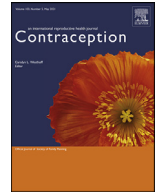




ELSEVIER

Contents lists available at ScienceDirect

## Contraception

journal homepage: [www.elsevier.com/locate/contraception](http://www.elsevier.com/locate/contraception)

## Original Research Article

# Client satisfaction and experience of telemedicine and home use of mifepristone and misoprostol for abortion up to 10 weeks' gestation at British Pregnancy Advisory Service: A cross-sectional evaluation

Marielle E. Meurice<sup>a,\*</sup>, Katherine C. Whitehouse<sup>b</sup>, Rebecca Blaylock<sup>b</sup>, Jenny J. Chang<sup>c</sup>, Patricia A. Lohr<sup>b</sup>

<sup>a</sup> University of California, Irvine, Department of Obstetrics and Gynecology, Orange, CA, United States

<sup>b</sup> British Pregnancy Advisory Service, Stratford-upon-Avon, Warwickshire, United Kingdom

<sup>c</sup> University of California, Irvine, Department of Medicine, School of Medicine, Irvine, CA, United States

## ARTICLE INFO

## Article history:

Received 1 February 2021

Received in revised form 21 April 2021

Accepted 22 April 2021

## Keywords:

Medical abortion

Medication abortion

Mifepristone

Misoprostol

No-touch abortion

Telemedicine abortion

## ABSTRACT

**Objective:** Evaluate satisfaction and experience with telemedicine consultation and home use of mifepristone and misoprostol for abortion to 10 weeks' gestation.

**Study Design:** Cross-sectional evaluation of British Pregnancy Advisory Service (BPAS) clients who used mifepristone and misoprostol at home from 11 May to 10 July 2020. We sent a text message with a link to a web-survey 2 to 3 weeks postabortion. Questions assessed satisfaction and experiences with a service model including telephone consultation and provision of medicines by mail or collection from the clinic. We used bivariate and multivariate regression to explore associations between client characteristics and outcomes. Our primary outcomes were overall satisfaction (5-point Likert scale) and reported contact with a health care provider.

**Results:** A total of 1,333 clients participated. Respondents described home use of medications as "straight-forward" (75.8%) and most were "very satisfied" (78.3%) or "satisfied" (18.6%) overall. Being "very satisfied" was associated with parity (aOR 1.53, 95% CI 1.09–2.14) and pain control satisfaction (aOR 2.22, 95% CI 1.44–3.44). Health care provider contact was reported by 14.7%; mainly to BPAS' telephone aftercare service (76.8%). Dissatisfaction with pain control (aOR 3.62, 95% CI 1.79–7.29) and waiting >1 week to use mifepristone (aOR 3.71, 95% CI 1.48–9.28) were associated with health care provider contact. If needed in the future, most would prefer consultation by phone (74.3%) and home use of mifepristone and misoprostol (77.8%).

**Conclusions:** Satisfaction with telemedicine and home use of mifepristone and misoprostol is high. Most clients do not need health care provider support when administering medicines at home or post abortion.

© 2021 The Author(s). Published by Elsevier Inc.

This is an open access article under the CC BY license (<http://creativecommons.org/licenses/by/4.0/>)

## 1. Introduction

Despite evidence that home use of mifepristone and misoprostol for medication abortion is safe and effective, restrictions remain common [1,2]. In the United Kingdom (UK), the Abortion Act [3] dictates where abortion medicines can be administered. In 2018, England, Wales, and Scotland approved a person's home for use of misoprostol [4], but mifepristone administration remained restricted to a clinic or hospital.

In March 2020, the UK government imposed a nationwide "lockdown" to control the spread of Sars-CoV-2 (COVID-19). Na-

tional guidance released during the pandemic recommended telemedicine models to preserve access to abortion care while protecting health care staff and clients from potential COVID exposure [5]. The English and the Welsh governments issued temporary approvals for home use of mifepristone and misoprostol up to 10 weeks' gestation [6]. Updated national guidance endorsed a fully telemedicine model for medication abortion care including telephone assessment, gestational age determination by last menstrual period (LMP) with ultrasound only when necessary, and direct-to-client provision of medicines.

Researchers have evaluated telemedicine in medication abortion care as a means to removing barriers to service access, reducing stigma, and improving outcomes and satisfaction [7–10]. Studies describe a range of models, from telemedicine consults as

\* Corresponding author.

