (p > .05).

Factors Associated with Depressive Symptoms

	ß	t	p
Age	-.125	-1.168	.244
Education (≥ high school)	.050	0.630	.530
Income (≥ 1 million won)	-.167	-1.991	.048
Marital status (not partnered)	.232	3.204	.002
Health insurance (medical-aid)	.208	2.689	.008
Menopause (no)			
Yes	.203	1.983	.049
Artificial	.108	1.500	.135

$R^2 = .233$, $F = 7.340$, $p < .001$

Discussion

- Health disparity exists in depressive symptoms according to socioeconomic status.

- Those without partner, low income, and medical-aid beneficiaries were more likely to exhibit depressive symptoms ($p < .05$).

Discussion

- Women with spontaneous menopause had more depressive symptoms than their counterpart.

- Cardiovascular disease risks and lifestyle behaviors were not significantly associated with depressive symptoms.

Conclusions

- The study results indicated that certain groups of midlife women (e.g., low income, divorced, menopause) were more vulnerable to depressive symptoms.

- Future development of interventions to promote mental health should target high risk groups of women with specific characteristics.

Implications

- Further international collaborative studies are needed to confirm the characteristics of midlife women that make them more vulnerable to depression.

Acknowledgement

Incheon bridge

Inha University, Incheon, Korea   University of Pennsylvania, PA, USA