Outcomes of Ending Self-Stigma, a Group Intervention to Reduce Internalized Stigma, Among Individuals With Serious Mental Illness

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Objective: Ending Self-Stigma is a nine-session group intervention designed to teach individuals experiencing mental illness a set of tools and strategies to effectively deal with self-stigma and its effects. The authors examined the efficacy of Ending Self-Stigma with an active comparison group focused on general health and wellness education (the Health and Wellness intervention) in a cohort of veterans.

Methods: Veterans with serious mental illness (N=248) were randomly assigned to either the Ending Self-Stigma or the Health and Wellness intervention. Participants completed assessments of symptoms, internalized stigma, recovery, sense of belonging, and other aspects of psychosocial functioning at baseline, posttreatment, and 6-month follow-up. Repeated-measures, mixed-effects models were used to examine the effects of group × time interactions on outcomes.

Results: Individuals in both groups experienced significant but modest reductions in self-stigma and increases in psychological

sense of belonging after the treatments. The Ending Self-Stigma and Health and Wellness interventions did not significantly differ in primary (self-stigma) or secondary (self-efficacy, sense of belonging, or recovery) outcomes at posttreatment. Significant psychotic symptoms moderated treatment effects on self-stigma, such that among individuals with significant psychotic symptoms at baseline, those who participated in Ending Self-Stigma had a significantly greater reduction in internalized stigma than those in the Health and Wellness intervention.

Conclusions: Interventions directly targeting self-stigma and those that may address it more indirectly may be helpful in reducing internalized stigma. Individuals experiencing psychotic symptoms may be more likely to benefit from interventions that specifically target self-stigma.

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Stigmatizing beliefs and attitudes about mental illnesses are prevalent in many communities, and exposure to stigma is common among veterans with serious mental illness (1). Stigma has been linked to numerous negative outcomes, including social isolation (1–3); reduced employment, housing, and educational opportunities (4, 5); discrimination (6); receipt of inadequate general and mental health care (7, 8); increased risk for victimization (9); and homelessness (10). Stigma may be particularly salient to veterans because military culture values strength, personal control, and the ability to respond to difficult situations quickly, effectively, and with little assistance (11, 12).

Although experiencing stigma and discrimination is clearly detrimental, people with mental illnesses undergo additional harm if they internalize stigmatizing assumptions and stereotypes. "Internalized stigma" or "self-stigma" refers to the process by which one cognitively or emotionally absorbs negative messages about mental illness and comes to believe and apply them to one's self (13–15). Internalized

stigma has been linked to many negative outcomes, including depression and demoralization (13, 15), decreased hope and

HIGHLIGHTS

- This randomized controlled trial with a cohort of veterans evaluated whether Ending Self-Stigma, a group intervention that seeks to decrease stigma and self-stigma, reduces internalized stigma and improves outcomes when compared with a health-and-wellness psychoeducational intervention.

- The Ending Self-Stigma and general health-and-wellness groups had significant but modest reductions in self-stigma and increases in sense of belonging but did not significantly differ in changes in internalized stigma, self-efficacy, sense of belonging, or perceived recovery.

- Among veterans experiencing significant psychotic symptoms, those who participated in Ending Self-Stigma had a significantly greater reduction in internalized stigma than those in the general health-and-wellness group.

self-esteem (16, 17), degraded persistence regarding illness management (13, 16, 17), and social avoidance (15, 18). These outcomes, in turn, can prevent individuals from pursuing and achieving personal recovery goals (18). Helping veterans with mental illness resist the internalization of stigmatizing messages and dilute or dislodge messages that already have been taken in can help protect against these impacts.

Several interventions aimed at helping individuals reduce internalization of stigmatizing beliefs have been developed (19–22). Many include psychoeducation to dispel misconceptions about mental illness, cognitive techniques to combat self-stigmatizing thoughts, reinforcement of personal strengths, and practical skills to avoid or address self-stigma (19). However, to date, only a handful of randomized controlled trials (RCTs) assessing their efficacy have been conducted (20).

Once such intervention is Ending Self-Stigma (23), a nine-session group intervention designed to teach individuals tools and strategies to deal with societal and self-stigma. Guided by the social-cognitive model of self-stigma (24, 25), Ending Self-Stigma uses psychoeducation, cognitive-behavioral techniques, and skill building. To date, a single RCT evaluating its efficacy (23) found that participation in Ending Self-Stigma resulted in significantly greater reductions in certain aspects of self-stigma (alienation, stereotype agreement, and self-concurrence) among adults with serious mental illness receiving community-based psychosocial rehabilitation services, but not others (social withdrawal), and a modest increase in perceived recovery, compared with treatment as usual.

