Effect of a narrative intervention on individual-level abortion stigma: a randomised controlled trial

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ABSTRACT

Objective To evaluate the effect of a narrative intervention on individual-level abortion stigma in patients undergoing abortion.

Study design This randomised controlled trial examined individual-level abortion stigma and psychological distress among patients undergoing outpatient abortion. Patients were randomised to a narrative intervention verus usual care. The intervention consisted of viewing a digital narrative and responding to a writing prompt. Abortion stigma was measured using the Individual Level Abortion Stigma Scale (ILAS) and psychological distress was assessed with a modified Profile of Mood States-Short Form (POMS-SF) at baseline and after 2 weeks. The primary outcome compared change in ILAS score from baseline to follow-up between groups. The secondary outcome compared change in the modified POMS-SF score.

Results We randomised 215 participants. Baseline characteristics were similar between groups. Overall baseline stigma scores were low. The study groups did not differ significantly in the primary ILAS outcome (mean change=0.07 in both groups with score range 0 to 3.5, 95% CI -0.11 to 0.11, p=0.98). There was also no significant difference in the secondary modified POMS-SF outcome (mean change –0.64 for the intervention group and –0.65 for the control group with score range –8 to 8, 95% CI -1.10 to 1.12, p=0.98). Black participants, comprising the majority, demonstrated lower levels of individual-level abortion stigma and psychological distress at baseline than participants identifying with any other race (mean baseline ILAS score of 0.70 vs 1.00 and mean modified POMS-SF score of –3.00 vs –1.45, 95% CI 0.12 to 0.46 and 95% CI 0.28 to 2.01, p=0.001 and p=0.02, respectively).

Conclusions Patients who participated in a narrative intervention did not score lower on an individual-level abortion stigma scale compared with a control group at 2-week follow-up.

Key messages

- Abortion stigma is pervasive and can elicit negative psychological responses among patients seeking abortion. Few intervention studies have specifically addressed individual-level abortion stigma.
- This study investigated whether a narrative intervention affected individual-level abortion stigma among abortion patients. Baseline abortion stigma was lower than expected in the population studied.
- The results of this study build on prior literature on abortion stigma and might assist future investigators testing novel interventions targeting individual-level abortion stigma or developing new instruments to measure stigma.

Demographic characteristics may predict levels of individual-level abortion stigma and psychological distress among patients seeking abortion.

INTRODUCTION

Almost one million abortions occur annually in the United States.[1] Despite its frequency, a majority of Americans stigmatise abortion,[2] meaning that they intentionally or unintentionally contribute to a "shared understanding" that abortion is morally wrong.[3] This stigmatisation results in the "prevalence paradox", which refers to the way that abortion is socially marked as deviant despite being a common procedure.[4] While abortion itself does not appear to cause mental health problems,[5 6] abortion stigma can have negative manifestations, for example, psychological distress born from secrecy, or medical

complications from unsafe abortion resulting from legal constraints. These negative outcomes underscore the need to address abortion stigma.[7–9]

Individual-level abortion stigma refers to how abortion patients internalise societal stigma, experience it as guilt and shame, and navigate their environments in response to expectations about how that stigma might materialise in their communities.[10] This type of stigma can lead to thought suppression, perceived need for secrecy, and poor social support, which in turn can result in negative psychological responses,[6 8 11] and ultimately psychological distress.[7] Few studies have empirically evaluated interventions aimed at mitigating individual-level abortion stigma and resultant psychological outcomes.

Prior studies demonstrate that discussion of abortion narratives in a group setting can reduce stigma both for people who have had abortions and those who have not.[11 12] For those who have had abortions, acceptance of the experience and disclosure of it to others can be powerful and validating.[10–13] Given the social and political consequences of discussing abortion publicly, there is a need for interventions that can be conducted privately. Patients can currently access online forums where patients who have had abortions relate their experience. The rationale behind these sites is that the experience of reading others' stories normalises, and perhaps destigmatises, abortion.[14] However, the idea that reading, hearing or constructing a narrative reduces individual-level abortion stigma has not been formally tested.

