is illegal to post this copyrighted PDF on any website. A Prospective Study of Antidepressant Adherence

and Suicidal Ideation Among Adults

To the Editor: Previous studies¹⁻³ examining the link between antidepressant medication and suicidal ideation among youth have been inconclusive. Earlier studies demonstrated an association leading to the US Food and Drug Administration's black box warning,1 but more recent studies4 have suggested an inverse association, such that antidepressants may reduce suicide risk. Additionally, most studies² among adults suggest that antidepressants decrease suicidal ideation during the immediate period following initiation. Nevertheless, little research has examined long-term suicidal ideation associated with continued antidepressant therapy. It is not known whether risk varies by level of adherence or by the class of antidepressant medication. The current study examined whether antidepressant adherence was associated with a higher or lower likelihood of suicidal ideation among adults with depression.

Methods. This study included 344 patients with a clinical diagnosis of major depressive disorder (ICD-9 criteria) and no self-reported suicidal ideation at baseline. All patients received antidepressant treatment from clinical providers within a single, large health system and were members of the affiliated health plan. This membership allowed complete capture of health care utilization and pharmacy records. To ensure long-term medication use, patients were required to fill a prescription for a selective serotonin reuptake inhibitor (SSRI) or a serotonin-norepinephrine reuptake inhibitor (SNRI) before, during, and after the 1-year observation period.

Prospective surveys querying suicidal thoughts and depressive symptoms, using the 9-item Patient Health Questionnaire (PHQ-9),⁵ were administered at baseline and after 1 year of observation (March 2013 and March 2014, respectively). Suicidal thoughts were assessed via item 9 of the PHQ-9, which has been shown to predict suicidal behavior.⁶ An item 9 score ≥ 1 (self-harm thoughts for at

thoughts. Pharmacy claims were used to calculate a continuous measure of medication availability.7 Continuous measure of medication availability estimates adherence by using the total medication days' supply to determine the proportion of days that the medication could have been taken as directed. Logistic regression prospectively measured antidepressant adherence and suicidal ideation (yes-no), with adjustment for baseline depression severity and demographic factors. Analyses were stratified by class.

Results. Overall, 344 patients filled an antidepressant at all 3 required time points (ie, before, during, and after the 1-year observation time). This included 243 patients who filled an SSRI and 144 who filled an SNRI during each period, with 43 individuals filling prescriptions for both medication classes. Patient demographic characteristics are shown in Table 1. Baseline depression severity scores averaged approximately 7, indicating mild depressive symptoms. On average, patients were adherent to their antidepressant medication an estimated 85% of days. As shown in Table 1, greater adherence to antidepressants overall was associated with a lower likelihood of suicidal ideation at 1-year follow-up, even after adjustment (odds ratio [OR] = 0.61, P = .047). Adherence to SSRIs was also independently associated with a lower likelihood of suicidal ideation (OR = 0.52, P = .025), but the association did not persist for SNRIs (OR = 0.61, P = .140).

This prospective study suggests that adherence to antidepressants may prevent suicidal ideation in adults with major depressive disorder. While the magnitude and direction of association was similar for SNRIs, this subgroup analysis did not reach statistical significance, a likely result of the smaller sample size and lower power. Overall, our findings extend prior research indicating that short-term antidepressant treatment reduces suicidal ideation among adults.² This study also underscores the importance of adherence to long-term treatment for depression. However, physicians should consider the observational nature

Suicidal Ideation at 1-Year Follow-Up ^a							
Panel 1: Sample Characteristics	All, Combined SSRIs and SNRIs (n = 344)		SSRIs (n = 243)		SNRIs (n = 144)		
Female, n (%) (reference = male)	266 (77)		187 (78)		111 (7	111 (77)	
Black, n (%) (reference = white)	56 (16)		34 (14)		27 (19)		
Suicidal ideation at 1-year follow-up, n (%) (reference = no suicidal ideation at follow-up) ^b	19 (6)		15 (7)		8 (6)		
Age, mean ± SD, y	62.34±12.74		62.05±	62.05 ± 13.47 62.19 ±		1.60	
Continuous measure of medication availability, mean ± SD	0.85 ± 0.20		0.85 ± 0.20		0.85 ± 0.22		
Panel 2: Logistic Regression Analysis ^c	Unadjusted		Adju		djusted ^d		
	Odds Ratio (95% CI) P		C	Odds Ratio (95% CI)		Р	
SSRIs SNRIs	0.57 (0.34–0.96) 0.63 (0.34–1.18)	.033 .150		0.52 (0.29–0.92) 0.61 (0.32–1.18)		.025 .140	
All, complined SSKIS and SINKIS	0.63 (0.40-0.99)	.044		0.61 (0.:	38-0.99)	.047	

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^aAll odds ratios are calculated for an increase of 0.25.

^bAll, combined SSRIs and SNRIs: n = 321; SSRIs: n = 229; SNRIs: n = 133.

^cSSRIs: n = 243; SNRIs: n = 144; all, combined SSRIs and SNRIs: n = 344.

^dAdjusted for age, sex, race/ethnicity, and baseline depression severity.

Abbreviations: SNRI = serotonin-norepinephrine reuptake inhibitor, SSRI = selective serotonin reuptake inhibitor.

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experience when making treatment decisions. While our findings support a beneficial role for antidepressant therapy in reducing or preventing suicidal ideation in adults, additional research is needed to replicate the results.

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