PREVENTATIVE HEALTH CARE UTILIZATION AMONG MOTHERS WITH MENTAL HEALTH DISORDERS

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Goals and Objectives

**Presentation Goal**: to enhance nursing knowledge by exploring the process of child caregiving burden and its impact on preventative health care service utilization among a racially/ethnically diverse sample of mothers receiving services for mental disorders.

**Presentation Objectives**:

1) describe the child caregiving process among mothers with mental disorders;

2) describe child caregiving process variables as determinants of preventative health care service utilization among mothers with mental disorders;

3) identify strategies to increase preventative health care utilization among mothers with mental disorders who are confronted with caregiving burden.
Introduction

Mental Illness

Poor Self-Care

Underutilization of preventive healthcare services
Introduction

- Children’s health problems
- Mother’s Caregiving Burden
- Children’s mental health problems
- Mother’s Mental Health Problems
- Mother’s Self-Care
A multidimensional model of parental caregiving, and link between burden of childcare and health of mothers (Raina et al., 2004)
Background/Context
Mother’s Age
Education
Insurance Status

Child Char.
Poor Health
Externalizing
Internalizing

Family
# Children
Age of Children
Cohesion

Mother Mental Health
Depression
Anxiety

Caregiving Process
Parental Self-agency
Caregiving Burden

Mother Self-Care
Pap Smear
Physician Visit
Dentist Visit

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# Methods

## Design
- Secondary analysis of baseline data

## Sample
- 168 mothers with mental illness and their children from a randomized trial testing a family-strengthening home-health intervention

## Analysis plan
- Path Analysis (Mplus 7.4)
# Measures – Child and Family

<table>
<thead>
<tr>
<th>Measure</th>
<th>Response Scale</th>
<th>Chronbach's $\alpha$</th>
<th>Sample Item</th>
<th>Citation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child Health</td>
<td>5-Point Likert “Excellent” to “Poor”</td>
<td>$\alpha = .614$</td>
<td>In general, would you say your child’s health is:</td>
<td>Landgraf JM, Abetz L, Ware JE. Child Health Questionnaire (CHQ): A user's manual. Health Institute, New England Medical Center Boston; 1996</td>
</tr>
<tr>
<td>Child Internalizing Problems</td>
<td>3-Point Likert “Not True” to “Very True or Often True”</td>
<td>$\alpha = .886$</td>
<td>Cries a lot</td>
<td>Achenbach TM. Manual for the Child Behavior Checklist/4-18 and 1991 profile. Department of Psychiatry, University of Vermont Burlington, VT; 1991</td>
</tr>
<tr>
<td>Child Externalizing Problems</td>
<td>3-Point Likert “Not True” to “Very True or Often True”</td>
<td>$\alpha = .903$</td>
<td>Destroys his/her own things</td>
<td>Achenbach TM. Manual for the Child Behavior Checklist/4-18 and 1991 profile. Department of Psychiatry, University of Vermont Burlington, VT; 1991</td>
</tr>
<tr>
<td>Family Cohesion</td>
<td>Binary (True/False)</td>
<td>$\alpha = .697$</td>
<td>Family members really help and support one another.</td>
<td>Moos RH, Moos BS. Family environment scale manual. Consulting Psychologists Press; 1994</td>
</tr>
</tbody>
</table>
# Measures: Mother’s Mental Health & Caregiving Process

<table>
<thead>
<tr>
<th>Measure</th>
<th>Response Scale</th>
<th>Chronbach’s α</th>
<th>Sample Item</th>
<th>Citation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parenting Self-Agency Scores</td>
<td>5-Point Likert &quot;Almost Never or Never&quot; to &quot;Almost Always or Always&quot;</td>
<td>α = .781</td>
<td>I feel sure of myself as a parent.</td>
<td>Dunka LE, Stoerzinger HD, Jackson KM, Roosa MW. Examination of the cross-cultural and cross-language equivalence of the parenting self-agency measure. Family Relations. 1996:216-222</td>
</tr>
<tr>
<td>Caregiving Burden (higher scores = less burden)</td>
<td>4-Point Likert “Yes, limited a lot” to “No, not limited”</td>
<td>Limitations α = .785</td>
<td>Were you limited in the amount of time you had for your own needs because of your child's physical health; emotional well-being or behavior?</td>
<td>Landgraf JM, Abetz L, Ware JE. Child Health Questionnaire (CHQ): A user's manual. Health Institute, New England Medical Center Boston; 1996</td>
</tr>
</tbody>
</table>
# Measures – Mother’s Self Care