Mental health stigma research emphasises the importance of identity validation and demonstrates that cognitive restructuring and reconstructing one's personal narrative can both improve general coping skills and specifically address individual-level stigma, also referred to as self-stigma or internalised stigma in that literature.[15–17] Thus, narrative itself can be used as a medical intervention.[18 19] Cognitive therapy uses expressive writing to identify and alter negative thought patterns,[20] and narrative enhancement and cognitive therapy uses cognitive and narrative therapy to replace stigmatising views, improve self-esteem and reduce self-stigma.[15 21] Studies on mental health after abortion similarly demonstrate that accepting the reality of the abortion experience and framing it in positive terms predicts improved adjustment after abortion.[22] We hypothesised that a narrative intervention might decrease individual-level abortion stigma. Our primary objective of this study was to test whether a narrative intervention, which included viewing a digital narrative and responding to a writing prompt, improved scores on a scale measuring individual-level abortion stigma among patients undergoing abortion.

METHODS

This study was a two-arm randomised controlled trial conducted at a midwestern reproductive health facility. The protocol was registered at www.clinicaltrials.gov and approved by the Institutional Review Board at the University of Chicago prior to participant enrollment. Inclusion criteria included being 18 years of age or older, undergoing medical or surgical abortion (gestational age limit at this clinic was 20 weeks after last menstrual period) and having access to a telephone or email for follow-up. Exclusion criteria included non-English speaking and having less than a fifth-grade education. All participants provided written informed consent prior to any data collection or study procedures. Baseline information was collected from the electronic medical record. We did not collect any patient data besides what was provided at clinic registration.

An independent biostatistician electronically generated a 1:1 randomisation scheme, and a researcher not involved in the study prepared sequentially numbered, opaque, sealed envelopes that were used to assign participants to a study group as they were enrolled. Participants were not blinded to study group; however, they were not told the specific aim of the study, only that their feelings at the time of abortion would be assessed.

Participants randomised to the intervention group underwent the two-part narrative intervention in a private room in the clinic waiting area before the abortion procedure. Study staff helped participants navigate the intervention, for example, by providing earphones or starting the video, but did not provide instruction. The first part of the intervention promoted cognitive restructuring and aimed to normalise the abortion experience through viewing a digital narrative. The research team, assisted by a creative writing consultant, developed the narrative, which used published statistics on regional abortion care, informal interviews with patients undergoing abortions at our study clinic, and qualitative data about abortion patients' sources of support at another large, local abortion site[23] to inform the narrative script. Experts in digital storytelling from the the University of Chicago then animated the narrative. The approximately 4-min long animation depicted a young patient of colour ruminating about the decision to have an abortion and an encounter with an aunt, who understood and supported the decision (see online supplemental file 1). Participants were then asked to compose a narrative in response to the prompt: "Patients have different thoughts and feelings about their experiences when they have this procedure. Tell a story (about yourself or someone else, real or imaginary) that might help another patient feel supported" Participants had unlimited time and could write their response on a computer or paper or dictate it for transcription by research staff. Participants randomised to the control arm received regular care in the abortion clinic.

The primary study outcome was the difference in mean stigma score on the Individual Level

Abortion Stigma Scale (ILAS)[24] from baseline to 2-week follow-up for the intervention versus control groups. The secondary outcome was the difference in score on a modified version of the Profile of Mood States-Short Form (POMS-SF)[25 26] between groups from baseline to 2-week follow-up. Both instruments were administered prior to the intervention and/or abortion procedure. The ILAS is a 20-item instrument that measures overall individual-level abortion stigma. It contains four subscales termed worries about judgement, isolation, self-judgement, and community condemnation. In addition to analysing the change in overall mean stigma score on the ILAS, we also examined change in each subscale. On the full ILAS scale and its subscales, a lower mean score indicates a lower level of stigma, and possible scores range from 0 to 3.5. The POMS-SF is an instrument that measures psychological distress. While not developed specifically for abortion patients, it has been validated in diverse populations of patients both with and without mental or physical illness.[26] The 37-item questionnaire has seven subscales,[25 26] and the instrument and subscales have high internal consistency across a variety of patient samples.[27] To decrease participant burden, we selected four of the items to assess psychological distress based on item face validity. Participants used a five-point Likert scale to rate their feelings of sadness, discouragement, confidence, and satisfaction. On the POMS-SF, a lower score indicates a lower level of psychological distress, and possible scores range from −8 to 8.

