Addressing abortion provider stigma:
Outcomes from Providers Share Workshop pilots in East Africa and Latin America

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Abstract

Background: The Providers Share Workshop is a psychoeducational group intervention to reduce stigma among U.S. abortion providers. Here we report the results of a pilot PSW adaptation in East Africa (N=59) and Latin America (N=93).

Methods: We assessed outcomes pre- and post-intervention and predictors of changes over time using survey data on abortion stigma; abortion-related attitudes; perceived legal safety; support for abortion legal advocacy; and burnout (only in East Africa).

Results: Abortion provider stigma decreased in East Africa ($p=0.03$) and Latin America ($p<0.001$); unfavorable abortion attitudes decreased in East Africa ($p=0.01$) but not in Latin America ($p=0.78$); perceived safety increased in East Africa ($p=0.003$) and Latin America ($p<0.05$); support for legal advocacy increased immediately post-intervention ($p=0.003$) in East Africa; and emotional exhaustion ($p<0.001$) and depersonalization ($p=0.007$) decreased in East Africa.

Conclusions: PSW can address psychosocial and human resource challenges of abortion provision in low-, middle-, and high-resource settings globally.

Introduction

Access to safe abortion has been recognized as a critical component of international human rights (1) and for achieving the 2015 Millennium Development Goals (2–4) and the 2030 Sustainable Development Goals (5,6). Nevertheless, unsafe abortion remains an important cause of morbidity and mortality in East Africa and Latin America (7–9), where unsafe abortion rates are approximately 36 and 31 per 1,000 reproductive-aged women, respectively (7). There have been significant reductions in abortion-related maternal deaths globally over recent decades—including in Latin America, where the ratio is now 10 abortion-related maternal deaths for every 100,000 live births compared to 1 death in developed regions —but less progress has been made in East Africa, where the ratio is 100 per 100,000 live births (7). Legal restrictions on access to abortion care in East Africa and Latin America increase risk of maternal mortality by limiting availability and accessibility of well-trained abortion providers (8,9), increasing stigma of abortion (10), and decreasing the quality of services women are able to receive (9). Restrictions also increase abortion provider's real and perceived legal threats (e.g., fears and experiences of being arrested, harassed, or entrapped by clients), which might intensify experiences of stigma and professional burnout (11,12). These dynamics ultimately contribute to human resource challenges in the abortion sector including emotional exhaustion, job dissatisfaction, high turnover, and understaffing (10,13,14).

For the current study, we partnered with non-governmental sexual and reproductive health service providers from Marie Stopes International and Planned Parenthood Global to adapt and pilot the Providers Share Workshop (PSW) (13,14) in East Africa and Latin America. Developed as both a research methodology and an intervention in the United States (U.S.) (15), the PSW has demonstrated that abortion providers experience significant abortion stigma, with a

range of consequences: they internalize negative social messages about abortion patients and providers, struggle with disclosing or not disclosing their professional identity, and experience social isolation as well as overt judgment, discrimination, and violence (13,14). In turn, those experiences of stigma diminish professional quality of life and increase likelihood of burnout, compassion fatigue, and job dissatisfaction—all of which destabilize the sexual and reproductive health and abortion labor force and could threaten to diminish the accessibility or quality of services (14).

Methodology of the PSW has been described in detail elsewhere (15). Briefly, PSW is a group intervention for abortion providers based in psycho-educational group theory, social systems theory, and narrative-based, consciousness-raising perspectives. PSW uses story-telling, journaling, and arts-based methods to help abortion providers share their experiences and build community. In U.S. studies, the PSW has been shown to reduce experiences of abortion provider stigma (14) and has been reviewed positively by participants as meaningful experience. Qualitative data from workshop participants suggest improved connection to patients, self, and work; improved team cohesion and communication; and increased vulnerability in a safe space (15).

We conducted a pilot study of the PSW to determine if it could be a successful intervention in East Africa and Latin America.[1] Abortion is broadly restricted in both regions, but this does vary. For example, in some East African countries, abortion is allowed in cases to save the woman's life, while in others it is expanded to include abortion needed to preserve the woman's life or health (16). In most Latin American countries, abortion is legal to save a woman's life or in other limited circumstances such as cases of rape or to protect the woman's

[1] we do not reveal the specific locations in order to protect confidentiality and safety of participants and partners

health from grave harm (16). In both East Africa and Latin America, many countries have specific punishments for criminal abortions that range anywhere from months to life in prison. This leads to prosecution of abortion providers and patients, blackmail and corruption by police, and thriving clandestine abortion markets (17). In legally restrictive settings, women generally have less access to safe abortion care and are more likely to access services from providers in the informal sector (9). For these women who may need support during or after an abortion, some non-profit sexual and reproductive health clinics offer high quality post-abortion care including counseling, medical intervention if necessary, and access to contraception. (9).

In addition to legally restrictive climates, abortion is also highly stigmatized in both East Africa and Latin America. While stigma is a profoundly local phenomenon, with manifestations dependent upon local structural dynamics and discourse, some manifestations are shared in both regions. Abortion is widely viewed as shameful, inhumane, and dangerous in these contexts (18–25). Both regions are characterized by strong community norms against abortion, resulting in shunning, shame, and ostracism for women who terminate their pregnancies (18–25). In Latin America, attitudes about abortion are strongly tied to religious influence in the region, and abortion is widely viewed as a sin against God (18,19). Additionally, strong gender norms lead to strict expectations for women to fulfill their roles as mothers and for males to begin families as a rite of passage to masculinity (18,19). In parts of Africa, abortion attitudes are tied to spiritual concerns that women who terminate their pregnancies will be cursed by their deceased ancestors (20,24,25). There are also shared (stereotypical) understandings about the types of women who seek abortion—that they are promiscuous and likely had intercourse outside of their relationships (20–25). Additionally, prior research indicates that a "safe" abortion may have different connotations for women in Kenya. Women may not necessarily equate safety with a lack of post-

abortion complications, but rather preserving their reputation and social standing in their communities. For many women, privacy is a greater priority than physical safety (25).

While manifestations and consequences of abortion stigma have been documented for women in both regions, there is a death of literature on the experiences of stigma among abortion providers. Legally and socially restrictive environments likely contribute to experiences of abortion provider stigma and burnout and could impact the health system's capacity to provide high quality and comprehensive reproductive health services. In addition to evaluating whether the PSW can reduce abortion provider stigma and burnout in these regions, we also sought to understand how stigma and burnout might be related to providers' attitudes toward women seeking abortion, as well as their support for legal advocacy for abortion and their perceptions of legal safety—meaning their worries over legal risk of doing their work and fears over arrest, harassment, and discrimination by police. In some countries, such as South Africa, health workers have played a key role in successfully legalizing abortion, increasing human resource capacity, and improving the quality of services though legal advocacy (26). Existing threats to the safety and security of abortion providers in countries with restrictive legal environments in both Latin America (11) and East Africa (12) might be contributing to experiences of stigma and burnout as well as hesitation to participate in public legal advocacy. Deepening our understanding of the complex relationships between abortion stigma, attitudes, burnout, legal environment, and advocacy will inform the development of service provision and strategies to address these issues with the aim of improving outcomes for reproductive health providers and patients.

Methods

The PSW Intervention and Data Collection

The PSW consists of five 1.5-2 hour facilitated group sessions, with each session centered on a specific theme. In planning for this pilot study of PSW in new settings, and in collaboration with our partners, we closely examined the 5 session themes used in previous U.S. work for their relevance in new contexts. While we retained the overall structure of the workshop, we changed some of the session titles and focus based upon local needs. For example, the U.S. session focused on doing politically-charged work was changed to focus on community. The U.S. session that focused on memorable patients was shifted to focus on difficult complications, since our partners told us that the high morbidity and mortality from abortion and all reproductive events shaped their work profoundly. Ultimately the adapted workshop sessions included: (a) What abortion work means to me, (b) Managing Stigma: The Decision to Disclose, (c) What abortion work means to my community, (d) Memorable cases and difficult complications, and (e) Looking toward the future.