<table>
<thead>
<tr>
<th>Measure</th>
<th>Response Scale</th>
<th>Cronbach's $\alpha$</th>
<th>Sample Item</th>
<th>Citation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pap smear in the last 3 years</td>
<td>Date which was converted to binary</td>
<td>N/A</td>
<td>When did you have your last Pap Smear?</td>
<td>Measure developed by the study</td>
</tr>
<tr>
<td>Visited a physician last year</td>
<td>Date which was converted to binary</td>
<td>N/A</td>
<td>When was the last time you saw your doctor or healthcare provider?</td>
<td>Measure developed by the study</td>
</tr>
<tr>
<td>Saw a dentist in the last year</td>
<td>Binary (Yes/No)</td>
<td>N/A</td>
<td>Over the past five years, did you ever go to a dentist just to get a check-up?</td>
<td>Gilbert GH, Litaker MS. Validity of self-reported periodontal status in the Florida dental care study. Journal of periodontology. 2007;78(7S):1429-1438</td>
</tr>
</tbody>
</table>
# Results - Descriptives

## Description of Mothers (n=168)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean (SD) or n (%)</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td>35.6 (9.0)</td>
<td>18 to 56</td>
</tr>
<tr>
<td>Ethnicity (Hispanic)</td>
<td>133 (79%)</td>
<td>N/A</td>
</tr>
<tr>
<td>Years of Education</td>
<td>11.6 (3.7)</td>
<td>0 to 22</td>
</tr>
<tr>
<td>Medicaid</td>
<td>122 (73%)</td>
<td>N/A</td>
</tr>
<tr>
<td>No Insurance (Out of Pocket)</td>
<td>31 (19%)</td>
<td>N/A</td>
</tr>
</tbody>
</table>
# Description of Children

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean (SD) or n (%)</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child Health</td>
<td>3.8 (0.8)</td>
<td>1.2 to 5</td>
</tr>
<tr>
<td>Child Externalizing</td>
<td>10.6 (9.2)</td>
<td>0 to 43</td>
</tr>
<tr>
<td>Child Internalizing</td>
<td>12.3 (8.9)</td>
<td>0 to 41</td>
</tr>
</tbody>
</table>
## Description of Families

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean (SD) or n (%)</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family Income (&lt;$1,000/month)</td>
<td>79 (47%)</td>
<td>N/A</td>
</tr>
<tr>
<td>Number of Children under age 18</td>
<td>2.1 (1.3)</td>
<td>1 to 7</td>
</tr>
<tr>
<td>Number of Children age 18 and over</td>
<td>.4 (1.0)</td>
<td>0 to 8</td>
</tr>
<tr>
<td>Age of Children</td>
<td>7.6 (4.3)</td>
<td>0-17</td>
</tr>
<tr>
<td>Family Cohesion</td>
<td>6.7 (2.0)</td>
<td>0 to 9</td>
</tr>
</tbody>
</table>
## Results - Descriptives

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean (SD)</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mother’s Mental Health</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mother Anxiety</td>
<td>60.6 (12.7)</td>
<td>37.1 to 83.1</td>
</tr>
<tr>
<td>Mother Depression</td>
<td>56.2 (11.1)</td>
<td>38.2 to 81.3</td>
</tr>
<tr>
<td><strong>Caregiving Process</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parental Self-Agency</td>
<td>4.4 (0.7)</td>
<td>1.4 to 5</td>
</tr>
<tr>
<td>Caregiving Burden (high score = low burden)</td>
<td>3.5 (0.8)</td>
<td>1 to 4</td>
</tr>
</tbody>
</table>
## Results

### Mother’s Self-Care (n=168)

<table>
<thead>
<tr>
<th>Preventative Health</th>
<th>n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pap smear in the last 3 years</td>
<td>146 (87%)</td>
</tr>
<tr>
<td>Visited a physician (non-emergency) last year</td>
<td>144 (86%)</td>
</tr>
<tr>
<td>Saw a dentist in the last year</td>
<td>78 (46%)</td>
</tr>
</tbody>
</table>
Results – Predictors of Mothers’ Mental Health

- **Depression** ($R^2 = .31)$:
  - Family Income, $\beta = -.15$, $b = -2.70$, $SE = 1.27$, $p = .033$
  - Family Cohesion, $\beta = -.17$, $b = -0.78$, $SE = 0.32$, $p = .014$
  - Child Internalizing, $\beta = .26$, $b = 0.26$, $SE = 0.09$, $p = .001$

- **Anxiety** ($R^2 = .34)$:
  - Mother’s Age, $\beta = .20$, $b = 0.22$, $SE = 0.11$, $p = .045$
  - Child Internalizing, $\beta = .37$, $b = 0.42$, $SE = 0.10$, $p < .001$
Depression