E-mail address: [mmeurice@hs.uci.edu](mailto:mmeurice@hs.uci.edu) (M.E. Meurice).

a complement to in-person care to full remote provision of care [7]. Evidence shows that telemedicine improved access to abortion, while remaining safe and effective [9–12]. A systematic review of telemedicine for medication abortion  $\leq 10$  weeks' gestation concluded it was highly acceptable with rates of success and complications compared to in-clinic care [7].

In response to the pandemic and permission for home-use of mifepristone, British Pregnancy Advisory Service (BPAS) rapidly transformed its service model to primarily telemedicine consultations and provision of medicines for medication abortion via mail or in-clinic collection. To evaluate these service changes, we conducted a web-based survey with clients who accessed BPAS' medication abortion services during the COVID-19 pandemic using the new care pathway. Recognising the potential for this model to significantly decrease barriers to care, with applications during and beyond the pandemic, we aimed to understand client acceptability and experiences.

## 2. Materials and methods

On 8 April 2020, BPAS launched a telemedicine model for medication abortion up to 10 weeks of gestation. Clinicians (nurses or midwives) performed consultations via telephone (or video call for clients under 18 years of age for safeguarding purposes) to assess eligibility for medication abortion and determine if an in-person assessment was needed. Clinicians performed ultrasounds only when indicated (criteria included: unsure LMP, history of irregular menses or atypical LMP, vaginal bleeding/spotting or pelvic pain in the last 48 hours, intrauterine contraception in place at the time of conception, history of ectopic or prior tubal surgery). After confirmation of eligibility, clients chose to receive medicines by mail or collect them from a nearby clinic for home use. Per the Abortion Act (1967) [3], 2 doctors reviewed all abortion requests and provided the necessary signatures before prescribing the medicines.

Through mail or in-clinic collection, we provided clients with mifepristone, misoprostol, codeine for pain, written instructions, precautions, and information on how to access a 24-hour BPAS telephone helpline for questions or concerns. We instructed clients to take mifepristone 200 mg orally followed 1 to 2 days later by misoprostol 800 mcg vaginally or buccally. We provided an additional 400 mcg of misoprostol and instructed all clients to use it 3 to 4 hours after the first dose of misoprostol. We recommended that clients use over the counter non-steroidal anti-inflammatory drugs (NSAIDs) at prescription strength dosing (600–800 mg) with the codeine as needed for pain. We instructed clients to perform a low-sensitivity pregnancy test (Quadrant check4-HCG, 1000 mIU/ml) and a self-assessment checklist [13] to screen for ongoing pregnancy (less than 4 days of vaginal bleeding, persistent pregnancy symptoms, no return of menses after 4 weeks) 3 weeks postabortion. Clients could opt to receive progestin-only pills for contraception along with their medication abortion pills.

From 11 May to 10 July 2020, we sent a text message invitation to all clients who had a medication abortion at 10 weeks' gestation or less in the previous 10–21 days and had agreed to be contacted for the service evaluation during their initial booking. The invitation included a link to an anonymous web-based survey in English. We piloted the survey with non-clinical staff of reproductive age before dissemination. After a brief introduction, questions focused on: consultation, information provision, method of gestational age assessment (LMP or ultrasound), how medicines were received, experience with use of medicines, pain management, assessment of abortion outcome, contact with a health care provider (defined as contact with the BPAS helpline, BPAS clinic, hospital/emergency department (ED), or general practitioner), acceptability (5-point Likert satisfaction scale), and future preferences. In addition, we asked

respondents to provide sociodemographic information and a brief medical history including whether they had a positive diagnosis of COVID-19 or suspected symptoms. The BPAS Research and Ethics Committee (REC) granted an exemption for ethical review because it was a service evaluation and, for the same reason, the National Health Service (NHS) Research Authority did not require a review of this project.

