Evidence base to inform health service configuration for abortion provision: the SACHA (Shaping Abortion for Change) multi-component study

SACHA

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This report contains transcripts of interviews conducted in the course of the research, or similar, and contains language which may offend some readers.

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Abstract

Background

Significant changes to the nature and context of abortion provision are taking place in the UK. Empirical evidence is needed to guide efforts to respond to these changes.

Objective(s)

To provide an evidence base to inform optimal configuration of health services and systems in response to current and future changes in abortion provision in the UK.

Design and methods

Observational study comprising five integrated components: i) A realist review to generate evidence to guide optimal abortion provision and a scoping review of interventions aimed at preparing non-specialist health professionals to provide abortion care and support; ii) Country-based case studies identifying transferable lessons for policy and practice in the UK; iii) A Knowledge, Attitude, Behaviour and Practice (KABP) survey among healthcare practitioners; iv) Qualitative research with women with recent experience of abortion to explore their experiences of care and support; v) Consultations with key stakeholders on the implications for policy, practice and research of findings from the research. Data collection period April, 2020 – January, 2023.

Setting and participants

Primary setting: Britain; data gathering sites: Canada, Sweden, Australia.

48 recent abortion patients recruited via independent providers and NHS hospitals in England, Wales and Scotland; 771 health professionals (doctors, nurses, midwives; pharmacists; 31 stakeholders with expertise in abortion in Canada, Sweden and Australia; 15 key stakeholders with expertise in abortion research, policy and practice in Britain.

Main outcome measures

Abortion-related knowledge, attitudes and practice among health professionals including inclination to provide abortion, and competence and capacity to do so. Selected trends in abortion rates and their correlates, and the views of health professionals with expertise in abortion, in Sweden, Canada and Australia. Accounts of experience and preferences among women with recent experience of abortion

Results

Patients and health professionals were found to be broadly in favour of relaxation of current laws on abortion in Britain: specifically, to dispense with the requirement for two doctors to sign authorising an abortion; to permit health care professionals other than clinicians to prescribe abortion medication and perform vacuum aspiration; and to allow abortion to be provided in additional suitable resourced and equipped facilities, notably community sexual and reproductive health services. Training was considered necessary to equip health professionals for an extended role in abortion provision as were permissions to licence premises other than those currently approved. Patients' assessment of abortion services in Britain was positive. Suggestions for further

improvement included: increasing the timeliness of care; resolving disparities between expectations and reality; providing emotional and psychological support; and offering choice to patients. Evidence from other countries cautioned against assumptions of direct transferability of models of care. Considerations of competence, capacity and resources are important to policy and practice decisions.

Limitations

The study may suffer the inherent weaknesses of observational studies in terms of the potential for bias. It was carried out during the exceptional period of the COVID-19 pandemic with implications for the ease with which it could be conducted and for the generalisability of the findings In the component exploring patients' perspectives, we did not capture patients who disclosed experiencing an abusive relationship and the number of women aged under 20 was small. Our inability to capture the views of patients in Northern Ireland, despite strenuous efforts to do so, was a source of regret.

Conclusions

The needs of abortion patients are well met by abortion services in Britain. Options in terms of how abortion is carried out, by whom and where, need to be made available to take account of different circumstances.

Future work

Continued investigation into the views and experience of patients, health care professionals and stakeholders, in Britain and in other countries, is needed to ensure that the regulation and provision of abortion care and support keeps pace with therapeutic and technological trends.

Study registration

NIHR129529

Funding

This project was funded by the National Institute for Health and Care Research (NIHR) Health and Social Care Delivery Research programme

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First Author	Date	Title	Source Type	Country	Setting	Participant Type	Number of Participants	Study Design	Is the paper relevant to the question?	Are the methods used appropriate?	Are the findings plausible?	Do conclusions support those of other studies?
Aiken, A. R. A	2018	Motivations and Experiences of People Seeking Medication Abortion Online in the United States	Original research paper	United States	Online	People seeking online medical abortion services	32	Qualitative interview study	Yes - paper explores motivations for considering self-managed abortion.	Yes - in-depth interviews were used to gather qualitative data on people's motivations and experiences of seeking online medical abortion.	Yes	Yes
Aiken, A.	2021b	Demand for self-managed online telemedicine abortion in eight European countries during the COVID-19 pandemic: a regression discontinuity analysis	Original research paper	Germany; Hungary; Italy; Malta; Netherlands; Northern Ireland; Portugal; Great Britain	Online	N/A	3915 requests for self-managed abortion to Women on Web (WoW)	Cross-sectional comparative analysis of requests for self-managed abortion pre- and post the Covid-19 pandemic	Yes - paper assesses whether the COVID-19 pandemic increased demand for self-managed medical abortion provided through online services and suggests reasons for trends in demand for online accessed abortion during the pandemic.	Yes - request rates in 8 countries are compared using regression discontinuity both before and after lockdown measures.	Yes	Yes
Atay	2021	Why women choose at-home abortion via teleconsultation in France: drivers of telemedicine abortion during and beyond the	Original research paper	France	Online	People accessing online medical abortion services	140	Mixed Methods (Cross-sectional survey of consultation data and email content analysis)	Highly - the paper explores drivers of at home, online supported, medical abortion during the pandemic and beyond.	Yes - the findings are based on appropriate analysis of consultations and emails extracted from an online medical abortion service to reveal the motivations and preferences of women seeking at home abortion.	Yes	Yes

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Glossary

BMA British Medical Association

BPAS British Pregnancy Advisory Service

BSACP British Society of Abortion Care Providers

CI confidence interval

CMOC context-mechanism-outcome configuration

D&C dilatation and (sharp) curettage

D&E dilatation and evacuation

DHSC Department of Health and Social Care

EDI equality, diversity and inclusion

EMA early medical abortion

EMAH early medical abortion at home

EVA electric vacuum aspiration

FIGO International Federation of Gynaecology and Obstetrics

FSRH Faculty of Sexual and Reproductive Healthcare

GP general practitioner

ITS interrupted time series

IUD intrauterine device

LMP last menstrual period

LSHTM London School of Hygiene and Tropical Medicine

MVA manual vacuum aspiration

NHS National Health Service

NUPAS National Unplanned Pregnancy Advisory Service

PPI patient and public involvement

RCGP Royal College of General Practitioners

RCM Royal College of Midwives

RCN Royal College of Nursing

RCOG Royal College of Obstetricians and Gynaecologists

RPS Royal Pharmaceutical Society

RSE relationship and sex education

SRH sexual and reproductive health

WHO World Health Organization

WP Work package

VEMA very early medical abortion

Author contributorship

Kaye Wellings[1*] (ORCID) (Professor of Sexual and Reproductive Health Research; co-Principle Investigator) co-led the overall study, contributed expertise throughout the study, co-led Work Package 4, contributed to the writing of the final report and gave final approval of the manuscript.
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Clare Murphy[6] (ORCID) (Chief Executive Officer at BPAS) contributed to the lending of resources and Comms expertise.
Wendy Norman[1,7] (ORCID) (Professor in Family Practice) contributed expertise throughout the study, was a member of Work Packages 1 & 2, reviewed and gave final approval of the manuscript.
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Plain language summary

The study

The SACHA: Shaping Abortion for Change study, led by the London School of Hygiene & Tropical Medicine, is the most comprehensive study on abortion carried out in Britain. The study has looked at how abortion care has changed in recent years and how it could improve. Our research included:

- reviews of other research on the topic;
- analyses of the situation in selected countries that have decriminalised abortion: Canada, Australia and Sweden;
- a survey of 771 health workers to find out about their knowledge, attitudes and practices relating to abortion;
- interviews with 48 patients who had a recent abortion;
- consultations with experts in the field of abortion in the UK.

What we learnt

How should abortion be regulated in Britain?

- One in five health professionals, and one in three patients, did not know that abortion in Britain is only lawful when two doctors approve certain grounds.
- Health professionals felt that this delayed abortions and patients felt it reduced control they had over their bodies.
- Over two-thirds of health professionals thought that abortion should be a health rather than a legal issue and nearly nine in 10 thought the choice should be completely that of the woman.
- Many patients interviewed felt that the legal limit of 24 weeks gestation for abortion should not be raised, except for exceptional cases.
- One in 10 health professionals felt abortion should not be carried out over 12 weeks' gestation.
- Experts in countries where abortion was decriminalised thought that decriminalising abortion was a positive change but it did not solve all problems in access to abortion.

How should care be provided to patients?

- Patients valued choice: – over the procedure, over the person providing care and where abortion should be done.
- It was important for patients to get their abortion done as soon as possible.
- Abortion advice and support by phone or video) was seen as convenient, comfortable, and prompt.
- Patients wanted their expectations of what medical abortion would be like to better match their actual experience, for example, in the amount of pain and bleeding.

- Suggestions on how things could be improved included: more information about the range of experiences of abortion; more emotional support and better access to contraceptive options.

Who should provide abortion care?

- Other studies show that surgical abortions done by nurses and midwives are as safe, acceptable, and effective as those done by doctors. In Canada and Australia, most medical abortions are done by GPs; in Sweden, by midwives.
- Patients were less worried about who provided their abortion care than that they were supportive and accepting.
- Patients had mixed views on the best place for their abortion – many preferred specialist abortion clinics, others favoured their GP.
- Patients felt that nurses and midwives should be able to prescribe medical abortion treatment and to do surgical abortions involving gentle suction of the womb contents.
- Few non-specialist health professionals had experience in providing surgical abortion procedures. Those working in sexual health clinics had the most experience.
- Around half of the health professionals not specialising in abortion care would be willing, with training, to provide abortion support and care.
- Benefits of being more involved in abortion care were seen as improving access, more holistic care, greater job satisfaction and helping 'normalising' abortion. The main obstacles to non-specialists taking on more roles in abortion care included: not enough time or staff, inadequate training, lack of clinical facilities and no back up if there were complications.

Scientific Summary

The rationale for the SACHA Study

The NIHR-funded SACHA study (Shaping Abortion for Change) provides an evidence-base to guide the optimal configuration of health services and systems in the UK in response to changes in abortion provision. The 21st century has seen significant changes to the landscape of abortion. Pressure has mounted for abortion to be decriminalised; technological advances have contributed to the de-medicalisation of abortion, and the use of medical as opposed to surgical abortion has increased dramatically. Broader trends within health care and systems have informed new directions in thinking about abortion provision: the rise in the use of digital approaches in health care, task-sharing by health professionals, and greater patient-centred care and supported self-management.

These developments have prompted re-examination of issues such as the roles of non-specialist health professionals in abortion provision, the appropriate location for abortion, and the support needed by patients home-managing early medical abortion. By December 2018, home administration of the second abortion medication, misoprostol, had been approved across Britain the first – mifepristone - continuing to be taken in a clinic setting. The COVID-19 pandemic further transformed abortion provision in Britain, permanently allowing home management of both abortion medications. The changes have potential for yielding benefits, making earlier abortion more likely, allowing patients more control over their abortion and reducing stigma. For the benefits to be realised, however, health systems and services needed to be adequately prepared and fit for purpose. The SACHA study was predicated on the need for robust empirical evidence to underpin decisions on how maximum benefit and minimum harm might be obtained from current trends.

The study team

The team, led by the London School of Hygiene and Tropical Medicine, comprised 20 researchers and practitioners in six countries. Collaborating institutions included the Karolinska Institute (Sweden), King's College London, Lambeth Local Authority, University of British Columbia (Canada), University of Edinburgh, University of Kent, University of Melbourne (Australia), University of Oxford and University of Plymouth. Members of the public advised on the study plan and presentation of findings.

Design and method

Multi-component, mixed method observational study, comprised five work packages:

- **Work Package 1: reviews of the literature**
  - **Research question:** What does the literature tell us about how best to provide abortion?
  - **Design and method:** Realist review to generate evidence to guide the choice of effective approaches to abortion provision; Scoping review of interventions aimed at preparing health professionals for a role in abortion care and support. Conducted April, 2020 to Dec 2022

- **Work Package 2: evidence from other countries**
  - **Research question:** What has been the experience of countries that have fully or partially decriminalised abortion and what are the transferable lessons for policy and practice in Britain?
  - **Design and method:** Case studies in three countries (Canada, Australia, Sweden) comprising i) documentary searches of country-specific evidence on the process and impact of decriminalisation; ii) time series analysis of routine abortion data; iii) in-depth interviews with 31 key stakeholders in abortion policy and practice. Conducted June 2020 to Sep 2021.
- **Work Package 3: the views of health professionals in Britain**
  - **Research question:** What are the views of health professionals on the regulation and provision of abortion in Britain?
  - **Design and method:** Stratified cluster sampling survey of services; 771 health professionals in England, Scotland and Wales. Fully scheduled questionnaire with optional free text box exploring receptivity to and preparedness for changes in abortion provision. Conducted Nov 2021 – July 2022.
- **Work Package 4: the views of abortion patients in Britain**
  - **Research question:** What are patients' experiences of and preferences for models of abortion care?
  - **Design and method:** Semi-structured, in-depth interviews with 48 patients aged 16-43 with recent experience of abortion recruited via independent and NHS sites in England, Scotland and Wales. Conducted July 2021 – August 2022
- **Work Package 5: the views of key stakeholders in Britain**
  - **Research question:** Which approaches to abortion provision might be most appropriate and feasible in Britain?
  - **Design and method:** Stakeholder consultations: 15 attendees representing statutory, academic, and the third sector at two full day residential round table discussion groups focusing on key themes identified in the findings and implications for policy and practice. Conducted January 2023.

Key findings

- **Understanding of the law on abortion:** One in five health professionals and a third of patients interviewed were unaware of the legal requirement for abortion to be medically certified. Around a third of patients interviewed were unaware of the ruling and on being told, some were surprised at the thought that abortion could be considered a crime.

- **Views on the regulation of abortion:** Support for abortion being a woman's choice was high, nine in 10 health professionals saw it as such. and a clear majority supported the idea of abortion being treated as a health as opposed to a legal issue. Little more than one in 20 saw abortion at any gestational age as contrary to their personal beliefs and a similarly small minority were against second trimester abortions. Patients interviewed held similarly strong views, that it was

their body and their choice and not a matter for the law. Comments from health professionals and patients alike revealed resistance to the need for two doctors' signatures authorising abortion. Recommended alternatives were either to allow other health professionals to sign or to remove the requirement entirely from abortion regulation. The country case studies showed benefits of decriminalising abortion for quality of care, funding, and the morale of providers but cautioned that decriminalisation has not removed all barriers to abortion care.

- **Integrating abortion into routine health care**. Just over a third of healthcare staff working outside of specialist abortion services felt that abortion should be standard practice in their service. Support for the idea was highest among staff in sexual & reproductive health (SRH) services, 60% of whom were in favour - twice the proportion in pharmacies and three times that in general practice. Key stakeholders pointed to the benefits of abortion provision in SRH services in terms of continuity of care, contraceptive provision and specialist knowledge. Patients saw advantages of abortion provision in general practice for convenience but voiced reservations relating to access.

- **Extending the role of non-specialist health care workers in abortion:** Views of health professionals varied markedly by specialty. More than half of nurses saw greater involvement in abortion care and support as increasing job satisfaction; little more than one in four felt it would be burdensome. For doctors the reverse was true; time constraints, not enough support staff and inadequate training were seen as the main barriers. Overall, nearly nine out of 10 health care professionals cited lack of training as a hindrance to providing care. Patients saw nurses as more responsive and understanding than doctors but many were less concerned about the professional role of the person consulted, considering their personal qualities to be more important.

- **The need for choice:** Satisfaction with abortion provision was high among patients and the convenience, comfort and privacy offered by home management of medical abortion was valued. Most patients, but not all, were offered a choice of procedure and premises. Rarely, and typically where discomfort was worse than expected, some reflected that they would have valued clearly set out options, including surgical abortion. The need for choice reflected findings of the realist review and was echoed in comments from health professionals and key stakeholders who voiced fears that an over-reliance on medical abortion could lead to loss of crucial skills in surgical abortion.

Recommendations for policy, practice and research

Evidence from the study supports recommendations relating to abortion regulation and provision:

- **The regulation of abortion:** Further consideration should be given to how abortion services are best regulated. The current regulatory framework for abortion serves to limit potential evidence-based service innovations that would be likely to benefit service-users, It is poorly understood by service-users and many service providers and commands little support amongst either group.

- **Authorisation of abortion:** Patients should not need to give justification of their reasons for wanting an abortion and health professionals other than doctors should be permitted to consent abortions for patients they care for.

- **Approval of premises*:*** Abortion provision could beneficially be integrated into – given levels of support revealed in the study –adequately resourced community sexual and reproductive health services to improve access to clinical settings in areas under-served by the independent sector and facilitate an integrated approach to SRH care.

- **Extension of roles:** Appropriately trained nurses and midwives should be allowed to prescribe abortion medication and perform vacuum aspiration for abortion to ensure sufficient cadres of professionals with the skills needed to offer choice and address the current risk of skills being lost.

- **Professional training:** undergraduate training and professional education to equip new cadres of health care professionals to contribute to abortion care and support. Training is needed to ensure a full range of services available, for example, provision of surgical abortions and the fitting of contraceptive implants and intrauterine devices post abortion.

- **Patient choice*:*** Patients seeking abortion should, where possible, be offered options in terms of procedure and premises: Commissioning should ensure availability of options and health professionals should provide information to facilitate informed choice.

- **Improving patient care:** Interventions should be developed across the patient journey, to support decision-making, procedure management and after care, including contraception.

- **A strong policy steer:** greater visibility of abortion in strategies relating to women's health and sexual and reproductive health, with corresponding action plans, is needed.

- **Facilitating and resourcing continued research into abortion provision:** including patient and professional perspectives on abortion care and support, routine monitoring of trends in abortion procedures and the development of novel interventions to improve abortion care and support.

Study registration

NIHR129529

Funding

This project was funded by the National Institute for Health and Care Research (NIHR) Health and Social Care Delivery Research programme.

1.0 Context and literature

1.1 Rationale for the study

The SACHA study was predicated on the need to provide empirical evidence to guide health service configuration in response to contemporary changes to the landscape of abortion. At the time of writing the proposal in 2019, significant changes to the nature and context of abortion provision were taking place in the UK, attendant on therapeutic, technological, and regulatory trends. Foremost among these was the increasing adoption of medical abortion, involving administration of mifepristone and misoprostol, which can be successfully managed as part of routine healthcare in the first 12 weeks of pregnancy. [1].The discovery of the abortifacient effectiveness of mifepristone in the late 1980s gradually increased options for safe, non-surgical methods of abortion, weakening the case for legal restrictions on abortion originally introduced in part to protect the life and health of women. In 2019, medical abortion accounted for 73% of abortions carried out in England and Wales, an increase from 43% in 2010. [2] The striking rise in the prevalence of medical abortion has been described as a 'revolution' in reproductive health care. [3]

Technological advances were also contributing to the de-medicalisation of abortion provision. Innovative digital and telemedicine interventions were facilitating new methods of providing care and support to patients in the self-management of abortion. The shift to remote care with telemedical support was aligned with developments being mainstreamed across the NHS more generally. In January 2019, the Service announced its commitment to the offer of a 'Digital-First' option within primary care by 2024 and for most services within 10 years. [4]

Coincident with these trends were changes in the regulatory frameworks around abortion. Although, according to opinion polls, two-thirds of people in Britain believe that abortion is already decriminalised, [5] the 1967 Abortion Act legalised, but did not decriminalise, abortion in all circumstances. The Act stated that abortion is lawful provided that at least one of the grounds is met and signed off by two medical practitioners; that the procedure is performed by a registered medical practitioner and that it is carried out in an NHS hospital or other approved settings. [6]

At the time of writing the SACHA proposal, changes to the law governing abortion provision in Britain seemed imminent. Abortion had been decriminalised in the Republic of Ireland in 2018 and in July 2019, MPs passed a cross-party amendment requiring the government to decriminalise abortion in Northern Ireland. [7] Pressure was mounting for abortion to be decriminalised in Britain. A range of professional bodies, including the British Medical Association, [8] the Royal College of Nursing, [9] the Royal College of Obstetricians and Gynaecologists, [10], the Royal College of General Practitioners, [11] the Royal College of Midwives [12] and the Faculty of Sexual and Reproductive Health Care [13] were calling for a change in the law in Britain, arguing that abortion should be treated in the same way as other medical procedures and urging members to support decriminalisation. In 2017 and 2018, two Ten Minute Rule bills seeking to decriminalise abortion up to 24 weeks each passed their first reading in the House of Commons. [14]

Regulatory changes in governing abortion provision had already been made prior to proposal submission. Until 2017, abortion patients throughout Britain by law were required to receive both mifepristone and misoprostol while physically present in an abortion service. In 2017, Scottish Ministers granted approval for the second abortion medication, misoprostol, to be self-administered by patients at home provided they had attended an abortion service to have it prescribed. [15] The following year, in June and December respectively, Secretaries of State in Wales [16] and England [17] issued the same guidance. The moves in Britain were paralleled by shifts in international thinking. [14] Both the UN and the WHO called for progressive abortion law reform. [18,19] These developments suggested that service innovations that had previously been blocked by old regulatory frameworks might, in the future, become possible.

1.2 Increased need for the SACHA study

The events described above provided a compelling case for reviewing best practice in abortion care but the need for the study was to become more urgent. Almost immediately following submission of the SACHA proposal, the pace of change accelerated in a way that could not have been foreseen at the time of planning the research. In the section of the proposal in which researchers are required to envisage possible changes to the context of the study which may affect its conduct, the team wrote:

> 'A major and imponderable risk in relation to this proposal is the very rapid pace of change in the context of abortion provision in the UK… real world events may demand rapid modifications to the research design or a sudden need for data. We will adopt a flexible approach to the research.'
>
> (Excerpt from NIHR proposal, October 2019)

Without doubt, the advent of the COVID-19 pandemic was the '*real world event*' of greatest significance in terms of its impact on abortion provision. In March 2020, in response to the need to restrict in-person health care to limit transmission of the corona virus, governments across Britain approved self-administration of both mifepristone and misoprostol at home, with telemedical support [6,20]. Clinical guidance from the RCOG further supported remote consultations to improve access, advising pre-abortion ultrasound scan only if gestation could not be assessed accurately using last menstrual period or if there was concern regarding ectopic pregnancy. The temporary measure was made permanent in April 2022 and the Abortion Act of 1967 was amended accordingly in August 2022 [6] (s.3(B)-(D), Abortion Act 1967). Similar measures were put in place in other European countries in response to the COVID-19 pandemic. [21]

The rapidly introduced innovations appeared to contribute further impetus to regulatory changes. Between 2020 and 2022 abortion was decriminalized in several more countries and states, including South Australia, Colombia, Mozambique, and New Zealand.