The adaptation process also involved changes made for logistical reasons. For example, U.S. workshops generally were held with 10-20 staff from a single site coming together for a single session every 1.5-2 weeks. At the sites in East Africa and Latin America, the staff was often smaller, and sites were separated by great distances. Therefore, we brought participants together from multiple different sites to complete the 5 sessions over 2 days as a retreat, generally held at a hotel or conference center. While partners were interested in the possibility of a 1-day session, our U.S. work with an abbreviated model (2-3 sessions in 1 day) did not show changes in stigma or other important outcomes. We felt it important to use all workshop sessions since the combination was shown to be effective.

All facilitators were chosen by partner organizations based on their experiences with group work and they were trained by the study team in workshop content, group dynamics, and managing difficult conversations. Facilitators were employees of the partner organization but did not have day-to-day supervisory relationships with workshop participants. Partner organizations also recruited their own workshop participants. All employees who participated (directly or indirectly) in abortion care were eligible, including front desk and phone staff, laboratory technicians, ultrasound technicians, counselors, nurses, midwives, physicians, and administrators. Workshops involved an average of 15-20 participants.

After providing informed consent, participants completed self-administered surveys immediately before the pilot workshop, immediately after the workshop, and 6 months after the workshop. Data were collected anonymously by workshop facilitators with assistance from clinic liaisons or coordinators in some cases, then sent to the study team for analysis. All study instruments in Latin America were translated and written in Spanish; in East Africa they were translated and written in Swahili for one country but left in English for the other two countries. Interview assistance was available as needed to help with translation. All data collection procedures were approved by the internal Marie Stopes International IRB and Chesapeake IRB (now known as Avarra), and data analysis procedures were reviewed by University of Michigan's IRB-MED. The study was exempt, because it only involved de-identified data.

Measures

All study instruments were designed in partnership with implementing organizations; as a result, scales were altered to meet the organizations' internal needs and not all measures, items, and response categories were identical across both regions (see Appendices A-D for all measures, items, and response categories included for the intervention). For example, burnout

measures were collected in East Africa but were not a priority of the partners in Latin America. We describe each of the measurements below.

Abortion Provider Stigma

In both regions, abortion provider stigma was measured using an adapted version of the Abortion Provider Stigma Scale (APSS) (see Appendix A) (27). As previously described by Martin and colleagues (22), the APSS assesses experiences of stigma across 5 domains: disclosure management (e.g., "I find it hard to tell people I work in abortion"), internalized states (e.g., "I feel ashamed of the work I do"), judgment (e.g., "I feel that society does not value me as an abortion worker"), discrimination (e.g., "I have been verbally threatened or attacked as a result of working in abortion care"), and social isolation (e.g., "I cannot talk openly with my friends about my work in abortion care"). These domains are inter-related and can be summed for a total stigma score ($alpha_{Baseline}$ for East Africa items= 0.93; for Latin American items=0.76). The APSS was developed and refined using qualitative and quantitative data from PSW in the U.S. (27,28), using a pool of 49 potential items. One aim of the current pilot study was to test the relevance and validity of APSS in other settings globally. Here, we included items that were part of the expanded APSS item pool but which were ultimately dropped after factor analysis in U.S. data was performed. In this study, we collected data from 44 items in East Africa using a 1-5 frequency scale, and 33 items were collected in Latin America using a 1-3 frequency scale. We reverse-coded the items as needed so that higher scores always indicate higher levels of stigma.

Abortion Attitudes

Our surveys in both East Africa and Latin America also included abortion attitude items that were adapted from the 18-item Stigmatizing Attitudes, Beliefs and Actions Scale (SABAS) (e.g., "I would continue to be friends with someone if I found out they had an abortion"; "women

who have an abortion should be treated the same as everyone else", "woman who has an abortion is a bad mother"), which was developed in Ghana and Zambia (29) (see Appendix B). In East Africa, our partners used 21 items from the scale, and measured them on a 1-4 agreement scale. In Latin America our partners used 26 items measured on a 1-3 agreement scale. We reverse-coded survey items as needed so that higher scores indicated more negative attitudes. We conducted exploratory factor analysis to identify latent factors underlying the survey items on abortion attitudes, and used those results to construct subscales consisting of the survey items that sufficiently loaded (>0.40) onto those latent factors, then constructed total abortion attitude scales. Abortion attitudes in East Africa included 3 factors: lack of support for women seeking abortion (Eigenvalue= 1.46), negative attitudes toward multiple abortions (Eigenvalue=1.11), and shaming of women who have an abortion (Eigenvalue=5.40). These were inter-related and were also combined into a single measure of negative abortion attitudes ($alpha_{Baseline}$= 0.87). In Latin America, abortion attitudes also included 3 factors: lack of support for women seeking abortion (Eigenvalue=1.14), negative attitudes toward multiple abortions or adolescent abortion clients (Eigenvalue=3.14), and fear of entrapment (such as recording by fake clients) (Eigenvalue=1.21). These were inter-related, so we also combined them to create a single measure ($alpha_{Baseline}$= 0.62).

Legal Safety and Legal Advocacy

We also measured providers' perceived legal safety ("I worry that I will lose my job because of the legal status of abortion"; "I worry that I will be harassed by the police") and their levels of support for legal abortion advocacy (e.g., "I think that the laws in my country should be changed to make abortion more accessible"; "I would publicly participate in a demonstration or rally supporting greater access to abortion for women in my country") (see Appendix C). In East

Africa, we collected data on 19 items using a 1-3 agreement scale and we collected data on 11 items in Latin America using the same 3 responses. The questions were recoded so that higher scores indicate higher perceived safety and greater support for legal advocacy. We conducted exploratory factor analysis to identify latent factors using the same protocol as described for abortion attitudes above. In both East Africa and Latin America there were 2 factors: perceived legal safety ($Eigenvalue_{East\ Africa}$=2.34; $Eigenvalue_{Latin\ America}$=1.70) and support for abortion legality and advocacy ($Eigenvalue_{East\ Africa}$= 2.97; $Eigenvalue_{Latin\ America}$=1.14). In both regions, these two factors were not related at a bivariate level and, therefore, were not combined into a single measure of legal climate.

Provider Burnout

Burnout was measured in East Africa using the Maslach Burnout Inventory (MBI) (see Appendix D) (30). The MBI consists of 22 items measured on a 7-point frequency scale across 3 domains: emotional exhaustion, personal accomplishment, and depersonalization. These represent unique and distinct aspects of burnout and should not be combined for a total score (30). Emotional exhaustion refers to the experience of being emotionally overextended and exhausted by work (e.g., "I feel burned out from my work"), and depersonalization includes "unfeeling" or numbness and impersonal responses to patients (e.g., "I worry that this job is hardening me emotionally") (30). Items are recoded as needed so that higher scores indicate greater burnout (i.e., higher depersonalization, higher exhaustion). Personal accomplishment means feeling energetic, empathetic, effective, calm, and accomplished in the work place (e.g., I feel I am positively influencing other people's lives through my work.). Items are coded so that higher scores indicate higher perceived personal accomplishment. The original inventory was developed through interviews, surveys, and field observations with human services professionals

in the U.S., and it has been successfully validated with health workers in both East Africa (31) and Latin America (32) in previous studies.

Demographics

We also collected baseline demographic characteristics as reported in Table 1. Of note, years worked in abortion care were measured categorically but on different scales in the two regions: 0-2 years/3-5 years/6+ years in East Africa and less than 1 year/1-2 years/3+ years in Latin America.

Analyses

All analyses for this study were conducted using Stata version 14 (33). Given the small sample sizes of these pilot interventions, we first addressed missing data on stigma, abortion attitudes, legal safety, legal advocacy, and burnout subscales using person-mean imputation if an individual had 80% complete data on that particular subscale. Total stigma and total abortion attitudes were then calculated as a sum of the person-mean imputed subscale data, while participants with less than 80% complete data were excluded from analyses. Next, we conducted univariate analyses of all variables in their original scales of measurement at each time point, except demographic characteristics, which were only assessed at baseline. For each outcome of interest, we then calculated baseline pairwise correlations and bivariate relationships with time, which allowed us to test changes before and after the intervention. Finally, we constructed multivariable mixed effects regression models controlling for demographic characteristics to assess mechanisms of change within the intervention.

