Do Symptoms of Depression Alter Older Adults' Perceptions of Health Care Access? A Link Between Depression and Non-Adherence

SCHOOL OF PHARMACY
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Introduction

Background

- Adherence to routine preventive healthcare recommendations and chronic disease medications can improve older adults' health outcomes.
- Psychological distress, such as depressive symptoms, is a consistent risk factor for non-adherence to a variety of health-promoting behaviors:
  - Medication adherence
  - Exercise/Nutrition regimens
  - Receipt of preventive care
- Mechanisms for this relationship are unknown, but could suggest possibilities for intervening to improve adherence in distressed older adults.
- Study purpose: Assess perceived barriers in access to care as one possible pathway linking psychological distress to poor adherence.

Research Questions

1. Are older adults with psychological distress less likely to adhere to recommended preventive care guidelines?
2. Do older adults with psychological distress perceive worse access to health care; controlling for objective access measures?
3. Are differences in adherence between distressed and non-distressed older adults explained (mediated) by differences in perceived access to care?

Methods

Sample Data

- 2003 wave of the Wisconsin Longitudinal Study (WLS). Sample of 5,465 community-dwelling older adults (ages 63-67) living in Wisconsin, followed since 1957.

Key Explanatory Variable

- **Psychological Distress**
  - Center for Epidemiologic Studies Depression Scale (CES-D)
    - "Distressed": CES-D of >15

Perceived Access "Mediators"

- **Access to care domains (Penchansky):**
  - Availability of providers
    - Perceived access to hospitals, ERs, mental health, specialists, primary care, pharmacies
  - Accommodation
    - Rating of hours of operation, information via phone, time in waiting room, time with provider
  - Affordability
    - Rating of amount paid out of pocket for medical services (poor to excellent)
  - Acceptability
    - Rating of trust in provider, shared decision making, provider honesty, provider attentiveness
- Instrument: Group Health Association of America Consumer Satisfaction Survey

Preventive Care "Outcomes"

- **Self-reported receipt of preventive care:**
  - Count of up to six recommended preventive services received:
    - Flu shot, cholesterol screen, colon cancer screen, annual checkup, blood pressure checked, dental checkup

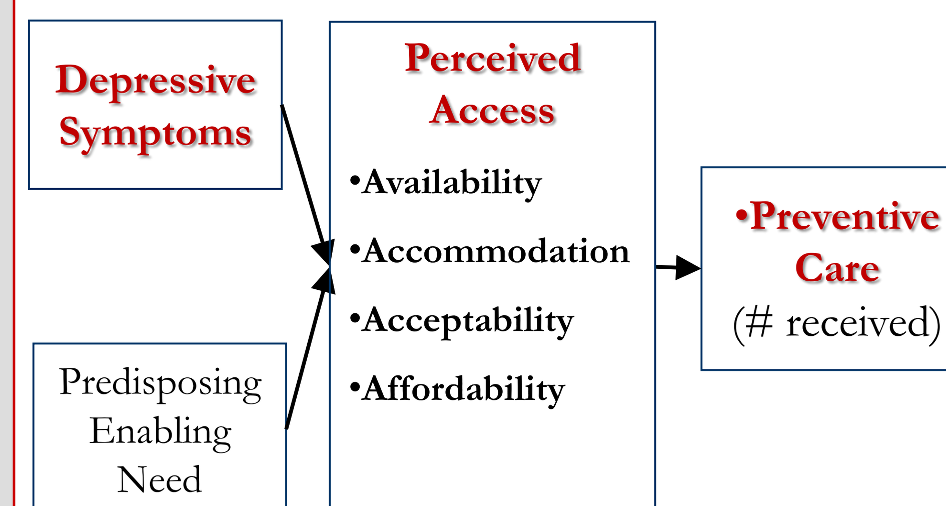
Methods (continued)

Control Variables

- **Andersen Behavioral Model**

Predisposing	Enabling	Need
Age	Insurance	# conditions
Sex	Financial Satisfaction	SF12 PCS
Education	Rurality	HUI Mark III
Married		