1.3 The implications of the trends for empirical enquiry

Many of the changes described above reflect broader trends within 21st century health systems: recognition of the need for patient-centred approaches, shared decision making in health care, and increased patient autonomy. In the context of abortion, they have obliged practitioners and policy makers to reconsider clinical pathways and models of care for both surgical and non-surgical abortion. [22,23] The new directions in abortion provision have the potential for both intended and unintended consequences. With the prospect of abortion eventually being decriminalised in Britain, insights were needed from countries in which this move had already been made, as to what these might be. Options of self-management, task-shifting and sharing and remote services through telemedicine offer opportunities to improve the quality of care and to alleviate pressure on health systems. [24] They also create new challenges for health services. As the roles of health professional cadres as abortion providers are being reconsidered, [25–30] greater insight is needed into their inclination, competence, and capacity to be involved in abortion provision, their training and resource needs. The rapid rise in medical abortion, by enabling procedures to take place earlier in pregnancy, has increased the safety and acceptability of abortion. At the same time, it has raised questions regarding, for example, the appropriate location for procedures; the support needed by patients home managing abortion; and how choice may be best provided. [27,31]

COVID-19 accentuated the need for answers to these questions and introduced others. The necessity for remote care created greater reliance on medical abortion and prevalence of its use. This prompted questions concerning the impact on patient choice and on opportunities for health professionals to develop and maintain the requisite surgical skills in surgical abortion. Policy-related decisions made as a consequence of the pandemic, notably whether COVID-specific regulations governing home-management of abortion should continue after the most intense period of transmission, created needs for empirical evidence to which the SACHA research team had to make a rapid response. [32] The case for contemporary and comprehensive evidence to guide models of abortion care in Britain was strong in 2019 but became more so following the impact of the COVID-19 pandemic, to enable benefits of the changes to be sustained and costs to be mitigated.

1.4 The existing literature

To identify evidence with which to inform the proposal, we conducted a literature search to identify barriers and facilitators for effective abortion service provision and innovative strategies and interventions to improve provision. Five bibliographic databases (Cochrane Library, Medline, Web of Science, Scopus, and Google Scholar) and the reference lists of selected recent papers were searched to retrieve data-based literature published in English since 2005 on abortion provision. MeSH and keyword search terms included: *Abortion, Induced; Abortion, Legal; Delivery of Health Care; Telemedicine; Self-managing; Health Personnel; Mifepristone; Misoprostol; Attitude; Health Knowledge, Attitudes and Practice; Social Stigma*. Relevant evidence comes from health services research in those countries in which abortion has been decriminalised and from research in other

developed countries describing barriers to optimal abortion provision and approaches to tackling them, together with innovative strategies to address emerging issues in provision. Relevant grey literature, guidelines and policy documents were identified through Google searches and searches of professional colleges, World Health Organisation (WHO), United Nations, and Department of Health and Social Care (DHSC). Members of the team contributed to the identification of policies in development and ongoing research.

Even in countries with few legal constraints, challenges relating to abortion provision were documented. [33] Workforce issues shown to impede service innovation included insufficient human resources, suboptimal training, and unfavourable attitudes to abortion. [26,29,33,34] Research among primary care physicians elsewhere revealed religious and moral objections, concerns relating to competence, and fears of stigma and negative reaction from the public and colleagues. [33.]

From the patient perspective, insights into factors hindering access to care through the formal healthcare system have drawn on reports from people obtaining an abortion outside of the health care system. [35] Service related-reasons for self-sourcing medication over a 4-month period between 2016 and 2017 included long waiting times, prior negative experiences of abortion care, perceived or experienced stigma, and preference for the privacy and comfort of using pills at home. [35]

The evidence is that decriminalisation does not, in itself, remove all barriers to provision. In Australia, where in 2008 abortion had been partially decriminalised (it is now wholly decriminalised), challenges remained even in those jurisdictions which had taken abortion out of the law [34,36] and in Canada where abortion was decriminalised in 1988, challenges relating to access were documented as recently as 2012. [37] Only in the last decade has the implementation of effective strategies improved provision. [38–40]

We found a growing literature on how barriers to abortion provision can be mitigated and quality enhanced. Documented approaches to reducing workforce barriers included influencing provider attitudes, expanding professional education, providing elective post-graduate training especially for other providers, by task shifting of surgical abortion to nurses and midwives; and by creating clear guidelines and referral procedures to alternative providers when staff have a moral opposition to abortion. [26,30,34,41–45]

In relation to medical abortion, we located research exploring the acceptability and feasibility of alternative models of provision [46] Innovative strategies being assessed include alternative ways of obtaining abortion medication (advance provision, access online or through pharmacies, over-the-counter and internet access without a prescription) [46,47] ways of providing pregnancy testing to confirm completion and contraceptive advice after self-administration, [48,49] methods for ensuring accurate recording of abortion occurring outside of health facilities, and the role of phone and digital interventions in providing support to women before, during and following abortion procedures [48,50,51] had all been shown to improve service quality and experience. Increasing the range of service options and adopting flexible delivery approaches has been shown to be acceptable to women for reasons of privacy, convenience, and being able to access abortion earlier [52] Comparisons of clinic-based

administration of mifepristone and misoprostol with self-management (completing the medication at home) have shown no difference in rates of efficacy or major adverse events [53,54.] More appeared to be known, however, about bio-medical than psychosocial outcomes of different modes of abortion provision.

Whilst a significant body of research was building on novel approaches to abortion provision, there remained important gaps in the evidence on likely receptivity to them. Areas needing investigation included the attitudes of relevant health professional towards abortion, their inclination towards greater involvement in provision and their needs for training. There was little research on attitudes towards abortion among UK practitioners. There had been studies of the attitudes of NHS gynaecologists towards abortion provision, [55] but none of the views of midwives, nurses, and pharmacists in the UK on extending their role, nor on their training needs. There were no recent UK-wide data on attitudes towards abortion among GPs, the most recent national study having been carried out in 2000. [56] A more recent study of GPs in northeast England showed long waiting times, reluctance to refer and unfavourable attitudes towards abortion. [57] Studies among UK medical students showed lower than anticipated proportions in favour of abortion, higher than anticipated proportions supporting the right to conscientious objection, and willingness to be involved in provision to be related to these views. [58,59]

More needed to be known about patient preferences for different abortion methods and the influences on their choices. In the context of self-management of medical abortion in the UK key questions related to how much women should be able to cope on their own, whether services are necessary in every case, where they should be located, what they should offer, who should provide them and to what extent health professional control should be relinquished. [60] A research focus was needed on logistical considerations, help in taking the medication, management of side effects and pre- and post-abortion support, including the role of digital interventions in its provision, pregnancy testing to confirm completion and receipt of post-abortion contraceptive advice. [31,35,61,62]

At the time of designing the study, the change in the regulations in Britain permitting home completion of medical abortion was too recent for evidence of the consequences to have accumulated, but qualitative research was already beginning to emerge showing that women may experience anxiety in self-managing medical abortion; unanticipated side effects such as pain and heavy bleeding; and feel the need for facilitation and support. [31,62,63] Data were needed on patients' preferences and needs for abortion support, as were data on which innovations in abortion techniques and implementation strategies might be effective in the UK. [64] Implementation of self-care as part of the clinical pathway for abortion, recommended by the WHO, has been limited in the UK by the slow rate of diffusion of innovation in clinical practice.

A specifically UK-focus was needed to address shortfalls in evidence. The proceedings of two conferences on self-management and self-use of medication[31,60] reached similar conclusions: that the evidence needed to inform efforts to improve abortion provision should be context-specific, that is, it should take account of the characteristics of national settings, for example, geo-spatial factors governing area-related equality of access to abortion provision; public attitudes towards abortion

influencing stigma and hence the extent of privacy needed by women and the inclination of practitioners to be involved; systems of health care funding determining access and traditions in professional education and training. [31,60,61]

2.0 Research aim and objectives

The aim of the SACHA study was to provide an evidence base to inform optimal configuration of health services and systems in response to current and future changes in the legal and regulatory context of abortion provision in the UK.

The objectives of the study were to:

i) collate, synthesize, and summarize recent evidence for innovative models of good practice and ways of providing abortion care and support with the potential to enhance access, quality of experience and cost-effectiveness in abortion provision;

ii) explore the potential for beneficial and harmful consequences of current trends in the context of abortion provision and identify implementation strategies to harness positive outcomes of current developments and mitigate adverse outcomes;

iii) assess the potential of GPs and non-clinician providers to extend their role in abortion provision, their education and training needs and their views on innovations in abortion care and support;

iv) elicit patients' views on current experiences of abortion and on preferences for abortion techniques, models of care and sources of support;

v) consult decision-makers on the range of innovative practices and procedures relating to abortion and on the potential feasibility, acceptability, and sustainability of their adoption in the UK context.

Minor modifications to the original objectives were made as the study was developed in regard to what data could and should be collected, as detailed in the Methodology. Although the initial aim of the study was to include all countries of the UK, it became clear that it was unfeasible to carry out the research in Northern Ireland as detailed (see section on Methodology).

3.0 Methodology

A horizon-scanning study was carried out, drawing on existing literature, comparative evidence, and the views, experience, and practice of policymakers, health professionals, and patients to ensure that services are optimally configured to adjust to upcoming changes.

The study comprised five interlinking components:

Work package 1: Literature reviews to generate evidence to guide the effective choice and implementation of novel approaches to abortion provision.

Work package 2: Case studies of countries that have fully or partially decriminalised abortion to examine their experiences and learn about their transferability to the British context

Work package 3: Survey exploring attitudes, receptivity to and preparedness for changes in abortion provision amongst healthcare practitioners;

Work package 4: Qualitative research with patients with recent experience of different abortion methods and service delivery models exploring views and experiences of abortion provision, care and support;

Work package 5: Round table discussion groups with key stakeholders to generate/share expert knowledge on the feasibility and applicability of novel strategies and interventions in the UK.

3.1 Work Package 1: Literature reviews

This component of the study comprised two reviews:

i) Realist review focused on improving the experience of home-managed medical abortion;
ii) Scoping review exploring healthcare practitioner preparedness for abortion provision.

Search strategy

The following databases were searched between December 2021 and July 2022 in collaboration with LSHTM library staff: Ovid Medline, CINAHL Plus, Cochrane Library, EMBASE, PsycINFO, PsycEXTRA, Global Health, Social Policy and Practice, Web of Science, Scopus (Elsevier) and NICE library. Searches within the title, abstract or keywords comprised three concepts: healthcare practitioners or patients, interventions, and abortion. The full search strategy is presented in: Baraitser et al, 2022. Search terms were tested and modified iteratively to find relevant articles.

3.1.1 Realist review

Research question: What support could improve home management of medical abortion?

The focus of the realist review as described in the proposal was modified following searches of the literature revealing few studies evaluating novel approaches to abortion provision. Instead, the review focused on the needs of women home-managing abortion, so augmenting the aims of Work Package 4. The rationale for choosing to use a realist review approach was based on our judgement

that the needs of women for home-managing abortion was complex and different women would need different things in different contexts. Realist reviews are a form of theory-driven literature review that is regularly used to make sense of complex interventions. The review followed steps commonly used in realist reviews [65,66] - location of existing theories, evidence search and document selection, data extraction, data synthesis and development of a refined programme theory. The RAMESES (Realist And MEta-narrative Evidence Syntheses: Evolving Standards) publication standards for realist syntheses were used. [67] The protocol was registered with Prospero (CRD42021225307).

Location of existing theories

The initial programme theory charted the stages of medical abortion to understand what type of support might be required from the healthcare system at each (Figure 1). These stages within a patient journey were used to structure analysis.

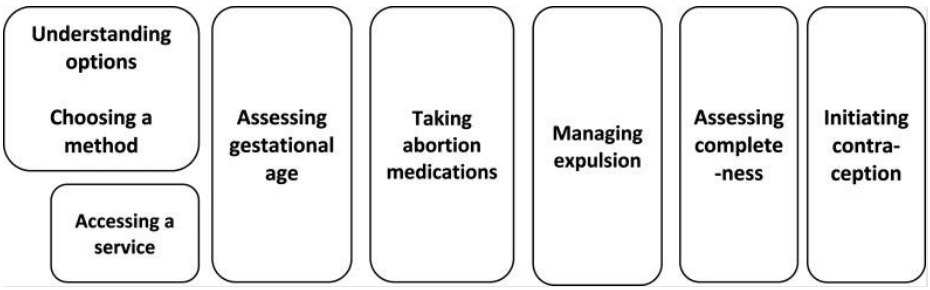

Figure 1. Stages of the medical abortion process (initial theory of change)

Searching for evidence and document selection

The search strategy began with a comprehensive literature search designed to answer the broader question of which interventions of models of abortion provision would be relevant to or feasible in the UK in the next 5 years. The databases and search terms for this search are listed in Supplementary Material 1. and the inclusion and exclusion criteria are shown in Table 1. Papers screened between April 2020 – December 2022. Those included were published between 1 January 2000–9 December 2022. Search results were imported into Covidence (https://www.covidence.org/) and screened in two stages. The first screen was based on title and abstract with a sample double-screened to check for consistency and discussion of studies of uncertain eligibility to reach consensus. The remainder of papers at the abstract and title stage and all those at the full text stage were single screened. The full text of all included documents was uploaded into a second electronic reference management system (EndNote). Papers were screened using the WHO database (https://abortion-policies.srhr.org/) to determine the legality of abortion in each of the studied settings and subsequently rescreened for the purposes of the realist review as follows:

i) A subject expert screened all full texts to identify those specifically related to medical abortion at home, grouping them into stages outlined in our initial programme theory.

ii) The lead author read these papers to identify whether they were relevant to developing our initial programme theory.

Table 1. Inclusion and exclusion criteria for WP1

	Included	Excluded
Interventions	- Interventions of models of abortion care/provision: addressing current therapeutic, technological and regulatory trends which would be relevant to, or feasible in the UK in the next 5 years	- Interventions aiming to legalise abortion, mitigate the effects of illegal abortion or address the financial aspects of abortion access. - Interventions relevant to abortion care in unregulated/poorly regulated contexts. - Pharmacological studies.
Populations	- People seeking/having had an abortion, those accompanying someone through an abortion process, healthcare workers reporting experience of/attitudes towards abortion provision.	

Papers considered useful for theory development and testing were those offering empirical evidence that could refine, refute or confirm the emerging realist programme theory and inform the development of context-mechanism-outcome configurations (CMOCs) within it [68]. This meant including all papers that were relevant to people's experience of each stage of the medical abortion at home journey and the support provided that might modify this experience. Consistent with the iterative nature of developing CMOCs in a realist review, as the CMO configurations developed, the list of papers for the review was revisited to look for additional relevant materials. Additional searches were completed as required including hand searches of reference lists and completing new searches, to seek out more relevant data.

Data extraction

The final selected papers regarding each stage of abortion care were read and reread by the reviewers. Findings were summarized in spreadsheets which contained information on key relevant findings from each paper, grouped according to the programme theory. Based on their interpretations of these findings, the reviewers developed CMOCs for each stage of the medical abortion process. No uniform data set was extracted from each paper, rather the data (verbatim sections of text) of each paper that were relevant to each emerging CMOCs were grouped together and iteratively used during the analysis process to develop CMOCs.

Data analysis and synthesis

Data were analysed using a process for the application of a realist logic of analysis that had been used by the reviewers before. [69] A realist logic of analysis uses data to produce causal explanations for outcomes that occur within a programme theory in the form of CMOCs. A CMOC is a proposition that explains what element of an initiative works, for whom and in what circumstances and is the primary way of reporting findings within a realist review. Within a CMOC, the causal claim being made is (in its

simplest form), when a particular context is present, it 'triggers' or 'activates' a particular mechanism, which causes a particular outcome. Mechanisms are hidden causal processes that are context-sensitive and are usually inferred based on interpretations of the data. See Baraitser et al, 2022.[68] Click or tap here to enter text.

Data to inform our interpretation of the relationships between contexts, mechanisms and outcomes were sought within and across documents (e.g., mechanisms inferred from one document helped explain the way contexts influenced outcomes in a different document). The initial programme theory was iteratively refined as the review progressed based on interpretations of the data from the included papers. For each stage of the abortion at home process theory we sought to unpack what support was needed. The final programme theory contains CMOCs that explain the outcomes achieved by the support provided, why it happens and in which contexts.

3.1.2 Scoping review

Research question: What is the evidence for interventions aimed at increasing the preparedness of non-specialist health professionals for a role in abortion provision?

We conducted a scoping review using the Preferred Reporting Items for Systematic Review and Meta-Analysis Extension for Scoping Reviews guidelines and the Template for Intervention Description and Replication. We followed stages outlined by Arksey and O'Malley i.e., i) establishing the research question; ii) searching for relevant studies; iii) selecting studies based on pre-defined eligibility inclusion criteria; iv) extracting data; and vi) collating, summarizing, and reporting results. [69] Although presented as a series of stages, the process was not linear but iterative, repeating steps as necessary to ensure the literature was comprehensively covered and searching for relevant studies. [70]

Study selection – inclusion and exclusion criteria

We included peer-reviewed literature published in English between January 2000 and July 2022, reporting on empirical data, including randomised-controlled trials, and cohort, observational, cross-sectional survey and qualitative studies. The PCC framework (Population; Concept; Context) was used to assess eligibility. [70]

Population - studies reporting interventions whose target population included, but was not restricted to, health professionals who were not specialist abortion providers. These included primary care physicians, nurses, midwives, auxiliary healthcare workers and pharmacists.
Concept - studies reporting on the nature and outcomes of interventions aimed at preparing non-specialist health professionals for a role in the provision of abortion care and support.
Context – studies in healthcare and non-health care-related settings, in all world regions.

We excluded papers describing interventions relevant only to poorly regulated contexts (such as those involving provision by unregulated providers); papers reporting that health professionals had been trained but providing no information on the nature of the training adopted; papers reporting only satisfaction with training as an outcome; and national surveys mapping training.

Screening

Search results were imported into Endnote X9. After removing duplicates, the library was imported into a bibliographic software, Covidence. Papers were single-screened at the title and abstract level by all authors to determine whether studies met the inclusion criteria, and at full-text level by two.

Data extraction

A data coding framework was devised in accordance with the study aims. Data extracted were charted according to Joanna Briggs Institute guidance, [70] i.e., by author and year of publication; country and date of intervention; number and characteristics of participants; nature of intervention; objectives; outcomes and key findings.

Collating, summarising and reporting results

Data from full texts (Table 21) were extracted by the lead authors and reviewed by co-authors for relevance and accuracy. Features of interventions were categorized and charted in alignment with the literature and shaped by the analysis of their descriptions. They included aspects of interventions aimed at optimizing inclination for involvement in abortion care, for example, by addressing values and attitudes; improving competence, for example, providing knowledge and improving the skills of health professionals; and those aimed at examining abortion practice subsequent to training, including barriers and facilitators. Where the aims of interventions fitted more than one category, the dominant focus and the key outcomes were used to categorize and chart them with reference to both tables in the text.

3.2 Work Package 2: Country case studies

Design: i) Documentary review, ii) Time series analysis of routine data of abortion rates, and iii) qualitative interviews with key stakeholders in abortion policy and practice

Research question: What has been the experience of countries that have fully or partially decriminalised abortion and what are the transferable lessons for policy and practice in Britain?

We collated evidence from three countries in which abortion has been wholly or partially decriminalised. We examined the impact of decriminalisation and changes in regulation and service delivery on abortion rates and equity of access and investigated the contextual factors that helped or hindered the introduction of non-legislative health system regulation and service design with the aim of identifying transferable lessons for policy and practice in Britain. The three case study countries were: Canada, which completely decriminalised abortion in 1988; Australia, where decriminalisation has occurred at different points in time in different jurisdictions; and Sweden, where abortions are available on request to 18 weeks' gestation.

The objectives were to:

1. Describe current and historical provision of abortion services in the three country case studies
2. Assess whether decriminalisation of abortion, or specific changes to regulations or service delivery, was associated with any change in overall abortion rates, the ratio of medical to surgical abortions, gestational age at abortion, or equality of access to abortion
3. Investigate the contexts, triggers, and mechanisms that facilitated or hindered changes in service delivery
4. Investigate the contexts, triggers and mechanisms that influenced the outcomes, positive or negative, of changes in service delivery

3.2.1 Search of documentary sources

The documentary review sought to describe current and historical provision of abortion services in the three country case studies, noting key changes in provision and their dates (Objective 1); describe evidence of impact (Objective 2); and investigate, where relevant information was published, the contexts, triggers and mechanisms that facilitated or hindered both changes in provision (Objective 3) and outcomes of changes in provision (Objective 4).

Data collection

The search of documentary sources covered official documents, identified with the aid of in-country investigators, including statutes and legal documents, as well as clinical and policy guidelines and protocols, on-line reports and grey literature. We also included published papers that described or evaluated any changes to abortion legislation or service delivery. We documented strategies to increase equity of access; interventions to reduce stigma and to increase public and health professional awareness of changes in health policy and regulation; strategies for monitoring abortion where recording could no longer be mandated; training and professional education; support for shared care and self-management, including e-health interventions; the role of primary care and

other health professionals, management of conscientious objection to abortion; and initiatives aimed at providing quality of care standards. Swedish midwife researchers, Anna Wängborg and Johanna Schmidt, extracted and translated relevant data from Swedish language documents.

Data analysis

These documents were used to collate country-specific evidence on the process and timing of decriminalisation and changes to practice; contextual factors that helped or hindered these changes; and evidence of impact, including unintended outcomes and efforts made to mitigate them. Information on timing of events was used to annotate the time-series data to examine the relationship between changes to policy and practice, and abortion patterns and trends. Information on the factors that helped or hindered changes, and on evidence of impact, will be synthesised with the aim of generating comprehensive country-specific accounts of the experiences of decriminalisation and deregulation. We aimed to answer specific research questions on the possible impact of decriminalisation and ensuing service delivery changes on, for example, the overall number of abortions, gestational age at abortion, and type of procedure.

3.2.2 Time series analysis of routine data on abortion rates

Routinely collected data on abortion rates were analysed to describe numbers and rates of abortions over time, where possible broken down by gestational age or abortion method, and sociodemographic characteristics including geography and age group. An interrupted time series (ITS) analysis had been planned, however this was not possible for two reasons: i) the majority of the service delivery changes were implemented gradually and unevenly in terms of geography, which made them unsuitable for ITS analysis; and 2) the data we were able to obtain was relatively sparse, so did not easily permit ITS analyses disaggregated by sociodemographic characteristics.

Data collection

In all countries routinely collected data were obtained on the numbers and rates of abortions, broken down where possible by sociodemographic and geographic characteristics. The data accessed in each country are described below.

Sweden

In Sweden these data were obtained from The Swedish National Board of Health and Welfare, which collates information on all abortions taking place in health facilities in Sweden. These data were available from 1983 onwards for most variables. Access to specified aggregated data tables for abortions taking place in health facilities in Sweden was requested, including data on age group, gestational age, type of abortion (medical or surgical, including location at which final pill was taken), geolocation at the postcode (municipality) level, and when the abortion took place. Our request was for data aggregated at the municipality level. Using the municipality identifier, data on population size (available from https://www.statistikdatabasen.scb.se/), was linked to our database.

Canada

In Canada, abortion rates by age and jurisdiction are publicly available from 1974, from Statistics Canada (based on the Therapeutic Abortion Database). Additional data are available from the Canadian Institute for Health Information, based on the Therapeutic Abortion Survey, which collects information on abortions performed in hospitals and clinics. However, although the data pertain to the whole of Canada, coverage in these data is patchy and is thought to both overcount and undercount abortions, limitations which made them unsuitable for this analysis. [71] Data were used from population-based administrative databases housed at ICES in Ontario. These databases contain information on individuals eligible for coverage under the Ontario Health Insurance Plan. The data are thought to cover all induced abortions, excluding a small proportion that are provided for non-residents of Ontario (fewer than 0.1%). Data collected on individuals obtaining an abortion included age group, parity, rural or urban residence, deprivation code of residential area, neighbourhood income, gestation of the pregnancy, and when the pregnancy occurred. We worked with analysts at ICES to design requests for specific analysis output. Although these data cover Ontario only and not the whole of Canada, they are considered high quality and have almost complete coverage for a province with nearly 40% of the Canadian population, and so provided valuable information on trends over time.