Results

Provider Outcomes Before and After the Workshops

Abortion Provider Stigma

Both regions showed improvements on many outcome measures following the PSW intervention (see Table 2 for changes over time[2]). In East Africa, total abortion provider stigma scores declined from 235.23 to 223.03 (p=0.102) immediately after the PSW then continued to decline to 218.70 (p=0.033) with an overall negative trend (B=-0.18, p=0.032), indicating an improvement in experiences of stigma. In Latin America, total abortion stigma declined from 275.74 to 248.30 (p<0.001) immediately post-intervention then to 246.73 (p<0.001) after 6 months with an overall negative trend (B=-0.38, p<0.001). In both regions, the stigma subscales of disclosure management were lower at both post-intervention time points: in East Africa, disclosure management declined from 48.62 to 42.43 (p=0.013) immediately after PSW and to 41.99 (p=0.004) after 6-months for an overall significantly negative trend (B=-0.20, p=0.003), while in Latin America disclosure management declined from 62.89 to 58.98 (p=0.011) to 55.22 (p<0.001) with an overall negative trend (B=-0.22, p<0.001). Internalized stigma also declined with negative trends in both East Africa (B=-0.23, p=0.003) from 47.24 to 41.57 (p=0.001) back up to 42.91 (p=0.010) and in Latin America from 52.59 to 42.26 (p<0.001) and 42.58 (p<0.001). Judgment scores also decreased in both pilot regions—from 47.23 to 43.94 (p=0.131) to 42.21 (p=0.025) in East Africa (B=-0.19, p=0.023) and from 54.07 to 51.26 (p=0.006) and 50.49 (p<0.001) in Latin America (B=-0.19, p<0.001). The scores on social isolation and

[2] For clarity, we present all of the mean statistics on standard scales. For the subscales of stigma, abortion attitudes, and burnout and the measures for perceived legal safety and support of legal advocacy, we used a standard 0-100 scale. To calculate the standardized means using a 0-100 scale, we set up an algebraic equation with the original mean divided by the original scale (both known values) equal to the new mean (unknown value) divided by 100. Total abortion provider stigma (sum of 5 subscales) was standardized to a 0-500 scale, and the total abortion attitudes scores (sum of 3 subscales) was standardized to a 0-300 scale.

discrimination did not change with statistical significance in either region.

Abortion Attitudes

Attitudes in Latin America remained fairly stable (B=-0.20, p=0.751) changing only from 132.85 to 128.24 (p=0.166) and then to 132.09 (p=0.775). In East Africa, total negative abortion attitudes declined from 147.61 to 137.68 (p=0.078) to 133.92 (p=0.012) with a negative overall trend (B=-0.20, p=0.010). In East Africa, the subscale scores of unsupportive attitudes toward abortion clients declined in East Africa (B=-0.24, p=0.003) from 45.88 to 41.43 (p=0.044) to 38.72 (p=0.003). The other subscale scores for attitudes toward multiple abortions or young abortion clients (in both regions), for attitudes regarding abortion shame (in East Africa), and for attitudes about entrapment (in Latin America) did not change.

Perceived Legal Safety and Advocacy

In East Africa, perceived legal safety increased overall (B=0.76, p=0.007), dropping first from 61.20 to 59.40 (p=0.503) then increasing to 67.81 (p=0.001), while support for legal advocacy increased from 82.78 to 91.15 (p=0.003) immediately after the intervention, but returned to baseline levels within 6 months (p=0.122) for a statistically insignificant overall trend (B=0.47, p=0.090). In Latin America, perceived legal safety increased from 53.61 at baseline and 53.51 (p=0.961) immediately after the PSW to 57.90 by 6 months post-intervention (p=0.049), but the overall trend did not reach statistical significance (B=0.31, p=0.055). Latin American legal advocacy scores did not change (B=-0.20, p=0.680) as they were high at baseline (94.75), immediately post-intervention (93.65, p=0.197), and after 6 months (94.44, p=.713)

Provider Burnout

In East Africa, emotional exhaustion declined (B=-2.92, p<0.001) from 29.85 at baseline to 21.16 (p<0.001) immediately after the PSW and down to 18.87 (p<0.001) after 6 months.

Depersonalization also declined (B=-1.21, p=0.009) from 24.80 to 24.40 after the PSW (p=0.734) and to 15.00 (p=0.007) after 6 months. Personal accomplishment remained high and stable during the follow-up data collection period (B=-0.11, p=0.877).

Predictors of Changes Over Time

The longitudinal results showing predictors of changes in outcomes over time are presented in Table 3, and we highlight some of the most important findings here. In East Africa, a decrease in abortion provider stigma predicted greater perceived legal safety (B=-1.93, p<.001) and greater support for legal advocacy (B=-1.47, p<.001). Greater perceived safety, in turn, predicted lower abortion provider stigma (B=-0.12, p<.001) and lower emotional exhaustion (B=-0.65, p<.01), while greater support for legal advocacy predicted lower abortion provider stigma (B=-0.15, p<.001) and more favorable abortion attitudes (B=-0.12, p<.001). More favorable abortion attitudes predicted greater support for legal advocacy (B=-1.12, p<.001), and less emotional exhaustion predicted greater perceived safety (B=-0.13, p<.01), more support for advocacy (B=-0.06, p<.05), and lower depersonalization (B=0.19, p<.01). Lower depersonalization also predicted lower emotional exhaustion (B=0.39, p<.01). Analyses of stigma and attitude subscales also showed a bidirectional relationship where an increase in unsupportive abortion attitudes predicted an increase in internalized abortion provider stigma (B=0.23, p<.01).

In Latin America, a decrease in abortion provider stigma predicted greater perceived legal safety (B=-0.61, p<.01), then greater perceived safety predicted both lower abortion provider stigma (B=-0.07, p<.01) and more favorable abortion attitudes (B=-0.05, p<.05). More positive abortion attitudes predicted more support for legal advocacy (B=-0.22, p<.001), and greater legal advocacy support predicted more favorable attitudes (B=-0.33, p<.001). Analyses of

stigma and attitude subscales showed that a decrease in unsupportive abortion attitudes (B=0.18, p<.05) or in negative attitudes about multiple abortions (B=0.23, p<.01) predicted lower internalized stigma, and a decrease in internalized stigma then predicted more positive abortion attitudes overall (B=0.17, p<.05) and more supportive attitudes (B=0.41, p<.01) and more positive attitudes about multiple abortions (B=0.15, p<.05), specifically.

Discussion

Previous qualitative work with abortion providers in the U.S. has shown that stigma is produced across multiple ecological levels from macro to micro and across numerous locations including social discourse, legal climate, social institutions, communities and families, health clinics, and intrapersonal processes (13). For one, abortion providers—like many individuals in abortion-stigmatizing environments—begin to develop negative attitudes about abortion and the women who have them, which can lead to (and be reinforced by) internalized stigma about themselves. The socio-ecological dynamics of abortion stigma, particularly in legally restricted settings like East Africa and Latin America, also create legal threats that contribute to providers' own individual burden of stigma. In turn, abortion provider often experience isolation and silencing that stem from fear of disclosing one's professional identity and invoking judgment, discrimination, violence, or arrest. The physical and psychological tolls of abortion stigma on providers can contribute to political withdrawal and professional burnout that manifest as disengagement from abortion advocacy, emotional exhaustion, lower sense of accomplishment, and depersonalization (an unfeeling and impersonal response to patients and their care). Ultimately, these carry distressing implications for health system capacity including lower staff retention and higher turnover, understaffing, and poorer quality of care. We summarize and depict these dynamics in Figure 1, a conceptual model that builds on and extends the model

originally developed by Harris and colleagues (13) from work in the U.S.

For the current study, we evaluated a pilot adaptation of the PSW for East Africa and Latin America and found significant reduction in total stigma, disclosure management, internalized stigma, and judgment. In U.S. studies, the PSW had been shown to reduce total abortion provider stigma (14) and the burden of disclosure management (28) by providing a safe space where abortion providers can come together to process, heal, and resist their experiences of stigma; to celebrate and find meaning in their work; and to receive nurturing support from others who share their struggles (13). Notably, in the current study and previous investigations in the U.S., the stigma domains discrimination and social isolation did not improve after the PSW, likely because the intervention does not address external environments surrounding providers including their broader social network and day-to-day interactions.

