

# Differential treatment in the provision of medication abortion at pharmacies in Uttar Pradesh, India



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**BACKGROUND:** Almost 3 quarters of India's roughly 16 million annual abortions are done through medication abortion purchased from pharmacists outside of healthcare facilities. The quality of information provided by pharmacists about medication abortion is often poor.

**OBJECTIVE:** To determine whether pharmacists selling medication abortion provide different information or ask different, potentially stigmatizing questions to clients by gender and marital status.

**STUDY DESIGN:** Mystery clients presenting as 4 profiles (unmarried woman, unmarried man, married woman, and married man) purchasing medication abortion interacted with 111 pharmacists in 3 districts around Lucknow, Uttar Pradesh in 2018. Data were collected immediately after the interaction. The differences in the information conveyed and the questions asked by the pharmacists by mystery client characteristics were analyzed using logistic regression in Stata 15 MP.

**RESULTS:** Pharmacists very rarely asked intrusive, medically irrelevant questions and appeared willing to sell medication abortion to all the mystery clients regardless of gender, age, or marital status. However, the pharmacists were overall less likely to provide the female mystery clients with as comprehensive and correct information on medication abortion as they were to male mystery clients, particularly if female mystery clients presented as unmarried.

**CONCLUSION:** Pharmacists are observed to provide differential and poorer quality information about medication abortion to women, especially if they seem unmarried, potentially putting women at risk of having a lower-quality and less supported experience of using the medication. However, the pharmacists' willingness to sell the medication to all mystery clients and the lack of intrusive questions and comments reinforces out-of-facility medication abortion as a way for individuals to access an often-stigmatized service. Interventions must find a way to either address this bias among pharmacists, or more practically, to provide high-quality information directly to the individuals seeking medication abortion.

**Key words:** bias, out-of-facility care, pregnancy termination, reproductive health, stigma

## Introduction

In India, abortion is legal until the 20th week of pregnancy under a broad range of circumstances, and the government has enacted policies to facilitate access to abortion services.<sup>1</sup> Despite these efforts, there are many barriers that prevent individuals from easily accessing safe, quality services in the formal healthcare sector.

The barriers include distance to the clinics providing services, lack of trained providers at the registered health facilities, absence of the needed equipment and infrastructure in health centers, and low community awareness of abortion legality.<sup>2–6</sup> In 2008, medication abortion (MA) combination packs (“combipacks”) consisting of the drugs mifepristone and

misoprostol became available by prescription outside of registered facilities. A 2015 abortion incidence study estimated that 73% of the almost 16 million annual abortions in the country take place using MA outside of health facilities, with MA often being procured at pharmacies.<sup>7</sup> Despite the regulation that MA can only be obtained with a prescription from a

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## AJOG Global Reports at a Glance

**Why was this study conducted?**

This study was conducted to determine whether pharmacists selling medication abortion provide differential information or ask different and potentially stigmatizing questions to clients by gender and marital status.

**Key findings**

Pharmacists very rarely asked intrusive, medically irrelevant questions and appeared willing to sell medication abortion to all the mystery clients regardless of gender, age, or marital status. The pharmacists were overall less likely to provide female mystery clients with as comprehensive and correct information on medication abortion as their male counterparts, particularly if the women presented as unmarried.

**What does this add to what is known?**

Research has found that pharmacists in India often provide poor information on medication abortion to purchasers. This study found that this interaction is mediated by gender and marital status, with women—especially unmarried women—receiving poorer quality information.

qualified provider, sales of combipacks at pharmacies, often without prescription, have soared.<sup>8,9</sup>

