

SELF-MANAGEMENT BURDEN AND DEPRESSION IN MULTI-MORBIDITY



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75 Year-Old Male Smoker with Type 2 Diabetes and COPD

- 5 medications
- Local muscle-strengthening exercise
- Limitations for alcohol consumption
- Weight loss
- Self-monitoring of blood sugar integrated with an educational program
- Smoking cessation medication
- Appropriate footwear for diabetes





Multi-morbidity (MM)

"The presence of 2+ chronic illnesses in an individual"

BMJ 2015;350:h176

Over half of adults >65 have 3+ comorbidities.

Multi-morbidity is challenging:

- Polypharmacy
- Increased self-management



Additive approaches to MM



- Most common approach to MM
 - Count of chronic conditions correlated with different outcomes
- But is it additive?
 - What is the impact of each disease on daily life?
- What contextual variables make MM even more challenging?

Burdensome multi-morbidity

Self-management burden

Every chronic illness adds to older adults' self-management burden

Depression ↑

Likelihood of depression in older adults increases with each additional chronic illness

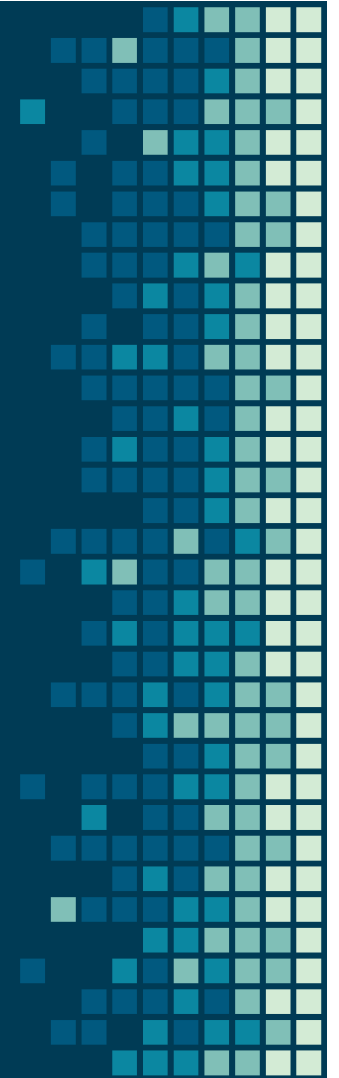
Burdensome MM

Is the burden of co-occurring illnesses high in self-management needs associated with depression?



AIM

To assess whether multiple illnesses with high self-management needs might explain increased depressive symptoms



STUDY DESIGN

- Secondary analyses
- RCT of 261 older adults with uncontrolled asthma
- Recruited from primary care clinics in New York City
- Cross-sectional data from baseline interview



MEASURES

Comorbidities

Have you ever been told by the doctor that you have any of the following conditions?

Burdensome MM

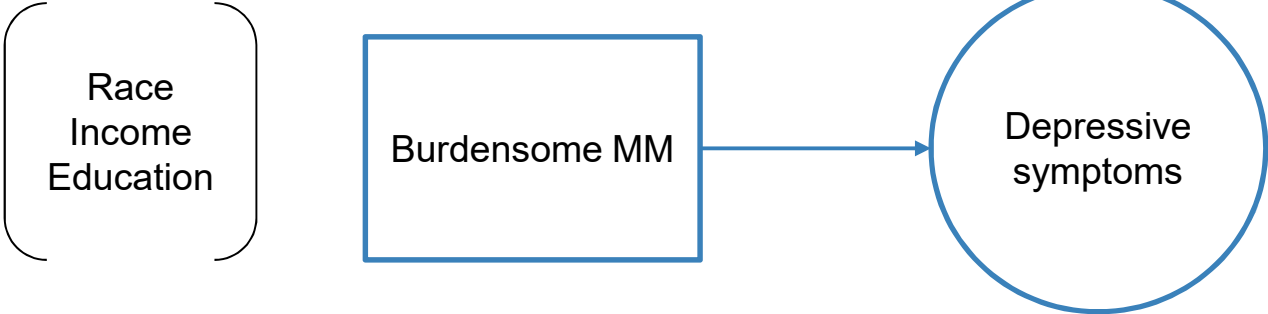
- Diabetes
- Hypertension
- Congestive heart failure
- (+ *asthma*)

Depressive symptoms

PROMIS SF8a assesses over past week.