The current study also offers new insight by measuring abortion attitudes, perceived legal safety/threat, support for legal advocacy, and burnout. For one, we learned that internalized abortion provider stigma is inextricably linked to negative attitudes about abortion and women seeking abortion: in other words, how providers feel about their services and their clients is central to their own self-image. After the PSW in East Africa, we observed more favorable abortion attitudes overall and more support for women who are having abortions, but in Latin America abortion attitudes remained stable throughout the study period. This could be because abortion attitudes were more positive in Latin America at baseline, meaning there was less room for improvement over time through our intervention. This could also reflect differences in the underlying attitude subscales, which were not identical across the two regions.

Abortion is severely restricted in both East Africa and Latin America, and it is difficult to parse out the effects of stigma from those of illegality. For example, what we have understood to

be stigma—constructs measured as disclosure management, internalized stigma, judgment, discrimination, and isolation—could theoretically reflect legal climate and threat. Because these settings are so different from the U.S. legal environment, the current study also measured perceived legal threat/safety as well as provider's level of support for legalization of abortion and the advocacy needed to change that. This allowed us to begin examining and untangling the complex relationships between stigma and legality. For one, we found that the PSW not only improves abortion stigma, it also improves providers' perceived level of legal safety in both East Africa and Latin America. There also appears to be a bidirectional relationship between stigma and legal safety: improvement in either construct predicted an improvement in the other (see Figure 1). In East Africa, increased legal safety also decreased emotional exhaustion, while in Latin America it improved abortion attitudes. Support for legal advocacy increased during the intervention in East Africa but was not sustained after six months, while support was very high already in Latin America and did not change much. It seems that negative abortion attitudes and support for legal advocacy have an inverse, bidirectional relationship (see Figure 1). Perhaps diminished burden from legal threats allows providers to cultivate more positive attitudes about their work and the women they serve, then those improved attitudes reinforced providers' sense of safety.

In East Africa, improved sense of legal safety also predicted a decrease in emotional exhaustion and depersonalization (see Figure 1), both of which declined after the PSW and continued to decline 6 months beyond the workshop. This is different than previous studies in the U.S., where burnout did not decline after the PSW (14). We also observed a positive feedback loop between emotional exhaustion and depersonalization where an improvement in either burnout indicator predicted an improvement in the other. It appears that even without changing

the external environment or the real legal threats that exist outside our intervention, the PSW is able to reduce stigma and isolation, cultivate a sense of safety and support, and therefore reduce the burden of professional burnout. This carries important implications for health system-level stressors and resilience. If providers are less emotionally exhausted and able to provide more personalized care while connecting with and trusting their clients, then health systems will be less burdened with the downstream effects of stigma that currently reduce access to and satisfaction with abortion services in these regions (34). We could potentially see lower staff turnover, higher retention, adequate staffing levels, and improved quality of care.

Strengths and Limitations

This work contributes valuable knowledge about abortion providers' attitudes, perceptions, and experiences in East Africa and Latin America—geographical areas where there was a dearth of literature on this subject. At the same time, our investigation has limitations of its own that must be acknowledged. For one, these are pilot studies with relatively small sample sizes. Some of the effect sizes from the intervention are small, and it remains unclear what constitutes a "clinically significant" change in stigma, attitudes, legal climate, or burnout. Nevertheless, seeing changes of this magnitude during a pilot study is very encouraging and merits further investigation. Not all survey measures were consistent across the two regions, which reduced the comparability and generalizability of our results. In particular, we did not measure burnout in Latin America and, therefore, cannot measure the effects of provider stigma on burnout nor the intervention's effects on burnout in that region. Our goal, however, was not to have identical measures: we were more interested in those outcomes prioritized by our partner collaborators. It is also difficult for us to parse out stigma and burnout due to abortion legal restrictions from the effects of abortion provider stigma. This study does illuminate the burden of

stigma among abortion providers in legally restricted settings, however, which is an important step in addressing the human resource issues stemming from that stigma including burnout, high turnover, and understaffing. Finally, our quasi-experimental pre-post intervention design without a control group makes it impossible to completely attribute our observed changes in outcomes to the PSW. Because we saw similar improvements in two different and geographically separate regions, however, we can strongly suggest our results are not confounded by an unrelated event happening in the same time period. Moreover, while it is possible a similar group intervention bringing abortion providers together without stigma-focused activities could show improved outcomes, our longitudinal mixed effects models showing the mechanisms of change strongly support that our results can be attributed to the theory-informed story-telling, arts therapy, and group processing activities designed to target stigma, attitudes, and burnout.

Implications and Future Steps

By providing a safe and supportive space for abortion providers to share and artistically represent their stories, group members are able to situate personal, often stigmatizing, experiences in the broader socio-political contexts of abortion work. This group process helps providers to develop self-awareness about the mechanisms and consequences of stigma for them and for their clients, while fostering resilience and social cohesion (15). The results from these pilot studies in East Africa and Latin America, in combination with previous success in the U.S., suggest the PSW can be implemented in high-income, middle-income, and low-income settings to reduce abortion provider stigma. To date, there have not been other evidence-based practices focused on abortion provider stigma. Services to support abortion providers are essential in their own right, meaning that if stigma reduction was the only observed outcome of PSW, we would consider it to be a successful intervention. However, in addition the workshop seems to carry

indirect benefits for abortion patients, a finding that should be assessed directly—by examining patient experiences—in future work. We also see an opportunity to support abortion providers through ongoing booster interventions that can help sustain the positive outcomes observed from the PSW. For example, we note that internalized stigma in East Africa increased slightly from immediately after the PSW to 6-months following the intervention, and abortion attitudes improved somewhat in Latin America immediately after the PSW but returned to baseline after 6 months. It's possible that these psychosocial factors—internalized stigma and abortion attitudes—are more sensitive to daily interactions in stigmatized environments and, therefore, require more ongoing support to fully embody and sustain change. Finally, our investigation highlights that abortion legal restrictions and their consequences (for example, the threat of entrapment, harassment, violence, and arrest) contribute to abortion provider burnout and stigma. Evidence-based abortion stigma interventions such as the PSW are critical to improve and support the psychosocial wellbeing of abortion providers, who are vital members of the health system.

Tables and Figures

Table 1. Descriptive statistics of the abortion providers who participated in Providers Share Workshop pilots in East Africa and Latin America

Variable	East Africa		Latin America	
	Frequency	**Percent**	**Frequency**	**Percent**
Gender				
Male	23	41%	12	13%
Female	33	59%	79	87%
Education				
Primary	2	4%	7	8%
Secondary	30	56%	8	9%
Associate's	5	9%	18	20%
Bachelor's	10	19%	38	41%
Graduate/Professional	7	13%	21	23%
Age				
18-24 Years	6	11%	9	3%
25-34 Years	30	53%	81	29%
35-44 Years	17	30%	75	27%
45-54 Years	4	7%	57	20%
55+ Years	0	0%	57	20%
Religious Attendance				
Once a Year or Less	4	7%	17	19%
Several Times a Year	12	21%	35	40%
Once a Month	5	9%	9	10%
2-3 Times a Month	32	56%	14	16%
Weekly	4	7%	11	13%
Several Times a Week	0	0%	2	2%
Religious Denomination				
No Religion	4	7%	11	12%
Catholic	18	32%	69	75%
Protestant/Evangelical	28	49%	7	8%
Other	7	12%	5	5%
Experience in Abortion Care [#]				
Low	10	17%	25	29%
Medium	21	36%	31	36%
High	28	47%	29	34%

[#]Note: experience in abortion care was measured differently in the two regions: in East Africa, low was 0-2 years, medium was 3-5 years, and high was 6+ years; in Latin America, low was less than 1 year, medium was 1-2 years, and high was 3+ years

Table 2. Stigma, attitudes, legal advocacy, and burnout before, immediately after, and 6 monthly following the Providers Share Workshop pilots in East Africa and Latin America