Australia

We used data from Victoria, South Australia and New South Wales. We obtained data from the Pharmaceutical Benefit Scheme on the number of medical abortion prescriptions in Australia from 2015 to present, by state, and from the Australian Institute of Health and Welfare on the number of surgical abortions carried out in all hospitals and day surgeries, also by state.

Data analysis

We plotted trends in the numbers and rates of abortion where possible broken down by gestational age, abortion method, and sociodemographic characteristics including geography and age group in order to identify underlying trends in abortion rates and indicators of access to abortion care and outliers.

3.2.3 Interviews with Key Stakeholders

Interviews with stakeholders built on the analysis of routine data sources and the documentary review and enabled us to investigate in more detail the contextual factors that helped or hindered changes to service provision, as well as any factors that influenced the outcomes, both positive and negative, of these changes (Objectives 3 and 4). This strand allowed us to investigate what works, where, and in what circumstances, with regard to health system and regulatory guidance on abortion provision.

Sampling

Stakeholders were purposively sampled and aimed to ensure representation across different roles and sectors including service providers, policy makers, NGOs, government officials, including

representatives from Departments of Health, surveillance agencies, national associations of pharmacists, midwives, nurses, community physicians; policy and law makers; and academics.

Data collection

In-country co-investigators led in identifying appropriate and relevant stakeholders for interview and facilitated contact. Potential interviewees were contacted by country co-investigators by e-mail, inviting them to take part in an interview, which was expected to be 45-60 minutes long. Interviews were conducted by members of the research team via video-conferencing software. Interviewees were given an information sheet detailing study aims, the likely topics to be covered by the interview, in broad terms, and how the findings were expected to be disseminated. Interviewees signed a consent form to confirm that they had understood the purpose and process and were willing to take part in the interview. Interviews were transcribed and anonymised. All interviews were conducted in English, except for some in Sweden which were conducted in Swedish and professionally translated after transcription. In publications any direct quotes were not attributed to a named individual, but labelled with the stakeholder's role (e.g., policy maker, academic, pharmacist) and country.

The topic guide for the interviews with stakeholders covered a wide range of topics, including possible mechanisms explaining the relationship between the trends seen in the routine data and the changes to policy and practice seen in the documentary evidence; any unintended and intended consequences of decriminalisation; facilitators and barriers to implementation of specific service delivery changes and novel approaches to abortion provision.

Synthesis

The findings across all three strands were synthesised within each country, to assess each of the four research objectives. Subsequently, findings from the three country case studies, paying particular attention to the contextual factors in each that influenced changes in service delivery and their impacts, were synthesised to gain a more comprehensive and nuanced understanding of what worked and in what circumstances to identify lessons that could be learned for the British context.

3.3 Work Package 3: Survey of health professionals

Design: Cross-sectional questionnaire-based survey of health professionals working in primary and secondary health services in England, Scotland and Wales.

Research question: What are the views of health professionals on the current and future forms of regulation and provision of abortion in Britain?

The objectives were to:

i) determine education and professional training needs to ensure competence and availability of a full range of abortion services for patients
ii) examine which health professionals have experience of providing care at specific points across the patient journey
iii) elicit health professionals' views on the current regulatory framework for abortion
iv) identify the level of inclination and capacity to increase roles in abortion care amongst non-specialists
v) obtain health professional views on recent trends and novel approaches in provision and care

3.3.1 Rationale for approach used

An important consideration in designing this component of the research, given the aim of exploring the potential for non-specialist health professionals to provide care and support, was the need to include a range of health professionals. Previous surveys in the UK have predominantly included medics, including medical students; [58,59,72] general practitioners; [56,57,73] or obstetricians and gynaecologists. [55,74] The few in Britain that have been carried out among a wider range of health professionals have used convenience samples from, for example, delegates at specialist meetings or conferences. [75–77] The sampling strategy used therefore reflected the need to capture all health professionals who might contribute to abortion care and support, that is, nurses, doctors, pharmacists and midwives.

A further concern was the need to achieve a high response rate to ensure that the findings were representative. Some surveys of health professionals designed to achieve a representative sample have achieved low response rates. Surveys of a sensitive nature have been found to have lower response rates. [78] Amongst GPs, being too busy and lack of financial payment have been reported as the most common reasons for non-response. [79] An online survey of GPs recruited via the Royal College of General Practitioners (RCGP) was found to be broadly representative of members' characteristics, but the estimated response rate was between 7-10%. [80] A Cochrane review on strategies used to increase survey response rates found the odds of response were at least doubled with monetary incentives, recorded postal delivery, a "teaser" on the envelope to encourage respondents to open it and an interesting topic. To a lesser extent, odds of response were also significantly increased with pre-notification, follow-up, unconditional incentives, shorter questionnaires, sending out the questionnaire again at follow-up, mentioning an obligation to respond, university sponsorship, non-monetary incentives, personalised questionnaires, handwritten envelopes, personalised questionnaires, inclusion of stamped address return envelopes, assurance of confidentiality and first-class outward mailing. Systematic reviews of methods to improve survey

response rates specifically amongst doctors and nurses have found similar findings, but also noted that endorsement from professional organisations increased response rates. [81] While postal and telephone surveys are more successful than online surveys, health professionals did respond well to having different options for questionnaire completion. Our selection of data collection methods was guided by these findings.

Finally, given the need to assess inclination, competence and capacity to provide abortion care and support, the aim was to probe not only attitudes but also knowledge and practice among health professionals. Most surveys of health professionals on abortion care in the UK have focused on attitudes, particularly towards the law and conscientious objection. [55–59,72–75] Exceptions to this have been investigations mainly into medical students' future willingness to participate in abortion care, [58,72] referral practices;[57] views on models of service provision; [75,77] and terminology. [76]

3.3.2 Sampling and recruitment

Health professionals in England, Scotland and Wales who have, or could have, a role in providing abortion care and support were eligible to take part. These included: GPs, practice nurses, midwives, SRH doctors and nurses and pharmacists currently working (either permanently or as a locum) in the following types of services: GP practices, SRH services, pharmacies, maternity services, and abortion services (for maternity services, only midwives were eligible to take part). All eligible participants were required to be health professionals working at a premise with a postcode and to be providing direct patient care, either face-to-face or remotely via video-conferencing software or phone.

With the aim of achieving a representative sample, we used a stratified cluster sampling approach to identify services from which participants were to be recruited. A random sample of services, which constituted our 'clusters', were selected with all eligible staff within that service asked to respond to the survey. The only exception to this was midwives working in maternity services. Given larger numbers of eligible staff working across maternity services at each site, all those working within a 24-hour period identified by the site manager in either antenatal, labour and postnatal wards were eligible. To ensure adequate representation of health professionals in each of England, Scotland, and Wales, these three nations constituted our strata. Furthermore, to ensure proportional regional spread of services across England and to benefit from the precision gains associated with implicit stratified sampling, [82] each sampling frame in England was ordered according to region (London, the North East, North West, Yorkshire, East Midlands, West Midlands, South East, East of England and the South West) and services selected using systematic random sampling. Samples of each service type were drawn independently from one another (see Table 2).

Table 2. Sampling frame and eligibility by service type

Service type	Sampling frame and service identification	Eligible staff	Identification of staff and mailout period

General Practices	List of General Practices compiled based on publicly available information from: Care Quality Commission, England; Health Inspectorate Wales and NHS Inform Scotland	General practitioners Midwives Pharmacists Practice Nurses	Identified via practice website 8th November 2021 – 17th March 2022
Abortion Providers	List of abortion providers compiled from: abortion statistics reports published Department of Health and Social Care (which includes details of all services in England and Wales that reported abortions to the Chief Medical Officer in the last year); lists of services provided by BPAS, NUPAS, and MSI Reproductive Choice; for Scotland, communication with those involved in abortion provision.	Doctors Midwives Nurses	Identified via service manager 11th January 2022 – 27th July 2022
Maternity Service	Sampling frame was a list of all six-digit postcodes in England, Wales, and Scotland. Selected postcodes were entered into the 'find a service' function on the NHS website	Midwives	Identified via service manager 28th June 2022 – 26th July 2022
Pharmacies	A list of registered pharmacies in England, Scotland and Wales is available from the General Pharmaceutical Council	Pharmacists	Identified via pharmacy 29th November 2021 – 25th March 2022
SRH Clinics	Sampling frame was a list of all six-digit postcodes in England, Wales, and Scotland. Selected postcodes were entered into the 'find a service' function on the NHS website	Doctors Midwives Nurses	Identified via service manager 10th May 2022 – 29th July 2022

For NHS hospital-based abortion providers to be eligible, abortion services had to provide at least 100 abortions each year, of which ≥80% were classified as being carried out under Ground C of the Abortion Act (i.e. "the pregnancy has NOT exceeded its 24th week and that the continuance of the pregnancy would involve risk, greater than if the pregnancy were terminated, of injury to the physical or mental health of the pregnant woman") (s.1(1)(a) Abortion Act 1967).[6] For abortion services commissioned by the NHS and provided by the independent sector, which included British Pregnancy Advisory Service (BPAS), MSI Reproductive Choices, and the National Unplanned Pregnancy Advisory Service (NUPAS), up to date lists of clinics were sought from the relevant website, or directly from the service. We were unable to construct a complete sampling frame for maternity and SRH services, and therefore required a different approach to sampling. In these services our sampling frame consisted of a complete list of all six-digit postcodes in England, Wales, and Scotland. On randomly selecting a postcode, it was entered into the 'find a service' function on the NHS website to identify the nearest SRH clinic and maternity service (and its full postal address, contact details and website). In selecting the sample of each service type, we also randomly selected several batches of 'back up samples' using the same approach. This enabled us to approach additional randomly selected services if a

whole site identified in original batch declined to participate. For each service type, we initially sampled 45 services to approach, with the exception of pharmacies, where we sampled 100 services due to the likely number of eligible staff per site being lower.

On the basis of the population size of England, Scotland, and Wales (approximately 56 million, 5 million, and 3 million respectively), and assuming we would need approximately 45 of each service type (except pharmacies), proportionate stratification would result in 39 clusters in England (0.875*45), four in Scotland (0.078*45), and two in Wales (0.047*45). Therefore, in order to ensure an adequate sample size in each nation, we over-sampled in Scotland and Wales so that at least six of every service type was located in each, with equivalent proportional oversampling for pharmacies. Prior research suggested that 46% of a random sample of GPs felt that the decision for an abortion should be the woman's only, rather than the requirement of either one or, as is current practice, two doctors' signatures [56]. We needed 1200 completed surveys to give us precision of +/- 3% around this estimate and our aim was to achieve a minimum of 100 respondents in each practitioner group. No evidence from Britain was found on SRH doctor, nurse, midwife, or pharmacist views to inform the sample size at the time of protocol development.

Health professionals working within each selected service were identified from website staff profiles (GP practices) and by contacting service managers (other services). Where NHS staff names, professional category and contact information were shared by managers these were supplied, with staff permission, to the research team in a password-protected spreadsheet. When staff members declined to have their contact details passed on, information on the total number of potential eligible participants working at that service was sought to calculate the denominator for our response rate. We also worked with Clinical Research Network Local Clinical Specialty Research Leads to promote the research and support recruitment with local NHS Trusts. National professional organisations, including the British Society of Abortion Care Providers (BSACP), the FSRH, the RCGP, the RCM, the RCN and the Royal Pharmaceutical Society, were informed about the survey to raise the profile of the research and to help gather support for completion of the survey by members.

3.3.3 Data collection

A fully structured and scheduled questionnaire was developed (Supplementary Material 2. WP3 Questionnaire). Classificatory data were collected on socio-demographic characteristics; attitudes towards abortion, including legal and regulatory frameworks and demedicalisation; experience of abortion care and support; views on integrating abortion provision into routine care; perceptions of implications for their roles and workload; self-assessment of competence and needs for professional training; and awareness, use and/or opinion of novel strategies or approaches, such as telemedicine. Existing questions from validated surveys of health professional attitudes and practices were used where appropriate. Likert scales were used to scale response options for attitudinal statements. To avoid bias stemming from a tendency to agree with attitudinal statements (acquiescence bias), statements were formulated representing differing views. For example, when eliciting views on the extension of the practitioner's role in abortion, opposing statements expressed advantages for the practitioner (e.g., increased job satisfaction) versus disadvantages (e.g., increased burden of

workload). The questionnaire was piloted with representatives from each service type and amendments were made to improve clarity of response options and to include other options as appropriate, e.g., “don’t know”.

Each questionnaire pack including a personal letter of invitation, a Participant Information Sheet, the questionnaire, a tea bag, an unconditional £10 voucher, and a pre-paid return envelope, was posted to all identified individual health professionals within each service. A postal survey was chosen as likely to yield higher response rates [55,56,74,83]. Each health professional was provided with a unique ID number, which was pre-recorded on their paper questionnaire and indicated country, type of service, site and batch, so that response rates could be calculated. To maximise response rates, we used strategies others have found effective [55,56,78,83] including the unconditional incentive in the first mail out; ii) following up with two emails or (where providers are based on-site) phone calls at fortnightly intervals following the initial mail out for non-responders and iii) limiting the questionnaire to a maximum of two pages. In the letter of invitation and in follow-up emails practitioners were given the option of completing the questionnaire online (using Online Surveys, www.onlinesurveys.ac.uk). The follow up emails were also a way of reaching people who may have been working from home over the COVID-19 pandemic. Completion and submission of the paper or online questionnaire implied consent.

3.3.4 Data analysis

Information on professional role, type of service and nation were linked to questionnaire data using ID numbers. Data were entered into OnlineSurveys (https://www.onlinesurveys.ac.uk/) either by the research team for paper questionnaires or direct by the participant, and then analysed in Stata 16. At a service level, response rates were calculated by country and service type. Individual completion rates (i.e., the proportion of identified health professionals who returned a completed questionnaire) were calculated by country, service type, and professional group. Frequencies with 95% confidence intervals (CI) for participant socio-demographic characteristics were calculated.

3.4 Work Package 4: In-depth interviews with patients with recent abortion experience

Design: In-depth interviews with patients in Britain with recent experience of abortion
Research question: What are patients’ recent experience of abortion and what are their preferences in relation to how care is delivered?

The objectives were to:

i) elicit patients’ views on their recent experiences of abortion, from decision making to follow up, with a focus on barriers and facilitators to satisfactory outcomes.

ii) document patients’ experience of and/or views on greater involvement in the abortion procedure, including choice of procedure, home management and self-administration of medical abortion;

ii) explore patients’ requirements and preferences for abortion techniques, models of care and sources of support;

iii) canvass patients' views on the involvement of alternative HCPs in abortion provision, and diversity in terms of premises used, examining the reasons for their opinions;

vi) consult patients on the range of abortion practices, procedures and pathways under review, including digital approaches, and on the potential acceptability and sustainability of their adoption in the UK.

3.4.1 Sampling

A purposive sample of patients with recent experience of abortion (past 2-8 weeks) was recruited from independent-sector services commissioned by the NHS and NHS sites in England, Scotland and Wales with the goal of recruiting a maximum of 60 patients. Originally, the aim was for this number to include a sample of 10 patients from Northern Ireland. Despite strenuous efforts, this proved to be unfeasible because of the difficulty of obtaining local permissions. The inclusion criteria were: ability to take part in an interview in English, Arabic, Welsh, or Polish and to give informed consent; age 16 years and over, UK-residence, and abortion for reasons other than fetal anomaly. Efforts were made to ensure diversity in the sample in terms of demographic characteristics and abortion experiences, including gestational age and abortion method. The demographic profile of the recruited sample was regularly reviewed, and underrepresented groups were specifically targeted (for instance non-White and non-British participants, and those under the age of 18 years).

3.4.2 Recruitment

Staff in clinic settings or carrying out consultations remotely introduced the study to potential participants after obtaining consent for the abortion procedure. Flyers were placed in clinics (Supplementary Material 3, Figure 1). Patients who expressed interest were offered options for initiating participation. These included speaking to the researcher on site; taking the researcher's details to make direct contact; or, with permission, passing their details to researchers to follow up. Flyers reminding providers about the study were placed in consultation rooms and at reception and send to practitioners working remotely (Supplementary Material 3, Figure 2). Participants were provided with the Participant Information Sheet (Supplementary Material 4).

3.4.3 Data collection

Semi-structured, in-depth interviews using an interview guide (Supplementary Material 5) were carried out by phone or video-conferencing software according to participant's preference and, with their permission, were audio-recorded. Consent to participate in the study was recorded in the interview (Supplementary Material 6. WP4 Consent form). A £20 high-street voucher was offered in appreciation for their time. Participants were asked to reflect on their abortion experience and, where relevant, to suggest possible improvements across the patient journey – from the decision to have an abortion to aftercare.

3.4.5 Data collection - content

The topic guide captured aspects of the decision-making process on whether to have an abortion and on choice of method; views on the recent experience of referral and the procedure itself, including

after care; how the experience might be improved; what support patients needed; and how they felt about new interventions and their perceived impact on access and quality of the experience. The impact of COVID will be a new investigative focus, particularly on the procedure.

3.4.6 Data analysis

Data were analysed using the Framework Method [84]. An initial matrix was created into which summary data were entered, by case and by code. Transcripts were coded by pairs of researchers. The interpretive themes were then identified, shared, and agreed and added iteratively as analysis progressed, going back and forth between data and interpretation.

3.5 Work Package 5: Stakeholder consultation

Design: Two-day residential consultation with key stakeholders to generate, share and disseminate expert knowledge on the optimal configuration of abortion services in Britain.
Research question: Which approaches to abortion provision are most appropriate and feasible in Britain?

The objectives were to:

i) consult key stakeholders on the likely feasibility, acceptability, and sustainability of different approaches to abortion provision in Britain.
ii) ascertain how SACHA study findings can most effectively inform best practice in abortion care
iii) identify obstacles likely to be encountered and how these can be overcome
iv) understand how the SACHA study findings would be best be framed, reported, and disseminated to the wider network of policy makers, commissioners, and practitioners

3.5.1 Sampling and recruitment

Participants were recruited for their relevant experience from professional colleges and associations (RCOG, FSRH, RCN, RCM, RCGP, BMA, RPS, NICE, BSCAP); commissioners; abortion providers (BPAS, MSI Reproductive Choices); researchers; third-sector agencies (Brook, Abortion Rights); government and policymakers. Participant Information Sheets and consent forms (Supplementary Material 7) were mailed outlining the aim and what would be involved, together with briefing documents on the preliminary findings of the study to inform discussions.

3.5.2 Data collection: content & method

The two-day event took place at Cumberland Lodge: 16th-17th January 2023. Sessions centred around themes reflecting key study findings: i) Providing patient-centred care; ii) The role of telemedicine; iii) abortion services: mainstreamed or stand-alone; iv) Extending professional roles; v) Regulatory frameworks (Supplementary Material 8). Sessions were recorded with participants' permission and detailed notes taken. Participants signed a consent form (Supplementary Material 9) before starting discussions. Each group was convened by two members of the research team, one presenting the findings and guiding discussion, the other taking notes. The stakeholders were given questions for discussion at the start of each session, such as "What interventions would be feasible and

appropriate to abortion care?", "How should services be commissioned and configured?", "What opportunities and challenges currently exist?". The discussions informed interpretation of findings and recommendations for policy and practice.

4.0 Ethical and regulatory approvals and data management

Routine data

For the WP2 country case studies, we considered the possibility of using abortion statistics that are in the public domain in the analysis. However, these data provide insufficient information to analyse in detail the distribution of characteristics of people undergoing abortion, particularly in subgroup analysis. For this reason, routine data on abortion notifications were requested from Swedish National Board of Health and Welfare (Sweden), ICES (Canada), the Australian Institute of Health and Welfare and the Pharmaceutical Benefits Scheme (Australia). Permission was requested from the appropriate bodies to use data not in the public domain. No individual level data were collected.

Interview and survey data

Identifying information (names and contact details) were stored and password protected on a secure LSHTM server separately from the interview transcripts and survey responses. Paper questionnaires were stored in a locked filing cabinet in a locked room at LSHTM. Name and contact details were only used for research fieldwork purposes and will be destroyed within six months of the grant ending. Audio recordings will be deleted from LSHTM servers once the final textual transcripts have been archived. Transcripts and survey data will be archived for 10 years.

See sections 11.2 Confidentiality, 11.4 Ethics Statement and Table 16 for further information.

When representing data from the WP3 health professional survey, all the cells where a count under 5 could lead to a participant's responses being linked to their identity were suppressed.

5.0 PPI in the SACHA Study

Patient and public involvement (PPI) is limited within abortion-related research. Possible reasons for this cited in literature and supported by anecdotal reports include resource limitations, confidentiality, and reluctance on the part of patients to re-engage with services. The SACHA team recognised the importance of PPI and aimed to overcome these concerns. Two approaches were used: involving patients and the public in the oversight of the project as lay advisors, and feeding back the project findings at group meetings, which were attended by PPI study representatives.

PPI study representatives

At the start of the study two PPI representatives with an interest in an abortion but no medical background or involvement in provision were recruited and consulted at all stages of the study and joined the Advisory Group. They participated specifically in shaping the questions to be asked in the qualitative interviews, ensuring that they reflect the diversity of service users' experiences. The PPI representatives received the research generated by other parts of the SACHA Study and engaged in an iterative process with members the research team to identify the key findings and present them in a way accessible to a lay audience to facilitate the group meetings. Guidance on the PPI representative roles was developed, and the representatives were reimbursed for their time.

PPI input into interpretation of findings and recommendations

The SACHA team also received support from the Centre for Reproductive Research & Communication (CRRC) at the BPAS to implement virtual group meetings with patients who had recently had an abortion. These group meetings provided an opportunity for the core research team to share findings from the SACHA project with BPAS patients, seek feedback from them on whether the results resonated with their own experiences, and get their views on which of the team's recommendations were their top priority to take forward.

The CRRC Research & Engagement Lead (Rebecca Blaylock) recruited participants for the group meetings from a pool of BPAS patients who had given their permission to be contacted about research & evaluation opportunities. Details about the opportunity were also circulated via a Scottish abortion advocacy group on social media. Those who were interested in participating were directed to an online survey where they were asked to answer some questions about their sociodemographic characteristics and abortion history, and to indicate their availability. RB then contacted potential participants and invited them to the group meeting, ensuring a range of people of different ages, ethnicities, and most recent abortion experiences were represented.

We faced some worrying challenges through advertising the PPI opportunity via social media. This method had previously been used to recruit for CRRC studies and PPI opportunities with few problems. However, our online survey was sabotaged with responses from suspected anti-abortion activists and 'bots'. This made ascertaining who were genuine respondents very difficult and therefore the decision was made to limit identification of patients via BPAS only to ensure a safe space for discussion with participants who had had an abortion.

The research team members hosted three 1-hour Zoom meetings focused on key themes identified in the SACHA project findings: 1) patient-centred care; 2) health professional roles; and 3) law and regulation. They shared the findings and facilitated a discussion based on the following questions:

- Why were you interested in taking part in today's discussion?
- Was there anything in the findings that immediately struck you?
- Based on your experiences, what rang true from our findings? What's missing?
- Based on our findings, what do you think is the most important thing we should be recommending to policymakers, service providers and other researchers?

All participants were given the opportunity to use a pseudonym and could choose to have their camera on or off. They were also reminded of the importance of protecting each other's confidentiality. A total of ten patients participated in the three groups. The discussions were not audio-recorded, but detailed notes were taken and reflections documented at the end of each group. We used the GRIPP2 short form checklist to guide reporting of our PPI activities [85].