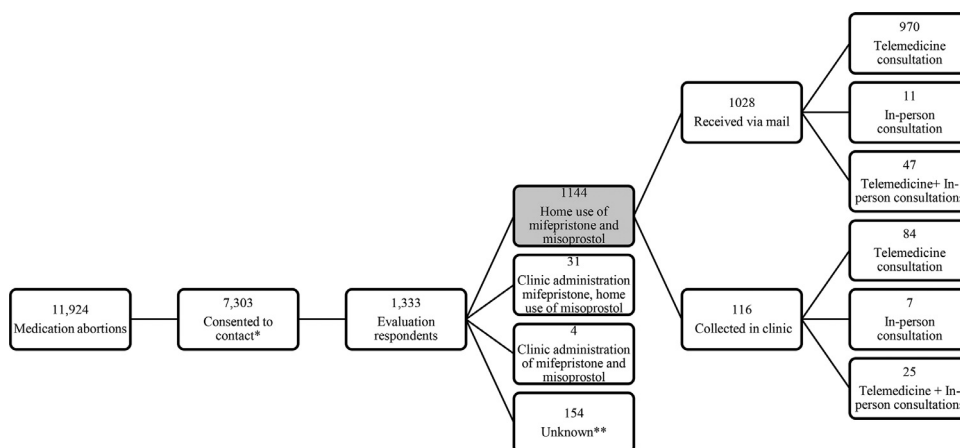
We analysed responses from any client who used mifepristone and misoprostol at home, regardless of consultation being remote or in-person. We used descriptive statistics to analyse the sociodemographic, health characteristics, and experiences of the respondents. We used  $\chi^2$  squared tests in a bivariate analysis to evaluate the association between covariates and the outcomes of being "very satisfied" with overall experience and contact with a health care provider. We considered a 2-sided  $p < 0.05$  as statistically significant.

We fitted multivariate logistic regression models to examine the association between selected covariates and outcomes as described. We included covariates that were statistically significant in the bivariate analysis and a priori variables thought or known to be associated with abortion experience (age, gestational age, parity, prior abortion, certainty of LMP, no ultrasound, and pain control satisfaction) in the multivariate model. We performed a stepwise model selection and retained variables with a  $p$  value of  $\leq 0.20$  in the bivariate analysis in the initial multivariate model. We kept variables that had a  $p$ -value of  $\leq 0.25$  in the final multivariate model. We used SAS 9.4 (SAS Institute, Cary, NC) to perform data analysis.

## 3. Results

BPAS performed 11,924 medication abortions during the evaluation period and 7,303 clients (7303/11,924, 61.2%) consented to be contacted for follow up. A total of 1333 clients completed the survey (1333/7303, 18.3% of those contacted; 1333/11,924, 11.2% of total clients); our analysis includes the 1144 who used both mifepristone and misoprostol at home (Fig. 1). Of those, 1,028 (89.9%) clients received medicines by mail and 116 (10.1%) collected them from a clinic. Table 1 provides sociodemographic and health characteristics. Most clients had a telephone consultation and did not require an in-person assessment ( $n = 1054$ , 92.1%). A total of 222 clients (19.4%) had an ultrasound during the index pregnancy; this included ultrasounds done at BPAS and other institutions. Our survey did not assess the timing or reason for that ultrasound.

In Table 2, we describe client satisfaction, experience with home use of the medicines, and future preferences. Nearly all clients were satisfied or very satisfied ( $n = 1010$ , 96.9%) overall. The majority ( $n = 867$ , 75.8%) reported that home use was "straightforward" while 230 (20.6%) had "some questions but mostly understood", and 18 (1.6%) needed more guidance. For pain, 64.0% took codeine ( $n = 732$ ), 41.1% took paracetamol ( $n = 470$ ), 39.2% took ibuprofen ( $n = 448$ ), and 13.1% took no medications ( $n = 150$ ). The majority of clients were satisfied with pain control ( $n = 883$ , 79.5%). Only 180 clients (15.7%) had difficulty using the pregnancy test or determining the abortion outcome. One hundred and sixty-eight clients (14.7%) contacted a health care provider for help or advice during the abortion process or postabortion. Fifty-five clients (55/168, 32.7%) made contact to more than 1 type of health care provider. In most cases (129/168, 76.8%) the contact was to the BPAS telephone helpline. There were 77 individuals that reported only the use of the BPAS telephone helpline (77/168, 45.8%). Thirty-six (36/168, 21.4% of those contacting a health care provider; 36/1114, 3.2% of total) clients visited a hospital/ED of which most (25/36, 69.4%) also contacted the BPAS telephone helpline or visited a BPAS clinic. Regarding future preferences for another abortion, most (74.3%,  $n = 787$ ) would opt



**Fig. 1.** Service evaluation of medication abortion up to 10 weeks' gestation from British Pregnancy Advisory Service.

\*Not all that consented for contact went on to complete the medication abortion. This was not recorded as part of this service evaluation.

