The Contribution of Stigma on Depression Symptoms and Depression Status Among Individuals Living with Multiple Sclerosis

Presenter: Margaret Cadden, M.S.

Ph.D. Candidate at The Pennsylvania State University in Clinical Psychology

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Advisors and Co-Authors

Peter Arnett, Ph.D. - Professor of Psychology

Jonathan Cook, Ph.D. - Assistant Professor of Psychology



Disclosures

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Learning Objectives

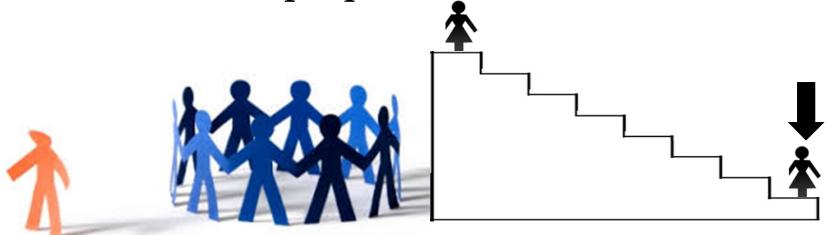
- Understand the impact of experiencing stigma on depression symptoms concurrently and over time.
- Understand for whom stigma has the largest effect on depression.
 - Important for identifying points of assessment and potential interventions.

What is Stigma?

- Social stigma is "a mark that designates the bearer as 'spoiled' and therefore as valued less than 'normal' people.¹"
- Stigma occurs when people with a given characteristic are seen as <u>separate from</u> and <u>lower in status</u> than others.²

What is Stigma?

• Social stigma is "a mark that designates the bearer as 'spoiled' and therefore as valued less than 'normal' people.¹"



Stigma as a Determinant of Health

- According to the NIH stigma is a social determinant of health.
- Discrimination and loss of status.
 - Limited access to important resources that directly impact health.³
- Proximal consequences linked to poorer health outcomes.⁴



FRAMING HEALTH MATTERS

Stigma as a Fundamental Cause of Population Health Inequalities

Mark L. Hatzenbuehler, PhD, Jo C. Phelan, PhD, and Bruce G. Link, PhD

Bodies of research pertaining to specific stigmatized statuses have typically developed in separate domains and have focused on single outcomes at 1 level of analysis, thereby obscuring the full significance of stigma as a fundamental driver of population health. Here we provide illustrative evidence on the health consequences of stigma and present a conceptual framework describing the psychological and structural pathways through which stigma influences health. Because of its pervasiveness, its disruption of multiple life domains (e.g., resources, social relationships, and coping behaviors), and its corrosive impact on the health of populations, stigma should be considered alongside the other major organizing concepts for research on social determinants of population health. (Am J Public Health. 2013;103:813–821. doi:10.2105/AJPH.

out."9(p370) However, because the overall stigma process incorporates several other elements, such as labeling and stereotyping, the stigma concept is broader than discrimination.¹⁰

STIGMA AS A FUNDAMENTAL CAUSE

Fundamental cause theory proposes that some social factors or circumstances remain persistently associated with health inequalities

Stigma and Depression

- A meta-analysis⁵ found that stigma negatively affects important aspects of mental health.
- Increasing stigma predicts greater depression in several populations:
 - Lung cancer patients.⁶
 - People living with HIV/AIDS.7
 - Individuals suffering from mental illness.⁸

Stigma and MS

- The majority of individuals with MS report experiencing stigma to some degree.¹¹
- Preliminary evidence suggests individuals living with MS who report relatively high levels of stigma are more likely to be depressed.¹²

Depression in MS

• The lifetime prevalence rate of depression in individuals living with MS is 50%.^{9,10}



Learning Objectives

- Understand the impact of experiencing stigma on depression symptoms concurrently and over time.
 - Symptoms (continuous).
 - Status (bivariate).
 - Depressed, not depressed.
- Understand for whom stigma has the largest effect on depression.
 - Examine psychosocial reserve as a moderator of the stigma-depression relationship.