Using PPI to develop SACHA Study visual identity

In Spring 2021, we worked with staff within the Graphics Department at Kingston University, London to develop a competition to design graphics for the SACHA Study. A brief was prepared to explain the study aims and the need for a logo that would identify the study and would be inclusive and sensitive. This brief was shared with staff and students and SACHA team members gave a presentation to them about the study. First prize was a £200 voucher, and for two runners up a £100 voucher. Nine students submitted ideas, and each gave an online presentation to the research team. The overall winner was Henry Rodwell-Lynn, a second-year undergraduate student. Henry's design was used in study documents (e.g., study information sheets and the WP3 questionnaire), in presentations and on the study mug, which was given the clinic staff who helped recruit patients for WP4 (see Figure 2).

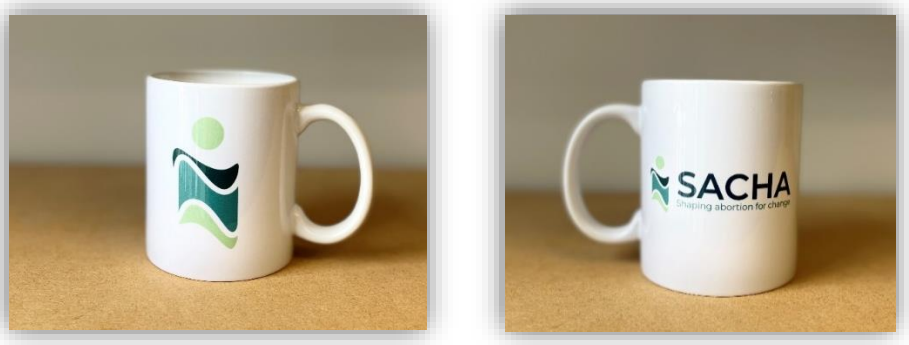

Figure 2. The SACHA mug

6.0 Results

6.1 Characteristics of included papers and study participants

In this first section of the Results, we present the findings of the search strategies and characteristics of the included studies (WP1) and the characteristics of those interviewed in WPs 2, 3 and 4.

Work Package 1

i) Realist review

Searches identified 27 982 potentially relevant abstracts for both reviews. 50 papers met the criteria for inclusion (Figure 3). A table summarising the studies by their setting, participants and content can be found in Supplementary Material 4.

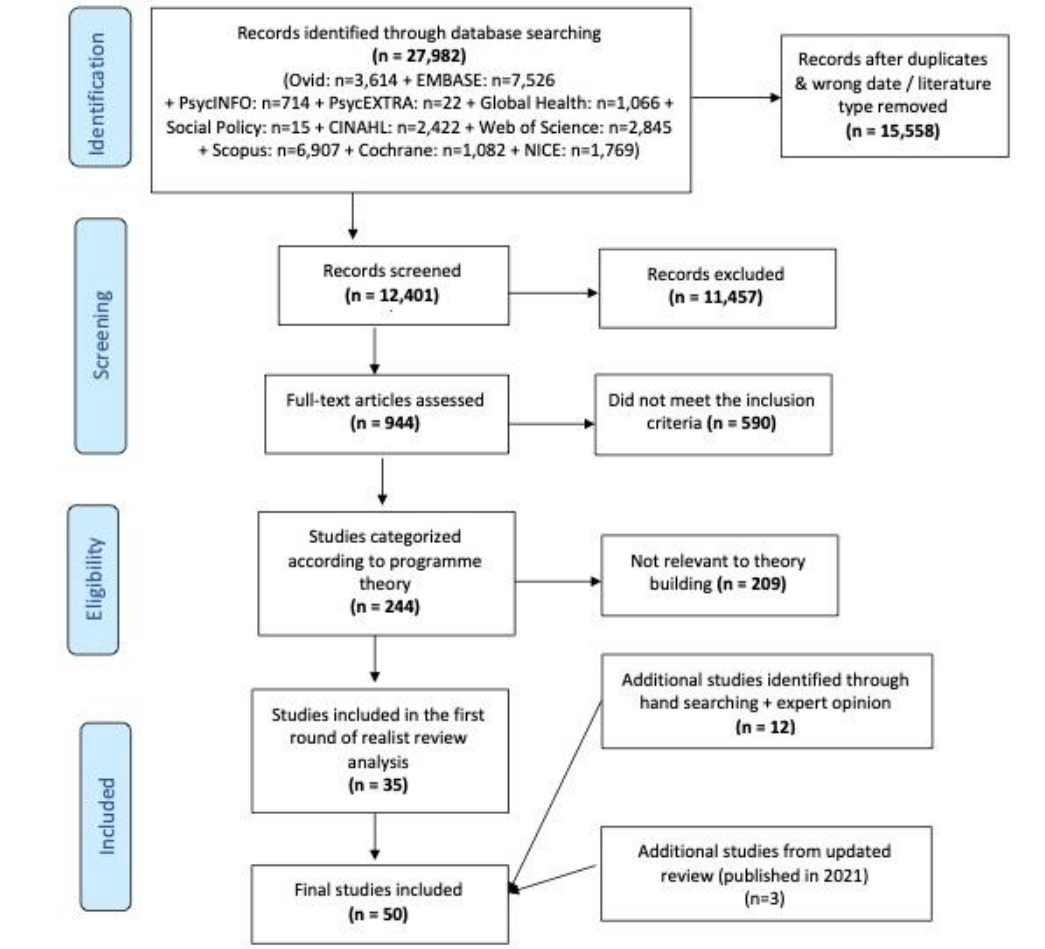

Figure 3. Prisma 2009 flow diagram

ii) Scoping review

Twenty-three studies met the inclusion criteria. The studies were conducted in the USA (n=13), Thailand (n=1), Latin America (n=1), Zambia (n=1), India (n=1), Nepal (n=2), Kenya (n=1) and three

described various research sites. Nine studies described interventions aimed at influencing attitudes towards and inclination to provide abortion care and support; nine described interventions aimed at increasing competence by improving knowledge and skills, and six described abortion practice following training (Appendix 2. WP1 Scoping review – tables of included studies). The study participants included: medical students, family medicine residents , obstetricians and gynaecologists, abortion providers, auxiliary nurse-midwives, pharmacists and pharmacy workers and wider groups of HCPs (Tables 18-20).

Work Package 2

We interviewed 31 stakeholders between February and August 2022. Participants included representatives from abortion providers (nurses and midwives as well as doctors), law and policy, government, NGOs, government officials, surveillance agencies and academics.

Work Package 3

Overall, 147 health service sites out of the 314 (46.8%) randomly selected took part in the health professional survey (Table 3). Site participation, defined by the participation of a least one respondent from the site, was highest amongst general practices (81.3%) and lowest amongst maternity services (26.7%). It was higher in Scotland, 52.3% of sites identified, and lowest in Wales, 39.0% (Figure 4).

Table 3. Site recruitment by country and service (n, %)*^

	General Practice	Maternity	Abortion	SRH Clinic	Pharmacy	Total
England	29/35 (82.9%)	9/33 (27.3%)	25/33 (75.8%)	14/33 (42.4%)	31/95 (32.6%)	108/229 (47.2%)
Scotland	5/6 (83.3%)	1/6 (16.7%)	7/10 (70%)	4/6 (66.7%)	6/16 (37.5%)	23/44 (52.3%)
Wales	5/7 (71.4%)	2/6 (33.3%)	2/6 (33.3%)	1/6 (16.7%)	6/16 (37.5%)	16/41 (39.0%)
Total	39/48 (81.3%)	12/45 (26.7%)	34/49 (69.4%)	20/45 (42.2%)	43/94 (33.9%)	147/314 (46.8%)

* Includes sites where at least one respondent returned a questionnaire and for sites requiring R&D approval all permissions were obtained

^ Three Batch A general practices were replaced with sites from the Batch B general practice list and 34 Batch A pharmacies were replaced from the Batch B and C pharmacy lists. The reasons for replacement of the originally selected Batch A sites included inability to make contact (n=17), refusal to take part (n=11), short-term locums only (n=4), invalid telephone number (n=3) and site closures (n=2). We had insufficient time for attempts to replace non-participating Batch A maternity, abortion or SRH sites due to delays experienced setting up approvals.

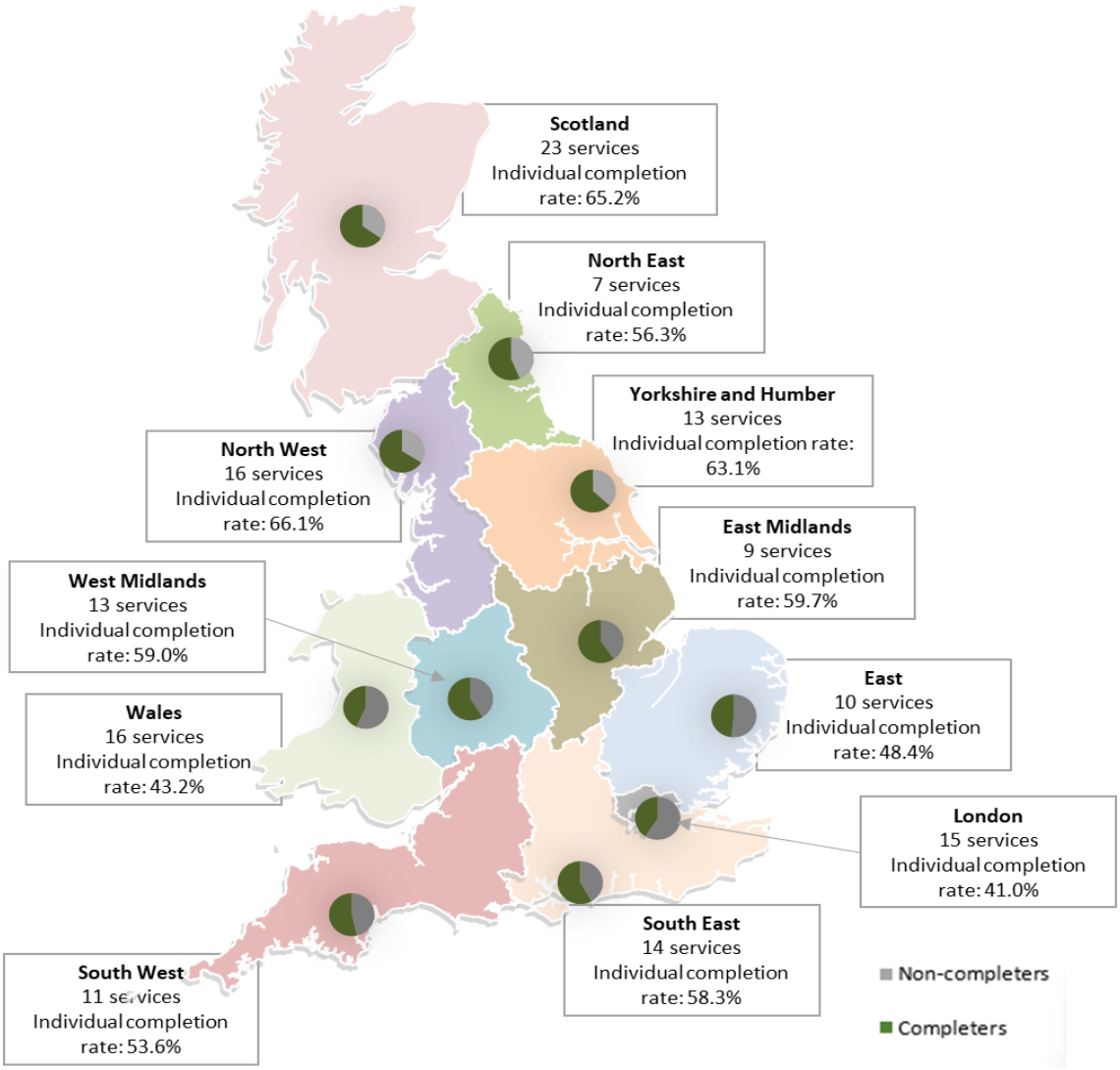

Figure 4. Site recruitment by region

The main reasons for non-participation by identified sites were R&D Department non-response or inability to support the study due to lack of resources or insufficient time to approve the study, or the identified sites were not interested in the topic, did not feel it was of relevance, did not want to share names of staff or did not have the capacity to take part in research. In three sites (all abortion providers), approval was given, and agreement given to take part, but no returns were received. With some pharmacies, we were unable to get through on the phone to invite eligible pharmacists to take part, despite multiple attempts.

Of 1370 questionnaires sent out to identified participants within these services, 771 completed questionnaires were returned (56.3%). Scotland had the highest proportion of returns (65.2%), followed by England (56.9%) and then Wales (43.2%). The types of services with the highest proportion of returns were SRH clinics (81.0%), then specialist abortion providers (78.7%), maternity services (67.4%), pharmacies (39.7%), and lastly general practice (32.4%). In relation to profession, completed returns were highest amongst midwives (69.6%), then nurses (62.3%), doctors (45.1%) and

lowest amongst pharmacists (36.5%). On average there were four respondents per general practice site, 17 per maternity site, eight per abortion service, six per SRH clinic and one per pharmacy.

Examining the profile of participants by service illustrated some variations (Table 4). Those working in SRH services and general practice were more commonly aged 50 years or over, 46.5% and 42.2%, respectively, and qualified for over 20 years, 50.9% and 53.3%, respectively. Higher proportions of females were found in all services. The highest proportion of male health professionals were in pharmacies (39.6%). Over half of those working in pharmacies (50.9%) and over a third of those working in general practice (36.1%) reported that religion was very or quite important in their lives.

Table 4. Characteristics of survey participants

	Total			General practice			Maternity			Abortion			SRH Services			Pharmacy		
	n	%	95% CI	n	%	95% CI	n	%	95% CI	n	%	95% CI	n	%	95% CI	n	%	95% CI
Total	771			156	20.26	(13.36-29.51)	198	25.71	(13.32-43.80)	247	32.08	(21.19-45.34)	115	14.94	(8.22-25.61)	54	7.01	(4.66-10.42)
Age																		
Under 30	84	11	(8.41-14.25)	2	1.3	(0.33- 4.95)	36	18.18	(12.60-25.52)	26	10.61	(7.12-15.54)	7	6.14	(2.95-12.33)	13	24.53	(15.02-37.40)
30-39	208	27.2	(23.63-31.14)	35	22.73	(15.82-31.52)	58	29.29	(20.88-39.41)	75	30.61	(25.03-36.83)	26	22.81	(14.17-34.59)	14	26.42	(15.46-41.34)
40-49	210	27.4	(24.17-30.79)	52	33.77	(24.34-44.69)	53	26.77	(20.72-33.83)	63	25.71	(20.98-31.09)	28	24.56	(17.55-33.24)	13	24.53	(14.59-38.20)
50 or over	263	34.4	(29.72-39.46)	65	42.21	(33.98-50.89)	51	25.76	(14.91-40.73)	81	33.06	(25.89-41.11)	53	46.49	(37.64-55.57)	13	24.53	(14.79-37.84)
Gender																		
Female	669	87.6	(83.52-90.70)	112	72.73	(65.66-78.81)	197	100	.	222	90.98	(85.74-94.42)	105	92.11	(86.13-95.64)	32	60.38	(45.99-73.17)
Male	93	12.2	(9.02-16.27)	42	27.27	(21.19-34.34)	0	.	.	21	8.61	(5.10-14.17)	9	7.89	(4.36-13.87)	21	39.62	(26.83-54.01)
Non-binary	2	0.26	(0.07- 1.01)	0	.	.	1	100	.	1	0.41	(0.06- 2.87)	0	.	.	0	.	.
Professional role																		
Doctor	176	23	(17.16-30.20)	89	57.05	(49.66-64.14)	0	.	.	64	26.12	(16.40-38.93)	23	20	(14.43-27.05)	0	.	.
Nurse	261	34.2	(25.67-43.81)	58	37.18	(29.86-45.13)	2	1.03	(0.10- 9.63)	112	45.71	(32.57-59.48)	89	77.39	(68.85-84.13)	0	.	.
Midwife	266	34.7	(21.60-50.59)	6	3.85	(0.95-14.26)	191	98.45	(86.01-99.85)	67	27.35	(11.96-51.06)	1	0.87	(0.10- 6.97)	0	.	.
Pharmacist	62	8.12	(5.54-11.73)	3	1.92	(0.45- 7.80)	1	0.52	(0.05- 4.98)	2	0.82	(0.10- 6.18)	2	1.74	(0.41- 7.11)	54	100	.
When qualified																		
Less than 5 years ago	97	12.7	(9.82-16.34)	7	4.55	(2.34- 8.65)	34	17.26	(10.29-27.49)	36	14.75	(9.76-21.69)	9	7.89	(4.47-13.57)	11	20.75	(11.13-35.39)
5-10 years ago	166	21.8	(18.39-25.61)	26	16.88	(11.09-24.85)	63	31.98	(23.91-41.29)	54	22.13	(17.06-28.20)	13	11.4	(5.86-21.03)	10	18.87	(10.53-31.48)
11-20 years ago	216	28.2	(25.12-31.53)	39	25.32	(19.23-32.57)	48	24.37	(18.06-32.01)	79	32.38	(27.12-38.12)	34	29.82	(21.19-40.18)	15	28.3	(16.94-43.31)
Over 20 years ago	284	37.3	(31.67-43.23)	82	53.25	(44.79-61.52)	52	26.4	(14.60-42.94)	75	30.74	(22.41-40.55)	58	50.88	(40.52-61.16)	17	32.08	(21.04-45.56)
Country																		
England	560	72.7	(59.64-82.79)	119	76.28	(57.17-88.57)	172	86.87	(50.74-97.70)	148	59.92	(35.62-80.16)	84	73.04	(30.61-94.33)	37	68.52	(51.09-81.93)
Wales	79	10.3	(4.67-21.05)	16	10.26	(3.49-26.53)	25	12.63	(2.10-49.33)	7	2.83	(0.45-15.74)	24	20.87	(2.73-71.25)	7	12.96	(5.47-27.70)
Scotland	131	17	(9.29-29.11)	21	13.46	(4.79-32.46)	1	0.51	(0.04- 5.65)	92	37.25	(17.50-62.42)	7	6.09	(1.41-22.71)	10	18.52	(8.19-36.68)
Importance of religion in life																		
Very important	60	7.87	(6.07-10.15)	18	11.61	(7.20-18.20)	13	6.67	(3.63-11.93)	13	5.31	(3.06- 9.03)	4	3.51	(1.02-11.34)	12	22.64	(13.36-35.72)
Quite important	147	19.3	(16.51-22.42)	38	24.52	(19.20-30.75)	40	20.51	(14.16-28.76)	34	13.88	(9.77-19.34)	20	17.54	(11.58-25.69)	15	28.3	(17.76-41.91)
Not important	520	68.1	(63.81-72.12)	92	59.35	(50.61-67.54)	138	70.77	(59.16-80.18)	185	75.51	(68.35-81.49)	82	71.93	(59.97-81.43)	22	41.51	(27.33-57.25)
Prefer not to say	36	4.72	(3.45- 6.44)	7	4.52	(2.11- 9.42)	4	2.05	(1.05- 3.99)	13	5.31	(3.05- 9.07)	8	7.02	(3.69-12.96)	4	7.55	(2.82-18.68)
Political beliefs																		
Right/right of centre	30	3.95	(2.71- 5.73)	11	7.19	(3.64-13.70)	5	2.55	(1.03- 6.15)	6	2.47	(1.06- 5.66)	2	1.75	(0.41- 7.13)	6	11.32	(5.18-22.99)
Centre	114	14.9	(12.50-17.64)	36	23.53	(18.53-29.40)	21	10.71	(5.94-18.57)	29	11.93	(8.59-16.34)	16	14.04	(9.21-20.81)	11	20.75	(12.12-33.22)
Left/left of centre	227	29.9	(26.38-33.70)	48	31.37	(24.32-39.40)	64	32.65	(26.20-39.84)	78	32.1	(24.54-40.73)	27	23.68	(15.42-34.57)	10	18.87	(10.37-31.85)
None	303	39.9	(35.71-44.29)	39	25.49	(18.87-33.47)	93	47.45	(41.87-53.10)	95	39.09	(33.02-45.52)	59	51.75	(38.19-65.07)	17	32.08	(21.07-45.51)

Work package 4

We interviewed 48 women aged 16 to 43 years between August 2021 and August 2022. Five women who initially agreed to participate in the study did not attend the interview. Of those taking part, 39 had had a medical abortion, eight a surgical one, and one both. Summary characteristics of the participants are presented in Table 5. Detailed characteristics are presented at Table 17.

Table 5. Characteristics of patients with recent experience of abortion

	N	%
Country		
England	25	52.1
Scotland	20	41.7
Wales	3	6.3
Age group		
16-20	6	12.5
21-25	12	25.0
26-30	10	20.8
31-35	11	22.9
36-40	8	16.7
41-45	1	2.1
Children		
Yes	14	29.2
No	32	66.7
Not reported	2	4.2
Previous abortion		
Yes	17	35.4
No	30	62.5
Not reported	1	2.1
Abortion method		
Home medical abortion	37	77.1
Home medical abortion and surgical	1	2.1
Hospital medical abortion	2	4.2
Surgical	8	16.7

Work Package 5

15 stakeholders from different sectors and with different professional roles attended the round table discussions. There was good representation from the different sectors with the exception of government, where no representatives were available to attend.

6.2 Study findings

6.2.1 How should abortion be regulated in Britain?

To gain insights into the likely impact of decriminalising abortion. we draw on data from the survey of health professionals (WP3) reporting on attitudes towards the regulation of abortion among a range of health professionals; from interviews with patients with recent experience of abortion (WP4) describing patients' knowledge of and attitudes towards the current legislation governing abortion; and from interviews with practitioners carried out in selected countries in which abortion has been decriminalised (WP2) documenting challenges and possibilities in decriminalising abortion.

Health professionals' knowledge of abortion law

Knowledge of the law was assessed by asking health professionals their view of the veracity of the statement *'An abortion is a criminal offence unless it has been signed off by a doctor'.* 78.6% of all health professionals entered 'True' to this statement; 9.4% entered 'False' and 12.0 entered 'Unsure' (Table 6). The proportion providing the correct answer was higher among women and increased with age and with years since qualification. A third of all men, and a third of health professionals aged under 30, were unaware that abortion was only lawful when authorised by a doctor. Unsurprisingly, understanding of this aspect of the law was higher among those currently providing abortion in any service (86.9%) compared to those not doing so and was near universal among those working in a specialist abortion service (96.3%). It was lower among those in other service types; two thirds of health professionals working in general practice, and little more than half in pharmacies, entered the correct answer.

Health professionals' attitudes towards the regulation of abortion

Endorsement of the view that abortion was a woman's choice was high among health professionals. 90.7% overall agreed with the statement: '*The choice to have an abortion should be completely that of the woman',* 7.0% neither agreed nor disagreed and only 2.4% disagreed (Table 6). Agreement was more prevalent among women than men, and among those seeing religion as of no importance compared with those for whom it was very important. Nonetheless, agreement did not fall below 70% for any sub-group. Not surprisingly, the pro-choice sentiment was highest among respondents currently providing abortion (96.3%) and amongst those working in specialist abortion facilities (98%) but it was a majority opinion across all service settings and professional specialties. It was less commonly expressed among health professionals working in general practice compared with those in other health care settings but even so accounted for three quarters of responses.