Previous studies in India have demonstrated that pharmacists and pharmacy workers, who are often the first point of contact for individuals interested in MA, often relay inadequate and inaccurate information on MA to individuals purchasing the drugs.<sup>10–14</sup> This includes a lack of correct and thorough information on how to appropriately take the medication, what to expect during the process, and how to distinguish between normal side effects and signs of complications. Although studies in India have demonstrated pharmacists' lack of knowledge, few studies explore the actual interaction between pharmacist and client using methods such as mystery clients. Those studies that have investigated interactions did not examine differential treatment by type of client.<sup>10</sup> Mystery or simulated client data collection has been employed in reproductive health studies for several decades to overcome the biases associated with other forms of data collection and has recently been used to study the pharmacy-based provision of MA.<sup>15–18</sup>

In India, as in much of the rest of the world, barriers exist for women accessing health services. In many parts of the country, strict gender norms still exist,

and women often have lower status in the household and community and experience restrictions on physical mobility. Because of these gender norms and restrictions, women are likely to be at a risk of receiving unequal treatment in healthcare.<sup>19,20</sup> In addition, stigma surrounding sexual and reproductive health service utilization—particularly abortion and especially for unmarried individuals—has been documented both in India and globally. This stigma influences both the experience of seeking an abortion and abortion provision.<sup>3,21,22</sup> A 2010 study in the Indian states of Bihar and Jharkhand found that unmarried individuals presenting at a clinic for abortion services were more likely than their married counterparts to lack partner support, to prioritize confidentiality in choosing the location of the abortion service, to opt for a facility further away, to have made at least one unsuccessful previous attempt to abort, and to have delayed seeking abortion services.<sup>23</sup> In a qualitative study of rural women in Tamil Nadu, India, focus group participants reported that pregnancies and subsequent terminations resulting from relationships outside of marriage were considered more shameful than those done by married women, and adolescent and single women reported that secrecy and confidentiality sometimes

superseded medical safety in selecting a provider.<sup>21</sup>

On the healthcare side, beliefs about abortion impact the way providers approach abortion services. In a survey of medical student interns in Maharashtra, India, one-fifth of the 1996 respondents disagreed that abortions for unplanned pregnancies among unmarried women were acceptable, a quarter believed that a woman needs to have her partner or spouse's approval for an abortion, and nearly a quarter (23%) believed that abortion is morally wrong.<sup>24</sup> Several studies in India report, either directly from the providers or from the individuals' experiences seeking abortion, that the providers may refuse to perform an abortion for an unmarried individual, require the individual to agree to adopt a contraceptive method, or turn someone away because they believe that a spouse's approval is needed for the procedure.<sup>5,6,21,25</sup> A total of 81% of the facilities in Uttar Pradesh that provide abortions reported turning away someone seeking an abortion in the year before a 2015 study, with 21% turning someone away because they did not obtain permission from a partner or family member and 44% because they were unmarried, had no children, or were considered too young by the provider.<sup>25</sup>

In addition to, or perhaps because of the barriers and stigma present when accessing abortion care, the individuals needing abortions are frequently not the ones who directly purchase MA from pharmacies. Instead, men often purchase MA at pharmacies for their partners.<sup>9,11,12,14</sup> Those requiring an abortion, therefore, often receive information about MA second-hand and have no direct interaction with any type of provider in the process. In short, it is understood that the gender and marital status impact the way healthcare is administered and health-related information is conveyed. Yet, in this emerging context, with millions of people accessing MA outside of facilities, we know little about how these facets of identity impact this experience. Although 1 study utilized mystery clients in Madhya Pradesh, there have

been no published studies in India exploring how this interaction is mediated by gender, age, or marital status.<sup>12</sup>

This paper seeks to understand how the pharmacist-client interaction is mediated by factors such as gender and marital status of the client. It explores the results of a quantitative study utilizing mystery clients in Uttar Pradesh who presented at pharmacies as 1 of 4 characters seeking to end an unwanted pregnancy.