The goal of this study was to conduct a large RCT to examine the efficacy of Ending Self-Stigma for reducing self-stigma. We expected that participation in this intervention would lead to a greater reduction in internalized stigma and a greater improvement in recovery-related outcomes (e.g., sense of belonging, self-efficacy, and recovery orientation) than participation in a health-and-wellness group and that these benefits would be sustained over time.

METHODS

Participants and Procedures

Participants were recruited from outpatient mental health programs and clinics at three U.S. Department of Veterans Affairs (VA) medical centers in the VA Capitol Health Care Integrated Service Network between October 2011 and May 2014. They were identified through clinician referrals, review of clinic rosters (via an approved partial HIPAA waiver), and recruitment flyers. Eligible veterans were ages 18–80 years; had a chart diagnosis of schizophrenia disorder, schizoaffective disorder, bipolar disorder, or major depression with psychotic features; and were receiving VA mental health services. Exclusion criteria included a documented history of severe or profound intellectual disability or previous receipt of the Ending Self-Stigma intervention. After being approached in person at a clinic appointment or via postal letter, interested and eligible individuals met with study staff, who explained all study details and obtained written informed consent.

Participants completed a 90-minute baseline assessment and comparable assessments at posttreatment and 6-month follow-up with a trained research assistant blinded to treatment assignment. Recruitment occurred in rounds of eight to 16, so each group contained four to eight participants after randomization immediately after the baseline assessment. Randomization occurred in blocks with random block sizes (1:1 allocation). The study statistician generated the assignment order within each block by using a random number generator. An a priori sample size calculation determined that the study needed to randomly assign 276 participants to detect a Cohen's d effect size (treatment condition difference) of 0.43 (α=0.02; power=0.80), accounting for 25% attrition, group effect (intraclass correlation coefficient= 0.05), and multiple testing. Toward the end of the study period, posttreatment assessment attrition was only 15%; thus, the necessary sample size was revised to N=235. The actual number of participants who were randomly assigned was N=249 (125 to the Ending Self-Stigma group and 124 to the Health and Wellness group). One participant assigned to Ending Self-Stigma was found to be ineligible after randomization and was withdrawn, leaving 124 participants in each group (total N=248) (see online online supplement). The study was approved by the institutional review boards of the University of Maryland School of Medicine and Washington D.C. VA Medical Center.

Interventions

Ending Self-Stigma is a nine-session, manualized group intervention that teaches individuals tools and strategies they can use to address stigma and self-stigma in their everyday lives. Sessions were held weekly for 75–90 minutes and conducted as a closed group led by one to two trained group leaders. Each session teaches and practices a different strategy for addressing self-stigma and its effects (cognitive-behavioral strategies, strengthening positive aspects of the self, increasing belonging in community and with family and friends, and responding to stigma) and consists of a lecture, sharing of personal experiences, exercises, group support, and problem solving. Participants identify ways to practice skills between sessions to promote real-life, personalized experience with strategies.

The control condition, the Health and Wellness intervention, consisted of nine sessions focused on providing education and support regarding management of general physical well-being. Developed locally, this intervention was designed to be psychoeducational and focused on common general health concerns, with no content related to stigma or self-stigma. Sessions were also held once a week for 75–90 minutes, with each session reviewing previous session content, presenting new educational content, and allowing for discussion. Each session focused on one health-and-wellness issue (e.g., physical activity, healthy eating, sleep, relaxation skills, substance use, and medication management).

Facilitators for both groups were trained in the interventions and supported via biweekly supervision sessions by the principal investigator. Facilitators included a master's-level clinician in psychology, two postdoctoral-level psychologists, one social worker, and a registered mental health nurse with previous experience conducting group therapy with individuals with serious mental illness.