Conceptual Framework



Analysis

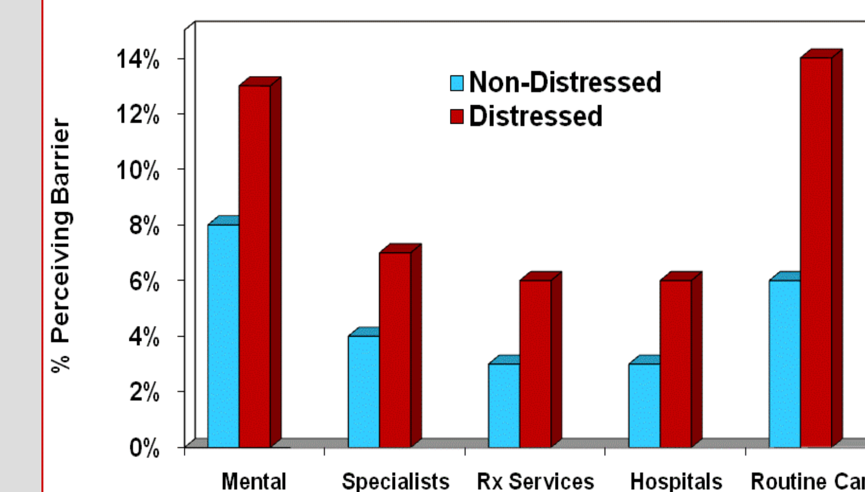
- Multivariate Path Analysis to test:
  - Q1: Total effects of distress on preventive care
  - Q2: Direct effect of distress on perceived access
  - Q3a: Overall mediated effect of distress via perceived access dimensions taken together
  - Q3b: Specific mediated effects of distress via each specific perceived access dimension
  - Q3c: Residual direct effect of distress on preventive care; i.e., effects of distress that do not pass through perceived access
- Mediated effects = product of coefficients (a*b)
  - 95% CI's calculated using bc-bootstrap
- Analyses were conducted using Mplus v5.0

Results

Selected Respondent Characteristics

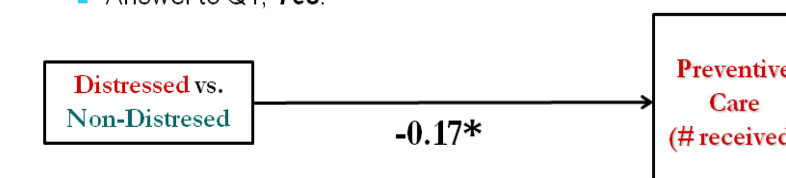
	Mean	SD	Range in Sample Min	Range in Sample Max
CES-D score,	8.5	7.6	0	53
% Distressed (CESD > 15)	15.1%		0	1
Age (years)	64	9	63	67
% Male	46		0	1
Education (years)	13.8	2.4	12	21
% Married	79.7		0	1
# comorbid conditions	1.9	1.8	0	14
Preventive Care (# received)	4.6	1.5	0	6

Results (descriptive) – % Reporting Barriers by Distress and Type of Service



Results (Question 1) – Are those in distress less likely to adhere to preventive care guidelines?

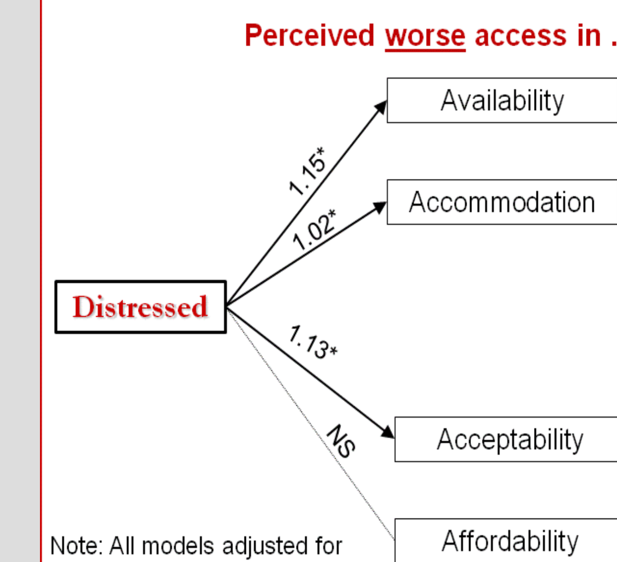
- Total (unadjusted) Effects of Psychological Distress on Receipt of Preventive Care
  - Answer to Q1, *Yes.*



- Distressed older adults received, on average, 0.14 *fewer* preventive care services compared to the non-distressed.

Results (Question 2) – Do older adults with psychological distress perceive worse access to health care?