STATISTICAL ANALYSES



SAMPLE CHARACTERISTICS

69

Mean Age

62%

High school or less

86%

Female

63%

Below NY state poverty line

92%

Black or Latino



SAMPLE COMORBIDITIES

Hypertension 83%

Diabetes 43%

Congestive Heart Failure 13%

39%
BURDENSOME
MULTI-
MORBIDITY



DEPRESSION

26%

Mild to severe depression

Based on cut-off score

(T scores > 55 indicate mild-severe depression)



RESULTS

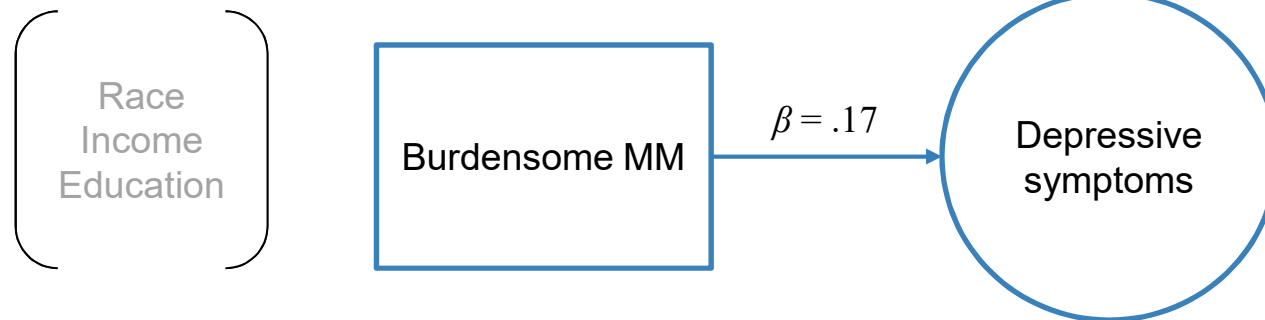
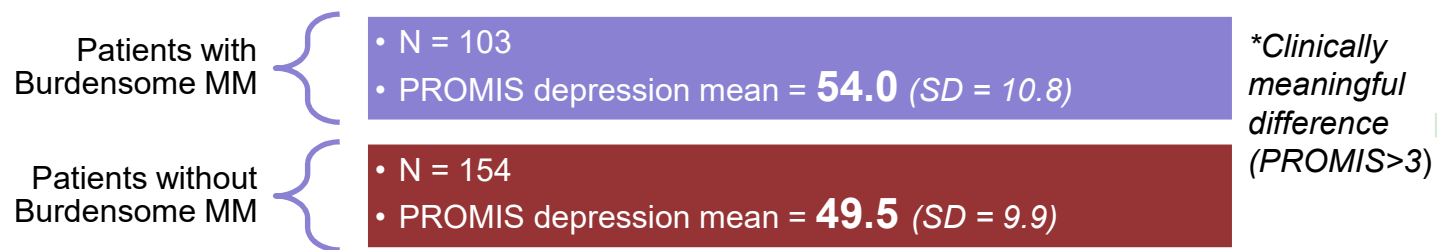
Patients who met criteria for mild to severe depression (vs no depression):

- Lower incomes
- Lower levels of education
- More likely Hispanic or Latino

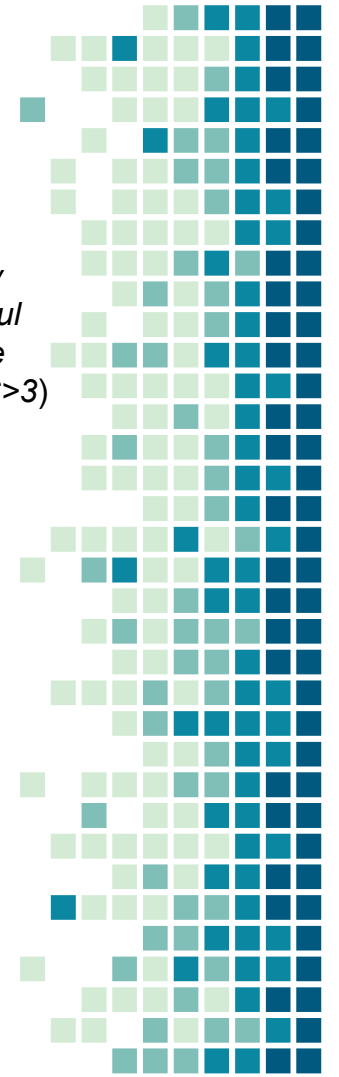
Age and gender did not differ by depression status