Study staff contacted participants for follow-up 2 weeks post-abortion. Participants were asked to complete the same scales that had been completed at baseline. Repeated attempts at contact ended when the participant completed follow-up or if contact was not successful by 12 weeks. Each participant received gift cards as compensation.

The sample size was based on a 20% improvement in ILAS score, which we deemed a clinically meaningful shift sufficient to justify adopting a narrative intervention in outpatient clinics. A sample size of 86 participants per group provided 80% power to detect a 20% improvement in the primary outcome, at an alpha level of 0.05. We calculated a sample size of 200 to account for attrition. To compare descriptive statistics and outcomes on the ILAS and modified POMS-SF by study group, we used independent two-sample t-tests for continuous variables and chi-squared tests for categorical variables. We performed paired samples t-tests to test within-group change in the ILAS and modified POMS-SF scores. Seven participants randomised to the intervention did not complete the intervention before their procedures. We included these participants in that group nonetheless, following the principle of intention-to-treat analysis. ILAS scores were treated as a continuous variable, as recommended by the scale developers, since there are no established thresholds to categorise stigma.[24] For all analyses, two-tailed p values of less than 0.05 were considered statistically significant. We used SPSS version 25 for statistical analysis.

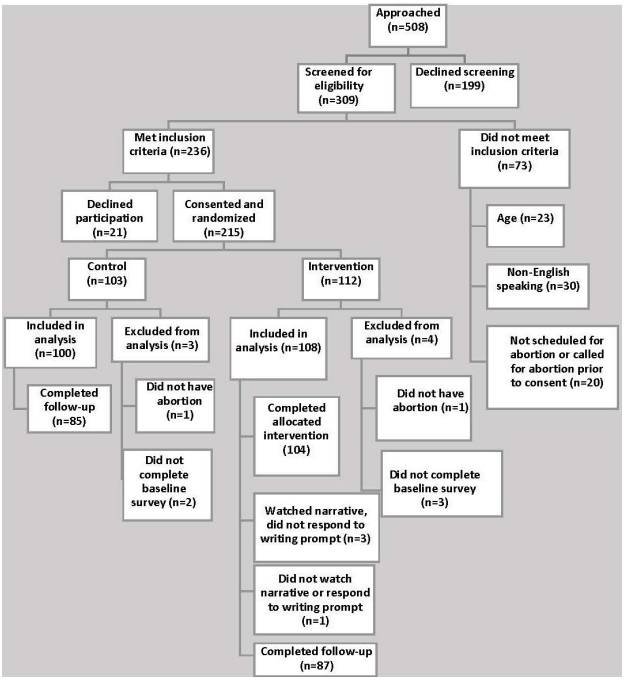

Figure 1 CONSORT (Consolidated Standards of Reporting Trials) flow diagram.

Patient and public involvement

We reviewed qualitative data from our institution and used patient quotes to help shape our narrative. We asked patients not enrolled in the study to view the digital story and to comment on their comprehension and the length of time that would be required for participation.

RESULTS

Participants were enrolled from June 2019 to February 2020. A total of 508 patients were approached for enrollment and 309 screened for eligibility (figure 1). Of those, 215 patients signed informed consent and were randomised; 112 participants were randomised to the intervention group and 103 participants were randomised to the control group. Follow-up was completed by 81% of the intervention group (n=87) and 85% of the control group (n=85). The difference in follow-up completion rate was not statistically significant (p=0.50). There was no statistically significant difference in baseline mean ILAS score between those who did and did not complete follow-up (p=0.31). Baseline characteristics are listed in table 1.

The mean baseline ILAS score was 0.84. The mean baseline ILAS score was 0.88 for the intervention group and 0.80 for the control group (95% CI −0.07 to 0.24, p=0.27). Black participants had a significantly lower baseline mean ILAS score than those who identified with any other race, with a mean score of 0.70

Table 1 Characteristics of participants in the intervention group compared with the control group in a midwestern reproductive health facility: June 2019–February 2020