Psychosocial Reserve

- Social stigma diminishes individuals' psychological resources and leaves them vulnerable to both physical and mental health decline.²
- Agency, social support, and a sense of belonging are fundamental components of mental health^{13,14} that have been found to buffer the deleterious effects of stress on depression.¹⁵

Psychosocial Reserve as a Buffer Against Stigma

• Interventions aimed at helping to bolster these core psychological needs may be effective if their absence is a contributing factor to depression in people with MS who experience stigma.

The Project

Procedure



- Large-scale survey of MS patients administered by the North American Research Committee on Multiple Sclerosis (NARCOMS).
 - □ >38,000 enrolled.
 - Each update survey yields about 8,000 responses.
- Voluntary registry for adults with MS to confidentially report on a wide range of health-related topics.
 - Demographically representative.
- The NARCOMS Registry is supported in part by the Consortium of Multiple Sclerosis Centers.

Timeline

Time 1

Stigma

Depression

Demographics

Spring 2013

Spring 2014

Time 2
Depression

Major Variables

- Stigma (T1)
 - 9 items assessing stigma.¹¹
 - 5-point scale from 1 (not at all true) to 5 (very true).

"I feel embarrassed about my speech or physical limitations"

"People who know that I have MS treat me differently"

- Depression (T1 & T2)
 - NARCOMS depression scale.
 - Dichotomized sample (depressed, not depressed) based on clinical criteria.¹⁶

Participants

- N = 5,329
- Gender
 - 78% Female
- Employment
 - 68% Unemployed
- Education
 - 33% H.S. Diploma or Less
 - 45% Associates/Technical/Bachelor's Degree
 - 23% Post Graduate Degree

Participants

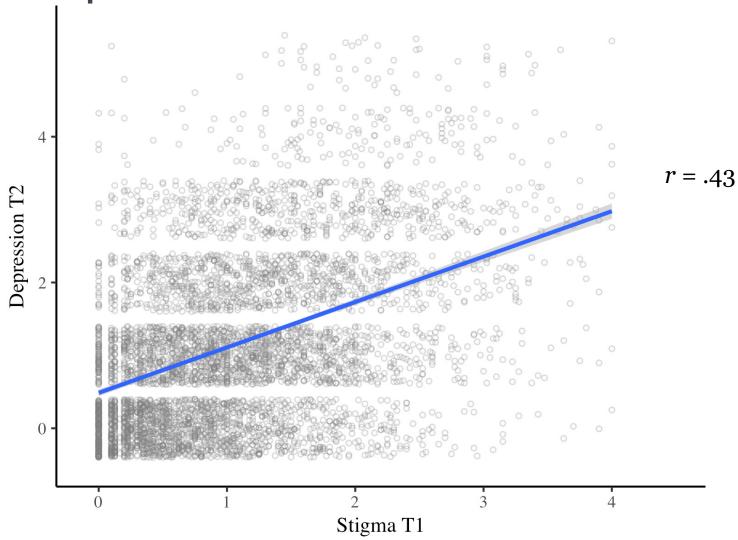
	Mean	SD
Age	58.3	10.2
Disease Duration	19.8	9.7
PDDS	3.6	2.4

Results

Bivariate Relationship between Stigma and Depression

- Stigma at T1 explains:
 - 21.4% of the variance in depression at T1.
 - 18.7% of the variance in depression at T2.

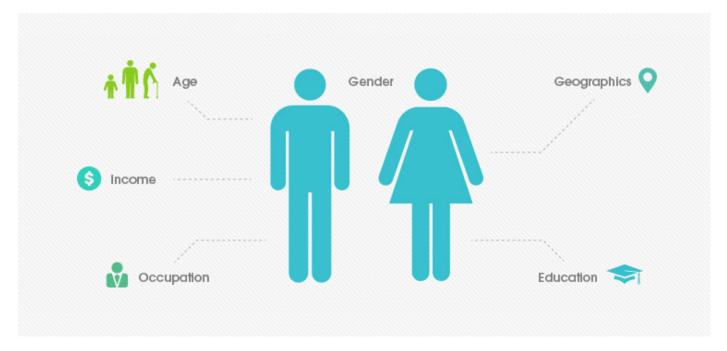
Bivariate Relationship between Stigma and Depression



Relationship between Stigma and Depression

- What about controlling for T1 depression?
- Level of stigma at T1 predicts a **change** in depression from T1 to T2 (R^2 =.022, p<.001).

