



# Influence of Patient Stigma on Depression Remission

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## Background

- Major depressive disorder (MDD) affects approximately 16% of the population during their lifetime and one-third of primary care patients
- Inadequately treated depression is associated with higher rates of disability and lower work productivity, accounting for an estimate loss of \$83.1 billion/year
- Reason for poor outcomes likely multi-factorial; one possible contributory factor is stigma
- Stigma commonly categorized into two subtypes:
  - Perceived public stigma (PPS) – belief that the public discriminates against an individual
  - Self-stigma (SS) – internalization of PPS resulting in devaluing and shame-filled thoughts
- Stigma may result in psychosocial distress, poor adherence, and early treatment discontinuation
- A better understanding of stigma in primary care will lead to targeted interventions to improve effective treatment outcomes

## Objectives

- Characterize stigma (prevalence and subtype) in a primary care population with MDD
- Determine the association between baseline stigma and depression remission
- Assess the change in stigma (by subtype) over time

## Methods

- Prospective cohort study of patients with depression treated in a new pharmacist-led collaborative care model (CCM) in two University-based primary care clinics
- Expedited IRB approval obtained

Inclusion Criteria	Exclusion Criteria
<ul style="list-style-type: none"> <li>Age ≥ 18 years</li> <li>Diagnosis of depression</li> <li>Followed for depression in Anschutz or Lowry Internal Medicine Clinic</li> <li>Referral to CCM by primary care provider</li> </ul>	<ul style="list-style-type: none"> <li>Psychotic symptoms</li> <li>History of a personality disorder</li> <li>History of bipolar disorder/manic episodes</li> </ul>

## Methods

- Assessments
  - Stigma Survey: plan to collect at baseline and one year
    - Modified survey by Kendra et al. to refer to “depression” instead of “psychological problems”
    - 14 question survey (7 questions assessing SS and PPS) each on a four-point Likert scale
  - Patient Health Questionnaire nine item scale (PHQ-9): plan to collect at baseline, after the acute treatment phase (12-16 weeks), and at one year
- Planned Outcome Measures
  - Characterization of stigma: mean SS and PPS subscale scores at baseline
  - Association between baseline stigma and depression remission (PHQ-9 <5)
  - Change in stigma: mean change in SS and PPS from baseline to one year
- Planned Statistical Analysis
  - Logistic regression, controlling for relevant clinical characteristics, will be used to determine the adjusted odds ratio for the effect of mean SS and PPS score (separately and combined) on depression remission (after acute phase and one year)
  - Two-sided *P* value <0.05 will be considered statistically significant

## Results to Date

**Table 1: Demographics and Baseline Characteristics**

Characteristic	Primary Care Depression Cohort (n = 5)
Age, mean ± (SD)	57.4 ± 14.2
Female, No. (%)	3 (60%)
Race, No. (%)	
White	3 (60%)
Black	1 (20%)
Unknown/other	1 (20%)
Insurance, No. (%)	
Commercial	2 (40%)
Medicare	3 (60%)
Hispanic, No. (%)	1 (20%)
MDD Diagnosis, No. (%)	4 (80%)
First Episode of depression, No. (%)	1 (20%)
Anxiety Disorder, No. (%)	4 (80%)
Modified Charlson Comorbidity Index Score (max score = 24), median (range)	1 (0-2)
PHQ-9 score at visit, median (25 <sup>th</sup> - 75% percentile)	7 (3-15)

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## Results to Date

**Table 2: Baseline Stigma Survey Responses (n = 5)**

	4	3	2	1	Mean ± SD	% Agree
<b>Q1. I feel ashamed of myself for having depression</b>						
	0	1	1	3	1.6 ± 0.9	20%
<b>Q2. I feel inferior to others who don't have depression</b>						
	0	1	2	2	1.8 ± 0.9	20%
<b>Q3. My self-confidence is NOT threatened by depression* (R)</b>						
	1	2	0	2	2.4 ± 1.3	40%
<b>Q4. Because I have depression, I cannot live a rewarding life*</b>						
	1	0	3	1	2.2 ± 1.1	20%
<b>Q5. I am disappointed in myself for having depression</b>						
	1	1	1	2	2.2 ± 1.3	40%
<b>Q6. I feel okay about myself for having depression* (R)</b>						
	2	2	1	0	3.2 ± 0.8	40%
<b>Q7. I feel depression is a personal shortcoming for me</b>						
	0	1	2	2	1.8 ± 0.8	20%
<b>Q8. Most people would treat a depressed person like anyone*</b>						
	1	1	1	2	2.2 ± 1.3	40%
<b>Q9. In general, others believe depression is a weakness*</b>						
	1	0	3	1	2.2 ± 1.1	20%
<b>Q10. In general, others think depressed people are unworthy*</b>						
	1	0	1	3	1.8 ± 1.3	20%
<b>Q11. It is advisable to hide from people s/he has depression*</b>						
	0	0	2	3	1.4 ± 0.6	0%
<b>Q12. Employers will hire a depressed person if qualified* (R)</b>						
	1	1	2	1	2.4 ± 1.1	60%
<b>Q13. In general, others respect people with depression (R)</b>						
	1	0	4	0	2.4 ± 0.9	60%
<b>Q14. Having depression carries social stigma</b>						
	2	0	2	1	2.6 ± 1.3	40%

\*Question paraphrased to fit on poster (R): indicates a reverse order question  
 Scoring: 4 = strongly agree, 3 = agree, 2 = disagree, 1 = strongly disagree

- Mean (SD) Subscale scores [max score each = 7]:**
  - SS: 3.8 (0.82) PPS: 3.8 (1.1)

## Discussion

- Limited baseline results
- 40% of primary care patients with depression believe it carries social stigma
- Similar baseline rates of SS and PPS
- Further data collection and analysis needed to draw conclusions