Measures

Demographic information was obtained from participants at baseline. Psychiatric diagnosis was obtained from clinical charts. The total score of the Internalized Stigma of Mental Illness (ISMI) scale (15) and the four subscales (stereotype awareness, agreement, application to self, and harm to self-esteem) of the Self-Stigma of Mental Illness Scale (SSMIS) (24, 26) were used to measure internalized stigma. To assess other recovery-related outcomes, we used the Maryland Assessment of Recovery in Serious Mental Illness scale (27, 28), a 25-item self-report measure of recovery among people with serious mental illness; the two subscales of the Sense of Belonging Instrument (29, 30), psychological experiences of belonging and the antecedents to belonging, to measure aspects of perceived belongingness; and the General Self-Efficacy Scale (31), an eight-item measure of a person's beliefs or expectations about his or her capabilities. Self-reported psychiatric symptoms were measured with the Brief Symptom Inventory (BSI) (32, 33), a 53-item multidimensional self-report inventory designed to assess nine symptom dimensions and three global indices of psychiatric distress. Discussions about stigma and its effects during clinical services were measured with a questionnaire developed for this study in which participants were asked to indicate how often (never, less than once a month, once or twice a month, three or four times a month, or more than four times a month) mental health stigma or its effects were discussed during any clinical services received (individual, group, or family services) in the previous 3 months at each time point.

Data Analysis

Variable distributions were checked for outliers and potential errors and whether transformations were needed to meet model assumptions. To test whether Ending Self-Stigma reduced levels of internalized stigma from baseline to posttreatment and from baseline to the 6-month follow-up compared with Health and Wellness, we fit a repeated-measures, mixed-effects model to the total ISMI score (primary outcome). Intrasite correlation was modeled with a random site effect, and intraindividual correlations over repeated measures were estimated by specifying correlated error terms. Because of randomization, group means were specified to be equal at baseline (i.e., observed differences were assumed to be due to sampling error) (34). Analyses were performed with the intent-to-treat sample (i.e., all randomly assigned participants).

Next, changes in secondary outcomes (self-efficacy, recovery, and sense of belonging) from baseline to posttreatment, longer-term effects (6-month follow-up), changes in exploratory outcomes (SSMIS, depression, and psychotic symptoms), and the effects among participants who attended at least one class were examined with the same model as used for assessing the primary outcome. In exploratory analyses, we examined potential modifiers or subgroups that resulted in a differential intervention effect at posttreatment, including psychosis diagnosis (schizophrenia disorder, schizoaffective disorder, or major depression with psychotic features) vs. those without psychosis diagnosis (bipolar disorder), baseline internalized stigma (assessed with the ISMI scale) total score (≥2.0 vs. <2.0), and psychotic symptoms (BSI psychoticism subscale score ≥60 ["high"] vs. <60 ["not high"]) and whether attendance and average class size had effects on outcomes. To examine the effect or association of the above covariates with outcomes, we added to the main outcome analysis model the three-way interaction term (condition × time × modifier) and all two-way interaction terms with the modifier.

Finally, we analyzed variables regarding how much participants discussed stigma and internalized stigma in other therapies. First, we compared the Ending Self-Stigma group with the subgroup of Health and Wellness intervention participants who reported discussing internalized stigma less than once per month in individual, group, or family therapy sessions. Participants who did not receive one of these treatments were counted as not discussing internalized stigma for that treatment. Second, we used logistic mixed-effect models parallel to the main analysis model to examine whether treatment conditions had an effect on whether participants discussed internalized stigma once or more per month in individual and group therapy (as dichotomous outcomes) in the previous 3 months.

RESULTS

Sample

Most participants were men (87%); had a diagnosis of schizophrenia disorder (25%), schizoaffective disorder (26%), or bipolar disorder (42%); and had a mean±SD age of 53.4±9.2 years (Table 1). The participants' characteristics were similar for both interventions.

Group Attendance and Fidelity

Participants randomly assigned to Ending Self-Stigma attended 4.0±3.2 group sessions out of nine possible; 79% (N=98) attended at least one session, and 48% (N=59) attended five or more sessions. Those assigned to the Health and Wellness group attended 3.8±3.2 sessions each, and 43% (N=53) attended five or more sessions.

Twenty randomly sampled Ending Self-Stigma and 20 Health and Wellness sessions reflecting a variety of sessions during this study were rated by independent reviewers for facilitator adherence and competence. Each item was scored on a 3-point scale (0=unacceptable, 1=acceptable, 2=excellent). Scores were high for both the Ending Self-Stigma group, with a mean of 1.91±0.11 for adherence and 1.89±0.12 for competence, and the Health and Wellness group,

with a mean of 1.92±0.11 for adherence and 1.94±0.11 for competence.