Support for the view that abortion was a health and not a legal issue was lower but was still a majority opinion with 68.2% overall agreeing, 8.9% disagreeing and 22.8% neither agreeing nor disagreeing with the statement: *'Abortion is a health not a legal issue and should be treated as such'.* Agreement was higher among younger than older health professionals, lower among those considering religion to be very important and decreased with time since qualification. Important differences by service type were seen only among health professionals working in general practice, fewer than half of whom endorsed the statement.

Table 6. Health professionals' knowledge of and views on the regulation of abortion

	Knowledge			Attitudes											
	An abortion is a criminal offence unless signed off by a doctor			The choice to have an abortion should be completely that of the woman			Abortion should not be carried out after 12 weeks gestation			Abortion is a health and not a legal issue and should be treated as such			Abortion at any gestational age is against my personal beliefs		
	n	%	95% CI	n	%	95% CI	n	%	95% CI	n	%	95% CI	n	%	95% CI
Total	768			764			762			763			765		
Knowledge/Attitude															
True/Agree	604	78.62	(73.94-82.66)	693	90.69	(87.92-92.88)	51	6.7	(4.86- 9.17)	521	68.2	(63.91-72.28)	47	6.15	(4.53- 8.30)
Unsure/Neither agree nor disagree	92	11.99	(9.01-15.80)	53	6.95	(5.24- 9.16)	125	16.43	(13.31-20.11)	174	22.8	(19.38-26.70)	82	10.73	(8.57-13.36)
False/Disagree	72	9.39	(7.23-12.10)	18	2.36	(1.45- 3.82)	586	76.87	(71.86-81.23)	68	8.92	(6.97-11.36)	636	83.12	(79.87-85.93)
Agreement with statements															
Age group	762			762			760			761			763		
Under 30	55	65.48	(54.37-75.12)	78	92.86	(83.80-97.03)	3	3.57	(1.07-11.23)	64	76.2	(65.26-84.50)	5	5.95	(2.71-12.59)
30-39	162	78.26	(71.24-83.96)	194	93.72	(89.39-96.35)	14	6.76	(3.91-11.45)	156	75.4	(69.12-80.69)	15	7.21	(4.41-11.59)
40-49	163	77.88	(70.51-83.84)	191	90.91	(86.02-94.20)	20	9.57	(6.45-13.98)	127	60.6	(52.94-67.73)	17	8.13	(5.06-12.83)
50 or over	220	83.97	(77.92-88.60)	228	87.36	(82.28-91.13)	14	5.41	(2.92- 9.78)	173	66.3	(60.05-72.00)	10	3.83	(1.97- 7.32)
Gender	761			761			759			760			762		
Female	536	80.33	(75.29-84.55)	616	92.34	(89.48-94.47)	41	6.17	(4.41- 8.58)	460	69	(64.58-73.14)	37	5.56	(4.01- 7.65)
Male	60	65.22	(54.97-74.23)	73	79.35	(70.88-85.84)	10	10.87	(5.97-18.99)	59	64.1	(53.60-73.46)	10	10.75	(5.93-18.71)
Non-binary or prefer not to say	2	100	(.- .)	1	50	(5.71-94.29)	.	0	(.- .)	1	50	(5.71-94.29)	.	0	(.- .)
When qualified	760			760			758			759			761		
Less than 5 years ago	71	73.2	(62.47-81.75)	91	93.81	(86.07-97.38)	5	5.15	(2.02-12.56)	75	77.3	(69.06-83.89)	8	8.25	(4.34-15.12)
5-10 years ago	119	72.12	(63.45-79.41)	154	92.77	(87.61-95.88)	6	3.64	(1.61- 7.99)	123	74.6	(66.89-80.93)	13	7.83	(4.49-13.32)
11-20 years ago	173	80.37	(72.74-86.27)	195	91.08	(86.09-94.40)	19	8.88	(5.81-13.34)	142	66.2	(58.34-73.25)	10	4.67	(2.60- 8.27)
Over 20 years ago	234	82.69	(77.62-86.80)	250	88.34	(83.58-91.85)	20	7.12	(4.43-11.24)	179	63.3	(56.70-69.35)	16	5.65	(3.30- 9.52)
Country	767			763			761			762			764		
England	436	78.14	(72.86-82.63)	502	90.29	(86.96-92.84)	38	6.86	(4.68- 9.95)	363	65.3	(60.48-69.80)	41	7.37	(5.32-10.14)
Wales	58	73.42	(53.67-86.82)	70	89.74	(81.24-94.65)	7	8.97	(4.45-17.28)	56	72.7	(62.81-80.81)	1	1.28	(0.21- 7.45)
Scotland	109	83.85	(72.31-91.16)	120	93.02	(84.23-97.08)	6	4.65	(1.99-10.47)	101	78.3	(65.89-87.07)	5	3.85	(1.51- 9.48)
Currently provides abortion care	761			756			754			755			757		
Yes	405	86.91	(81.86-90.71)	445	95.91	(93.78-97.33)	14	3.03	(1.80- 5.07)	336	72.6	(67.71-76.95)	22	4.74	(3.12- 7.14)
No	193	65.31	(59.77-70.46)	240	82.13	(76.71-86.51)	36	12.37	(8.69-17.31)	182	62.2	(55.61-68.37)	24	8.22	(5.26-12.63)
Type of service	767			763			761			762			764		
SRH clinic	91	79.13	(65.50-88.33)	102	89.47	(83.39-93.50)	9	7.96	(4.78-12.99)	77	67.5	(60.31-74.02)	3	2.63	(0.88- 7.63)
Maternity service	141	71.21	(65.70-76.16)	188	95.43	(91.74-97.52)	6	3.05	(1.50- 6.08)	141	71.9	(65.56-77.54)	10	5.08	(2.98- 8.52)
GP practice	104	67.53	(58.20-75.65)	120	77.42	(70.71-82.96)	22	14.29	(9.55-20.82)	72	46.5	(37.56-55.58)	16	10.32	(6.02-17.13)
Pharmacy	30	55.56	(42.80-67.62)	42	80.77	(67.67-89.39)	10	18.87	(9.93-32.90)	37	71.2	(56.42-82.45)	7	13.21	(6.44-25.16)
Abortion provider	237	96.34	(93.46-97.98)	240	97.96	(95.71-99.04)	4	1.64	(0.66- 4.03)	193	78.8	(71.30-84.72)	11	4.49	(2.46- 8.04)
Professional role	762			758			756			757			759		
Doctor	137	77.84	(69.86-84.19)	150	86.21	(80.39-90.50)	13	7.51	(4.43-12.47)	108	62.1	(52.71-70.61)	12	6.9	(3.62-12.74)
Nurse	217	84.11	(76.58-89.55)	237	90.8	(85.59-94.26)	19	7.34	(4.52-11.68)	179	68.6	(62.15-74.37)	15	5.75	(3.25- 9.97)
Midwife	209	78.49	(69.97-85.11)	251	95.42	(92.09-97.39)	8	3.05	(1.69- 5.47)	189	72	(66.95-76.61)	13	4.96	(3.12- 7.79)
Pharmacist	37	59.68	(47.25-70.98)	50	83.33	(71.55-90.86)	11	18.03	(9.89-30.60)	42	70	(56.86-80.51)	7	11.48	(5.57-22.17)
Importance of religion in life	760			761			759			760			762		
Very important	41	68.33	(55.63-78.78)	44	73.33	(61.25-82.71)	14	23.73	(13.69-37.90)	27	45	(33.55-57.01)	17	28.33	(16.80-43.64)
Quite important	117	80.69	(73.38-86.36)	128	87.67	(81.15-92.16)	16	10.96	(6.20-18.65)	94	64.4	(55.76-72.16)	8	5.48	(2.56-11.34)
Not important	410	78.96	(73.09-83.83)	486	93.63	(90.65-95.70)	18	3.47	(2.12- 5.64)	378	72.9	(67.95-77.37)	21	4.05	(2.63- 6.18)
Prefer not to say	30	83.33	(67.53-92.32)	32	88.89	(74.00-95.74)	3	8.57	(2.72-23.92)	20	55.6	(39.10-70.88)	.	0	(.- .)
Political beliefs	757			758			756			757			759		
Right/right of centre	24	82.76	(64.39-92.72)	23	76.67	(58.81-88.32)	4	13.79	(5.31-31.35)	19	63.3	(41.05-81.08)	4	13.33	(4.31-34.46)
Centre	90	78.76	(69.72-85.66)	104	91.96	(83.42-96.30)	9	7.96	(3.85-15.77)	67	58.9	(49.42-67.82)	4	3.54	(1.33- 9.07)
Left/left of centre	188	82.82	(76.21-87.89)	213	93.83	(89.69-96.38)	8	3.52	(1.74- 7.00)	184	81.1	(74.49-86.25)	15	6.61	(3.98-10.78)
None	229	76.08	(69.73-81.45)	269	89.07	(84.87-92.21)	22	7.31	(4.76-11.06)	201	66.8	(61.58-71.59)	20	6.62	(4.11-10.50)
Prefer not to say	65	75.58	(64.39-84.12)	78	90.7	(81.56-95.55)	8	9.41	(4.73-17.87)	49	57	(45.95-67.35)	4	4.65	(1.73-11.88)
An abortion is a criminal offence unless signed off by a doctor				761			760			760			762		
TRUE	–	–	–	552	92.14	(89.45-94.19)	35	5.87	(4.25- 8.07)	413	69	(64.25-73.41)	31	5.18	(3.58- 7.46)
FALSE	–	–	–	79	86.81	(78.54-92.21)	6	6.59	(2.58-15.83)	57	62.6	(52.69-71.62)	7	7.69	(3.41-16.44)
Don't know	–	–	–	59	83.1	(71.72-90.50)	8	11.11	(5.39-21.53)	49	69	(53.81-80.98)	7	9.72	(4.69-19.06)

6.2% of respondents agreed that abortion at any gestational age was against their personal beliefs, 83.1% disagreed and 10.7% neither agreed nor disagreed. Level of agreement marginally exceeded

10% among men, among respondents with right of centre political views and among pharmacists. Among those seeing religion as very important, however, it was markedly higher, at 28.3% (Table 6).

6.7% of respondents agreed that abortion should not be carried out after 12 weeks' gestation, 76.9% disagreed and 16.4% neither agreed nor disagreed. Opposition to second trimester abortion was more common among respondents aged 40 and over and among those for whom religion was very important compared with others. Again, marked differences were seen by service type. The proportion of health professionals who held this view was higher among those working in general practice and pharmacies than among those in specialist abortion services. sexual and reproductive health services and maternity services. Nearly one in five health professionals in pharmacies opposed second trimester abortion (Table 6).

Free text comments

188 health professionals added free text notes to the questionnaire, 19 of which were directly relevant to the regulation of abortion. Consistent with the quantitative findings, comments were universally pro-choice. None stated a preference for retaining abortion within the law: *"Abortion should be decriminalised and left solely as a health care choice for women - no matter the gestation"* (Midwife, Abortion service, England)*; "Continuing to make it illegal without a doctor's approval is unfair in the 21st Century"* (Nurse, Abortion service, England). Where this view was qualified, it was with reference to the need for a prior medical consultation: *"As long as a medical professional is confident that the treatment option is safe for the women. I'd want to make sure a woman always spoke to a medical professional first (as opposed to just buying medication".* (Midwife, Abortion service, England)

Comments added included the view that it was no longer necessary for two doctors to authorise an abortion: *"The abortion ACT should be updated, and the 2 medical signatures scrapped"* (Nurse, SRH, England). Another respondent noted that if the legal requirement remained in place, since abortion was increasingly nurse-led, the role of nurses should include responsibility for certifying that the grounds for abortion were met: *"Abortion care has largely been 'devolved' and provision is made predominantly by nursing colleagues. It should therefore be possible for them to sign the HSA1 forms. it is archaic to think it must be 2 doctors"* (Doctor, Abortion service, Wales); *"Don't feel there need to be two signatures on a cert A. or at least one signature could be a nurse/midwife"* (Nurse, Abortion service, England).

Knowledge and attitudes of patients towards the regulation of abortion

More than a third of the patients who were interviewed had been unaware before their SACHA interview that abortion was a criminal offence unless medically authorised by two doctors. Typical reactions to hearing this were shock, disbelief, and forthright opposition (*"bizarre"* (15); *"bollocks"* (11); *"absolute disgrace''* (07)). In some cases, the revelation led to abortion being reconceptualised by patients, either as more stigmatised than they had supposed (*"Wow. I'm absolutely mind blown now with hearing that. It makes you feel quite bad to be honest"* (15)), or as more hazardous than previously thought (*"because it is a medical procedure or some risk, it should have a doctor or nurse*

sign off on it, right? Because of the medication that you're taking and all the … potentially really bad side effects" (24)).

The process of collecting information to be passed to doctors for the purpose of authorising the abortion seemed to several patients to have been treated as a formality (*"tick-boxy"* (10); *"must have been a box ticking exercise, which seems totally mad"* (22); *"it was quite easy to get the sign off. What's the point of it? It's just like a formality."* (10)) Reflecting on her experience, one patient conveyed a sense of being guided in how to phrase their reasons for having an abortion in terms that met the criteria of the Abortion Act:

> *"When I was asked the question, what is the reason for you wanting the abortion. I was almost goaded into giving a certain answer that would fit their description of what would be allowed. So goaded is the wrong word, but almost like (...) persuaded to give a certain answer that would fit. Because it was all recorded, I assume, and they have to write down certain things. So whatever I said, it wouldn't really matter because I would almost be making their life easier by giving a certain answer."* (03)

Patients' accounts revealed little support for the requirement for two doctor's signatures before carrying out an abortion. The near-universal view of women was that the abortion was a woman's choice, and such views were often forcefully expressed: *"I think it's an absolute disgrace that anyone has got any kind of say over it at all"* (07); *"Women should be able to decide about their bodies themselves"* (16); *"it's not anyone else's body. It's not anyone else's life. It's totally a woman's right to choose whether or not they have that procedure"* (01); *"It should be down to that person's individual choice to make any decision about their body."* (04)

The minority who saw authorisation by a doctor as justified, and those who took a more circumspect view tended to explain their view in a way that conflated a requirement for medical authorisation with the need for medical involvement (because of either safeguarding concerns or individual clinical factors) in a way that might be seen as reflecting a misunderstanding of the justification for, and current operation of, the two doctors' rule. Situations seen as warranting such intervention included those mandated by clinical factors, such as possible contra-indications to medication, pregnancy complications, or where the pregnancy was advanced. Authorisation was also seen as justified where there were doubts over capacity to consent, or over whether an autonomous decision had been taken, for example, possible coercion by a partner.

> *"Of course, there needs to be someone, like making sure that it's safe, making sure you've got an ectopic pregnancy or something medically, […] And I do kind of, like, in terms of agree in terms of visa situation or coercion, there might need to be questions around that. But generally, I don't think there needs to be this idea of approving something."* (08)

> *"It's really difficult, isn't it? Because I suppose it depends on the woman's situation. […] Obviously, if that woman has learning disabilities, or if they don't have full capacity or things like that*." (06)

Otherwise, abortion was considered no different from any other health condition *("Do two doctors have to sign on some other condition?"* (01); *"It is just like any other medical procedure. It's the choice of the woman at the end of the day"* (11)). The need for two signatures was seen as unnecessary and

stigmatising (*"I don't see why it shouldn't be just one person deciding, why it has to be two people. It adds a stigma to it"* (08)) as was the requirement that they must be provided by doctors and not by other health professionals. Most patients had not consulted with a doctor and noted that authorisation would have been on the word of the nurses or midwives managing their abortion and so were unable to understand why that information needed to be passed on: (*"Neither of those two doctors will have ever spoken to you"* (05)).

What have we learnt from elsewhere?

The countries selected to illustrate possible consequences of decriminalisation of abortion, Canada, Sweden and Australia, evidence positive outcomes overall. These include creating the impetus for the development of health policies and clinical guidelines supporting high-quality accessible care; funding abortion services; lending legitimacy to abortion providers; and removing barriers. In these contexts, decriminalising abortion has meant that, in principle, decisions about care are made on clinical rather than political grounds. It ensures that abortion care can be regulated through the same general mechanisms and structures as other health issues. Decriminalisation has not led to deregulation; criminal prohibitions against negligent care and unregulated and unlicensed services remain.

Analysis of routine data showed little variability with any regulatory changes (Figures 5-7). In Australia, abortion was decriminalised in Victoria in 2008, New South Wales in 2019 and South Australia in 2021 (the latter time point is not captured by our data) and no clear patterns corresponding to these times were observed in trends in abortion rates. In Sweden, trends have stayed relatively stable over time, with a gradual decrease apparent from 2015 onwards. In Canada, there was a small uptick in the rate of <14 week abortions, which translated into the total abortion rate, around 2017; corresponding to the time that mifepristone was introduced, although previous analyses using this data have shown that the increase was not associated with the introduction of mifepristone [86].

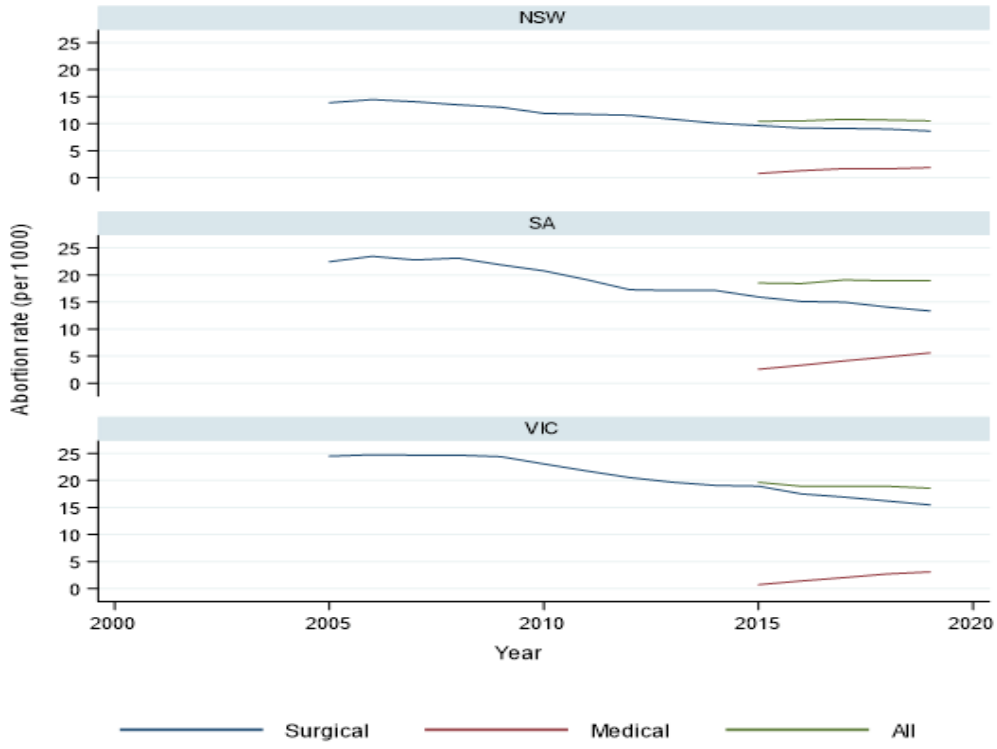

Figure 5. Abortion rates in Australia (New South Wales, South Australia, and Victoria) by type of abortion; 2005-2020, 15–44-year-olds

Figure 6. Abortion rates in Sweden by gestational age at abortion; 2000-2020, 15–49-year-olds

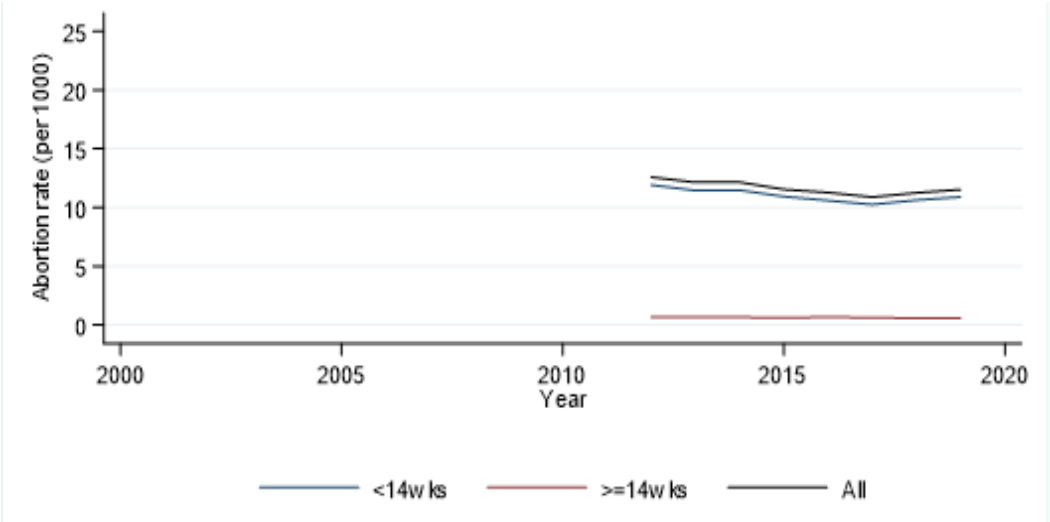

Figure 7. Abortion rates in Ontario, Canada, by gestational age at abortion; 2012-2019, 15-49-year-olds

In Sweden, most stakeholders were in favour of decriminalisation in principle, however, the lack of decriminalisation was not generally considered a barrier to providing high quality accessible abortion care. On the contrary, some had concerns that efforts to change the law could unintentionally open up attempts to enforce greater restrictions on abortion care, for example, reducing the upper gestational limit: *"I think that of course it would be better if the law was changed but we are very afraid of changing the law because then the politicians could suddenly decide to introduce whatever problems for the abortion care"* (SWE_02). Some Swedish stakeholders considered the enshrinement of abortion within a legal framework to be precisely what provides the obligation for all hospitals with a women's clinic to provide an abortion service, ensuring a geographic spread of services; some stakeholders argued that the law was what enabled them to provide abortion care.

> *"With the legislation as it is... the hospital has a duty. And we have other provisions in the health legislation that also highlight that we must have good, safe care, and care that ensures integrity and self-determination and so on. And this, we've achieved this through the legislation we have, so I do think that we need it, actually. In order that it doesn't become a private matter for midwives or doctors, whether you want to participate in performing an abortion".* (SWE_05)

Stakeholders interviewed in those countries where abortion had been decriminalised universally agreed that this was a positive development but cautioned that decriminalisation has not removed all barriers to abortion care. Even where policies or guidelines are developed, they are not necessarily implemented or enforced: *"there are some positive moves sort of come out of the Ministry of Health in association, you know, in response to the change in legislation. They're subtle and if you weren't on the inside, as I am, you might not know they even exist"* (AUS_01). Although abortion was decriminalised in Canada in 1988, for example, abortion services were not provided on Prince Edward Island until 2017. Financial and human resources are needed and, as demonstrated in Australia and Canada, progress in provision may be slow and may continue to vary with regional factors. The impact of an old law may linger through the established understandings and working practices of those habituated to working within it. Often, where progress has been made, it has been driven by individual 'champions' rather than by higher level systems change. One stakeholder said of a 'champion': *"in 2018... once the decriminalisation was in place she said "we have to have this in [area] and I'm going to set it up"* (AUS_06), demonstrating how provision was often dependent on committed individuals. The evidence from these countries is that decriminalisation may have attenuated but has not eliminated stigma.