\*\*These clients did not indicate the location where the medicines were taken for their medication abortion.

**Table 1**

Characteristics of clients who received mifepristone and misoprostol for use at home for medication abortion up to 10 weeks' gestation from the British Pregnancy Advisory Service (N = 1,144)

	n = 1,144	%
Age (years)		
<20	86	8.2
20–29	482	45.8
30–39	410	39.0
≥40	74	7.0
Gestational age (weeks) <sup>a</sup>		
≤5	488	42.7
6–7	457	40.0
≥8	183	16.0
Unsure	16	1.4
Consultation type		
Telephone only	1,054	92.1
Telephone and in-person	72	6.3
In-person	18	1.6
Receipt of medicines		
Via mail	1,028	89.9
Collected in clinic	116	10.1
Obstetric history		
Nulliparous	432	41.1
Parous	618	58.8
Prior ectopic	33	2.9
Prior miscarriage	292	25.5
Prior abortion	404	38.6
Medication	298	26.1
Surgical	189	16.5
Certainty of last menstrual period date		
Certain	771	67.4
Somewhat certain	314	27.5
Uncertain	59	5.2
Received ultrasound during this pregnancy <sup>b</sup>	222	19.4
Received progestin only pill with abortion medicines	536	50.6
COVID-19 status		
Diagnosed or symptomatic	5	0.5
In self-isolation due to COVID-19 contact or medical condition	52	5.0

<sup>a</sup> Per respondent report; all gestational ages were self-reported by the client at time of consultation.

<sup>b</sup> At BPAS or another institution; Our survey did not assess the timing and reason for the ultrasound.

for telephone consultation, medication abortion with home use of mifepristone and misoprostol (n = 890, 77.8%), and medications by mail (n = 788, 68.9%).

To assess the relationship between being overall “very satisfied” and respondent characteristics, we performed a multivariate logistic regression, shown in Table 3. After adjusting for confounders (age, gestational age, parity, prior abortion, certainty of LMP, time

between receipt and self-administration, no ultrasound, pain control satisfaction), we identified an association between being “very satisfied” and being parous (aOR 1.53, 95% CI 1.09–2.14) or being satisfied with pain control (aOR 2.22, 95% CI 1.44–3.44). A lapse of more than a week between receiving the medicines and using them was associated with lower odds of being “very satisfied” (aOR 0.29, 95% CI 0.12–0.71).

**Table 2**

Acceptability, experience, and future preferences for clients who received mifepristone and misoprostol for use at home for medication abortion up to 10 weeks' gestation from the British Pregnancy Advisory Service (N = 1144)

	n = 1144	%
Satisfaction with overall experience		
Very satisfied	824	78.3
Satisfied	196	18.6
Neither satisfied nor dissatisfied	21	2.0
Dissatisfied	8	0.8
Very dissatisfied	3	0.3
Problems with receipt of medicines via mail (n = 1026) <sup>a</sup>	24	2.3
Time between receipt and use of medicines		
>1 week	28	2.5
Within a week	533	47.4
Same day	563	50.1
Experience with home use of medicines		
Straightforward, no questions	867	77.8
Some questions, but mostly understood	230	20.6
Needed more guidance	18	1.6
Route of misoprostol		
Buccal	131	11.8
Vaginal	898	80.5
Both <sup>**b</sup>	81	7.3
Can't recall	5	0.5
Pain control satisfaction		
Satisfied	883	79.5
Neutral	135	12.2
Dissatisfied	93	8.4
Problem using pregnancy test or checklist to determine abortion outcome	180	15.7
Contacted a health care provider during or after the abortion	168	14.7
BPAS telephone aftercare service	129	11.3
Visited a BPAS clinic	28	2.4
Went to hospital or Emergency Department (ED)	36	3.1
Visited general practitioner	17	1.5
Preference for consultation type in the future		
Telephone	787	74.3
In-person	110	10.4
Unsure	163	15.4
Preference for abortion type in the future		
Medication abortion, medicines by mail to use at home	788	68.9
Medication abortion, collecting the medicines from a clinic to use at home	102	8.9
Surgical abortion	75	6.6
Not sure	145	12.7

<sup>a</sup> 10 (47.6%) Took longer than expected; 1 (4.8%) items were missing; 1 (4.8%) went to the wrong address; 12 (57.1%) other.