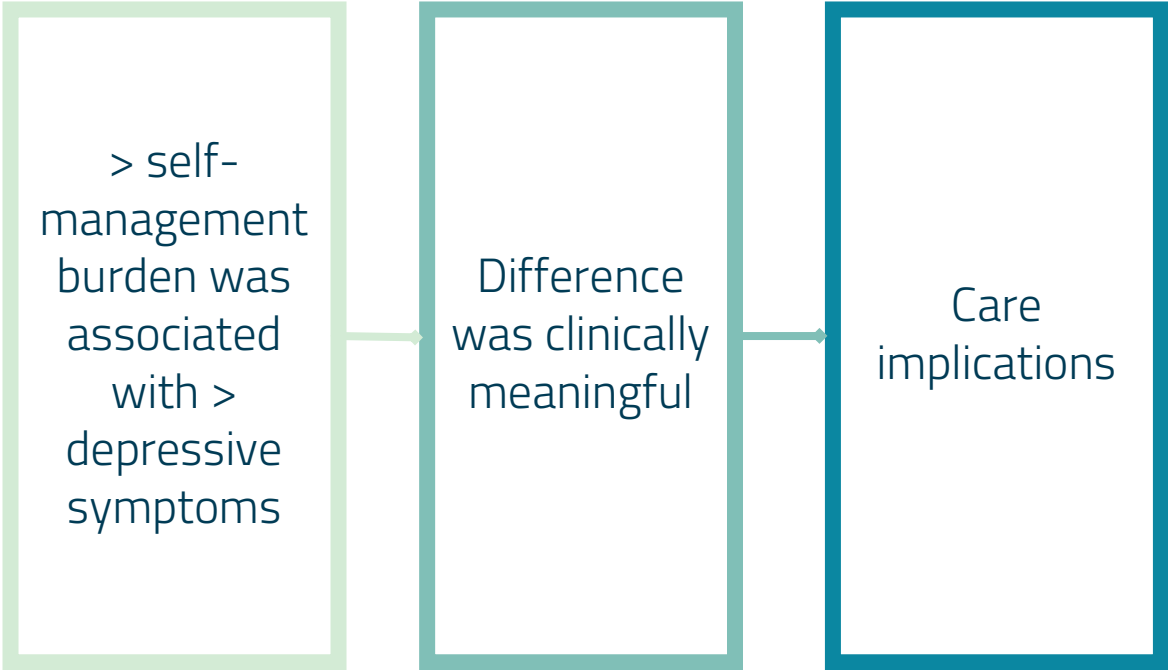
RESULTS



$(F(10, 224) = 3.58, p = .0002, R^2 = .143)$



CONCLUSIONS



Multi-morbidity > the sum of the diseases.

A better understanding of how psychological and social factors lead to worse outcomes for patients with MM is needed.



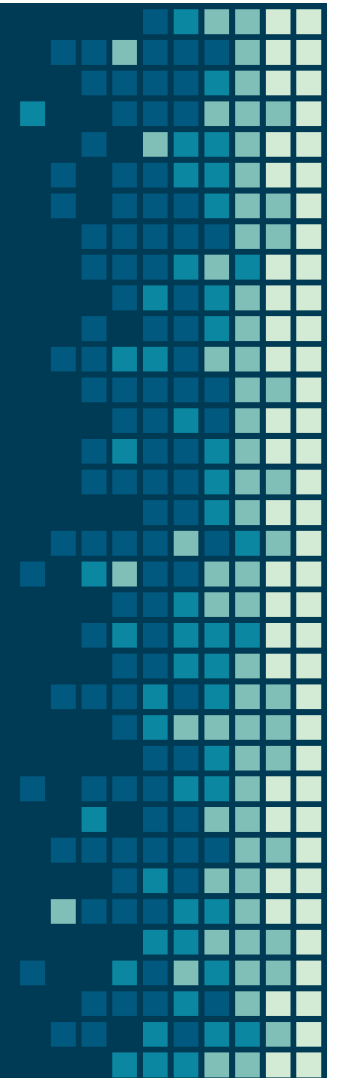
THANKS!

Any questions?



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RESULTS

	Depressed	Non-depressed
Race/Ethnicity (%)		
Hispanic	35.3	64.7
Black	16.9	83.1
White non-Hispanic	4.6	95.4
Asian/Other	0.0	100.0
Education (%)		
Less than High School	34.0	66.0
High School Graduate	21.8	78.2
Some College	25.5	74.5
College Graduate	12.2	87.8
Income (%)		
\$740 or less/month	36.0	64.0
\$741 - \$1,350/month	28.7	71.3
\$1,351 - \$3,000/month	14.8	85.2
\$3,000 or more/month	10.3	89.7

**p<.01
Chi-square test

Age and gender
did not differ by
depression
status



RESULTS

	N	PROMIS T score (M, SD)	<i>B</i> (standardized regression coefficient)	<i>p</i> (adjusted)
Patients with Burdensome MM	103	54.0 (10.8)	.17*	.0126
Patients without Burdensome MM	154	49.5 (9.9)		

Adjusted model: DepressionTscore = Burdensome MM + income + education + race