Characteristic	Total (n=208)	Intervention (n=108)	Control (n=100)
Age (years)	25.8 (18–42)	25.4 (18–42)	26.1 (18–42)
Age group (years)			
18–24	96 (46.2)	55 (51.0)	41 (41)
25–29	65 (31.2)	32 (29.6)	33 (33)
30+	47 (22.6)	21 (19.4)	26 (26)
Race/ethnicity			
Black	115 (55.3)	65 (60.2)	50 (50)
White	28 (13.5)	15 (13.9)	13 (13)
Hispanic/Latinx	48 (23.1)	18 (16.7)	30 (30)
Asian	8 (3.8)	4 (3.7)	4 (4)
Other	9 (4.3)	6 (5.5)	3 (3)
Education			
Less than high school	23 (11.1)	11 (10.2)	12 (12)
High school degree or some college	149 (71.6)	78 (72.2)	71 (71)
Bachelor's or graduate's degree	36 (17.3)	19 (17.6)	17 (17)
Abortion procedure			
Surgical	189 (91)	95 (88)	94 (94)
Medical	19 (9)	13 (12)	6 (6)
Reproductive history			
Prior pregnancies	2.9 (1–9)	3.0 (1–9)	2.9 (1–9)
Prior deliveries	1.0 (0–7)	1.2 (0–7)	0.9 (0–7)
Prior abortions*	0.9 (0–6)	0.9 (0–4)	1.0 (0–6)
Employment status	(n=115)	(n=61)	(n=54)
Full-time	39 (34)	18 (29)	21 (39)
Part-time	32 (28)	15 (25)	17 (31)
Not in workforce	44 (38)	28 (46)	16 (30)
Marital status	(n=112)	(n=58)	(n=54)
Single	100 (89)	50 (86)	50 (93)
Married	10 (9)	7 (12)	3 (6)
Divorced	2 (2)	1 (2)	1 (1)

Data are mean (range) or n (%).
*92 participants (44%) missing information; total n=116, intervention n=61, control n=55.

compared with 1.00, respectively (95% CI 0.12 to 0.46, p=0.001). There were no other significant relationships between demographic factors and baseline mean ILAS score

At follow-up, the mean ILAS score was 0.95 for the intervention group and 0.87 for the control group (95% CI –0.07 to 0.25, p=0.29). The mean ILAS score increased from baseline to follow-up for both groups by 0.07 points (95% CI –0.11 to 0.11, p=0.98, table 2). No statistically significant differences were observed between groups from baseline to follow-up for any of the subscales (table 2). Within each group, there was a statistically significant increase in stigma on the isolation subscale from baseline to follow-up, with a mean increase in isolation score of 0.19 for the intervention group (95% CI 0.03 to 0.36, p=0.02) and 0.15 for the control group (95% CI 0.03 to 0.27, p=0.01).

There was no statistically significant difference in modified POMS-SF score between groups with a mean decrease in score of 0.64 for the intervention group and 0.65 for the control group from baseline to follow-up (95% CI −1.10 to 1.12, p=0.98, table 3). Overall, scores decreased from baseline to follow-up across all participants. Black participants had significantly lower scores on the modified POMS-SF at baseline than participants identifying as any other race with a mean score of −3.00 compared with −1.45 (95% CI 0.28 to 2.01, p=0.02).

Table 2 Difference in mean Individual Level Abortion Stigma Scale score from baseline to follow-up: full and subscales

Outcome	Intervention (n=87)	Control (n=85)	95% CI for difference	P value
Difference in ILAS score	0.07 (−0.90 to 1.60)	0.07 (−0.80 to 0.75)	(−0.11 to 0.11)	0.98
Difference in Judgement score	−0.03 (−1.14 to 1.43)	−0.05 (−1.14 to 1.00)	(−0.11 to 0.14)	0.81
Difference in Isolation score	0.19 (−1.50 to 3.00)	0.15 (−2.42 to 1.50)	(−0.16 to 0.23)	0.70
Difference in Self-Judgement score	0.11 (−1.80 to −2.20)*	0.10 (−2.00 to 2.00)	(−0.2 to 0.23)	0.89
Difference in Community Condemnation score	0.04 (−3.00 to 2.50)†	0.09 (−2.00 to 2.00)	(−0.32 to 0.21)	0.66

Data are mean (range).
Independent t-test.
*n=86.
†n=83.
ILAS, Individual Level Abortion Stigma Scale.

DISCUSSION

In this study, individuals presenting for abortion were randomised to participate in a narrative intervention designed to mitigate individual-level abortion stigma and to a control group receiving usual care. Participants randomised to undergo the narrative intervention did not demonstrate a statistically significant improvement in mean ILAS score or modified POMS-SF score from baseline to follow-up compared with participants randomised to the control condition.