6.2.2 How can we improve patient-centred care?

The realist review and interviews with patients in WP4 identified four main themes relating to how person-centred care could be best delivered: the need for choice, the importance of timeliness, managing expectations and providing emotional support during and after abortion.

The need for choice

The realist review found that choice is valued by women at all stages of the patient journey. Decision-making and options available can be influenced by multiple factors, including at the service level (e.g. number of appointments required), personal circumstances (caring responsibilities, work commitments), geography (distance/travel time), relationships (wanting to keep abortion private from a partner, family or friends or wanting their active involvement and support either at home or in a clinical setting), the extent of preferred involvement in the process (desire for autonomy versus having a healthcare practitioner managing the procedure) and past experiences of abortion.

Among the 48 patients interviewed about their recent experience of abortion, 40 had had a medical abortion and all but two among these had managed the process themselves at home. The approval of home management of early medical abortion (EMA) with telemedical support introduced during COVID was high, and it was welcomed as convenient, private, and possible within a more comfortable setting: *"I didn't have to take any days off work. I didn't have to tell work anything"* (02); *"I preferred*

to be in my own space" (12); *"you want to lie in bed with a hot water bottle and just be on your own"* (15); *"If you're going to be upset, you do not have an audience"* (06).

Those able to make comparisons with a previous abortion experience identified advantages over a clinic-based procedure: *"I tidied up, I watched tele, and just got on with my normal stuff […] whereas in hospital I remember it being a lot more uncomfortable […] because you're sat in a room with about 10 other people and doing nothing."* (33) Even amongst those with positive experiences of receiving care via phone and self-administering medication at home, however, there were some who thought this model would work well in conjunction with in-person appointments, e.g., information provided over emails or via video but clinic consultations for those wanting medical assurance (e.g., to rule out ectopic pregnancy). The option to have a medical abortion in a clinical setting was seen as important for those who wanted a *"hand to hold"* (09) or who chose not to share that they were having an abortion with their households. While medical abortion was the preferred option for most patients, some chose or had to opt for a surgical abortion. One participant described how she felt pressure from clinical staff to have a medical abortion, *"It was my decision to have a surgical one because I had tried it before, and that was a lot easier, so you wake up with minimal pain […]. The nurse was pressing more for a medical one, she said that would probably be a bit easier, but I told her that I would rather wait and have a surgical one"* (23). More information about surgical abortion would have been welcomed by some patients, albeit a minority.

Preferences and personal situations were diverse, and the consensus on the need for choice was strong: *"It's not a one size fits all approach, everyone is in different circumstances […]. To have the flexibility and the option for the woman to choose the way they prefer to do actually might be more beneficial"* (09). Home managed abortions were particularly problematic for some women whose cultural and religious backgrounds proscribed abortion (03)(40) so that they were obliged to conceal the procedure from family members. With the increasing prevalence of medical abortion (87% in 2021 in England and Wales, 99% in Scotland), health services need to ensure the method choice for patients is not diminished. Our data strongly suggests that patients experienced greater choice and control over their treatment as empowering, and this resulted in greater satisfaction.

An important aspect of aftercare highlighted in the interviews was contraceptive advice and provision. Satisfaction was highest when a range of options was offered, and sufficient time was dedicated to discussing them. The extent of choice was largely dependent on the procedure. Surgical abortion facilitated easier access to long-acting reversible contraception, which could be inserted during or at the same time as surgery. Patients who had a medical abortion at home were often provided with only condoms or other short-acting contraceptives, as these could be placed in their home medication pack. Where the preferred contraceptive method had not been provided by the abortion clinic, obtaining an appointment at a sexual health clinic or general practice was sometimes difficult and introduced delays.

> *"[The abortion clinic] told me that I could have whatever contraception I wanted […] but then it was] a nightmare actually, to get done. […] I'd had to sort out childcare, I'd had to get work covered. […] I wouldn't say there was anything wrong with how I had my abortion. I'd say the problem was […] the sexual health system. I think that needs improving."* (35)

The importance of timeliness

The realist review noted that self-referral and telemedical consultations provide faster access to care with less disruption to daily activities and responsibilities. For most of the patients, the process from first point of contact to the abortion procedure was smooth and timely, particularly for those undergoing a medical abortion at home. However, there were some exceptions and delays were a considerable source of stress – both because of the anxiety of missing the gestational age limit for a medical abortion at home and the discomfort of continuing an unwanted pregnancy longer than was necessary. Reasons for delays included underlying health conditions necessitating interaction between general healthcare and abortion care, and the lack of coordination between the two; long waiting times for surgical abortion and its limited availability (e.g., surgical lists running once a week only and filling up). A suggestion made was to ease the distress caused by the wait by a phone check-in from the clinical staff to reassure the patient that their procedure was upcoming.

Managing expectations

The realist review found that establishing 'what is normal' during abortion helps to reduce anxiety and to understand when clinical intervention is needed. Interviews with patients who had had a home medical abortion revealed a range of experiences compared to their expectations, from better than expected to those who felt completely unprepared for their actual experience. The main areas where some patients felt unprepared were pain, bleeding and dealing with the products of conception. One explained how comparisons provided in information materials were inadequate: *"I think it says 'heavy period pain', but for someone like me who doesn't really have heavy periods… I don't know what labour pain feels like"* (03). Getting the balance in what information patients need is not necessarily straightforward. One woman described how her lack of pain and bleeding did not match the information she had been given, leading her to question whether the medication had worked: *"I was prepared for there to be a lot of blood and a lot of pain… reading the pamphlets, I was really anxious about it... And then, … I didn't have any pain at all, which I know isn't a normal experience, but again, that's led to anxiety because I was, 'Is this working?'"* (10). Others would have preferred being informed on *a "spectrum of experiences"* (18). Some were not sure about what to expect with the expulsion of the products of conception: *"the passing of a clot, that seemed to be quite a big part of knowing whether it had happened, but it hadn't happened to me. It wasn't visible, but when I called the aftercare line, they said it was normal"* (03). Some reported having found it helpful to go online (e.g., Reddit) to learn from others' experiences.

Emotional and psychological support

The value of friends/family/partners in providing practical and emotional support for those choosing a home medical abortion was identified in the realist review. Interviewed women described timing their abortion to ensure they had support in place. However, some preferred to have their abortion alone and others did not have a choice (e.g., because of cultural norms in the family). One woman suggested *"it would be good if there was some sort of service where they could provide someone or put you in touch with somebody who is a volunteer who is happy to sit and wait"* (10).

Patients appreciated having a telephone number to call during the process of a home medical abortion or if they had any problems or concerns post-abortion, especially where this was advertised as available 24/7, and many reported using this service. On the other hand, one reported not calling despite *"bleeding quite badly"* (38), because it was late in the evening, and she assumed that no one would pick up. Another woman described how she did not feel she could get in touch: *"the tick list is basically 'give us a call if you think it's not worked and you're still pregnant'. But it's not like give them a call […] if you've just a quick question about your bleeding"* (13). Participants commonly said that clinics should provide more aftercare support, including counselling, with one suggesting this should be available to partners as well. Suggestions included reminders via automated message, email, or phone, when it was time to take the pregnancy test to confirm that the abortion had been successful. Some felt services should be more proactive in support provided, for example one woman explained how although she was aware that counselling was available, she did not feel *"entitled"* to take it up.

6.2.3 How best can telemedicine support abortion provision?

For answers, we draw on the views of health professional and in-depth interviews with patients.

The views of health professionals

Respondents were asked their agreement with the statement, '*Digital technologies, e.g., via video, are not an acceptable way to provide abortion care/support'.* Support for the use of digital approaches was high (Table 7).

Table 7. Health professionals' attitudes towards the use of telemedicine in abortion provision

	Digital technologies, e.g. via video, are not an acceptable way to provide abortion care/support		
	n	%	95% CI
Total	762		
Agree	174	22.86	(18.32-28.14)
Neither agree nor disagree	230	30.22	(25.59-35.29)
Disagree	358	46.91	(39.36-54.61)
Agreement			
Gender	759		
Female	156	23.49	(18.53-29.30)
Male	18	19.57	(12.67-28.97)
Age group	760		
Under 30	17	20.24	(13.47-29.26)
30-39	50	24.15	(18.50-30.88)
40-49	41	19.71	(13.81-27.33)
50 or over	66	25.38	(18.87-33.22)
When qualified	758		
Less than 5 years ago	21	21.65	(14.51-31.03)
5-10 years ago	38	22.89	(17.07-29.98)
11-20 years ago	51	23.94	(17.89-31.27)
Over 20 years ago	64	22.78	(16.96-29.87)
Country	761		
England	142	25.59	(20.41-31.55)
Wales	20	25.64	(16.02-38.40)
Scotland	12	9.38	(4.88-17.25)
Importance of religion in life	759		
Very important	24	40	(27.57-53.87)
Quite important	33	22.76	(15.59-31.98)
Not important	104	20.12	(15.61-25.53)
Prefer not to say	12	33.33	(19.72-50.44)
Political beliefs	756		
Right/right of centre	11	36.67	(22.20-54.02)
Centre	28	25	(18.09-33.47)
Left/left of centre	32	14.16	(9.09-21.38)
None	76	25.17	(19.02-32.49)
Prefer not to say	26	30.59	(20.29-43.28)
Type of service	761		
SRH clinic	19	16.67	(11.97-22.73)
Maternity service	73	37.06	(28.68-46.29)
GP practice	37	24.03	(18.12-31.13)
Pharmacy	19	36.54	(25.42-49.30)
Abortion provider	26	10.66	(6.53-16.92)
Professional role	756		
Doctor	22	12.72	(8.35-18.90)
Nurse	49	18.85	(14.21-24.56)
Midwife	79	30.15	(21.67-40.24)
Pharmacist	22	36.67	(26.49-48.19)
Currently supporting women in abortion home management	760		
Yes	37	13.17	(8.54-19.76)
No	136	28.45	(23.72-33.71)
Inadequate digital services (e.g. video) identified as barrier	720		
Not at all	28	19.18	(13.49-26.54)
To some extent	43	17.34	(12.93-22.86)
Greatly	45	26.16	(19.16-34.63)
Don't know	50	32.68	(22.52-44.77)
Women should always attend a clinic or hospital to have an abortion	760		
Agree	79	52.32	(44.06-60.45)
Neither agree nor disagree	39	22.94	(16.15-31.52)
Disagree	55	12.56	(8.80-17.61)
Currently provides abortion care	754		
Yes, on site	40	28.78	(21.11-37.89)
Yes, on remotely only or remotely and on site	41	12.69	(8.97-17.67)
No	90	30.93	(25.73-36.66)

Overall, barely one in four health professionals agreed that use in abortion provision was unacceptable and in Scotland fewer than one in 10 did so. Opposition to the use of digital technologies did not vary by gender or age but was higher among those whose political views were

right or right of centre and among those for whom religion was very important. Opposition was higher among participants in England than among those in Scotland. In terms of service type, it was highest in maternity services and pharmacies where more than a third of health professionals took the view that use of telemedicine was not an acceptable way of providing abortion support. Highest support was among specialist abortion providers, only one in 10 of whom considered it to be unacceptable, and among those working in SRH services where only one in six took this view. Least likely to oppose use of telemedicine were doctors, and most likely were pharmacists. Opposition to the use of digital technologies was lower among health professionals who felt skilled in supporting women in abortion home-management and among those currently involved in abortion care remotely.

Free-text responses from health professionals addressing telemedicine

Among the 21 survey respondents providing free text responses about telemedicine, 13 expressed concerns about telemedicine and eight identified benefits.

Comments in support of telemedicine highlighted increased access and greater comfort and convenience for patients, savings in time or money, and benefits for those experiencing domestic violence. Perceived benefits to patients also included patients feeling more relaxed, less anxious, and more comfortable in discussing personal detail. One framed telemedicine as a great tool for the initial consultation, reporting that it made women feel more at ease than they might have in person and helped them to feel more comfortable when they came in for face-to-face care at later stages of the patient journey.

Health service benefits were also mentioned including cost savings and capacity to see more patients:

> "[telemedicine] *has improved access to abortion services. Our service is extremely busy and we wouldn't cope if we had to return to every patient /woman having a face-to-face consultation".*
>
> (Nurse, Abortion service, Scotland)

The survey evidence that opposition to telemedical abortion provision was lower among health professionals with experience of abortion provision was amplified by free text comments. Initial concerns about telemedical care were allayed by familiarity with its use for one provider:

> *"For me, the service has required a change in working conditions, using telephone/ video for consultations, I was concerned, initially, at this lack of face to face with clients, but after working remotely for over a year now, I get the same job satisfaction as I always did."* (Midwife, Abortion service, England)

Specific comments made in free text related to the limitations of the phone consultation in comprehensively providing information, and the need for all patients to be able to speak with a counsellor before making their abortion decision. The main concern raised by health professionals however, focused on the perceived risks of 'no-test' medical abortion. Cautionary notes related to at-home medical abortions taking place without an ultrasound scan to definitively establish gestational age, and the consequences in instances of ectopic or molar pregnancies or where the pregnancy was more advanced than had been thought.

> *"I do believe they should have an ultrasound prior to a TOP [termination of pregnancy]. We completed these during the COVID lockdown. We have had young girls believe they are 6 weeks, and one was 23 weeks. W[e] have also had ectopic pregnancies and molar pregnancies."* (Nurse, Abortion service, England)

Rare emergencies had occurred after medical abortion, according to free text comments, including, in one instance, the need for emergency gynaecological care of a patient whose pregnancy was more advanced than was previously thought. It was observed that the scale of this problem may be unknown because patients might not disclose this event. One comment recommended stricter assessment criteria to identify suitable candidates for self-managed abortion without a pre-treatment ultrasound and to identify those who should attend for an in-person ultrasound.

Views on telemedicine among patients with recent experience of abortion

Of the 48 women interviewed post abortion, all but one had experience of telemedical care at some stage in their abortion.

Few patients reported engaging with health professionals during the process of deciding whether to have an abortion. One who did so was disappointed with the telephone support received, finding it more "clinical" and less personal than expected. She felt in-person support at this stage might have been better for her. The consultation was the stage of the abortion pathway at which remote care by phone was most commonly experienced, both by patients having medical and those having surgical abortions, and was widely viewed as helpful and convenient. Perceived benefits of not having to attend a clinic for consultation included saving time and cost; shorter wait times; and ease of fitting the consultation into their schedule, including not having to take time off work and disclose to employers. Several felt more comfortable talking about what they saw as a sensitive topic by phone: *"talking or asking about something that you're ashamed of really. That's a lot easier than having to sit directly in front of them"* (47). More rarely, fears that anti-abortion protestors might be encountered outside of the clinic influenced preferences.

Among those preferring an in-person consultation, reasons for doing so varied. For some, it was for the advantages presented for more visual explanation of options and procedures; for others, it was the opportunity to ask questions, or for their provider to pick up non-verbal cues; and for many it was simply the "personal touch" that was important and considered more easily achieved face to face.

> *"I have no expertise and like biology or medicine or anything, so I think it's just reassuring and to have the other people in the room so they can look at you if they need to do rather than going by the full by phone examinations or consultations, even though like it, it might not be medically needed and I think it just gives reassurance to patients."* (24)

> *"…even though they've got the pamphlet and they've got an online video explaining how to do everything and what's going to happen… there is something nice about someone sitting with you in person and explaining all of that."* (01)

Video calls were seen as a means by which information might more effectively be transmitted and shared, and had the potential to enhance telemedical appointments through non-verbal aspects of communication:

> *"I think probably it would have been nice to have been offered the option of a Zoom one instead of it just being on the phone because from a counselling background as well I think that having that eye contact with someone and I think for me I would probably felt a little bit calmer about that and a little bit more in the moment with it."* (34)

Many patients home managing medical abortion reported having had a good experience of remote care during the procedure itself and reported no problems. They welcomed having a phone number to call during the procedure, especially a 24/7 line, and so being able to reach someone "straightaway".

> *"They said, 'you can call these phone numbers they will be aware that who you are and you'll be doing it on that day so you won't have to worry about interrupting or having to explain the situation' […] That was very reassuring and nice to know."* (24)

However, it emerged that not all patients used the phone service provided. One reported not calling despite "bleeding quite badly" because it was late in the evening, and she assumed that no one would pick up. Another hesitated because she was unsure as to whether her anxieties would be seen as warranting a call.

For some patients, it was at the stage of the procedure that the limitations of remote care were most keenly felt. A major source of anxiety among some patients, as reported in section 9.2.2, were discrepancies between anticipation and actual experience in terms of pain and bleeding. By facilitating constant and direct monitoring of pain levels, clinic care was seen as having greater potential for providing reassurance that experiences were normal, and for titrating pain relief, than telemedical support.

Additional telemedical strategies to overcome these disadvantages were suggested by patients. They included providing the option of televisual communication in addition to audio communication. They also included incorporating on-line exchanges of patient experiences, along the lines of 'Reddit' and 'Abortion Talk', into clinic websites to provide a full and authoritative source where they would have been able to learn about a full range of different patient experiences. Yet these kinds of solutions were seen as only partly compensating for in-person care for those who wanted it.

Views on the appropriateness of telemedicine for aftercare support were mixed. While many patients stated clearly that they had not needed aftercare, some would have welcomed additional support such as reminders via automated message, email, or phone, of when to test to confirm abortion completion. Others would have appreciated more proactive support following the abortion: *"'did it go okay?' […] maybe asking a bit about how you're feeling, [that'd] be nice"* (08). *Again, one suggestion was for a* video link at this stage, *"to physically see the person […] sometimes seeing [a]*

face is a little bit better than hearing just the voice" (36). Participants whose clinics did call to check in on them felt supported by the service.

Counselling for emotional support stood out as an aspect of aftercare for which some patients felt in-person support could be important: *"I would say the only time maybe I would have wanted to go into clinic for, or see someone, was around the fact that I was, when it was getting a bit hard mentally and emotionally and it would be nice to see someone face to face to talk about feelings I guess…maybe through the phone, it's hard to actually gauge how someone is feeling"* (29). This limitation of telephone support was echoed by another, who described online counselling support as *"generic [and] not very personable"* (13) and felt that if she had wanted counselling support aftercare, face to face support would have been preferable. Again, a video link was recommended at this stage, *"to actually physically see the person…sometimes seeing our face is a little bit better than hearing just the voice"* (36).

The importance of choice

Throughout discussions of remote abortion care, the need for services to offer options so that patients could make choices was stressed: *"Being given a choice is the most empowering thing that you can do to someone, especially medically wise because so many choices are taken away from us already"* (34). The rationale was based on differences in patients' needs, on the nature of the procedure, and on varying requirements at different points in the patient journey. In tandem with the need for choice, was the need for joined up thinking about how choices made at one stage of the pathway related to choices to be made at other stages. A phone consultation, for example, was seen as working well in conjunction with in-person appointments at other stages of the patient journey, and when combined with other supporting digital modes of communication (e.g., information provided in videos or sent via email). Preferences were for receipt of information through a combination of remote routes – e.g., a booklet, e-mail, and phone.

> *"The woman that I spoke to, when she was on the phone she said, 'The leaflet is through email', so it was in front of her so I could read it, but she was also reading it out with us. So, and it was sent through the post. So I had plenty of information and I always feel like it's nicer to talk to someone about it rather than sitting and reading through stuff. I feel like I take it in more when someone's talking through with us."* (25)

Again, the nature of these hybrid approaches will depend on individual patients, their needs and situations, as well as the resources and skills of the health services providing care and support.

6.2.4 What is the scope for an extended role for health professionals in abortion provision?

In this section we draw on data from the survey of health professionals survey to examine inclination to extend roles and factors related to capacity and competency; interviews with patients expressing their views on who should provide care; the scoping review on the effectiveness of interventions to

improve knowledge and training of health professionals; and the country-case studies to understand what lessons can be learnt from elsewhere.

Involvement in abortion provision

The survey asked non-specialist health professionals to describe their role in abortion provision across all stages of the abortion pathway and their willingness to do more. Except for those working in SRH clinics, current involvement of non-specialist health professionals in abortion provision was highest for earlier and later stages in the abortion pathway (Table 8). Half of those in general practice, over 40% in maternity settings, one in five in pharmacies and almost 80% in those in SRH clinics currently supported patients with decision-making on pregnancy options regularly or sometimes. Dealing with post-abortion complications was less commonly reported, but reached a quarter of the health professionals in general practice and nearly a fifth in maternity settings. In terms of provision or clinical oversight of the abortion procedure itself, involvement by the non-specialist providers was minimal. Very small proportions, generally fewer than one in 50 across all specialties, prescribed abortion medication or carried out surgical abortion before 14 weeks gestation.

Inclination to provide abortion

By contrast, levels of willingness to extend involvement in abortion were high (Table 8).

Table 8. Willingness to extend roles by abortion related task and professional setting.