<sup>\*\*b</sup> Indicates vaginal and buccal used for the 2 separate doses of misoprostol.

To assess the relationship between client characteristics and contact with a health care provider during their abortion, we performed a multivariate logistic regression in Table 3 using the same confounders. After adjusting for confounders, we found an association between contact with a health care provider and dissatisfaction with pain control (aOR 3.62 95% CI 1.79–7.29) or waiting more than a week between receipt and use of medicines (aOR 3.71, 95% CI 1.48–9.28).

#### 4. Discussion

The high satisfaction rate and preference for home use of mifepristone and misoprostol in the future demonstrate that the telemedicine model for abortion was valued by our clients during the COVID-19 pandemic. This model of care has significant benefits and should be considered for widespread implementation beyond the pandemic.

While our evaluation draws on a large population, it only represents 9.5% of the clients who had a medication abortion at BPAS during the evaluation period. Eighteen percent of invited clients participated in the survey, which may lead to sampling bias and limits the generalisability of the results. This response rate of those who agreed to be contacted is similar to our routine organizational client satisfaction survey response rates. In comparing our sample

to that of the entire population of medication abortion clients during the same period, more clients in our survey received medicines by mail (90% vs 71% overall). Also, fewer clients in our study had ultrasounds (19% vs 33% overall).

Other limitations include selection and recall bias, lack of socioeconomic, geographic, or race data, and lack of information on reasons for contacting a health care provider. The climate of the pandemic may have influenced clients' willingness or ability to contact a health care provider, especially for in-person assessment, and may have also affected satisfaction.

Our findings concur with the high levels of satisfaction and acceptability reported in other studies on home use of mifepristone and misoprostol [2,14,15]. We identified factors associated with client satisfaction. We found that pain control during medication abortion was an important contributor to satisfaction, which is consistent with other studies [16–18]. This association emphasises the need to counsel and prepare clients to cope with the pain of medication abortion. To date, clinical trials on medication abortion care have failed to identify effective pain control regimens beyond NSAIDs [19–21], leading to calls for more research [22]. During the study period, BPAS clinicians instructed clients to use NSAIDs as the first-line pain medication, yet more clients in our study took paracetamol (41.1% vs 39.2% for ibuprofen) and some took no pain medication at all (13.1%). To optimize pain control in the future,

**Table 3**

Unadjusted and adjusted odds ratios (OR) for being “very satisfied” with overall experience ( $n = 1052$ ) and for contact with a health care provider ( $n = 1066$ ) for clients who received mifepristone and misoprostol for use at home for medication abortion up to 10 weeks' gestation from the British Pregnancy Advisory Service

	“Very satisfied” with overall experience		Contact with a Health Care Provider	
	OR (95% CI)	aOR <sup>a</sup> (95% CI)	OR (95% CI)	aOR <sup>a</sup> (95% CI)
Age				
<20	0.57 (0.35–0.92) <sup>b</sup>	0.91 (0.53–1.57)	1.26 (0.71–2.23)	0.97 (0.52–1.81)
20+	1.00	1.00	1.00	1.00
Gestational age				
≤5 weeks	1.46 (1.08–1.98) <sup>b</sup>	1.27 (0.92–1.76)	0.88 (0.63–1.23)	1.01 (0.71–1.45)
>5 weeks	1.00	1.00	1.00	1.00
Parous	1.83 (1.36–2.46) <sup>c</sup>	1.53 (1.09–2.14) <sup>b</sup>	0.65 (0.47–0.91) <sup>b</sup>	0.70 (0.48–1.01)
Prior abortion	1.10 (0.81–1.49)	0.97 (0.70–1.36)	0.91 (0.65–1.29)	1.00 (0.69–1.45)
Certainty of LMP				
Certain	1.00	1.00	1.00	1.00
Somewhat certain	0.67 (0.49–0.93) <sup>b</sup>	0.79 (0.56–1.11)	1.39 (0.97–1.99)	1.31 (0.90–1.91)
Uncertain	0.87 (0.43–1.73)	1.44 (0.66–3.14)	0.94 (0.41–2.13)	0.49 (0.19–1.26)
Time between receipt and use of medicines				
>1 week	0.26 (0.12–0.59) <sup>b</sup>	0.29 (0.12–0.71) <sup>b</sup>	3.15 (1.36–7.32) <sup>b</sup>	3.71 (1.48–9.28) <sup>b</sup>
Within a week	1.17 (0.86–1.58)	1.26 (0.91–1.74)	1.14 (0.81–1.60)	1.16 (0.81–1.65)
Same day	1.00	1.00	1.00	1.00
No ultrasound during this pregnancy	1.55 (1.09–2.20) <sup>b</sup>	1.45 (0.97–2.15)	0.60 (0.41–0.88) <sup>b</sup>	0.53 (0.35–0.82) <sup>b</sup>
Satisfaction with pain control				
Satisfied	2.57 (1.70–3.89) <sup>c</sup>	2.22 (1.44–3.44) <sup>c</sup>	0.99 (0.58–1.69)	1.27 (0.71–2.27)
Neutral	1.00	1.00	1.00	1.00
Dissatisfied	0.46 (0.26–0.80) <sup>b</sup>	0.48 (0.27–0.85) <sup>b</sup>	3.32 (1.71–6.45) <sup>c</sup>	3.62 (1.79–7.29) <sup>c</sup>

