Predictors of Functioning in Women with Fibromyalgia Syndrome (FMS)

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Fibromyalgia Syndrome (FMS)

- ◎ Characterized by chronic widespread pain, fatigue and sleep difficulties
- ◎ Estimated to affect 3 to 6 million Americans
- ◎ Occurs 6 to 8 times more often in women than men
- ◎ Cause is unknown, no preventive measures, medical treatment limited and often ineffective

Emerging Evidence

◎ Tends to follow a chronic, non-remitting course

◎ Generally 'invisible' symptoms

◎ FMS can have a substantial impact on functioning and subsequent disability

Purpose

- To examine predictors of social and role functioning (emotional role functioning, physical role functioning and employment) among women living with FMS

- Data from <u>baseline</u> surveys for participants in the randomized clinical trial of the "Lifestyle Counts" intervention study

"Lifestyle Counts"

- ◎ Theoretically and empirically based intervention to promote health and well-being of women with FMS
- ◎ Draws on construct of health within illness (Moch), health promotion theory (Pender), and self-efficacy theory (Bandura)
- ◎ Focus on promoting health within the context of living with a chronic condition of FMS

Verbrugge & Jette (1994)

◉ Pathology - presence or absence of disease

◉ Impairment - abnormalities or loss at the physiological, anatomical or mental level

◉ Functional Limitations - restriction or lack of ability to perform basic physical and mental actions

◉ Disability - difficulty doing activities in any domain of life from work to hobbies due to health problems

Questionnaire Battery

◎ Measures of demographic and illness-related variables

◎ Fibromyalgia Impact Questionnaire (FIQ)

◎ Health Promoting Lifestyle Behavior (HPLPII)

◎ Self-Rated Abilities for Health Practices

◎ Personal Resource Questionnaire

◎ Barriers to Health Promoting Behaviors

◎ CES-D

◎ SF-36 - Social, Emotional & Physical Role Functioning Subscales

Study Participants

- 197 women with physician-verified FMS
- Diagnosed for an average of 9.9 years
- Ranged in age from 24 to 74 years
  - Mean = 53.3 S.D. =9.5
  - 25 women (13%) were age 65 or older

Sample Characteristics

- Education
  - 92% have completed high school
  - 48% have completed college
- Race/Ethnicity
  - 81 % White
  - 15% Hispanic
  - 3.5% African American
- Marital Status
  - Married - 63%
  - Never Married - 6 %
  - Widowed/Divorced/Separated - 27%

Employment Status

- The majority (59%) were not currently employed
- Overall employment status
  - Full-time - 26%
  - Part-time - 15%
  - Full-time homemaker - 5%
  - Unemployed due to disability - 23%
  - Retired - 23%

Descriptive Findings

◎ Compared the mean scores of this sample of women with FMS on the SF36 Subscales to data reported for
  ◎ General US Population (N=2,474)
  ◎ Norms for Females Age 45-54 (N=193)
  ◎ Norms for Clinical Depression (N=502)
    ◎ Mean age 41.6   75% Female
  ◎ Norms for Back Pain/Sciatica with Hypertension (N=481)
    ◎ Mean age 60.4   64% Female
  ◎ Norms for Osteoarthritis with Hypertension (N=175)
    ◎ Mean age 67.8   74% Female

Social Functioning Subscale

◎ Mean Score for Women with FMS   46.57

◎ 85% of the general population had higher scores

	Mean	25th %	50th %
Women	82.71	50.00	65.00
Depression	57.16	25.00	40.00
Back Pain	81.48	75.00	87.50
Arthritis	79.74	62.50	100.00

Role Emotional Functioning

◎ Mean Score for Women with FMS   56.85

◎ 82% of the general population had higher scores

	Mean	25th %	50th %
Women	81.92	83.00	100.00
Depression	38.90	0.00	33.33
Back Pain	70.90	33.33	100.00
Arthritis	74.84	33.33	100.00

Role Physical Functioning

◎ Mean Score for Women with FMS   33.25

◎ 85% of the general population had higher scores

	Mean	25th %	50th %
Women	79.93	75.00	100.00
Depression	44.39	0.00	50.00
Back Pain	46.71	0.00	50.00
Arthritis	38.17	0.00	25.00

Analysis

- Stepwise Multiple Regression with the following predictors:
  - Age, Marital Status (married/not married), years of education
  - Length of Diagnosis
  - Fibromyalgia Impact Questionnaire
  - CESD
  - Measures of social support, barriers, health promoting behaviors and specific self-efficacy for health behaviors

◎ Logistic regression with the same variables to predict employment status (dichotomous)

Social Functioning

- $R^2 = .47$
- Significant predictors
  - Fibromyalgia Impact Beta= -.32
  - Depressive Symptoms Beta = -.275
  - Barriers Beta = -.21
  - Years of education Beta = -.12

Role Emotional Functioning

◉ $R^2 = .50$

◉ Significant predictors

  ◉ Depressive Symptoms Beta = -.55

  ◉ Fibromyalgia Impact Beta= -.23

  ◉ Age Beta = -.13

Role Physical Functioning

◎ R^2 = .48

◎ Significant predictors

  ◎ Fibromyalgia Impact Beta= -.59

  ◎ Barriers   Beta = -.14

Employment Status

◉ Age and fibromyalgia impact were the only significant predictors

Conclusions

- Disability (impaired role functioning) was a major problem in this group of women
- Social, Role-Emotional and Role Physical Functioning Scores were far below the US population

Role Physical Functioning

- ◉ Lower scores than all 4 comparison groups
- ◉ Similar scores to persons with rheumatoid arthritis

Role Emotional Functioning

- Lower scores than women age 45-54, persons with arthritis and persons with back pain/sciatica
- Slightly higher/better scores than persons with clinical depression

Social Functioning

◎ Lower scores than persons in all 4 comparison groups including those who were clinically depressed

Key Predictors

- Key predictors of functioning across domains included:
  - Fibromyalgia Impact
  - Depressive Symptoms
  - Barriers to Health Promoting Behaviors

Final Thoughts