Interestingly, across both cohorts, the mean ILAS score increased, indicating greater individual-level abortion stigma, for the majority of participants in this study. It is possible that stigma increases soon after the procedure as patients recover and re-enter their communities. The increase in score on the isolation subscale suggests that feelings of loneliness might be involved. However, despite demonstrating increased stigma at follow-up, our study also found that the modified POMS-SF scores decreased from baseline to follow-up, suggesting improved psychological distress levels, implying either that participants developed coping strategies for stressors, or that the stress patients feel immediately prior to an abortion is transient and relieved on completion of the procedure. This narrative intervention did not expedite or improve coping among the intervention group compared with the control group.

Additional context allows for a nuanced understanding of our findings. To begin with, the baseline mean ILAS score was lower in our study compared with two other US studies that measured individual-level abortion stigma using the ILAS scale, indicating relatively lower baseline stigma in our study sample.[24 28] Sonalkar and colleagues used the ILAS to compare individual-level abortion stigma before and after patients were exposed to Pennsylvania's mandated abortion counselling.[28] They reported a mean ILAS score of 1.02. The study by Cockrill and colleagues that developed the ILAS scale reported a mean ILAS score of 1.35.[24] In that study, participants were recruited from geographically diverse regions across the country, including states with both restrictive and liberal abortion policies.[29] Our study population had unexpectedly low levels of individual-level abortion stigma, with a baseline mean ILAS score of 0.84. The relatively low baseline stigma scores may have limited the opportunity to reduce individual-level abortion stigma through this type of intervention.

In addition, our study population was 55% black, compared with 30% in Cockrill and colleagues' study.[24] Black participants had significantly lower baseline stigma compared with those who identified with any other race. Black patients have been shown in studies using other measures of stigma to perceive less stigma after abortion than white patients.[7 30] The intersection of race, racism and stigma are understudied areas and future research including new instruments may need to be developed to better measure a wide range of experiences.

Strengths of this study include its randomised design, the use of a validated measure of individual-level abortion stigma, and the use of brief intervention easily performed in clinic. The study is notable for using narrative as an intervention, and it advances our understanding of stigma by presenting ILAS scores 2 weeks post-abortion. There is a need to develop rigorous methodologies to address social issues, and this study is an important development on which future research

Table 3 Baseline and final modified Profile of Mood States-Short Form scores

Outcome	Intervention (n=81)	Control (n=84)	95% CI for difference	P value
Initial modified POMS-SF	−2.23 (−8 to 5)	−2.54 (−8 to 8)	(−0.86 to 1.46)	0.61
Final modified POMS-SF	−2.88 (−8 to 8)	−3.19 (−8 to 8)	(−0.92 to 1.54)	0.61

Data are mean (range).
Independent t-test.
POMS-SF, Profile of Mood States-Short Form.

might build. This study also had several limitations. The ILAS is a relatively new scale that has not been used in a predominately black population. It is possible that an alternative narrative approach, for example, a digital story featuring actors, would have been more effective. The timing of the surveys and follow-up might not have been optimal to measure an effect of the intervention. Being a single-site study might have affected external validity. It was not blinded and limited by loss to follow-up, possibly impacting the internal validity of the study.

In conclusion, in a study population with relatively low baseline individual-level abortion stigma, participants randomised to a narrative intervention did not have a significant improvement in individual-level abortion stigma compared with a control group. Mean ILAS scores increased for both groups at 2-week follow-up. Our study population's demographic characteristics, including race and clinic location, may have influenced these results. There is still much to learn about stigma, stigma interventions and validated measurements.

Contributors MGS: conceptualisation, project administration, methodology, investigation, data curation, formal analysis, visualisation, writing: original draft preparation, revisions. SYL: investigation, data curation, formal analysis, and writing: original draft review and editing, revisions.SN: methodology, investigation, and writing: original draft review and editing. DSL: formal analysis, data curation, supervision, and writing: original draft review and editing, revisions. MG: conceptualisation, methodology, supervision, writing: original draft review and editing, revisions.

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Competing interests None declared.

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Data availability statement Data may be obtained from a third party and are not publicly available. Data will not be shared publicly but may be available if an independent request is submitted to the authors.

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