## Materials and Methods

The study was conducted in the urban and periurban (areas outside of cities that are a mix of rural and urban) regions of Lucknow, Kanpur Nagar, and Unnao districts of Uttar Pradesh, India, in 2018. The pharmacies were selected as a part of a larger project conducted to examine the pharmacists' and pharmacy workers' knowledge, attitudes, and behaviors surrounding MA and to measure the impact of a basic handout with MA information on the pharmacists' knowledge and practices.<sup>8,9,26</sup> This paper only reports on the findings from the substudy using mystery clients to understand the client-pharmacist interaction through a different, unbiased lens (compared with a provider self-report).

We conducted a mapping of pharmacists in the 3 districts and randomly selected 119 pharmacists using simple random sampling from the list generated by the mapping. After consenting to participate, the pharmacists participated in a baseline survey on their knowledge and practices surrounding MA (which was part of the larger study, described elsewhere).<sup>8,9,26</sup> At this time, we also asked their permission for a mystery client to come visit them at some point in the next 6 months. All the pharmacists who consented to the baseline survey also agreed to mystery client visits.

Three female and 3 male research assistants were trained as mystery clients over a 3-day period. These research assistants were selected from communities similar to where the study was occurring. The training included information about MA, role play as pharmacists and MA seekers, practice with the

data collection tool, and pilot testing. Mystery clients presented to pharmacies as 1 of the following 4 different characters: a younger, unmarried woman (~18 years); a younger unmarried man (~20 years); a married woman (~28 years); and a married man (~30 years). Such attributes were made clear by clothing and cultural symbols of marriage for women and the age and appearance of the mystery clients. The marital status of the male mystery clients was conveyed verbally during the conversation with the pharmacist. The detailed profiles of each character, including the background, contraceptive history, and details of the current pregnancy were created so that the mystery clients presented to pharmacists as uniformly as possible. The authors of this paper wish to acknowledge that people identifying as any gender, including transgender and gender nonconforming individuals, can get pregnant and seek abortions. For the purposes of this study, we employed cisgender mystery clients identifying as men or women and have referred to them as such in the study.

When the mystery client arrived at the pharmacy, they stated that they (or their partner) had an unwanted pregnancy. They were instructed to ask only about specific topics, including how and at what time to take the pills, what to expect, and the signs of possible complications, if the pharmacists did not offer the information themselves. The mystery client invented an excuse at the end of their conversation and left before actually purchasing the medication. Immediately after the encounter, the mystery client met with a partner research assistant and filled out a standardized digital survey about their experience using Survey CTO software (Dobility, Inc, Cambridge, MA) on tablets. The survey took about 15 minutes to complete and included the questions described in [Table 1](#) and an open-ended section for additional brief notes on the interaction, including the tone of the pharmacist. These questions ranged from whether the pharmacist asked pertinent medical questions such as if the MA seeker had confirmed the pregnancy with a pregnancy test to personal

questions with no medical relevancy including whether the MA seeker was married. In all, the mystery clients visited 111 pharmacies in the 3 districts. The mystery client visits occurred about 3 months after the baseline survey.

The quantitative data were analyzed using logistic regression in Stata 15 MP (Stata Statistical Software: Release 15; StataCorp LLC, College Station, TX), and the qualitative notes were coded in Microsoft Excel. This study received institutional review board approval from the University of California, San Francisco and the Population Health Foundation of India.

## Results

Most (over 99%) of the pharmacists in our sample were male. As described in [Table 1](#), 87% of the mystery clients were asked if they (or their partner) had confirmed pregnancy with a pregnancy test. Five percent were asked if they wanted more children, 5% were asked if they had taken MA before, 7% (all married) were asked how many children they already had, 3% were asked about their marital status, 3% if they were interested in family planning methods, 1% were asked about their age, and 1% were asked their education level. No mystery clients were asked about their religion, ethnicity/caste, or if they had previously used family planning methods. In most mystery client visits, the provider opened the box of MA to show the pills and how to take each 1 (95%) and described the normal progression of MA (73%). About half of the clients were told the correct dosage of mifepristone and misoprostol to be taken (49%) and were explained the correct timing between taking mifepristone and misoprostol (56%). Slightly fewer interactions included a description of what to do if the client had problems with MA (44%) and where to seek care if problems arose (33%). Some of these findings have been reported elsewhere in more detail.<sup>8</sup>