<sup>a</sup> Adjusted for age, gestational age, parity, prior abortion, certainty LMP, time between receipt and self-administration, no ultrasound, pain control satisfaction.

<sup>b</sup>  $p < 0.05$ .

<sup>c</sup>  $p < 0.001$ .

our service could consider clearer instructions, providing NSAIDs with the abortion package, or further engagement with clients to understand their needs. Dissatisfaction with pain control, reported by 8.4% of our respondents, was associated with nearly 4 times higher odds for contacting a health care provider. We do not have information regarding reason for contact to a health care provider, but as part of our routine counselling, we advise clients to contact the BPAS helpline if pain is not adequately managed.

Our data suggest that parity is another important predictor of satisfaction during medication abortion, in line with findings from other medication abortion care acceptability studies [16]. This association may exist because parous people have more experience with obstetrical/gynaecological procedures and thus have different expectations or levels of preparedness. Data also suggest that a parous cervix dilates more easily, potentially making the abortion less painful [23]. Additionally, parous individuals with child-care commitments may prefer remote services, which could influence satisfaction. Our findings, while not novel, indicate that abortion services should consider how to counsel and support parous and nulliparous clients differently.

Waiting more than a week to take the abortion medicines was associated with increased incidences of contact with a health care provider. Our survey did not evaluate reasons for client's timing of administration. Abortion service users have reported that control and flexibility over the timing of administration were the primary reasons for choosing home vs in clinic use of mifepristone [14]. Perhaps some respondents had more hectic life situations and needed to wait to use the medicines; these circumstances could have affected their overall satisfaction rather than the abortion itself. With many people “sheltering in place” during the pandemic, clients may have struggled to find a private moment for the abortion, thus leading to increased time lapse between receipt and administration and lower satisfaction.

One of the most significant changes to our abortion service model was the discontinuation of routine ultrasounds. In our evaluation, approximately 20% had an ultrasound either provided by BPAS or before attending for care. The World Health Organization

and the Royal College of Obstetricians and Gynaecologists (RCOG) both state that routine ultrasound is not required for safe abortion care [24,25]. For most, LMP is acceptable for gestational age determination [26,27]. A 2014 systematic review found that only 2.5% to 11.8% of those who were eligible for medication abortion ≤9 weeks of gestation by LMP would be ineligible by ultrasound [28]. Not only is LMP highly effective in dating a pregnancy, but data show that omitting routine preabortion ultrasound does not compromise safety, as complication rates remain low [29,30]. It appears that clients who did not have an ultrasound had a trend towards higher odds of being “very satisfied” overall, however we lack the reasons for why the ultrasound was done in our evaluation.

We counsel our clients to use the provided written information to guide home medication abortion care, which includes signs and symptoms that need further medical assessment. Most of our respondents (85.3%) did not report making contact with a health care provider during or after their abortion. Only 3.1% of all clients visited a hospital or ED. Our rate of hospital contact is consistent with another study on self-managed medication abortion, where 3.3% of those at 9 weeks' gestation or less made hospital contact within the first 24 hours of the abortion [31]. Furthermore, contact with a health care provider, including a visit or referral to hospital, does not necessarily indicate a serious adverse event. It's possible that the pandemic may have resulted in more clients visiting hospitals/ED because many doctor's offices were offering reduced in-person services [32]. Overall serious adverse events are rare during medication abortion up to 10 weeks' gestation at a reported frequency of 0.03% to 0.6% [33]. In another study performed at BPAS and other UK abortion service providers, authors report an adverse events frequency of 0.02% (7/29,984) with a no-test medication abortion model [15]. Additionally, 15.7% of clients reported a problem using the pregnancy test or checklist to determine abortion outcome, which may have resulted in calls to the BPAS helpline. Many clients may simply need additional support while they manage their abortion at home and thus contact with a health care provider can present an opportunity to positively affect a client's experience. Knowledge of the typical rate and reasons that clients

contact health care providers could help providers better plan for services and support clients.