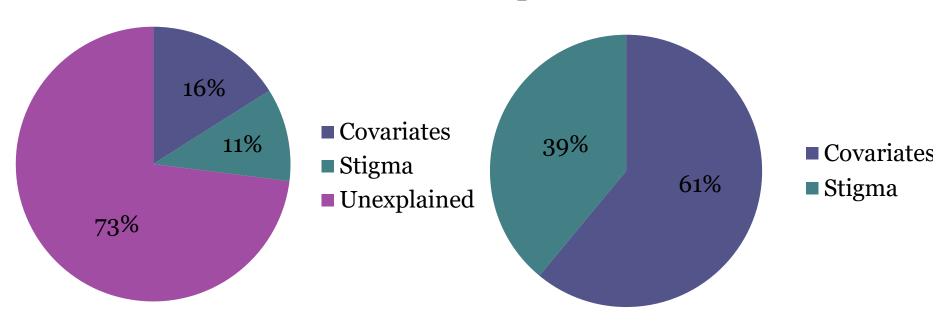
Covariates



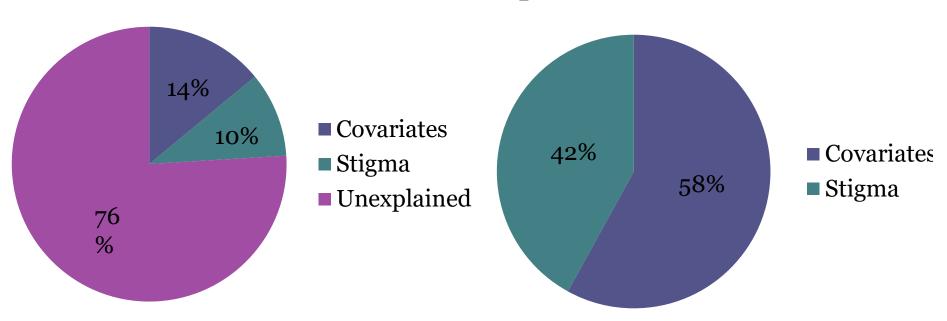
- Demographics
- Illness-related variables

- Resource-related variables
- Health-related variables

Variance in T₁ Depression



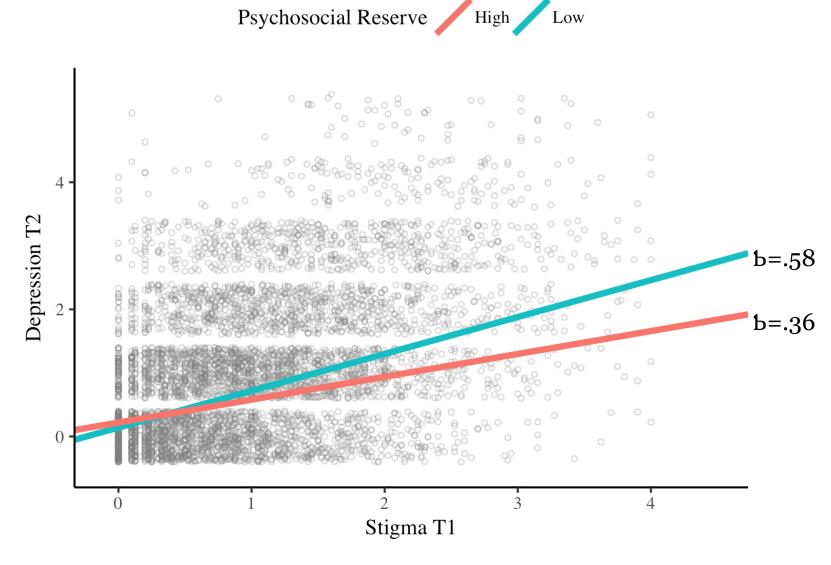
Variance in T2 Depression



• Stigma accounts for a comparable amount of variance as all the covariates examined combined.