There were differences in the questions that were asked and the information that was provided by the pharmacists on the basis of the mystery client characteristics. Only women were asked if they had taken MA before, though such instances

TABLE 1

## Percent of providers asking questions and providing information to mystery clients by mystery client profile

	Unmarried woman	Married woman	Unmarried man	Married man	Total
Total	27 (100)	26 (100)	27 (100)	28 (100)	108 (100)
Provider asked. . .					
If taken a pregnancy test (Y)	19 (70.4)	23 (85.2)	27 (96.4)	28 (96.6)	97 (87.4)
If taken MA before (Y)	3 (11.1)	2 (7.4)	0 (0)	0 (0)	5 (4.5)
If interested in family planning (Y)	0 (0)	0 (0)	1 (3.6)	2 (6.9)	3 (2.7)
If used family planning (Y)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
If wanted more children (Y)	0 (0)	0 (0)	1 (3.6)	5 (17.2)	6 (5.4)
Age (Y)	0 (0)	0 (0)	0 (0)	1 (3.4)	1 (0.9)
Marital status (Y)	0 (0)	3 (11.1)	0 (0)	0 (0)	3 (2.7)
Religion (Y)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Ethnicity or caste (Y)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Education (Y)	1 (3.7)	0 (0)	0 (0)	0 (0)	1 (0.9)
Number of children already had (Y)	0 (0)	3 (11.1)	0 (0)	5 (17.2)	8 (7.2)
If partner knew was using MA (women only)					
No	24 (88.9)	26 (96.3)	NA	NA	52 (46.8)
Yes	0 (0)	1 (3.7)	NA	NA	1 (0.9)
NA	3 (11.1)	0 (0)	NA	NA	58 (52.3)
If mystery client had partner's permission to use MA (women only)					
No	25 (92.6)	26 (96.3)	NA	NA	53 (47.7)
Yes	0 (0)	1 (3.7)	NA	NA	1 (0.9)
NA	2 (7.4)	0 (0)	NA	NA	57 (51.4)
Provider. . .					
Described normal progression of MA (Y)	17 (63)	16 (59.3)	23 (82.1)	25 (86.2)	81 (73)
Described what to do if had problems with MA (Y)	4 (14.8)	13 (48.1)	16 (57.1)	16 (55.2)	49 (44.1)
Described where to seek care if had problems (Y)	4 (14.8)	10 (37)	9 (32.1)	14 (48.3)	37 (33.3)
Opened box of MA to show instructions (Y)	5 (18.5)	8 (29.6)	3 (10.7)	3 (10.3)	19 (17.1)
Opened up box of MA to show pills and how to take each one (Y)	25 (92.6)	25 (92.6)	27 (96.4)	28 (96.6)	105 (94.6)
Used any other leaflet or pamphlet to show illustrations for dosage, method, etc. (Y)	3 (11.1)	2 (7.4)	6 (21.4)	4 (13.8)	15 (13.5)
Wrote instructions on MA box or other piece of paper (Y)	5 (18.5)	1 (3.7)	1 (3.6)	1 (3.4)	8 (7.2)
Told the correct dosage of mifepristone and misoprostol (Y)	15 (55.6)	14 (53.8)	12 (44.4)	12 (42.9)	53 (49.1)
Explained the correct time between taking mifepristone and misoprostol (24–48 h) (Y)	10 (37)	13 (50)	16 (59.3)	21 (75)	60 (55.6)

Data are presented as number (percentage).

CI, confidence interval; MA, medication abortion; Y, yes.

Percher. Bias in medication abortion provision at pharmacies in India. *Am J Obstet Gynecol Glob Rep* 2021.