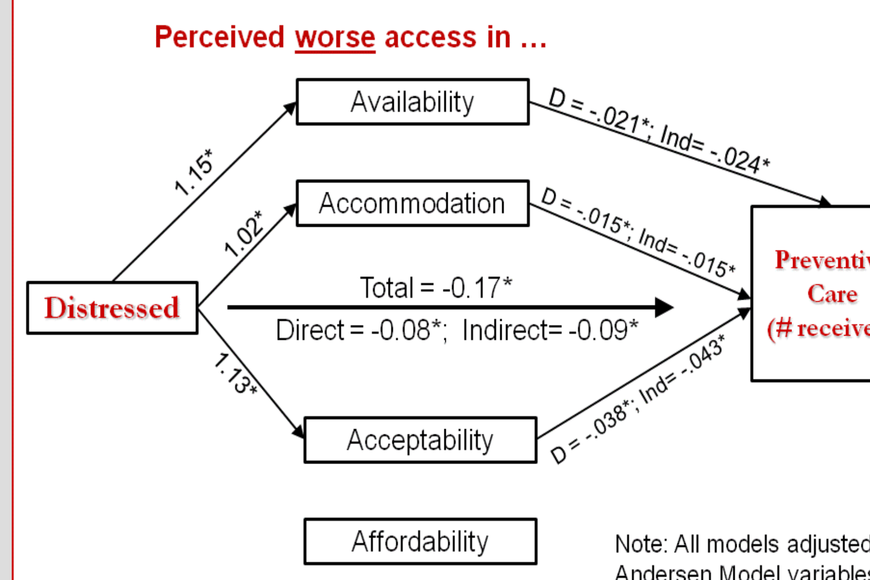
Perceived worse access in ...



Note: All models adjusted for Andersen Model variables

Results (Question 3) – Are differences between distressed/non-distressed explained (mediated) by differences in perceived access to care?

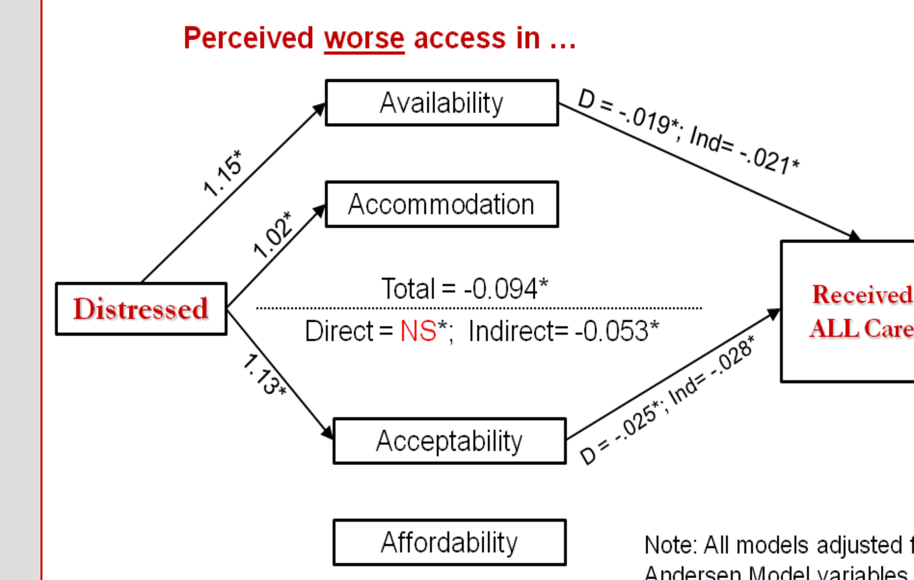
Perceived worse access in ...



Note: All models adjusted for Andersen Model variables

Results (Question 3 Supplemental) – Model predicting PERFECT adherence to recommended preventive care (i.e., all 6 services)

Perceived worse access in ...



Note: All models adjusted for Andersen Model variables

Discussion

Summary of Findings

- Q1: Older adults with high levels of psychological distress received significantly fewer recommended preventive care services.
- Q2: High levels of psychological distress were associated with greater dissatisfaction with:
  - Availability of healthcare providers
  - Accommodation: i.e., how well their provider's operation is organized to accommodate their own constraints and preferences.
  - Acceptability: i.e., cultural/trust barriers perceived by the older adult.
- Q3a: Taken together, perceived access variables significantly mediated the disparity.
  - Distress → poorer access → fewer P.C. services
- Q3b: Significant specific pathways via:
  - Availability, Accommodation, Acceptability
  - Affordability NOT a mediator
- Q3c: No significant residual direct effects.
  - Suggests perceived access may be the key link between distress and non-adherence

Limitations

- Cross-sectional: cannot determine causality
- Generalizability: results are based on cohort of Wisconsin high school graduates from 1957.

Conclusions

Older adults with depressive symptoms perceive greater challenges in accessing a range of health services.

Depressive symptoms, therefore, may negatively alter perceptions of access in older adults which, in turn, may result in poorer adherence to recommended health-promoting services and therapies.

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