	Regularly provide			Provide sometimes, willing to do more			Provide sometimes, not willing to do more			Not currently, willing to provide			Not currently, not willing to provide		
	n	%	95% CI	n	%	95% CI	n	%	95% CI	n	%	95% CI	n	%	95% CI
Helping patient decision-making about pregnancy options	(N= 510^)														
Total	**111**	**21.81**	**(15.64-29.56)**	**144**	**28.29**	**(24.19-32.78)**	**36**	**7.07**	**(4.83-10.24)**	**176**	**34.38**	**(27.01-42.59)**	**43**	**8.45**	**(5.64-12.48)**
SRH clinic	45	40.18	(24.24-58.51)	43	38.39	(26.26-52.16)	6	5.36	(2.66-10.50)	14	12.5	(7.09-21.11)	4	3.57	(1.38- 8.90)
Maternity service	27	13.85	(9.35-20.02)	53	27.18	(21.45-33.79)	4	2.05	(1.06- 3.94)	98	50.26	(42.31-58.19)	13	6.67	(2.74-15.35)
GP practice	37	24.67	(17.98-32.85)	39	26	(19.75-33.40)	22	14.7	(9.89-21.21)	33	22	(16.61-28.53)	19	12.67	(7.71-20.12)
Pharmacy	2	3.85	(0.93-14.52)	9	17.31	(8.70-31.50)	4	7.69	(2.34-22.48)	30	57.69	(42.79-71.31)	7	13.46	(6.55-25.66)
Counselling on how to take abortion medication	(N= 500^)														
Total	**44**	**8.82**	**(3.65-19.81)**	**62**	**12.42**	**(9.03-16.86)**	**8**	**1.6**	**(0.87- 2.93)**	**291**	**58.12**	**(51.46-64.49)**	**95**	**19.04**	**(13.94-25.45)**
SRH clinic	25	22.73	(5.59-59.35)	7	6.36	(3.10-12.63)	1	0.91	(0.18- 4.56)	61	55.45	(33.12-75.78)	16	14.55	(8.25-24.37)
Maternity service	15	7.85	(4.27-14.00)	41	21.47	(16.91-26.85)	4	2.09	(0.93- 4.63)	111	58.12	(50.05-65.77)	20	10.47	(4.44-22.76)
GP practice	3	2.07	(0.72- 5.78)	11	7.59	(4.17-13.40)	2	1.38	(0.35- 5.33)	75	51.72	(44.69-58.69)	54	37.24	(29.30-45.94)
Pharmacy	1	1.89	(0.27-12.22)	3	5.66	(1.82-16.26)	1	1.89	(0.27-12.22)	43	81.13	(68.46-89.50)	5	9.43	(3.85-21.31)
Informing women what to expect during a medical abortion	(N= 503^)														
Total	**52**	**10.36**	**(4.91-20.56)**	**91**	**18.13**	**(13.82-23.42)**	**20**	**3.98**	**(2.61- 6.03)**	**276**	**54.78**	**(48.88-60.55)**	**64**	**12.75**	**(9.22-17.37)**
SRH clinic	31	27.93	(9.77-58.10)	16	14.41	(8.33-23.79)	6	5.41	(3.26- 8.84)	52	46.85	(28.72-65.85)	6	5.41	(2.24-12.46)
Maternity service	16	8.33	(4.22-15.79)	54	28.13	(21.99-35.20)	6	3.13	(1.48- 6.48)	99	51.56	(46.46-56.63)	17	8.85	(4.36-17.13)
GP practice	5	3.42	(1.56- 7.36)	19	13.01	(8.57-19.28)	8	5.48	(2.46-11.74)	81	55.48	(48.61-62.14)	33	22.6	(15.90-31.09)
Pharmacy	0			2	3.77	(0.94-13.94)	0			43	81.13	(69.19-89.17)	8	15.09	(7.94-26.81)
Prescribing abortion medication	(N= 492^)														
Total	**7**	**1.43**	**(0.34- 5.81)**	**6**	**1.22**	**(0.54- 2.75)**	**2**	**0.41**	**(0.10- 1.68)**	**259**	**52.75**	**(47.81-57.63)**	**218**	**44.2**	**(39.75-48.73)**
SRH clinic	7	6.67	(2.04-19.71)	1	0.95	(0.18- 4.87)	0			60	57.14	(42.48-70.65)	37	35.24	(25.82-45.97)
Maternity service	0			2	1.05	(0.22- 4.79)	0			107	56.32	(50.72-61.76)	81	42.63	(36.87-48.60)
GP practice	0			1	0.69	(0.10- 4.54)	1	0.69	(0.10- 4.66)	62	43.06	(34.77-51.75)	80	55.56	(47.34-63.47)
Pharmacy	0			2	3.85	(0.93-14.53)	1	1.92	(0.27-12.42)	30	57.69	(43.38-70.82)	19	36.54	(23.84-51.43)
Dispensing or administering abortion medication	(N= 493^)														
Total	**45**	**9.15**	**(3.83-20.27)**	**61**	**12.4**	**(7.90-18.93)**	**10**	**2.03**	**(1.05- 3.92)**	**234**	**47.56**	**(41.67-53.52)**	**143**	**28.86**	**(22.38-36.35)**
SRH clinic	23	21.5	(4.59-60.91)	2	1.87	(0.55- 6.16)	1	0.93	(0.18- 4.64)	57	53.27	(31.27-74.07)	24	22.43	(12.63-36.65)
Maternity service	20	10.47	(6.08-17.45)	53	27.75	(21.60-34.86)	7	3.66	(1.75- 7.51)	82	42.93	(38.01-48.00)	29	15.18	(8.46-25.75)
GP practice	0	0	(.- .)	1	0.71	(0.10- 4.95)	1	0.71	(0.10- 4.75)	59	41.84	(33.76-50.39)	80	56.74	(48.19-64.90)
Pharmacy	2	3.77	(0.94-13.94)	5	9.43	(4.00-20.67)	1	1.89	(0.27-12.22)	36	67.92	(56.03-77.87)	9	16.98	(9.29-29.01)
Supporting women in abortion home management	**(N= 497^)**														
Total	**25**	**5.04**	**(1.22-18.55)**	**17**	**3.43**	**(2.00- 5.80)**	**4**	**0.81**	**(0.31- 2.08)**	**302**	**60.69**	**(52.76-68.09)**	**149**	**30.04**	**(24.83-35.82)**
SRH clinic	21	19.44	(4.35-56.19)	6	5.56	(2.43-12.20)	1	0.93	(0.18- 4.61)	58	53.7	(31.39-74.63)	22	20.37	(11.01-34.58)
Maternity service	3	1.57	(0.48- 5.03)	4	2.09	(0.68- 6.23)	1	0.52	(0.07- 3.65)	140	73.3	(67.45-78.43)	43	22.51	(16.86-29.39)
GP practice	1	0.69	(0.10- 4.47)	5	3.47	(1.48- 7.94)	2	1.39	(0.36- 5.26)	69	47.92	(39.50-56.46)	67	46.53	(38.04-55.22)
Pharmacy	0			2	3.77	(0.94-13.94)	0			34	64.15	(50.83-75.59)	17	32.08	(20.91-45.76)
Discussing disposal of products of conception - home abortion	**(N= 495^)**														
Total	**23**	**4.66**	**(0.99-19.19)**	**9**	**1.82**	**(0.94- 3.50)**	**2**	**0.4**	**(0.10- 1.57)**	**320**	**64.57**	**(56.76-71.68)**	**141**	**28.54**	**(23.37-34.35)**
SRH clinic	20	18.52	(3.76-56.94)	5	4.63	(2.14- 9.72)	1	0.93	(0.18- 4.61)	60	55.56	(34.07-75.14)	22	20.37	(11.57-33.35)
Maternity service	3	1.57	(0.45- 5.37)	3	1.57	(0.56- 4.32)	0			144	75.39	(70.38-79.80)	41	21.47	(16.44-27.52)
GP practice	0			0			1	0.7	(0.10- 4.72)	77	54.23	(44.50-63.64)	64	45.07	(35.54-54.97)
Pharmacy	0			1	1.89	(0.25-12.64)	0			38	71.7	(58.74-81.84)	14	26.42	(16.65-39.21)
Carrying out surgical abortion up to 14 weeks gestation	(N= 484^)														
Total	**1**	**0.21**	**(0.03- 1.50)**	**4**	**0.83**	**(0.31- 2.20)**	**0**			**121**	**25.05**	**(20.22-30.59)**	**358**	**73.91**	**(68.42-78.75)**
SRH clinic	1	0.97	(0.14- 6.53)	1	0.97	(0.18- 5.01)	0			24	23.3	(17.05-30.99)	77	74.76	(66.77-81.36)
Maternity service	0			2	1.07	(0.23-4.75)	0			71	37.97	(33.23-42.95)	114	60.96	(55.30-66.34)
GP practice	0			0	0	(.- .)	0			15	10.64	(6.05-18.05)	126	89.36	(81.95-93.95)
Pharmacy	0			1	1.92	(0.26-12.86)	0			11	21.15	(12.16-34.20)	40	76.92	(63.65-86.39)
Carrying out surgical abortion at 14 weeks+ gestation	(N= 486^)														
Total	**1**	**0.21**	**(0.03- 1.46)**	**12**	**2.47**	**(1.12- 5.39)**	**1**	**0.21**	**(0.03- 1.47)**	**109**	**22.47**	**(18.06-27.61)**	**363**	**74.64**	**(68.51-79.93)**
SRH clinic	0			0			0			22	21.36	(15.01-29.46)	81	78.64	(70.54-84.99)
Maternity service	1	0.53	(0.07- 3.84)	11	5.82	(2.73-11.98)	1	0.53	(0.07- 3.87)	62	32.8	(28.14-37.83)	114	60.32	(54.03-66.29)
GP practice	0			0			0			15	10.64	(6.05-18.05)	126	89.36	(81.95-93.95)
Pharmacy	0			1	1.92	(0.26-12.86)	0			10	19.23	(10.58-32.39)	41	78.85	(65.42-88.01)
Inspection of products of conception to ensure completion	(N= 493^)														
Total	**33**	**6.71**	**(2.46-17.04)**	**56**	**11.38**	**(6.86-18.31)**	**2**	**0.41**	**(0.11- 1.55)**	**199**	**40.24**	**(34.68-46.07)**	**203**	**41.26**	**(31.88-51.32)**
SRH clinic	19	17.92	(3.74-55.08)	3	2.83	(0.91- 8.47)	1	0.94	(0.19- 4.66)	49	46.23	(29.05-64.35)	34	32.08	(18.90-48.89)
Maternity service	14	7.37	(4.04-13.07)	50	26.32	(22.22-30.86)	1	0.53	(0.07- 3.82)	93	48.95	(43.30-54.63)	32	16.84	(10.68-25.54)
GP practice	0			2	1.4	(0.37- 5.09)	0			41	28.67	(20.96-37.87)	100	69.93	(61.16-77.45)
Pharmacy	0			1	1.89	(0.25-12.64)	0			15	28.3	(18.16-41.26)	37	69.81	(56.72-80.32)
Providing contraceptive counselling	(N= 513^)														
Total	**260**	**50.59**	**(40.21-60.91)**	**115**	**22.46**	**(17.44-28.43)**	**16**	**3.13**	**(1.90- 5.11)**	**99**	**19.34**	**(14.39-25.47)**	**23**	**4.49**	**(2.71- 7.36)**
SRH clinic	90	80.36	(68.86-88.33)	11	9.82	(4.84-18.91)	2	1.79	(0.58- 5.37)	8	7.14	(3.98-12.48)	1	0.89	(0.13- 5.79)
Maternity service	47	24.23	(17.16-33.04)	67	34.54	(29.79-39.61)	9	4.64	(2.34- 9.00)	63	32.47	(25.79-39.95)	8	4.12	(1.58-10.34)
GP practice	105	68.63	(60.55-75.71)	16	10.46	(6.63-16.12)	3	1.96	(0.64- 5.86)	19	12.42	(8.02-18.74)	10	6.54	(3.19-12.92)
Pharmacy	17	32.08	(21.51-44.86)	21	39.62	(26.32-54.66)	2	3.77	(0.91-14.28)	9	16.98	(9.44-28.65)	4	7.55	(2.89-18.31)
Contraceptive implant insertion	(N= 505^)														
Total	**111**	**22.02**	**(13.59-33.66)**	**17**	**3.37**	**(2.10- 5.38)**	**5**	**0.99**	**(0.41- 2.38)**	**241**	**47.62**	**(37.81-57.62)**	**131**	**25.99**	**(20.86-31.88)**
SRH clinic	78	70.27	(55.87-81.53)	5	4.5	(1.39-13.61)	1	0.9	(0.17- 4.62)	21	18.92	(11.57-29.39)	6	5.41	(1.25-20.51)
Maternity service	0			7	3.61	(2.10- 6.14)	0			146	75.26	(68.99-80.62)	41	21.13	(15.37-28.34)
GP practice	33	22.6	(16.18-30.65)	4	2.74	(1.10- 6.65)	4	2.74	(1.08- 6.80)	54	36.99	(29.50-45.15)	51	34.93	(27.43-43.26)
Pharmacy	0			1	1.89	(0.25-12.64)	0			19	35.85	(24.66-48.82)	33	62.26	(49.23-73.74)
Intrauterine device insertion	(N= 497^)														
Total	**62**	**12.5**	**(7.94-19.14)**	**14**	**2.82**	**(1.65- 4.80)**	**3**	**0.6**	**(0.19- 1.87)**	**243**	**48.79**	**(42.52-55.10)**	**175**	**35.28**	**(30.15-40.78)**
SRH clinic	39	36.79	(26.55-48.39)	5	4.72	(1.75-12.13)	1	0.94	(0.18- 4.75)	47	44.34	(35.63-53.41)	14	13.21	(6.76-24.22)
Maternity service	0			3	1.55	(0.62- 3.82)	0			126	65.28	(59.08-71.01)	64	33.16	(27.21-39.70)
GP practice	23	15.97	(11.04-22.55)	5	3.47	(1.49- 7.89)	2	1.39	(0.34- 5.47)	56	38.89	(31.27-47.09)	58	40.28	(31.98-49.18)
Pharmacy	0			1	1.89	(0.25-12.64)	0			13	24.53	(14.74-37.92)	39	73.58	(60.01-83.80)
Assessment of post-abortion complications	(N= 497^)														
Total	**47**	**9.48**	**(5.86-14.97)**	**62**	**12.3**	**(9.69-15.49)**	**14**	**2.82**	**(1.68- 4.70)**	**237**	**47.78**	**(41.57-54.07)**	**137**	**27.62**	**(22.32-33.63)**
SRH clinic	18	16.67	(6.67-35.90)	18	16.67	(10.55-25.33)	2	1.85	(0.54- 6.11)	50	46.3	(33.61-59.48)	20	18.52	(9.75-32.36)
Maternity service	13	6.84	(3.51-12.93)	20	10.53	(7.12-15.29)	3	1.58	(0.51- 4.79)	117	61.58	(54.29-68.38)	37	19.47	(12.62-28.82)
GP practice	16	11.03	(6.94-17.10)	21	14.48	(9.99-20.54)	9	6.21	(3.42-11.00)	52	35.86	(29.08-43.26)	47	32.41	(24.52-41.46)
Pharmacy	0			2	3.77	(0.94-13.94)	0			18	33.96	(22.77-47.28)	33	62.26	(49.23-73.74)

Notes: *Excludes abortion providers; ^Excludes missing

More than half of all non-specialist health professionals who were not currently prescribing abortion medication would be willing to do so, reaching nearly two-thirds of those working in SRH clinics and pharmacies. Nine in ten of those working in pharmacies not currently counselling patients on how to take abortion medication would be willing to do so. Free text comments from the SRH services were all positive about extending roles. There was less apparent enthusiasm for carrying out surgical abortion up to 14 weeks gestation; one in 10 in general practice, one in five in pharmacies and SRH clinics, and a third in maternity settings were not currently practising but would be willing to. Those midwives who did carry out abortions at 14+ gestation, less than 1 in 10, did so for removed of products of conception post miscarriage or due to foetal abnormalities. In the free text comments, comments from some midwives indicated that they would not want to extend their role beyond this,

> *"As a midwife we care for abortions after 16 weeks for abnormalities. I am not sure midwives would want <14 weeks to become routine part of their role."* (Midwife, Maternity service, England)

A minority of comments indicated willingness to extend roles to abortion under 14 weeks gestation and to prescribe medication. A midwife, despite her interest in further extending her role in abortion noted*:*

> *"This role should not be mandatory, but a choice for the practitioner, perhaps as a specialist role. The younger generation of midwives will advocate abortion. I feel that many of the more senior midwives will not personally want to be involved in abortions outside of the current role."* (Midwife, Maternity service, England)

Willingness of those not currently providing contraceptive counselling or contraceptive implant or IUD insertion was highest amongst those working in the maternity services and the SRH clinics.

Responses to attitudinal statements in the survey ('*Extending roles in abortion care has the potential to increase job satisfaction'* and '*Extending roles in abortion care will be burdensome for health care professionals'*) shed further light on inclination.

Overall, level of agreement that an extended role in abortion provision would be satisfying was roughly equal to agreement that it would be burdensome, 41.8% and 38.0% respectively (Table 9). The positive view was held more commonly by those working in SRH clinics; 60.2% of whom agreed that an extended role in abortion provision would be satisfying. By contrast, a minority of those working in general practice saw greater involvement as satisfying (23.2%) and over half saw it as burdensome (54.2%). In relation to professional roles, nurses and midwives were considerably more favourably disposed to the idea of an extended role than doctors, and more marginally in favour than pharmacists. More than half of nurses took the view that greater involvement in abortion provision would be satisfying (51.7%), though more than one in four saw it as burdensome (28.2%).

Table 9. Attitudes of non-specialist health professionals to extending roles

	Extending roles in abortion care has potential to increase job satisfaction			Extending roles in abortion care will be burdensome for health professionals		
	n	%	95% CI	n	%	95% CI
Total						
Agree	216	41.78	(36.75-46.99)	198	38.03	(31.72-44.78)
Neither agree nor disagree	238	46.03	(41.78-50.35)	198	38.22	(33.85-42.80)
Disagree	64	12.19	(9.18-16.00)	123	23.75	(19.23-28.94)
Agreement						
Age group	517			518		
Under 30	35	60.34	(47.97-71.52)	18	31.03	(19.76-45.13)
30-39	61	45.86	(35.41-56.69)	51	38.64	(29.94-48.13)
40-49	47	32.19	(24.31-41.24)	64	43.15	(33.37-53.50)
50 or over	72	40.22	(33.73-47.08)	65	35.91	(29.19-43.23)
Gender	517			518		
Female	191	43.12	(37.81-48.59)	160	35.73	(29.06-43.00)
Male	25	34.72	(25.11-45.76)	36	50.7	(39.42-61.92)
Country	517			518		
England	174	42.54	(37.38-47.87)	157	38.29	(31.69-45.36)
Wales	32	45.07	(29.57-61.60)	24	33.8	(14.77-60.07)
Scotland	10	27.03	(12.37-49.28)	16	43.24	(27.87-60.04)
Type of service	517			518		
SRH clinic	68	60.18	(51.16-68.55)	25	21.93	(14.41-31.92)
Maternity service	92	46.94	(41.21-52.74)	69	35.03	(24.33-47.47)
GP practice	36	23.23	(17.05-30.81)	84	54.19	(46.24-61.94)
Pharmacy	20	37.74	(25.61-51.61)	19	36.54	(24.62-50.38)
Professional role	514			515		
Doctor	25	22.94	(16.12-31.56)	63	57.27	(48.10-65.97)
Nurse	77	51.68	(41.53-61.69)	42	28.19	(20.55-37.33)
Midwife	88	44.9	(39.57-50.35)	71	35.53	(24.90-47.81)
Pharmacist	22	37.29	(25.68-50.57)	22	37.93	(26.06-51.45)
When qualified	516			517		
Less than 5 years ago	38	62.3	(50.88-72.49)	19	31.15	(17.07-49.85)
5-10 years ago	52	46.85	(37.89-56.01)	42	37.5	(28.31-47.69)
11-20 years ago	55	40.44	(32.60-48.80)	52	37.78	(30.05-46.17)
Over 20 years ago	70	33.82	(27.87-40.32)	84	40.38	(33.24-47.96)
Importance of religion in life	516			517		
Very important	8	17.39	(8.78-31.53)	26	55.32	(42.68-67.31)
Quite important	45	39.82	(29.93-50.62)	49	43.36	(33.72-53.54)
Not important	156	46.85	(40.50-53.30)	113	33.63	(26.61-41.47)
Prefer not to say	7	30.43	(15.59-50.88)	10	43.48	(25.68-63.13)
Political beliefs	515			516		
Right/right of centre	8	33.33	(16.24-56.33)	11	45.83	(27.91-64.90)
Centre	33	39.76	(30.52-49.79)	36	42.17	(30.81-54.42)
Left/left of centre	68	45.95	(37.90-54.21)	54	36.24	(28.54-44.72)
None	90	43.27	(35.46-51.43)	68	32.69	(25.30-41.06)
Prefer not to say	17	33.33	(20.01-49.99)	28	54.9	(39.79-69.16)
Abortion at any gestational age is against my personal beliefs	518			519		
Agree	12	33.33	(20.31-49.52)	16	44.44	(30.18-59.69)
Neither agree nor disagree	18	24.66	(16.25-35.56)	36	50	(38.64-61.36)
Disagree	186	45.59	(40.47-50.80)	146	35.37	(28.69-42.66)

Free text comments from survey respondents included those expressing belief that wider health professional involvement, by increasing access, might lead to earlier abortions. Views on more values-related issues were divided: *"…wider healthcare practitioner involvement improves access for women to abortion and will lead to earlier procedures. I also think, however, that women would be less likely to receive non-judgemental empathetic and skilled care."* (Nurse, SRH, England) Fears were expressed that staff in routine care may find themselves obliged to provide abortion: *"I feel that normalizing abortion care to be delivered by nurses in primary care will lead to pressure on nurses to comply and provide this care regardless of their own moral comfort."* (Nurse, General Practice, England).

Views of patients with recent experience of abortion

Most patients interviewed were unaware of the profession of the practitioner carrying out their consultation, and there was little evidence that they were concerned. The specialty of health professional was seen as less important than their qualities. The view was that they needed to be knowledgeable, trained, trustworthy and sympathetic. *"If they're able to give you good advice, doesn't matter who they are"* (10); *"I think anyone who has got the information […], so either a midwife or a pharmacist, […] I don't see why it would be an issue"* (04) *"As long as they are educated in it […] I don't have a preference"* (09). Where an opinion on extending non-specialist involvement

was offered, it was generally supportive*: "the more people are able to offer these services the better*" (07); *"Someone with the skills to speak to someone, make them feel comfortable about what they're doing. Perhaps you wouldn't necessarily need a proper abortion specialist, just someone that's a health professional that can do that part of it"* (01).

As to which health professionals might be best suited to the task, opinions reflected perceived attributes of the different cadres. The ability to deal with both mental and physical aspects of abortion was paramount among essential qualities and where preferences were expressed they were unanimously for nurse-led care and, only slightly less frequently, midwives: *"Maybe a midwife or a nurse for example, shows more care than a doctor, maybe a bit more empathy"* (04); *"I just feel more safe and less judged by a nurse or a midwife."* (29) Women were less confident that all GPs would possess the requisite sensitivity: *"If they were able to provide me with the information in the same kind of manner… but, I don't know, I think with abortion, it's such a sensitive subject, maybe a GP would[n't] be so aware"* (12). Similar reservations related to pharmacist involvement: *"I don't know because how much experience do pharmacists have with mental health?" (*01). Endorsement was conditional on pharmacists being trained and having the necessary space and time. *"If a pharmacist is equipped to give a consultation and you get [the meds] at a pharmacy, I'm just wary because I don't know how much training pharmacists have – and those little consulting rooms?"* (08). Confidentiality was seen as an additional issue in both pharmacies and general practice: *"I would want to know where it's available and where it's not going to end up on any kind of record anywhere."* (07)

Capacity and self-perceived competence for an extended role in abortion provision

The health professionals survey asked respondents to identify the extent to which contextual factors and aspects of service organisation could prevent those in the same profession as themselves from taking additional roles in abortion care (Figures 8-11).