TABLE 2

## Logistic regression models of differences in pharmacist behavior by mystery client profile (odds ratio, 95% confidence interval)

Client profile	Woman (vs man)		Unmarried (vs married)		Unmarried woman (vs all others)	
	OR	95% CI	OR	95% CI	OR	95% CI
Provider asked. . .						
When last menstrual period was	1.40	(0.56–3.39)	0.65	(0.27–1.58)	0.84	(0.31–2.27)
If had taken a pregnancy test	0.13 <sup>a</sup>	(0.03–0.60)	0.50	(0.16–1.60)	0.18 <sup>a</sup>	(0.06–0.60)
If had taken MA before	— <sup>b</sup>		1.56	(0.25–9.70)	5.13 <sup>c</sup>	(0.81–32.47)
If interested in family planning	— <sup>b</sup>		0.50	(0.04–5.68)	— <sup>b</sup>	
Number of children	0.61	(0.14–2.69)	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	
Provider. . .						
Described normal progression of MA	0.30 <sup>a</sup>	(0.12–0.72)	0.97	(0.42–2.30)	0.53	(0.21–1.35)
Described what to do if had problems with MA	0.36 <sup>a</sup>	(0.17–0.78)	0.53	(0.25–1.14)	0.15 <sup>a</sup>	(0.05–0.47)
Described where to seek care if had problems	0.52	(0.23–1.16)	0.41 <sup>d</sup>	(0.18–0.93)	0.27 <sup>d</sup>	(0.09–0.85)
Opened box of MA to show instructions (Y)	2.70 <sup>c</sup>	(0.94–7.71)	0.70	(0.26–1.89)	1.14	(0.37–3.51)
Opened up box of MA to show pills and how to take each one	0.46	(0.08–2.59)	0.98	(0.19–5.09)	0.63	(0.11–3.62)
Wrote instructions on MA box or other piece of paper	3.44	(0.66–17.84)	3.31	(0.64–17.15)	6.14 <sup>d</sup>	(1.36–27.69)
Gave contact information	1.35	(0.34–5.37)	0.80	(0.20–3.15)	0.37	(0.04–3.06)
Asked if they had a prescription	0.51	(0.09–2.90)	1.02	(0.20–5.28)	0.61	(0.07–5.44)
Told correct dosage	1.56	(0.73–3.34)	1.08	(0.51–2.30)	1.41	(0.59–3.40)
Told correct timing between dosages	0.37 <sup>d</sup>	(0.17–0.82)	0.55	(0.25–1.18)	0.37 <sup>d</sup>	(0.15–0.90)

CI, confidence interval; MA, medication abortion; OR, odds ratio; Y, yes.

<sup>a</sup>  $P < .01$ ; <sup>b</sup> Not calculable because no one was asked about this question in 1 of the categories; <sup>c</sup>  $P < .1$ ; <sup>d</sup>  $P < .05$ .

Percher. Bias in medication abortion provision at pharmacies in India. *Am J Obstet Gynecol Glob Rep* 2021.

were few (9%); only men were asked if they were interested in family planning (5%). Only married women were asked about their marital status (11%), and only men, mostly married, were asked if they wanted more children (4% of unmarried men and 17% of married men). Unmarried male mystery clients were less likely than married male mystery clients to be told when to seek care if their female partners experienced problems (32% vs 48%).

Table 2 documents the results of the logistic regressions we conducted to analyze the differences between female and male, unmarried and married, and unmarried women vs all other mystery clients. There were several statistically significant differences. The female mystery clients were less likely than the

male mystery clients to be asked if they (or their partners, for male mystery clients) had taken a pregnancy test (odds ratio [OR], 0.13; 95% confidence interval [CI], 0.03–0.60), and the providers were less likely to describe the normal progression of MA (OR, 0.3; 95% CI, 0.12–0.72), what to do if problems occurred (OR, 0.36; 95% CI, 0.17–0.78), and to be told the correct timing between taking mifepristone and misoprostol (OR, 0.37; 95% CI, 0.17–0.82). The pharmacists were more likely to open the box of MA, show the pills, and tell how to take each 1 for female mystery clients vs male mystery clients (OR, 2.67; 95% CI, 0.94–7.71).