Outcomes: Differences Between Groups

The Ending Self-Stigma and the Health and Wellness groups did not significantly differ in the mean change from baseline to posttreatment in the primary or in any of the secondary outcome variables (Table 2). These findings held even when comparing those who attended at least one class (N=98 [Ending Self-Stigma] vs. N=108 [Health and Wellness]). The two groups significantly differed in the SSMIS awareness subscale score, with those in the Health and Wellness group exhibiting significantly greater reductions in awareness of self-stigma from baseline to 6-month follow-up than those in the Ending Self-Stigma group. The two groups did not show any differences in the other exploratory outcome variables at posttreatment or 6-month follow-up.

An exploratory subgroup analyses revealed no significant main treatment effects among those with (or without) a psychotic diagnosis. However, high psychosis symptoms did significantly modify the treatment effect on the ISMI scale total score (t=−2.10, df=458, p=0.036). Among those with high baseline psychosis symptoms, the participants in the Ending Self-Stigma group experienced a greater reduction from baseline to posttreatment in the ISMI score than the participants in the Health and Wellness group. Average Ending Self-Stigma and Health and Wellness class size and changes in discussions of stigma were not associated with any treatment effects.

Outcomes: Overall Sample

We found no significant differences between the two groups, but the combined sample exhibited reductions from baseline to posttreatment on the ISMI scale total score (t= −2.42, df=658, p=0.016) and the SSMIS agreement (t=−2.95, df=653, p=0.003) and harm–to–self-esteem (t=−2.39, df=655, p=0.017) subscales. The scores on the subscale psychological experience of belonging (t=2.00, df=655, p=0.045) of the Sense of Belonging Instrument increased overall, but no significant changes were detected on the Maryland Assessment of Recovery in Serious Mental Illness scale and the General Self-Efficacy Scale. Results were similar when data from those who did not attend any sessions were removed from the analyses. Only the Health and Wellness group showed a significant decline in depressive (t=−2.31, df=408, p=0.02) and psychotic (t=−2.24, df=408, p=0.03) symptoms at posttreatment.

In general, these improvements in internalized stigma were maintained over time. Significant reductions in the combined sample were found from baseline to 6-month follow-up on the

TABLE 1. Demographic characteristics, stigma experiences, and psychiatric symptom severity of veterans with serious mental illness assigned to Ending Self-Stigma (ESS) or a health-and-wellness control group

Characteristic	All (N=248)		ESS (N=124)		Control (N=124)	
	N	%	N	%	N	%
Psychiatric diagnosis						
Bipolar disorder	103	42	50	40	53	43
Schizophrenia	63	25	28	23	35	28
Schizoaffective disorder	64	26	38	31	26	21
Major depressive disorder with psychotic features	18	7	8	7	10	8
Age (M±SD)	53.4±9.2		53.4±8.8		53.3±9.5	
Male	215	87	108	87	107	86
≥12 years of education	229	93	115	93	11	9
Race-ethnicity						
White	84	34	44	36	40	33
Black	141	58	67	55	74	60
Asian	3	1	2	2	1	1
Native American	3	1	1	1	0	0
Multiple racial-ethnic backgrounds	14	6	9	7	5	4
Hispanic	7	3	3	2	4	3
First received treatment for emotional or mental health condition (M±SD age in years)	29.5±12.1		28.6±11.4		30.3±12.6	
Brief Symptom Inventory global severity index (M±SD score)[a]	48.3±10.8		48.7±10.5		47.9±11.2	

[a] Possible scores range from 25 to 80, with higher scores indicating greater psychiatric symptoms. For some characteristics, data were missing for ≤2% of the total sample.

ISMI scale total score (t=−2.75, df=658, p=0.006) as well as the agreement (t=−2.48, df=653, p=0.013), application-to-self (t= −2.24, df=653, p=0.25), and harm–to–self-esteem (t=−0.26, df=655, p=0.011) SSMIS subscales. We observed significant reductions depression among participants in the Health and Wellness group (t=−2.96, df=408, p<0.01); in addition, we noted declines in psychotic symptoms in both the Health and Wellness (t=−3.75, df=408, p<0.001) and Ending Self-Stigma (t=−2.55, df=408, p=0.01) groups.