East Africa	Mean at Time 1	Mean at Time 2	p-value Time 2	Mean at Time 3	p-value Time 3	coefficient for overall trend	p-value for overall trend
Total Abortion Stigma	***235.23***	***223.03***	***0.102***	***218.70***	***0.033***	***-0.18***	***0.03***
Disclosure Management	***48.62***	***42.43***	***0.013***	***41.99***	***0.004***	***-0.200***	***0.003***
Internalized Stigma	***47.24***	***41.57***	***0.001***	***42.91***	***0.010***	***-0.230***	***0.008***
Judgment	***47.23***	***43.94***	***0.131***	***42.21***	***0.025***	***-0.190***	***0.023***
Social Isolation	66.75	65.66	0.720	64.43	0.540	-0.050	0.536
Discrimination	32.96	33.36	0.922	30.11	0.402	-0.070	0.420
Total Negative Abortion Attitudes	***147.61***	***137.68***	***0.078***	***133.92***	***0.012***	***-0.200***	***0.010***
Shame for Abortion Clients	47.30	43.81	0.085	44.14	0.099	-0.130	0.083
No Support for Abortion Clients	***45.88***	***41.43***	***0.044***	***38.72***	***0.003***	***-0.240***	***0.003***
Multiple Abortion Disapproval	65.09	67.24	0.547	61.68	0.227	-0.090	0.277
Legal Safety	***61.20***	***59.40***	***0.503***	***67.81***	***0.003***	***0.760***	***0.007***
Legal Advocacy	***82.78***	***91.15***	***0.003***	***87.03***	***0.122***	***0.470***	***0.090***
Emotional Exhaustion	***29.85***	***21.16***	***<.001***	***18.87***	***<.001***	***-2.920***	***<.001***
Personal Accomplishment	84.75	86.02	0.615	83.64	0.847	-0.110	0.877
Depersonalization	***24.80***	***24.40***	***0.734***	***15.00***	***0.007***	***-1.210***	***0.009***
Latin America	**Mean at Time 1**	**Mean at Time 2**	**p-value Time 2**	**Mean at Time 3**	**p-value Time 3**	**coefficient for overall trend**	**p-value for overall trend**
Total Abortion Stigma	***275.74***	***248.30***	***<.001***	***246.73***	***<.001***	***-0.380***	***<.001***
Disclosure Management	***62.89***	***58.98***	***0.011***	***55.22***	***<.001***	***-0.220***	***<.001***
Internalized Stigma	***52.59***	***42.26***	***<.001***	***42.58***	***<.001***	***-0.560***	***<.001***
Judgment	***54.07***	***51.26***	***0.006***	***50.49***	***<.001***	***-0.190***	***<.001***
Social Isolation	65.26	61.42	0.071	63.48	0.442	-0.040	0.434
Discrimination	35.19	35.04	0.846	35.77	0.335	-0.050	0.349
Total Negative Abortion Attitudes	132.85	128.24	0.166	132.09	0.775	-0.020	0.751
Fear of Entrapment	60.34	61.83	0.259	58.54	0.316	-0.050	0.342
No Support for Abortion Clients	38.70	37.60	0.370	39.57	0.418	0.050	0.450
Multiple and Adolescent Abortion Disapproval	46.00	43.11	0.076	44.30	0.199	-0.070	0.190
Legal Safety	***53.61***	***53.51***	***0.961***	***57.90***	***<.05***	***0.310***	***0.055***
Legal Advocacy	94.75	93.65	0.197	94.44	0.713	-0.020	0.680

Note: these models do not control for other covariates;
significant changes over time are ***bolded and italicized***

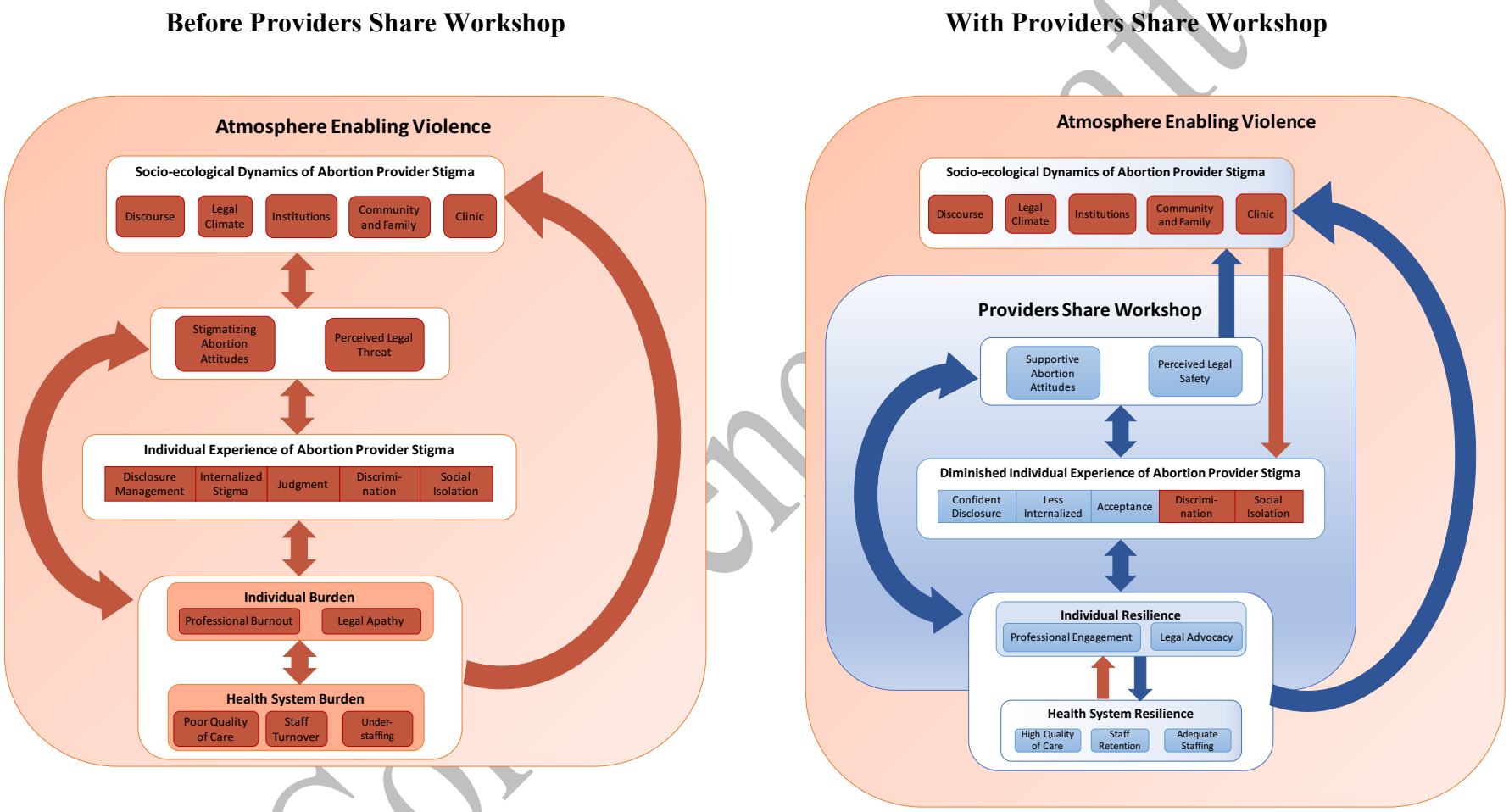
Table 3. Predictors of changes in abortion provider stigma, abortion attitudes, legal advocacy, perceived legal safety, and burnout after Providers Share Workshop pilots in East Africa and Latin America