Mother Mental Health:

Mother:
- Age
- Mental Health

Family:
- Family Cohesion
- Family Income

Child:
- Externalizing
- Internalizing

Mother Mental Health:
- Depression
- Anxiety

*p < .05. **p < .01. ***p < .001
• Caregiving Burden (higher scores = less burden) 
\( (R^2 = .46) \): 
  - Mother Age, \( \beta = -.23, b = -0.01, SE = 0.01, p = .029 \) 
  - Mother Education, \( \beta = -.16, b = -0.03, SE = 0.01, p = .018 \) 
  - Mother Depression, \( \beta = -.23, b = -0.02, SE = 0.01, p = .039 \) 
  - Child Health, \( \beta = .34, b = 0.33, SE = 0.07, p < .001 \) 
  - Child Externalizing, \( \beta = -.23, b = -0.02, SE = 0.01, p = .015 \) 
  - Child Internalizing, \( \beta = -.23, b = -0.02, SE = 0.01, p = .014 \) 
• Parenting Self-Agency (\( R^2 = .25 \)): 
  - Child Externalizing, \( \beta = -.35, b = -0.03, SE = 0.01, p < .001 \) 
  - Family Cohesion, \( \beta = -.28, b = 0.10, SE = 0.03, p < .001 \)
Caregiving Process:
- Depression
- Caregiving Burden
  (higher score = less burden)

Mother:
- Age
- Education
- Depression

Family:
- Cohesion
- Parenting Self-Agency

Child:
- Internalizing Problems
- Externalizing Problems
- Health

Mother Mental Health:
- Depression

*p < .05.  **p < .01.  ***p < .001
Results- Predictors of Mothers’ Self-Care

- **Pap Smear**
  - Mother Education, $b = -0.25$, $SE = 0.12$, $p = .031$, OR = 0.78
  - Mother Depression, $b = -0.18$, $SE = 0.06$, $p = .004$, OR = 0.84

- **Physician Visit**
  - Mother Education, $b = -0.27$, $SE = 0.12$, $p = .029$, OR = 0.76
  - Child Externalizing, $b = -0.10$, $SE = 0.04$, $p = .026$, OR = 0.91

- **Dentist Visit**
  - Mother No Insurance, $b = -2.16$, $SE = 0.79$, $p = .006$, OR = 0.12
  - Child Externalizing, $b = -0.07$, $SE = 0.03$, $p = .023$, OR = 0.93
Mother: Education
Mother: No Insurance
Mother Mental Health: Mother Depression
Child: Externalizing

Mother Self-Care: Pap Smear
Mother Self-Care: Doctor Visit
Mother Self-Care: Dentist Visit

-.24*
-.42**
-.40*
-.36*
-.41**
-.33*

*p < .05. **p < .01.
Mothers’ Mental Health

- **Depression** ($R^2 = .31$)
  - Income, $\beta = -0.15$, $b = -2.70$, $SE = 1.27$, $p = .033$
  - Internalizing, $\beta = 0.26$, $b = 0.26$, $SE = 0.09$, $p = .001$
  - Cohesion, $\beta = -0.17$, $b = -0.78$, $SE = 0.32$, $p = .014$

- **Anxiety** ($R^2 = .34$)
  - Age, $\beta = 0.20$, $b = 0.22$, $SE = 0.11$, $p = .045$
  - Internalizing, $\beta = 0.37$, $b = 0.42$, $SE = 0.10$, $p < .001$
Discussion

- Mother self-care for dental visit was sub-optimal and can have serious health consequences. Insurance was a factor but so was child behavior problems.

- Caring for children with physical and behavioral health problems adds caregiver burden

- Child externalizing problems are most associated with caregiver burden, a sense of low parental self-agency and suboptimal self-care for mothers
Implication

- Mental health service providers should assess the **demands** and **strains** associated with caring for children when treating women with mental disorders.
Limitations

- Cross-sectional design limits inferences regarding direction of relationships—e.g., the relationship between mother’s depression and child internalizing problems.

- Varied ages of children

Limitations with measures:
- Mothers may be reluctant to acknowledge caregiving burden
- Report of physician visit not clearly an indicator of preventative care
Interventions are needed to increase support and caregiving capacity for mothers with mental disorders, who are caring for children with physical and behavioral health problems so that mothers are not overburdened and can attend to their own health needs.
A family-based intervention that addresses physical and mental wellbeing of mothers with mental disorders and their children can be used to promote preventative health care utilization and improve physical wellbeing of this vulnerable population.