A wealth of evidence demonstrates that home use of mifepristone and misoprostol, telemedicine, and ultrasound carried out only as indicated are acceptable and safe [2,7,9–11,15,26,27,29,34,35]. While governments and regulatory bodies temporarily relaxed restrictions on place of use for mifepristone during the pandemic, the compelling evidence on safety and satisfaction with telemedicine abortion models show that this practice should be continued beyond the pandemic. Health care policymakers must ensure that restrictions are lifted to allow abortion services to continue offering services that meet client's needs beyond the pandemic.

### Acknowledgments

Jeanette Taylor, Pamela Field, advisors in the BPAS Booking and Information Centre, and Steve Cheung for assisting with data collection. Caitlin Gerds for manuscript review.

### Author Contributions

The evaluation conception, design, planning, and carrying out was completed by KW, RB, and PL. Analysis was performed by JC, MM, and KW with significant input from RB, and PL. The original manuscript was written by MM and KW with significant contribution from RB and PL and minor contributions from JC.

### Funding

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

### Implications

High client satisfaction with telemedicine and home use of mifepristone and misoprostol indicates these models should continue beyond the COVID 19 pandemic. Access to aftercare is infrequently needed but a helpline is useful for clients who need health care provider support during or after an abortion at home.

### Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

### References

- [1] Medication Abortion and the Changing Abortion Landscape | Guttmacher Institute n.d. <https://www.guttmacher.org/article/2019/09/medication-abortion-and-changing-abortion-landscape#> (accessed October 18, 2020).
- [2] Swica Y, Chong E, Middleton T, Prine L, Gold M, Schreiber CA, et al. Acceptability of home use of mifepristone for medical abortion. *Contraception* 2013;88:122–7.
- [3] Abortion Act 1967. Statute law database; n.d.
- [4] Baxter T. The Abortion Act 1967-approval of a class of places. 2018.
- [5] Information for healthcare professionals Coronavirus (COVID-19) infection and abortion care. 2020.
- [6] Davies M. The Abortion Act 1967-approval of a class of places. 2020.
- [7] Endler M, Lavelanet A, Cleeve A, Ganatra B, Gomperts R, Gemzell-Danielsson K. Telemedicine for medical abortion: a systematic review. *BJOG An Int J Obstet Gynaecol* 2019;126:1094–102.
- [8] Upadhyay UD, Grossman D. Telemedicine for medication abortion. *Contraception* 2019;100:351–3.
- [9] Grossman D, Grindlay K. Safety of medical abortion provided through telemedicine compared with in person. *Obstet Gynecol* 2017;130:778–82.
- [10] Raymond E, Chong E, Winikoff B, Platais I, Mary M, Lotarevich T, et al. TelAbortion: evaluation of a direct to patient telemedicine abortion service in the United States. *Contraception* 2019;100:173–7.
- [11] Grossman D, Grindlay K, Buchacker T, Lane K, Blanchard K. Effectiveness and acceptability of medical abortion provided through telemedicine. *Obstet Gynecol* 2011;118:296–303.
- [12] Moseson H, Jayaweera R, Raifman S, Keefe-Oates B, Filippa S, Motana R, et al. Self-managed medication abortion outcomes: results from a prospective pilot study. *Reprod Health* 2020;17:164.
- [13] Cameron ST, Glasier A, Dewart H, Johnstone A, Burnside A. Telephone follow-up and self-performed urine pregnancy testing after early medical abortion: a service evaluation. *Contraception* 2012;86:67–73.
- [14] Chong E, Frye LJ, Castle J, Dean G, Kuehl L, Winikoff B. A prospective, non-randomized study of home use of mifepristone for medical abortion in the U.S. *Contraception* 2015;92:215–19.