Predictors	East Africa Models					
	Total Abortion Stigma	Total Negative Abortion Attitudes	Perceived Legal Safety	Support for Legal Advocacy	Depersonalization	Emotional Exhaustion
Total Abortion Stigma		0.07	***-1.93*** ***	***-1.47*** ***	0.33	-1.36
Total Negative Abortion Attitudes	0.10		-0.23	***-1.12*** ***	1.12	1.23
Perceived Legal Safety	***-0.12*** ***	-0.02		***-0.24*** **	-0.13	***-0.65*** **
Support for Legal Advocacy	***-0.15*** ***	***-0.12*** ***	***-0.42*** **		-0.01	-0.58
Depersonalization	0.01	0.02	-0.03	-0.01		***0.39*** **
Emotional Exhaustion	-0.02	0.01	***-0.13*** **	***-0.06*** *	***0.19*** **	
Personal Achievement	-0.02	0.00	-0.06	-0.01	-0.03	-0.09
Age	-0.07	-0.10	-0.40	-0.29	0.48	0.49
Female	-0.04	-0.10	0.84	-0.52	1.01	-0.34
Education	***0.24*** ***	-0.07	0.50	0.12	-0.60	1.17
Religious Attendance	-0.01	0.15 *	-0.45	-0.10	-0.83	-0.95
Work Experience: 3-5 years (Reference: 0-2 years)	-0.20	-0.05	-1.27	0.05	***-4.24*** **	2.86
6+ years	-0.19	-0.34	-0.86	-0.60	-3.87	3.73

Predictors	Latin America Models			
	Total Abortion Stigma	Total Negative Abortion Attitudes	Perceived Legal Safety	Support for Legal Advocacy
Total Abortion Stigma		0.15	***-0.61*** **	-0.01
Total Negative Abortion Attitudes	0.14		-0.40	***-0.22*** ***
Perceived Legal Safety	***-0.07*** **	***-0.05*** *		0.01
Support for Legal Advocacy	-0.04	***-0.33*** ***	0.10	
Age	-0.01	0.00	0.03	0.01
Female	0.47	-0.15	0.08	0.29
Education	***-0.21*** **	0.02	***-0.49*** *	-0.09
Religious Attendance	0.00	-0.04	***0.51*** **	0.09
Work Experience: 1-2 years (Reference: <1 year)	-0.16	-0.23	0.04	-0.28
3+ years	-0.03	-0.01	0.40	0.16

Note: *p<.05; **p<.01; ***p<.001
significant changes over time are ***bolded and italicized***
insignificant regression models are excluded from the table

Figure 1. Conceptual models of abortion provider stigma dynamics before and with the Providers Share Workshop (PSW) pilots in East Africa and Latin America



Appendix A. Measures, items, and response categories for stigma variables used in the Global Providers Share Workshop in East Africa and Latin America

Item	Subscale	East Africa Response Categories	Latin America Response Categories
People's reactions to be being an abortion worker make me keep to myself.	Disclosure issues	1=never, 2=rarely, 3=sometimes, 4=often, 5=all the time	*N/A*
I feel that disclosing my abortion work is not worth the potential hassle that could result.	Disclosure issues	1=never, 2=rarely, 3=sometimes, 4=often, 5=all the time	*N/A*
I feel the need to hide my work in abortion care from my friends.	Disclosure issues	1=never, 2=rarely, 3=sometimes, 4=often, 5=all the time	1=never, 2=sometimes, 3=all the time
I find it hard to tell people I work in abortion.	Disclosure issues	1=never, 2=rarely, 3=sometimes, 4=often, 5=all the time	*N/A*
I feel like if I tell people about my work they will ONLY see me as an abortion worker.	Disclosure issues.	1=never, 2=rarely, 3=sometimes, 4=often, 5=all the time	1=never, 2=sometimes, 3=all the time
I worry about telling people I work in abortion care.	Disclosure issues.	1=never, 2=rarely, 3=sometimes, 4=often, 5=all the time	1=never, 2=sometimes, 3=all the time
It bothers me if people in my neighborhood know that I work in abortion care.	Disclosure issues.	1=never, 2=rarely, 3=sometimes, 4=often, 5=all the time	*N/A*
I avoid telling people what I do for a living.	Disclosure issues.	1=never, 2=rarely, 3=sometimes, 4=often, 5=all the time	*N/A*
I am afraid that if I tell people I work in abortion care I could put myself, or my loved ones, at risk for violence.	Disclosure issues.	1=never, 2=rarely, 3=sometimes, 4=often, 5=all the time	1=never, 2=sometimes, 3=all the time
I have been verbally threatened or attacked as a result of working in abortion care.	Discrimination	*N/A*	1=never, 2=sometimes, 3=all the time
I have been physically threatened or attacked as a result of working in abortion care.	Discrimination	*N/A*	1=never, 2=sometimes, 3=all the time
My family has been harassed or discriminated against by others who find out about my work in abortion care.	Discrimination	1=never, 2=rarely, 3=sometimes, 4=often, 5=all the time	*N/A*
People treat my family members differently if they know about my work in abortion care.	Discrimination	1=never, 2=rarely, 3=sometimes, 4=often, 5=all the time	1=never, 2=sometimes, 3=all the time
I am proud that I work in abortion care.*	Internalized states	1=never, 2=rarely, 3=sometimes, 4=often, 5=all the time	1=never, 2=sometimes, 3=all the time
I feel connected to others who do this work.*	Internalized states	1=never, 2=rarely, 3=sometimes, 4=often, 5=all the time	1=never, 2=sometimes, 3=all the time
By providing abortion, I am making a positive contribution to society.*	Internalized states	1=never, 2=rarely, 3=sometimes, 4=often, 5=all the time	1=never, 2=sometimes, 3=all the time
I find it important to share with people that I work in abortion care.*	Internalized states	1=never, 2=rarely, 3=sometimes, 4=often, 5=all the time	*N/A*
I feel that my work in abortion care is targeted by restrictive legislation more than other types of health care.	Internalized states	1=never, 2=rarely, 3=sometimes, 4=often, 5=all the time	*N/A*
I feel good about my work in abortion care.*	Internalized states	1=never, 2=rarely, 3=sometimes, 4=often, 5=all the time	1=never, 2=sometimes, 3=all the time
I feel regret over not telling people about my work in abortion care.	Internalized states	1=never, 2=rarely, 3=sometimes, 4=often, 5=all the time	*N/A*
I feel ashamed of the work I do.	Internalized states	1=never, 2=rarely, 3=sometimes, 4=often, 5=all the time	1=never, 2=sometimes, 3=all the time
I feel guilty about the work I do.	Internalized states	1=never, 2=rarely, 3=sometimes, 4=often, 5=all the time	1=never, 2=sometimes, 3=all the time
I question whether providing abortion care is a good thing to do.	Internalized states	1=never, 2=rarely, 3=sometimes, 4=often, 5=all the time	1=never, 2=sometimes, 3=all the time
I feel embarrassed about my work in abortion care.	Internalized states	1=never, 2=rarely, 3=sometimes, 4=often, 5=all the time	1=never, 2=sometimes, 3=all the time
I feel out of place among people who don't work in abortion care.	Internalized states	1=never, 2=rarely, 3=sometimes, 4=often, 5=all the time	*N/A*
I feel that other health workers look down on me because of my decision to work in abortion care.	Social Judgment	1=never, 2=rarely, 3=sometimes, 4=often, 5=all the time	*N/A*
I feel that society (the general public) does not value me as an abortion worker.	Social Judgment	1=never, 2=rarely, 3=sometimes, 4=often, 5=all the time	1=never, 2=sometimes, 3=all the time
Other people have made me feel ashamed of my work in abortion care.	Social Judgment	1=never, 2=rarely, 3=sometimes, 4=often, 5=all the time	1=never, 2=sometimes, 3=all the time
The way people have treated me when they find out that I work in abortion care upsets me.	Social Judgment	1=never, 2=rarely, 3=sometimes, 4=often, 5=all the time	1=never, 2=sometimes, 3=all the time
I feel alone because of my work in abortion care.	Social Judgment	1=never, 2=rarely, 3=sometimes, 4=often, 5=all the time	1=never, 2=sometimes, 3=all the time
I am angry at the way people have reacted to me when they learned that I work in abortion care.	Social Judgment	1=never, 2=rarely, 3=sometimes, 4=often, 5=all the time	1=never, 2=sometimes, 3=all the time
People have insulted me because of my work in abortion care.	Social Judgment	1=never, 2=rarely, 3=sometimes, 4=often, 5=all the time	1=never, 2=sometimes, 3=all the time
When I see or read something about abortion in the papers or on television, it makes me feel bad about myself.	Social Judgment	1=never, 2=rarely, 3=sometimes, 4=often, 5=all the time	*N/A*
I feel other health care workers question my professional skills when they learn that I work in abortion care.	Social Judgment	1=never, 2=rarely, 3=sometimes, 4=often, 5=all the time	*N/A*
I feel that people question my morals when they learn I work in abortion care.	Social Judgment	1=never, 2=rarely, 3=sometimes, 4=often, 5=all the time	1=never, 2=sometimes, 3=all the time
I feel that friends and family who do not work in abortion care don't understand my work.	Social Judgment	1=never, 2=rarely, 3=sometimes, 4=often, 5=all the time	1=never, 2=sometimes, 3=all the time
I worry that my friends and family will think less of me if I talk about the upsetting or difficult parts of my work.	Social Judgment	1=never, 2=rarely, 3=sometimes, 4=often, 5=all the time	1=never, 2=sometimes, 3=all the time
I feel the most comfortable in social settings when others know I work in abortion care.	Social Judgment	1=never, 2=rarely, 3=sometimes, 4=often, 5=all the time	1=never, 2=sometimes, 3=all the time
I feel that when I disclose my abortion work to strangers, they are supportive of me.*	Social Support	1=never, 2=rarely, 3=sometimes, 4=often, 5=all the time	*N/A*
I feel that when I disclose my abortion work to family and friends they are supportive of me.*	Social Support	1=never, 2=rarely, 3=sometimes, 4=often, 5=all the time	1=never, 2=sometimes, 3=all the time
I talk openly with my family about my work in abortion care.*	Social Support	1=never, 2=rarely, 3=sometimes, 4=often, 5=all the time	1=never, 2=sometimes, 3=all the time
I talk openly with my friends about my work in abortion care.*	Social Support	1=never, 2=rarely, 3=sometimes, 4=often, 5=all the time	1=never, 2=sometimes, 3=all the time
I can talk to close friends and family about a hard day at work.*	Social Support	1=never, 2=rarely, 3=sometimes, 4=often, 5=all the time	1=never, 2=sometimes, 3=all the time