- All of the previous analyses remain significant when examining depression status (depressed, not depressed).
- These analyses suggest that stigma contributes to clinically meaningful levels of depression and not simply to sub-clinical reports of low mood or distress.

Psychosocial Reserve as a Buffer Against Stigma



Overall Conclusions

- Stigma accounts for almost the same amount of variance in depression as all other demographic, illness related, resource related, and health related variables combined.
- Stigma can predict change in depression symptoms and depression status over a one year period.
- Psychosocial reserve moderates the stigma-depression relationship.

Clinical Implications

- **Stigma** is an important factor to consider when trying to understand the experience of individuals with MS.
- **Psychosocial reserve** is also an important factor to consider when trying to understand the experience of individuals with MS.
- Both are important for assessment and represent potential points of intervention.

Literature Cited

- 1. Dovidio, John F., Brenda Major, and Jennifer Crocker. "Stigma: Introduction and overview." (2000).
- Link, Bruce G., and Jo C. Phelan. "Conceptualizing stigma." *Annual review of Sociology* 27.1 (2001): 363-385.
- 3. Link, Bruce G., and Jo C. Phelan. "Stigma and its public health implications." *The Lancet* 367.9509 (2006): 528.
- 4. Hatzenbuehler, Mark L., Jo C. Phelan, and Bruce G. Link. "Stigma as a fundamental cause of population health inequalities." *American journal of public health* 103.5 (2013): 813-821.
- 5. Mak, Winnie WS, et al. "Meta-analysis of stigma and mental health." Social science & medicine 65.2 (2007): 245-261.
- 6. Cataldo, Janine K., Thierry M. Jahan, and Voranan L. Pongquan. "Lung cancer stigma, depression, and quality of life among ever and never smokers." *European Journal of Oncology Nursing* 16.3 (2012): 264-269.
- 7. Charles, Bimal, et al. "Association between stigma, depression and quality of life of people living with HIV/AIDS (PLHA) in South India—a community based cross sectional study." *BMC Public Health* 12.1 (2012): 463.
- 8. Pyne, Jeffrey M., et al. "Relationship between perceived stigma and depression severity." *The Journal of nervous and mental disease* 192.4 (2004): 278-283.
- 9. Patten, Scott B., and Luanne M. Metz. "Depression in multiple sclerosis." *Psychotherapy and psychosomatics* 66.6 (1997): 286-292.
- 10. Sadovnick, A. D., et al. "Depression and multiple sclerosis." *Neurology* 46.3 (1996): 628-632.
- 11. Cook, Jonathan E., Adriana L. Germano, and Gertraud Stadler. "An Exploratory Investigation of Social Stigma and Concealment in Patients with Multiple Sclerosis." *International journal of MS care* 18.2 (2016): 78-84.
- 12. Viner, Rebecca, et al. "Point prevalence and correlates of depression in a national community sample with multiple sclerosis." *General hospital psychiatry* 36.3 (2014): 352-354.
- Cohen, Sheldon, and Harry M. Hoberman. "Positive events and social supports as buffers of life change stress." *Journal of applied social psychology* 13.2 (1983): 99-125.
- Ryan, Richard M., and Edward L. Deci. "Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being." *American psychologist* 55.1 (2000): 68.
- 15. Choenarom, Chanokruthai, Reg Arthur Williams, and Bonnie M. Hagerty. "The role of sense of belonging and social support on stress and depression in individuals with depression." *Archives of psychiatric nursing* 19.1 (2005): 18-29.
- 16. Marrie, Ruth Ann, et al. "Validation of NARCOMS Depression Scale." International Journal of MS Care 10.3 (2008): 81-84.

• Thank you!

• Questions?