- [15] Aiken A, Lohr PA, Lord J, Ghosh N, Starling J. Effectiveness, safety and acceptability of no-test medical abortion provided via telemedicine: a national cohort study. *BJOG An Int J Obstet Gynaecol* 2021 1471-0528.16668.
- [16] Teal SB, Dempsey-Fanning A, Westhoff C. Predictors of acceptability of medication abortion. *Contraception* 2007;75:224–9.
- [17] Westhoff C, Dasmahapatra R, Winikoff B, Clarke S. Predictors of analgesia use during supervised medical abortion. *Contraception* 2000;61:225–9.
- [18] Henshaw RC, Naji SA, Russell IT, Templeton AA. Comparison of medical abortion with surgical vacuum aspiration: Women's preferences and acceptability of treatment. *Br Med J* 1993;307:714–17.
- [19] Friedlander EKB, Soon R, Salcedo J, Davis J, Tschann M, Kaneshiro B. Prophylactic pregabalin to decrease pain during medication abortion a randomized controlled trial. *Obstet Gynecol* 2018;132:612–18.
- [20] Colwill AC, Bayer LL, Bednarek P, Garg B, Jensen JT, Edelman AB. Opioid analgesia for medical abortion: a randomized controlled trial. *Obstet Gynecol* 2019;134:1163–70.
- [21] Livshits A, Machtinger R, Ben DL, Spira M, Moshe-Zahav A, Seidman DS. Ibuprofen and paracetamol for pain relief during medical abortion: a double-blind randomized controlled study. *Fertil Steril* 2009;91:1877–80.
- [22] Fiala C, Cameron S, Bombas T, Parachini M, Saya L, Gemzell-Danielsson K. Pain during medical abortion, the impact of the regimen: a neglected issue? A review. *Eur J Contracept Reprod Heal Care* 2014;19:404–19.
- [23] Hamoda H, Ashok PW, Flett GMM, Templeton A. Analgesia requirements and predictors of analgesia use for women undergoing medical abortion up to 22 weeks of gestation. *BJOG An Int J Obstet Gynaecol* 2004;111:996–1000.
- [24] The Care of Women Requesting Induced Abortion The Care of Women Requesting Induced Abortion Evidence-based Clinical Guideline Number 7. 2011.
- [25] Safe abortion: Technical and policy guidance for health systems second edition technical and policy guidance for health systems. 2nd ed. Geneva: World Health Organization; n.d.
- [26] Bracken H, Clark W, Lichtenberg E, Schweikert S, Tanenhaus J, Barajas A, et al. Alternatives to routine ultrasound for eligibility assessment prior to early termination of pregnancy with mifepristone-misoprostol. *BJOG An Int J Obstet Gynaecol* 2011;118:17–23.
- [27] Raymond EG, Bracken H. Early medical abortion without prior ultrasound ☆ 2015.
- [28] Schonberg D, Wang LF, Bennett AH, Gold M, Jackson E. The accuracy of using last menstrual period to determine gestational age for first trimester medication abortion: a systematic review. *Contraception* 2014;90:480–7.
- [29] Raymond EG, Tan YL, Comendant R, Sagaidac I, Hodoroega S, Grant M, et al. Simplified medical abortion screening: a demonstration project. *Contraception* 2018;97:292–6.
- [30] Bracken H. Home administration of misoprostol for early medical abortion in India. *Int J Gynecol Obstet* 2010;108:228–32.
- [31] Endler M, Beets L, Gemzell Danielsson K, Gomperts R. Safety and acceptability of medical abortion through telemedicine after 9 weeks of gestation: a population-based cohort study. *BJOG An Int J Obstet Gynaecol* 2019;126:609–18.
- [32] Sharma SC, Sharma S, Thakker A, Sharma G, Roshan M, Varakantam V. Revolution in UK general practice due to COVID-19 pandemic: a cross-sectional survey. *Cureus* 2020;12(8):12.
- [33] Chen MJ, Creinin MD. Mifepristone with buccal misoprostol for medical abortion. *Obstet Gynecol* 2015;126:12–21.
- [34] Gold M, Chong E. If we can do it for misoprostol, why not for mifepristone? the case for taking mifepristone out of the office in medical abortion. *Contraception* 2015;92:194–6.
- [35] Raymond EG, Grossman D, Wiebe E, Winikoff B. Reaching women where they are: eliminating the initial in-person medical abortion visit ☆. *Contraception* 2015;92:190–3.