* indicates an item was reverse-coded; all items are coded so higher scores mean higher stigma

Appendix B. Results of the exploratory factor analysis of abortion attitudes used in the Global Providers Share Workshop in East Africa and Latin America

Item	East Africa Subscale	East Africa Factor Loading	East Africa Response Categories	Latin America Subscale	Latin America Factor Loading	Latin America Response Categories
Abortion is the easy way out of an unplanned pregnancy.	*did not load*	*did not load*	*did not load*	*N/A*	*N/A*	*N/A*
I could support a woman who had an abortion even if I didn't agree with her decision.*	No Support	0.7	1=strongly disagree, 2=disagree, 3=agree, 4=strongly agree	No Support	0.5	1=disagree, 2=somewhat agree, 3=agree
Women who have abortions usually have good reasons.*	No Support	0.62	1=strongly disagree, 2=disagree, 3=agree, 4=strongly agree	No Support	0.41	1=disagree, 2=somewhat agree, 3=agree
Abortion is a woman's right.*	No Support	0.73	1=strongly disagree, 2=disagree, 3=agree, 4=strongly agree	No Support	0.46	1=disagree, 2=somewhat agree, 3=agree
A woman who has an abortion should keep it a secret.	*did not load*	*did not load*	*did not load*	*did not load*	*did not load*	*did not load*
A woman who has an abortion is committing a sin.	Shame	0.56	1=strongly disagree, 2=disagree, 3=agree, 4=strongly agree	*did not load*	*did not load*	*did not load*
A woman who has an abortion is a bad mother.	Shame	0.61	1=strongly disagree, 2=disagree, 3=agree, 4=strongly agree	*did not load*	*did not load*	*did not load*
A woman who has an abortion should be treated the same as everyone else.*	Shame	0.46	1=strongly disagree, 2=disagree, 3=agree, 4=strongly agree	No Support	0.52	1=disagree, 2=somewhat agree, 3=agree
It is okay for a woman to feel relieved after an abortion.*	No Support	0.53	1=strongly disagree, 2=disagree, 3=agree, 4=strongly agree	No Support	0.52	1=disagree, 2=somewhat agree, 3=agree
Women should not use abortion as a form of birth control.	Multiple Abortions	0.65	1=strongly disagree, 2=disagree, 3=agree, 4=strongly agree	*did not load*	*did not load*	*did not load*
I get angry with patients who have more than one abortion.	Multiple Abortions	0.58	1=strongly disagree, 2=disagree, 3=agree, 4=strongly agree	N/A	N/A	N/A
I am uncomfortable assisting with abortions past the first trimester.	Shame	0.46	1=strongly disagree, 2=disagree, 3=agree, 4=strongly agree	N/A	N/A	N/A
Women who seek abortions past the first trimester are irresponsible.	*did not load*	*did not load*	*did not load*	*did not load*	*did not load*	*did not load*
I have less respect for women who have abortions.	Shame	0.40	1=strongly disagree, 2=disagree, 3=agree, 4=strongly agree	*did not load*	*did not load*	*did not load*
I would support a woman in her decision to have an abortion, regardless of the reason.*	No Support	0.49	1=strongly disagree, 2=disagree, 3=agree, 4=strongly agree	No Support	0.47	1=disagree, 2=somewhat agree, 3=agree
A woman who has an abortion brings shame to her family.	Shame	0.58	1=strongly disagree, 2=disagree, 3=agree, 4=strongly agree	*did not load*	*did not load*	*did not load*
A woman who has had an abortion should be counseled by religious leaders so that she does not do it again.	Shame	0.59	1=strongly disagree, 2=disagree, 3=agree, 4=strongly agree	*did not load*	*did not load*	*did not load*
A woman who has an abortion brings shame to her community.	Shame	0.76	1=strongly disagree, 2=disagree, 3=agree, 4=strongly agree	*did not load*	*did not load*	*did not load*
It is a good idea for a woman who has an abortion to talk about her experience.*	*did not load*	*did not load*	*did not load*	*N/A*	*N/A*	*N/A*
I would continue to be friends with someone if I found out they had an abortion.*	Shame	0.5	1=strongly disagree, 2=disagree, 3=agree, 4=strongly agree	No Support	0.57	1=disagree, 2=somewhat agree, 3=agree
I would feel ashamed if a member of my family had an abortion.	Shame	0.52	1=strongly disagree, 2=disagree, 3=agree, 4=strongly agree	*did not load*	*did not load*	*did not load*
Women should consult with their husband/partner before they have an abortion.	*N/A*	*N/A*	*N/A*	*did not load*	*did not load*	*did not load*
I have been suspicious about whether a patient is a real patient, or is posing as a fake patient who is trying to trap me.	*N/A*	*N/A*	*N/A*	Entrapment	-0.56	1=never, 2=sometimes, 3=often
I'm afraid that I will be recorded while at work.	*N/A*	*N/A*	*N/A*	Entrapment	-0.43	1=never, 2=sometimes, 3=often
I would know what to do and who to talk to, if I encountered a fake patient.	*N/A*	*N/A*	*N/A*	*did not load*	*did not load*	*did not load*
I get angry with patients who have more than 1 TAI.	*N/A*	*N/A*	*N/A*	Multiple, Later Term, and Adolescent Abortions	0.56	1=never, 2=sometimes, 3=often
I am uncomfortable assisting with TAI past 10 weeks.	*N/A*	*N/A*	*N/A*	Multiple, Later Term, and Adolescent Abortions	0.5	1=never, 2=sometimes, 3=often
I am uncomfortable assisting with TAI for girls who are younger than 16.	*N/A*	*N/A*	*N/A*	Multiple, Later Term, and Adolescent Abortions	0.73	1=never, 2=sometimes, 3=often
I think that girls who are younger than 16 should have their parents' permission before having a TAI.	*N/A*	*N/A*	*N/A*	Multiple, Later Term, and Adolescent Abortions	0.5	1=never, 2=sometimes, 3=often
I get angry assisting with girls who are younger than 16 who seek TAI services.	*N/A*	*N/A*	*N/A*	Multiple, Later Term, and Adolescent Abortions	0.68	1=never, 2=sometimes, 3=often

Appendix C. Results of the exploratory factor analysis of support for legal advocacy and perceived legal safety variable used in the Global Providers Share Workshop in East Africa and Latin America