Unmarried female mystery clients were less likely to be asked if they had taken a pregnancy test (OR, 0.18; 95%

CI, 0.06–0.59), compared with all the others. They were also less likely to be told the correct time gap between taking mifepristone and misoprostol (OR, 0.36; 95% CI, 0.15–0.88), and the providers were less likely to describe what to do if problems occurred (OR, 0.15; 95% CI, 0.05–0.47). Unmarried female mystery clients were more likely to have the provider write down instructions for them (OR, 4.66; 95% CI, 1.15–18.83).

According to the qualitative notes accompanying the surveys, most of the pharmacists were friendly and polite to the mystery clients, with 76% of the clients describing the interactions with positive words including “friendly,” “cooperative,” “supportive,” and “helpful.” A small proportion (approximately 10%) of the mystery clients described



the interaction with neutral words or had mixed reviews, and 14% described the interaction with negative words or phrases including “not cooperative” and “not willing to entertain.” Nearly half (47%) of the negative experiences were reported by the mystery clients who presented as unmarried women (20% reported by married women, 20% married men, and 13% unmarried men). One mystery client presenting as an unmarried woman remarked that the pharmacist was “laughing in my face and not well-behaved.”

Even though none of the mystery clients purchased the medication, all the pharmacists appeared willing to sell the MA kit in all the encounters. Across the mystery client profiles, the pharmacists often offered discounts and wanted to complete the sale. However, 2 mystery clients presenting as married men reported that the pharmacists either tried to dissuade them initially from purchasing MA or asked for the rationale for its use. One reported, “When I said this is my wife’s first baby, he said that if it is the first baby then better talk to your wife because later on there could be a lot of problem because of which your wife could suffer, so first discuss with her and only then take any decision.” The other reported, “[the pharmacist] said she would give the kit but first she wanted to speak to my wife to understand why she wanted to do so. She said she would not give the kit if it was there was no compelling reason. I had to request her a lot after which she smiled a bit and showed me the kit. She said everything will be ok after taking this kit. Then she gave me correct information about how to take the medicine.” Both the pharmacists appeared willing to sell MA to the mystery clients despite the initial hesitation.

## Discussion

### Principal findings

The pharmacists rarely asked intrusive, medically irrelevant questions and appeared willing to sell MA to all the mystery clients regardless of the gender, age, or marital status of the clients. However, they were overall less likely to

provide the female mystery clients with as comprehensive information on MA as their male counterparts, particularly if they presented as unmarried.

### Results

Generally, the pharmacists asked mystery clients few personal questions that were not relevant to the use of MA, including age (1%), religion (0%), ethnicity/caste (0%), and education (1%). However, 17% of married men were asked if they wanted more children and 15% of all married individuals were asked how many children they had; such questions are not relevant to the use of MA and may reveal a bias in who pharmacists believe should be using the medication. Findings from the larger study in which this was embedded found that 52% of the 283 pharmacists surveyed (which includes the 111 visited by mystery clients) indicated that they told clients who came to buy MA to continue with the pregnancy if they had none or only 1 child.<sup>8</sup> Although 1 pharmacist did express this sentiment to a married male mystery client, the pharmacist ultimately appeared willing to sell the medication. This suggests that although the pharmacists may have their own biases, in practice they are willing to sell the medication to those seeking it, regardless of age, gender, marital status, or parity. This desire was reinforced by the frequent offers of discounts to the mystery clients in all 4 categories. Considering the many barriers to facility-based abortion that exist in India, including the state of Uttar Pradesh, these findings further illuminate why many are turning to out-of-facility MA for their abortions.