DISCUSSION

Participants in both groups experienced significant reductions in both self-stigma and increases in the sense of belonging. However, unlike a previous community-based trial of Ending Self-Stigma (23), we found no differences in self-stigma between those participating in the Ending Self-Stigma group and those in the Health and Wellness group. Several reasons may explain these divergent findings. The previous study compared Ending Self-Stigma with treatment as usual, whereas ours used an active comparison group controlling for nonspecific factors (e.g., mutual support and therapist contact). Although Health and Wellness did not include content related to stigma or self-stigma directly, it is possible that factors operating in both conditions (e.g., the opportunity to discuss issues and concerns, engage in interpersonal learning, and receive social support and peer

TABLE 2. Changes in outcomes among veterans with serious mental illness randomly assigned to Ending Self-Stigma (ESS) or a health-and-wellness control group at baseline, posttreatment, and 6-month follow-up

Measure	Baseline						Posttreatment									6-month follow-up								
	Total (N=248)		ESS (N=124)		Control (N=124)		Total (N=216)		ESS (N=106)		Control (N=110)		Difference in mean change[a]			Total (N=197)		ESS (N=94)		Control (N=103)		Difference in mean change[b]		
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	t	p		M	SD	M	SD	M	SD	t	p	
ISMI score (primary outcome)[c]	2.2	.4	2.2	.4	2.2	.4	2.1	.5	2.1	.4	2.1	.5	.72	.470		2.1	.4	2.1	.4	2.1	.5	–.08	.938	
SOBI score (secondary outcome)[d]																								
Psychological experience score	46.3	10.8	46.6	10.2	46.0	11.4	48.3	10.5	47.8	9.6	48.8	11.2	–1.89	.060		47.6	10.1	47.1	9.2	48.1	11.1	–1.86	.064	
Antecedents score	40.1	5.8	40.4	5.5	39.7	6.1	39.8	5.6	39.6	5.8	39.9	5.4	–1.01	.315		40.0	5.2	40.4	4.7	39.6	5.7	.38	.701	
GSES score (secondary outcome)[e]	3.5	.8	3.6	.7	3.5	.8	3.6	.7	3.6	.7	3.7	.7	–1.32	.186		3.6	.7	3.6	.7	3.6	.8	–.92	.356	
MARS score (secondary outcome)[f]	95.3	18.0	94.9	18.1	95.7	18.0	97.0	17.4	96.7	16.4	97.3	18.4	.37	.711		97.1	16.7	96.8	16.4	97.4	17.0	–.44	.659	
SSMIS score (exploratory outcome)[g]																								
Awareness	62.3	19.4	63.7	18.7	61.1	20.1	60.3	21.2	63.1	18.9	57.7	23.0	1.27	.204		59.1	20.4	62.9	18.7	54.9	21.4	2.88	.004	
Agreement	31.5	15.6	33.3	16.0	29.6	15.1	27.4	14.4	29.3	15.7	25.4	12.8	.49	.622		27.7	13.7	28.2	12.8	27.1	14.6	.36	.722	
Application to self	24.9	13.8	25.3	13.6	24.5	14.0	22.7	12.2	23.8	11.9	21.8	12.4	1.04	.300		21.9	11.9	22.4	12.2	21.4	11.6	.46	.647	
Harm to self	23.9	14.7	22.7	13.4	25.0	15.9	20.4	12.3	20.8	11.7	20.0	12.9	1.48	.139		20.3	12.3	19.2	10.9	21.5	13.7	–.45	.654	

a Change from baseline to posttreatment.
b Change from baseline to 6-month follow-up.
c ISMI, Internalized Stigma of Mental Illness scale. Possible scores range from 1 to 4. Cronbach's alphas for the ISMI total score (range=0.92–0.94) were excellent across all time points. The t statistics had 409 degrees of freedom.
d SOBI, Sense of Belonging Instrument. Possible scores range from 18 to 72 for the psychological experience subscale and from 14 to 56 for the antecedents subscale, with higher scores indicating greater sense of belonging. Cronbach's alphas for the psychological experience subscale (range=0.91–0.95) and the antecedents subscale (range=0.81–0.85) were excellent across all time points. The t statistics had 397 (psychological experience score) and 405 (antecedents score) degrees of freedom.
e GSES, General Self-Efficacy Scale. Possible scores range from 1 to 5, with higher scores indicating general self-efficacy. The t statistics had 409 degrees of freedom.
f MARS, Maryland Assessment of Recovery in Serious Mental Illness scale. Possible scores range from 25 to 125, with higher scores indicating greater recovery. The t statistics had 409 degrees of freedom.
g SSMIS, Self-Stigma of Mental Illness Scale. Possible scores range from 10 to 90, with higher scores indicating self-stigma. Cronbach's alphas for the awareness (range=0.92–0.94), agreement (range=0.87–0.88), application-to-self (range=0.83–0.85), and harm–to–self (range=0.87–0.88) subscales were excellent across all time points. The t statistics had 405 (awareness score), 404 (agreement and application to self scores), and 406 (harm to self score) degrees of freedom.