Item	Measure	East Africa Factor Loading	East Africa Response Categories	Latin America Factor Loading	Latin America Response Categories
I would vote for a candidate who wanted to make abortion laws more liberal*	Legal Advocacy	0.71	1=agree, 2=indifferent, 3=disagree	0.44	1=agree, 2=no opinion, 3=disagree
I would publicly participate in a demonstration or rally supporting greater access to abortion for women in my country*	Legal Advocacy	0.7	1=disagree, 2=indifferent, 3=agree	0.49	1=disagree, 2=no opinion, 3=agree
It is a good idea for the government to allow abortions to be legal.*	Legal Advocacy	0.69	1=disagree, 2=indifferent, 3=agree	0.67	1=disagree, 2=no opinion, 3=agree
I think that the laws in my country should be changed to make abortion more accessible*	Legal Advocacy	0.69	1=disagree, 2=indifferent, 3=agree	*did not load*	*did not load*
I believe that people who provide abortion services should participate in trying to change the legal situation in my country*	Legal Advocacy	0.8	1=disagree, 2=indifferent, 3=agree	*did not load*	*did not load*
I am hopeful that the legal restrictions on abortion will be relaxed in the next 5 years*	Legal Advocacy	0.44	1=disagree, 2=indifferent, 3=agree	*did not load*	*did not load*
The current legal status of abortion makes it dangerous to do my job	Perceived Legal Safety	0.45	1=disagree, 2=indifferent, 3=agree	0.49	1=disagree, 2=no opinion, 3=agree
I worry that my patients will be arrested or harassed by the police	Perceived Legal Safety	0.58	1=disagree, 2=indifferent, 3=agree	0.54	1=disagree, 2=no opinion, 3=agree
It is too dangerous for someone who provides abortion to participate in trying to change the legal situation in my country	Perceived Legal Safety	*did not load*	*did not load*	0.43	1=disagree, 2=no opinion, 3=agree
I worry that I will be harassed by the police	Perceived Legal Safety	0.63	1=disagree, 2=indifferent, 3=agree	0.67	1=disagree, 2=no opinion, 3=agree
I worry that my current or former colleagues will turn me into the authorities.	Perceived Legal Safety	N/A	N/A	0.51	1=disagree, 2=no opinion, 3=agree
I have been harassed by the police because of my work in abortion services	Perceived Legal Safety	0.6	1=disagree, 2=indifferent, 3=agree	N/A	N/A
I have been blackmailed or the target of extortion because of my work in abortion services	Perceived Legal Safety	0.62	1=disagree, 2=indifferent, 3=agree	N/A	N/A
I have been threatened by a patient or patient's family that they will turn my name over to the authorities unless I pay them money	Perceived Legal Safety	0.43	1=disagree, 2=indifferent, 3=agree	N/A	N/A
I worry that I will lose my job because of the legal status of abortion	Perceived Legal Safety	0.45	1=disagree, 2=indifferent, 3=agree	N/A	N/A
I feel that my former abortion care patients avoid me in public places	N/A	*did not load*	*did not load*	*did not load*	*did not load*
Generally, my religious community spurns persons who work in abortion care	N/A	*did not load*	*did not load*	*did not load*	*did not load*
I feel my clients would support me if I were being persecuted*	N/A	*did not load*	*did not load*	N/A	N/A
I can trust the people I am close to with information about my abortion work*	N/A	*did not load*	*did not load*	N/A	N/A
Personally, I feel accepted in my religious community even though they know I provide abortion care*	N/A	*did not load*	*did not load*	N/A	N/A
* indicates an item was reverse-coded; all items are coded so higher scores mean higher support for legal advocacy and higher perceived safety					

Appendix D. Measures, items, and response categories for burnout variables used in the Global Providers Share Workshop in East Africa

Item	Subscale	East Africa Response Categories
I feel I treat some clients as if they were impersonal objects.	Depersonalization	0=never, 1=a few times a year or less, 2=once a month or less, 3=a few times a month, 4=once a week, 5=a few times a week, 6=every day
I've become more callous toward people's lives through my work.	Depersonalization	0=never, 1=a few times a year or less, 2=once a month or less, 3=a few times a month, 4=once a week, 5=a few times a week, 6=every day
I worry that this job is hardening me emotionally.	Depersonalization	0=never, 1=a few times a year or less, 2=once a month or less, 3=a few times a month, 4=once a week, 5=a few times a week, 6=every day
I don't really care what happens to some clients.	Depersonalization	0=never, 1=a few times a year or less, 2=once a month or less, 3=a few times a month, 4=once a week, 5=a few times a week, 6=every day
I feel clients blame me for some of their problems.	Depersonalization	0=never, 1=a few times a year or less, 2=once a month or less, 3=a few times a month, 4=once a week, 5=a few times a week, 6=every day
I feel drained from my work.	Emotional Exhaustion	0=never, 1=a few times a year or less, 2=once a month or less, 3=a few times a month, 4=once a week, 5=a few times a week, 6=every day
I feel used up at the end of the workday.	Emotional Exhaustion	0=never, 1=a few times a year or less, 2=once a month or less, 3=a few times a month, 4=once a week, 5=a few times a week, 6=every day
I feel fatigued when I get up in the morning and have to face another day on the job.	Emotional Exhaustion	0=never, 1=a few times a year or less, 2=once a month or less, 3=a few times a month, 4=once a week, 5=a few times a week, 6=every day
Working with people all day is really a strain for me.	Emotional Exhaustion	0=never, 1=a few times a year or less, 2=once a month or less, 3=a few times a month, 4=once a week, 5=a few times a week, 6=every day
I feel burned out from my work.	Emotional Exhaustion	0=never, 1=a few times a year or less, 2=once a month or less, 3=a few times a month, 4=once a week, 5=a few times a week, 6=every day
I feel frustrated by my job.	Emotional Exhaustion	0=never, 1=a few times a year or less, 2=once a month or less, 3=a few times a month, 4=once a week, 5=a few times a week, 6=every day
I feel I'm working too hard on my job.	Emotional Exhaustion	0=never, 1=a few times a year or less, 2=once a month or less, 3=a few times a month, 4=once a week, 5=a few times a week, 6=every day
Working with other people directly puts too much stress on me.	Emotional Exhaustion	0=never, 1=a few times a year or less, 2=once a month or less, 3=a few times a month, 4=once a week, 5=a few times a week, 6=every day
I feel like I'm at the end of my rope.	Emotional Exhaustion	0=never, 1=a few times a year or less, 2=once a month or less, 3=a few times a month, 4=once a week, 5=a few times a week, 6=every day
I can easily understand how my clients feel about things.	Personal Accomplishment	0=never, 1=a few times a year or less, 2=once a month or less, 3=a few times a month, 4=once a week, 5=a few times a week, 6=every day
I deal very effectively with the problems of my clients.	Personal Accomplishment	0=never, 1=a few times a year or less, 2=once a month or less, 3=a few times a month, 4=once a week, 5=a few times a week, 6=every day
I feel I am positively influencing other people's lives through my work.	Personal Accomplishment	0=never, 1=a few times a year or less, 2=once a month or less, 3=a few times a month, 4=once a week, 5=a few times a week, 6=every day
I feel very energetic.	Personal Accomplishment	0=never, 1=a few times a year or less, 2=once a month or less, 3=a few times a month, 4=once a week, 5=a few times a week, 6=every day
I can easily create a relaxed atmosphere with my clients.	Personal Accomplishment	0=never, 1=a few times a year or less, 2=once a month or less, 3=a few times a month, 4=once a week, 5=a few times a week, 6=every day
I feel exhilarated after working closely with my clients.	Personal Accomplishment	0=never, 1=a few times a year or less, 2=once a month or less, 3=a few times a month, 4=once a week, 5=a few times a week, 6=every day
I have accomplished many worthwhile things in this job.	Personal Accomplishment	0=never, 1=a few times a year or less, 2=once a month or less, 3=a few times a month, 4=once a week, 5=a few times a week, 6=every day
In my work, I deal with emotional problems very calmly.	Personal Accomplishment	0=never, 1=a few times a year or less, 2=once a month or less, 3=a few times a month, 4=once a week, 5=a few times a week, 6=every day

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