

Depression: Moderating the Effects of Stress and Chronic Pain in Older Adults with Fibromyalgia

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WHAT WE LEARNED

Perceived stress and depression may be risk factors for decreased health outcomes among those with chronic pain

INTRODUCTION

- Fibromyalgia (FM) - a condition characterized by chronic widespread pain
- Older age associated with FM
- Higher level of stress predicts higher level of depression
- FM patients with depression often report more pain related issues
- Depression associated with stress level and chronic pain.
- Purpose: Examine how depression influences the relationship between perceived stress and chronic pain

METHOD

Measures

- Demographics (Age, Gender, Education)
- Perceived Stress Scale (Total)
- Beck Depression Inventory (Total)
- National Fibromyalgia Association Questionnaire
- Activities of Daily Living (Pain Interference)

Demographics (N = 94)

Characteristics	FM (N = 49)	Non-FM (N = 45)
% Female	45 (91.8%)	29 (64.4%)
% Caucasian	41 (83.7%)	38 (84.4%)
Education	<i>n (%)</i>	<i>n (%)</i>
Some College	16 (32.7%)	5 (11.1%)
College degree	17 (34.7%)	22 (48.9%)
Professional Degree	12 (24.5%)	16 (35.6%)
	Mean (SD)	Mean (SD)
BDI*	^a 15.72 (10.22)	4.78 (5.13)
PI	5.33 (2.11)	1.97 (1.96)
ADL*	3.27 (.95)	1.87 (.69)
PSS	21.61 (7.85)	^b 10.67 (7.37)

Note. FM = participants with Fibromyalgia; Non-FM = Participants without Fibromyalgia; BDI = Beck Depression Inventory; PI = Pain Index; ADL = Activities of Daily Living (Pain Interference); PSS = Perceived Stress Scale; SD = Standard Deviation.

^an = 45. ^bn = 42.

*p < .01.

RESULTS

- Hierarchical linear regressions to evaluate depression moderating perceived stress and chronic pain

	FM Group		Non-FM Group	
	Pain Index	Pain Interference	Pain Index	Pain Interference
2-Step Model	β	β	β	β
Step 1	N = 47	N = 47	N = 42	N = 42
Age	.122	.170	-.119	.024
Perceived Stress	.443	.610*	.363	.282
Depression	1.20*	1.24*	.730	.358
R ²	.223*	.230*	.125	.150
Step 2				
Stress x BDI	-1.07	-1.26*	-.690	-.203
ΔR^2	.052	.072*	.028	.002

*p < .05.

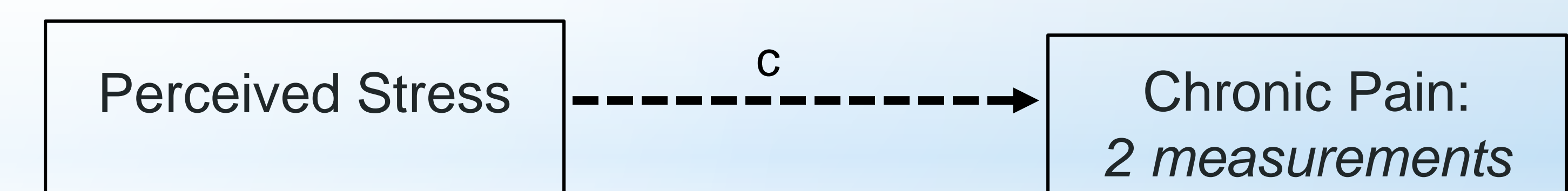
DISCUSSION

- In control group, stress and depression were not significant predictors, but were significant predictors for the FM groups on both pain measurements
- Depression moderated the relationship between stress and pain interference
- Depression did not moderate the relationship between stress and pain index
- No main effect with stress among those with FM
- When considering depression as a moderator, both depression and stress had main/direct effects

FUTURE DIRECTIONS

Moderation Model

Direct Pathway



Mediated Pathway