validation) may have reduced feelings of alienation, one of the most salient aspects of self-stigma (35, 36). Similarly, being in a group with others with similar experiences and struggles, noted as a benefit by participants, may have helped participants in both groups feel less alone and more connected, which, in some cases, led to opportunities for social interaction outside the group. Unfortunately, we did not collect data on these factors and, consequently, are unable to examine the extent to which common elements, factors unique to each intervention, or both contributed to self-stigma reductions.

More broadly, the recovery-oriented nature of the VA mental health system and the widespread availability of VA services embodying recovery principles also may have contributed to the self-stigma reduction across the entire sample. By promoting recovery broadly through hope, optimism, self-efficacy, and personal growth (37), the VA programs may have counteracted self-stigmatizing messages, leading to reductions in self-stigma. In addition, although no available VA services were specifically focused on self-stigma, several participants in both interventions reported having stigma-related discussions with providers and in groups both before and during study participation. We do not know the nature of those discussions or how actively stigma or self-stigma was addressed, but this factor may have contributed to declines in self-stigma across the study sample. It is also possible that changes in self-stigma were driven by

improvements in depression, which may or may not be directly related to group participation. Determining whether these changes are interrelated or whether the relationship differed between groups would require inclusion of a non-intervention comparison group.

Additionally, limited attendance may have minimized the effect of the Ending Self-Stigma intervention. On average, participants in both groups attended about half of the sessions. Thus, many participants in Ending Self-Stigma had little opportunity to learn the skills and strategies taught in its curriculum. Exposure to a certain amount of the intervention content may be necessary to incur benefits beyond any common therapeutic factors, particularly because it is a low-intensity intervention in which each session builds on previous ones.

Of note, we found that individuals with significant psychotic symptoms had greater reductions in internalized stigma after participating in Ending Self-Stigma than participants with similar symptoms in the Health and Wellness intervention. Societal stigma and self-stigma may be more immediately salient for these individuals because psychotic symptoms are often associated with common stereotypes about mental illness and because individuals with psychosis often have experiences (e.g., hallucinations) or engage in behaviors (e.g., discussing unusual beliefs) that increase others' awareness of their symptoms. Consequently, they may experience or anticipate greater stigma and be more likely to internalize stereotypes associated with mental illness, making addressing stigmatizing beliefs more immediately relevant and Ending Self-Stigma's impact potentially more powerful. However, this examination was exploratory and, therefore, should be interpreted with caution. Because the BSI measures self-reported symptoms, this relationship could also reflect greater awareness of one's symptoms, facilitating a better intervention response.

Although participants in the two groups did not differ in stigma awareness immediately after the treatments, participants in Health and Wellness had a significant reduction in stigma awareness at the 6-month follow-up. Participants in this intervention may have been sensitized to stigma initially because of the study, but over time this sensitivity may have subsided. Also, Ending Self-Stigma participation may have served to maintain awareness of stigma and its effects. Models of self-stigma suggest that awareness of stigma is important to one's ability to effectively address stigma and avoid self-stigma (24, 25). Without awareness, individuals may not realize when aspects of stigma or self-stigma are contributing to a negative self-concept, making improvement more difficult (24, 25). Finally, the fact that self-stigma declined even though awareness of stigma did not suggests that continued awareness of stereotypes and stigma did not negatively affect Ending Self-Stigma participants.

CONCLUSIONS

Multiple interventions may help assist veterans with serious mental illness in reducing self-stigma. Individuals experiencing significant psychotic symptoms may be more likely to benefit from interventions specifically focused on self-stigma. Additional research is needed to better understand the impact of these interventions on self-stigma and when and for whom targeted interventions would be most beneficial.

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