Although none of the pharmacists seemed to refuse to sell MA to any mystery client, they did convey significantly less correct and comprehensive information to the female mystery clients, particularly to those presenting as unmarried. One possible explanation for this could be the pharmacists’ comfort with conveying this kind of information to women. In a qualitative portion of the larger umbrella project of this work, some pharmacists

interviewed expressed discomfort about talking to women vs men about the specifics of taking MA, mentioning social and cultural barriers.<sup>9</sup> However, this does not account for the fact that unmarried women were more likely to receive written instructions and women overall were more likely to have the box of MA opened and to be shown the pills by the pharmacist.

### Clinical implications

The mystery clients in all the groups received inadequate information on MA. This was particularly true for the female mystery clients. Although MA through mifepristone and misoprostol is extremely safe, it is possible that inadequate and incorrect information may lead to both a lower-quality use and possibly a less efficacious use of the medication, if the proper doses and timing are not followed. In the qualitative portion of the larger study, the users of MA expressed that they had not been given adequate information on MA; this led to confusion about what to expect, including how much bleeding was normal.<sup>9</sup> It is vital that more standardized, correct, and comprehensive guidance is given to those accessing MA.

### Research implications

More research is needed to further examine the quality of care of out-of-facility MA use and how it can be improved. This includes research on how and to what extent those purchasing MA for their partners communicate the information they received, how the information conveyed by pharmacists does or does not prepare MA users for a supported and quality experience, and which information in particular would be helpful, and how people can access MA in even more accessible and bias-free ways. In addition, research is needed on how transgender and gender nonconforming individuals, who face many barriers to healthcare, are accessing MA and how their quality of care may be improved, given that this study only employed cisgender mystery clients.

## Strengths and limitations

Although we were able to compare across 4 different mystery client profiles, this led to relatively small sample sizes within each subgroup, limiting the significance of some of our findings. In addition, even though we have no evidence to suggest that it occurred, it is possible that the pharmacists were suspicious of the clients being mystery clients from our study, as we did ask their consent to allow a mystery client to visit them at some point in the future as part of the quantitative component of the larger, umbrella study. Thus, they were aware of the potential of a mystery client visit and may have changed their behavior accordingly. However, we feel confident that the time between the consent and the visit was long enough to reduce this possibility. If anything, this may have led us to an underestimation of the effect. As most pharmacists see about 1 to 2 clients for MA per week, and the mystery clients practiced having an organic conversation on the basis of previous research, the goal was for the mystery clients to be indistinguishable from any other MA seeker.

Another limitation is that we did not have detailed demographic data on the pharmacists. These data could help us understand if the pharmacist characteristics, for example, the age or training, helped explain different types of behaviors. Almost all the pharmacists in our study were male, and it is possible that the female pharmacists (which are uncommon) may have exhibited less or different biases. Finally, we only employed cisgender mystery clients; further research is needed on transgender and gender nonconforming individuals' abilities to access stigma-free, high-quality abortion services.

## Conclusions

These findings present an opportunity to improve MA provision at pharmacies through interventions that address and/or bypass pharmacist bias. One possible intervention to help provide information to abortion seekers at the time of MA purchase could be a low-literacy handout with images on how to take

MA and what to expect. Such a handout could be distributed in or with the MA combipacks. This would be an improvement over the current directions that are hard to follow and are in English rather than the local language. Another option would be a sticker on the MA package with a hotline or an interactive voice response system, where users and support people can call for more information. A WhatsApp number and a website could also be avenues to provide more support and guidance for those who have access to a smartphone. Training sessions with pharmacy workers that address abortion stigma and gender bias directly could also be employed, though such trainings have had mixed results in the past, and the pharmacist on paper might not actually be the person providing MA to clients in all cases.<sup>26</sup> Providing unbiased, high-quality information to MA clients purchasing from pharmacists is essential for improving client experiences and outcomes, and it is a high need in the Indian setting. ■

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