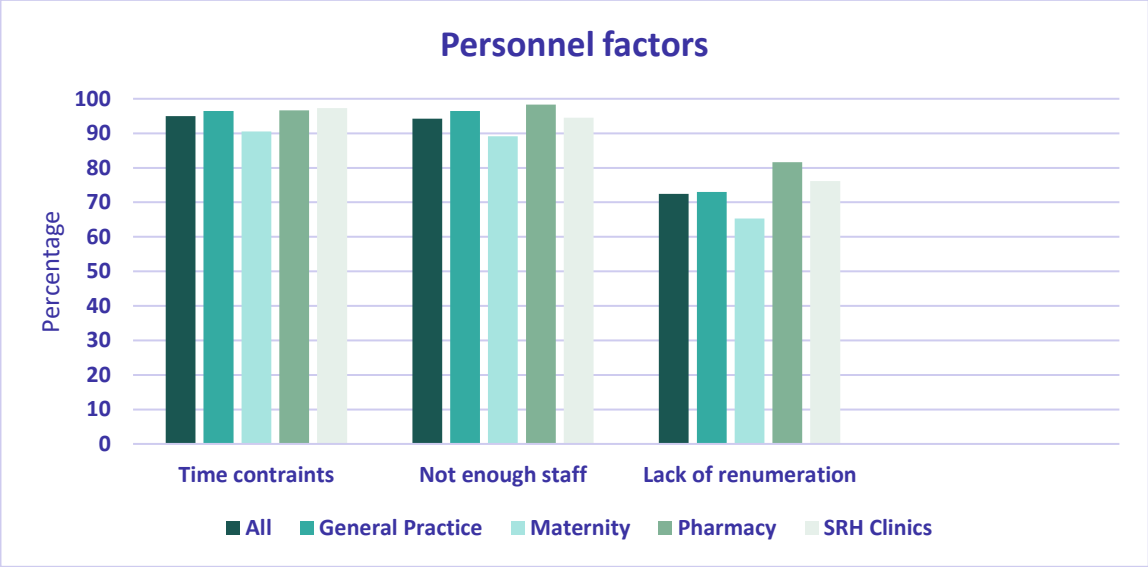

Figure 8. Perceived hindrances to role extension among non-specialist abortion providers: personnel factors

(Participants who responded 'greatly' or 'to some extent'; excludes specialist abortion providers)

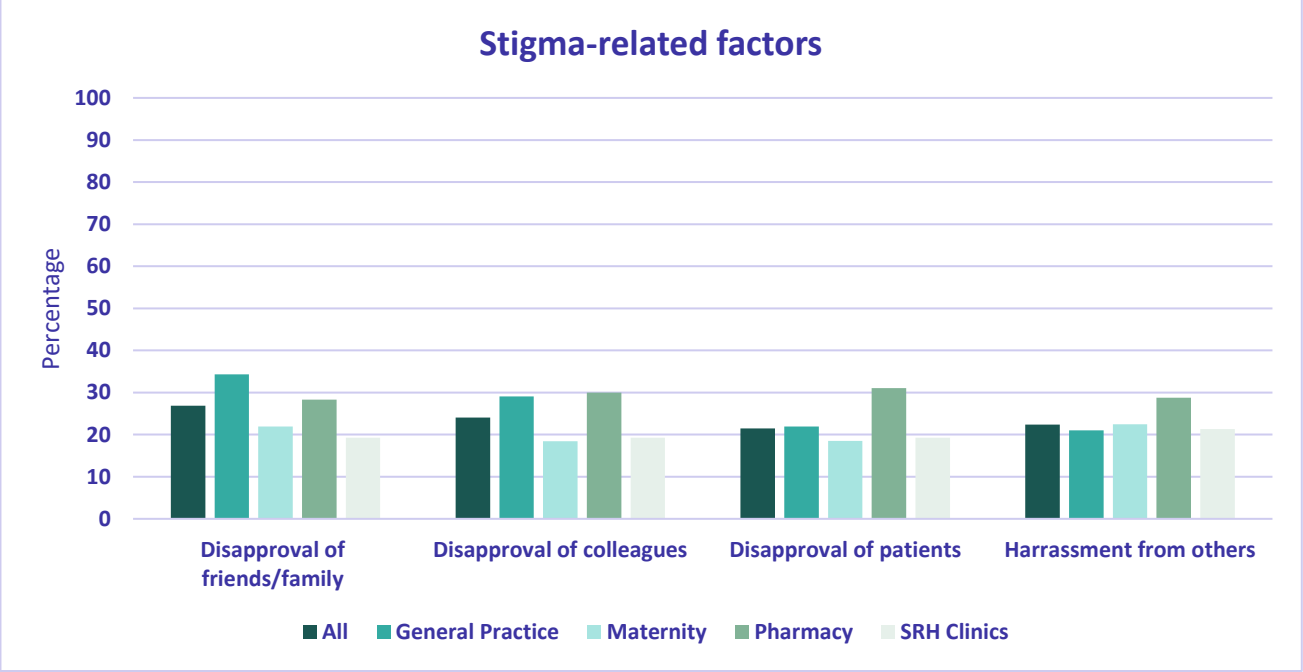

Figure 9. Perceived hindrances to role extension amongst non-specialist abortion providers: stigma-related

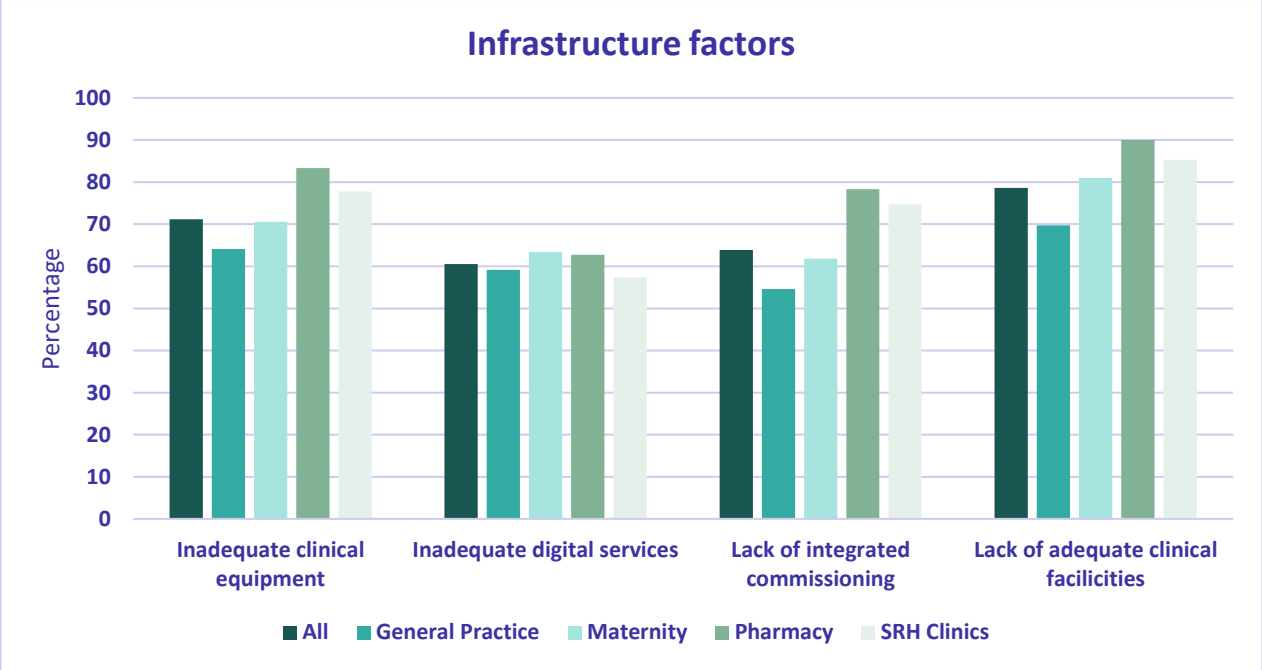

Figure 10. Perceived hindrances to role extension amongst non-specialist abortion providers: infrastructural

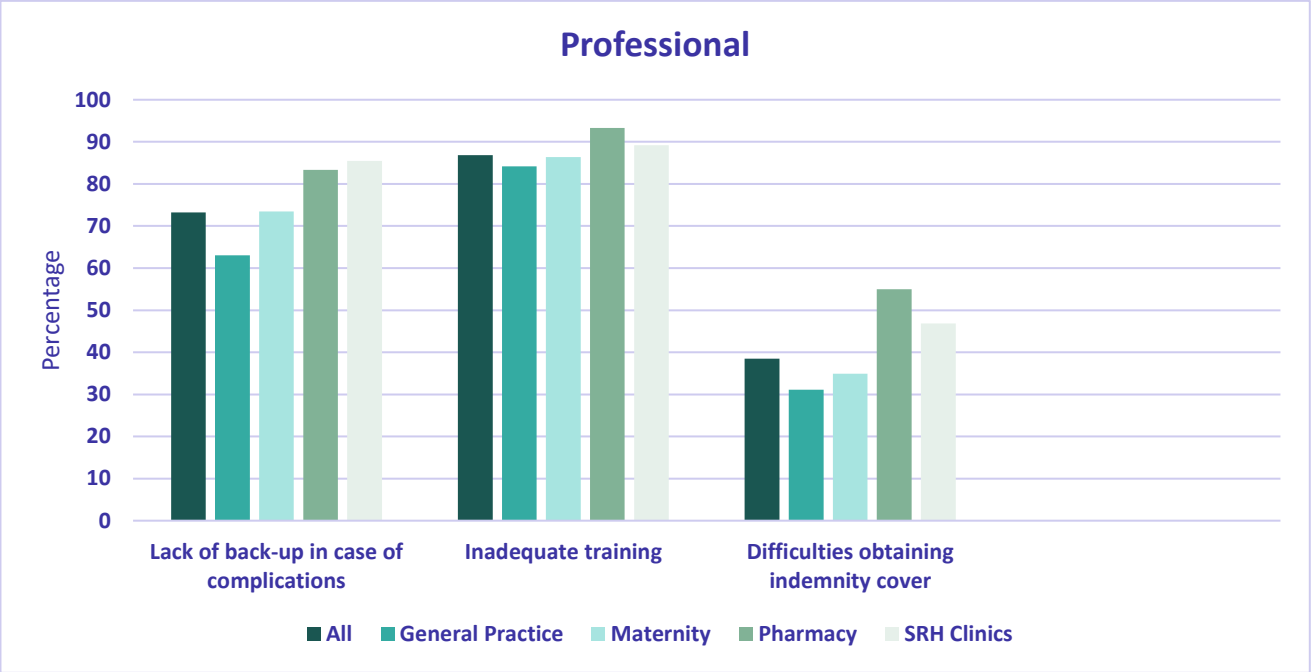

Figure 11. Perceived hindrances to role extension amongst non-specialist abortion providers: professional

Time constraints and shortage of support staff were the factors most commonly identified as affecting capacity to take on extra roles, closely followed by lack of training, and this was consistent across all the services. Infrastructural issues and lack of remuneration were seen as slightly less salient but were nevertheless mentioned by the majority across all specialities (Figures 8-11) Those working in pharmacies most commonly reported that lack of adequate clinical facilities and lack of remuneration would be barriers to taking on roles in abortion care. While harassment and disapproval were least likely to be reported, still over one in five reported these factors and responses were markedly consistent across the non-specialist services.

Free text comments amplified the stark contrast between what might be desirable and what was feasible within existing workloads, *"Ideological beliefs about abortion and person-centred care do not take into account the absolute maximum capacity General Practice is under. It is not [that] GPs may not want to do it, but cannot with so many different competing targets."* (Doctor, General practice, England)

Correct responses to the survey knowledge questions varied more by the type of service respondents worked in and their role rather than by their gender and age or years since they qualified (Table 10). For most of the questions, unsurprising, the highest proportion getting correct answers worked in abortion services. Pharmacists less commonly provided the correct answer. Under half of respondents correctly reported that '*Abortion rates are higher amongst those aged 35+ years compared to those under 18'* and that '*Less than 60% of abortions are currently medical abortions'*

was false. Just over half correctly reported that '*Women must have an ultrasound before having a medical abortion'* was false.

Table 10. Health Professional Knowledge by Participant Characteristics

	8 weeks is the upper gestation for women to have a medical abortion at home			Women must have an ultrasound before having a medical abortion			Having a medical abortion at home is as safe as having a medical abortion in a clinic			Abortion rates are higher amongst those aged 35+ years compared to those under 18			Less than 60% of abortions are currently medical abortions		
	n	%	95% CI	n	%	95% CI	n	%	95% CI	n	%	95% CI	n	%	95% CI
Total															
	501	65.58	(58.52-72.00)	417	54.24	(44.48-63.68)	514	67.23	(61.13-72.81)	330	42.95	(38.58-47.44)	305	39.97	(33.33-47.01)
Type of service	764			767			763			766			763		
SRH clinic	84	73.04	(60.42-82.79)	67	58.26	(41.74-73.11)	101	87.83	(79.31-93.14)	59	51.75	(41.87-61.51)	54	47.37	(35.31-59.74)
Maternity service	97	49.24	(43.90-54.59)	43	21.72	(17.67-26.40)	105	53.3	(47.73-58.79)	73	36.87	(29.75-44.61)	51	25.89	(19.26-33.84)
GP practice	66	43.42	(34.36-52.94)	56	36.6	(27.87-46.32)	87	57.62	(48.93-65.86)	46	29.87	(23.16-37.58)	32	21.05	(14.75-29.12)
Pharmacy	22	40.74	(27.94-54.93)	16	29.63	(18.31-44.17)	12	22.22	(13.09-35.15)	15	27.78	(18.34-39.71)	8	14.81	(6.96-28.79)
Abortion provider	232	94.31	(89.89-96.86)	234	94.74	(89.64-97.40)	208	84.55	(76.47-90.21)	136	55.28	(49.12-61.29)	160	65.04	(55.68-73.37)
Professional role	759			762			758			761			758		
Doctor	119	68.39	(58.53-76.84)	115	65.71	(54.02-75.77)	139	80.35	(71.55-86.92)	78	44.57	(36.06-53.41)	87	49.71	(37.77-61.69)
Nurse	190	73.64	(64.33-81.24)	169	65.25	(54.91-74.33)	187	72.48	(63.29-80.10)	121	46.9	(40.54-53.36)	118	46.09	(36.97-55.48)
Midwife	161	60.98	(48.41-72.25)	110	41.13	(25.34-58.99)	167	62.88	(51.66-72.86)	112	41.89	(34.17-50.02)	88	33.33	(24.74-43.19)
Pharmacist	26	41.94	(29.49-55.50)	20	32.26	(20.84-46.27)	17	27.42	(17.29-40.57)	17	27.42	(18.77-38.18)	10	16.13	(8.41-28.71)
Gender	758			761			758			760			757		
Female	447	67.52	(59.61-74.55)	360	53.98	(43.31-64.31)	447	67.37	(60.81-73.32)	302	45.33	(40.13-50.63)	272	41.15	(34.10-48.58)
Male	50	53.76	(43.08-64.11)	50	53.76	(42.64-64.52)	60	64.52	(53.11-74.48)	25	26.88	(18.95-36.63)	27	29.03	(20.47-39.40)
Age group	**759**			**762**			**759**			**761**			**758**		
Under 30	57	67.86	(56.29-77.58)	44	52.38	(38.50-65.90)	52	61.9	(50.32-72.27)	30	35.71	(24.69-48.49)	23	27.38	(19.41-37.11)
30-39	138	66.35	(53.64-77.06)	119	57.21	(42.85-70.45)	138	66.67	(57.76-74.52)	84	40.38	(33.94-47.18)	88	43.14	(34.42-52.30)
40-49	133	64.25	(54.98-72.57)	100	47.6	(36.90-58.52)	143	68.6	(60.69-75.55)	93	44.44	(37.77-51.33)	78	37.68	(28.44-47.92)
50 or over	171	66.02	(58.11-73.13)	150	57.47	(48.33-66.13)	178	68.46	(60.47-75.49)	122	46.74	(40.24-53.35)	112	42.75	(34.45-51.48)
When qualified	757			760			757			759			756		
Less than 5 years ago	66	68.04	(55.45-78.46)	59	60.82	(43.59-75.73)	62	63.92	(52.70-73.80)	38	39.18	(27.83-51.82)	28	28.87	(20.19-39.42)
5-10 years ago	104	62.65	(51.68-72.46)	77	46.39	(32.93-60.39)	105	63.64	(53.20-72.93)	71	42.77	(35.24-50.66)	62	37.8	(30.31-45.93)
11-20 years ago	148	69.48	(59.44-77.96)	125	57.94	(46.47-68.62)	145	67.61	(59.87-74.49)	93	42.99	(35.79-50.50)	90	42.65	(33.94-51.85)
Over 20 years ago	178	63.57	(55.80-70.69)	151	53.55	(44.49-62.38)	196	69.75	(62.27-76.31)	126	44.84	(38.53-51.32)	118	41.7	(32.69-51.29)

Respondents were asked whether they felt adequately skilled by experience or training to perform the tasks at different points along the abortion pathway (see Tables 11-13). Amongst the non-specialist services, those working in SRH clinics more commonly had training or experience in the different aspects of abortion care, although the proportion of those with training or experience in prescribing abortion medication was 8% and was negligible for surgical abortion. Across all non-specialist services training and experience was highest for helping patient decision-making about pregnancy options and contraceptive counselling. Amongst those working in specialist abortion services less than half reported having training or experience in prescribing abortion medication, implant and IUD insertion and inspection of abortion products to ensure completion. One in four had training or experience in surgical abortion up to 14 weeks gestation and 13% at 14+ weeks gestation.

Table 11. Experience and skills by participant characteristics: pre-abortion care

	Helping patient decision-making about pregnancy			Counselling on how to take abortion medication			Informing women what to expect during a medical		
	n	%	95% CI	n	%	95% CI	n	%	95% CI
Total									
	530	68.92	(62.52-74.67)	352	45.83	(36.59-55.37)	428	55.58	(47.28-63.59)
Type of service	769			768			770		
SRH clinic	94	81.74	(72.98-88.12)	38	33.33	(13.42-61.74)	65	56.52	(40.36-71.41)
Maternity service	99	50.25	(43.90-56.60)	54	27.41	(21.46-34.29)	76	38.38	(32.92-44.16)
GP practice	98	62.82	(55.81-69.33)	16	10.26	(5.64-17.94)	41	26.28	(18.88-35.32)
Pharmacy	15	27.78	(17.04-41.87)	12	22.22	(13.00-35.33)	5	9.26	(4.01-19.94)
Abortion provider	224	90.69	(83.78-94.84)	232	93.93	(88.84-96.78)	241	97.57	(94.92-98.86)
Professional role	764			763			765		
Doctor	157	89.2	(83.99-92.87)	76	43.43	(30.67-57.12)	107	60.8	(49.48-71.06)
Nurse	188	72.03	(63.05-79.54)	139	53.26	(39.89-66.17)	167	63.98	(52.79-73.84)
Midwife	162	61.36	(49.67-71.88)	119	45.08	(29.17-62.06)	142	53.58	(39.10-67.49)
Pharmacist	19	30.65	(19.69-44.34)	15	24.19	(14.68-37.18)	9	14.52	(7.33-26.72)
Gender	763			762			764		
Female	460	68.97	(61.85-75.29)	316	47.45	(37.49-57.62)	386	57.78	(48.78-66.30)
Male	64	68.82	(57.80-78.05)	31	33.33	(22.99-45.58)	36	38.71	(27.70-51.01)
Age group	764			763			765		
Under 30	55	65.48	(54.84-74.76)	41	48.81	(35.35-62.45)	52	61.9	(51.22-71.55)
30-39	143	68.75	(58.70-77.30)	99	47.6	(35.90-59.57)	117	56.25	(44.98-66.91)
40-49	142	68.27	(60.48-75.15)	94	45.19	(34.96-55.85)	113	54.07	(44.34-63.49)
50 or over	186	70.72	(63.57-76.98)	115	43.89	(34.03-54.26)	143	54.37	(44.59-63.83)
When qualified	762			761			763		
Less than 5 years ago	68	70.1	(60.12-78.49)	47	48.45	(32.21-65.04)	58	59.79	(45.30-72.76)
5-10 years ago	113	68.48	(58.30-77.16)	81	49.09	(36.68-61.62)	97	58.43	(46.96-69.06)
11-20 years ago	150	69.77	(59.59-78.31)	110	51.16	(40.25-61.97)	123	57.21	(46.73-67.08)
Over 20 years ago	195	68.66	(61.36-75.14)	110	38.87	(29.06-49.67)	145	51.06	(41.61-60.43)

Table 12. Experience and skills by participant characteristics: medical and surgical abortion

	Prescribing abortion medication			Dispensing or administering abortion medication			Supporting women in abortion home management			Discussing disposal of products of conception- home abortion			Carrying out surgical abortion up to 14 weeks gestation			Carrying out surgical abortion at 14+ weeks gestation		
	n	%	95% CI	n	%	95% CI	n	%	95% CI	n	%	95% CI	n	%	95% CI	n	%	95% CI
Total																		
	109	14.19	(9.63-20.42)	330	42.91	(35.19-51.00)	284	36.98	(26.88-48.36)	251	32.68	(22.79-44.40)	77	10.03	(6.40-15.36)	44	5.73	(3.95- 8.24)
Type of service	768			769			768			768			768			768		
SRH clinic	9	7.89	(3.42-17.17)	33	28.95	(9.57-61.05)	36	31.58	(11.78-61.47)	30	26.32	(8.18-58.87)	4	3.51	(1.69- 7.13)	1	0.88	(0.13- 5.67)
Maternity service	4	2.03	(0.78- 5.21)	76	38.38	(31.06-46.27)	17	8.63	(5.77-12.71)	11	5.58	(3.06- 9.96)	4	2.03	(0.58- 6.86)	12	6.09	(2.81-12.70)
GP practice	3	1.92	(0.67- 5.40)	3	1.92	(0.47- 7.50)	11	7.05	(3.67-13.12)	5	3.21	(1.43- 7.02)	0	.	.	0	.	.
Pharmacy	3	5.56	(1.88-15.30)	13	24.07	(15.33-35.70)	1	1.85	(0.26-11.93)	2	3.7	(0.93-13.64)	0	.	.	0	.	.
Abortion provider	90	36.44	(27.93-45.89)	205	83	(73.76-89.45)	219	88.66	(81.47-93.29)	203	82.19	(71.64-89.39)	69	27.94	(20.26-37.16)	31	12.55	(9.11-17.05)
Professional role	763			764			763			763			763			763		
Doctor	69	39.43	(26.27-54.32)	57	32.57	(21.55-45.92)	63	36	(25.19-48.44)	51	29.14	(18.52-42.66)	49	28	(17.39-41.80)	13	7.43	(4.11-13.07)
Nurse	17	6.51	(3.76-11.05)	131	50.19	(36.08-64.27)	134	51.34	(37.35-65.12)	119	45.59	(32.06-59.81)	14	5.36	(3.22- 8.79)	9	3.45	(1.78- 6.57)
Midwife	18	6.82	(2.77-15.84)	123	46.42	(37.50-55.57)	80	30.3	(14.23-53.26)	74	28.03	(11.88-52.94)	13	4.92	(2.29-10.28)	21	7.95	(4.55-13.54)
Pharmacist	4	6.45	(2.55-15.36)	16	25.81	(16.67-37.68)	4	6.45	(1.96-19.23)	5	8.06	(2.89-20.55)	1	1.61	(0.23-10.55)	1	1.61	(0.23-10.55)
Gender	762			763			762			762			762			762		
Female	87	13.06	(8.67-19.21)	304	45.58	(37.29-54.12)	262	39.34	(28.09-51.85)	232	34.83	(23.84-47.72)	64	9.61	(6.15-14.71)	40	6.01	(4.10- 8.72)
Male	20	21.51	(12.47-34.51)	21	22.58	(14.15-34.04)	18	19.35	(11.79-30.13)	14	15.05	(8.36-25.61)	13	13.98	(7.52-24.53)	4	4.3	(1.59-11.09)
Age group	763			764			763			763			763			763		
Under 30	5	5.95	(2.38-14.11)	39	46.43	(34.13-59.17)	27	32.14	(18.11-50.36)	26	30.95	(18.61-46.78)	5	5.95	(2.03-16.18)	5	5.95	(2.03-16.18)
30-39	31	14.9	(8.64-24.50)	101	48.56	(38.87-58.35)	77	37.02	(24.46-51.62)	69	33.17	(20.66-48.62)	27	12.98	(6.68-23.72)	15	7.21	(4.29-11.87)
40-49	34	16.35	(10.64-24.28)	88	42.11	(32.55-52.29)	82	39.42	(28.72-51.24)	65	31.25	(20.98-43.77)	20	9.62	(5.64-15.91)	11	5.29	(3.04- 9.03)
50 or over	38	14.5	(9.89-20.78)	99	37.79	(27.94-48.75)	96	36.64	(26.12-48.61)	88	33.59	(23.49-45.44)	25	9.54	(5.89-15.10)	13	4.96	(2.69- 8.98)
When qualified	761			762			761			761			761			761		
Less than 5 years ago	12	12.37	(5.84-24.32)	44	45.36	(32.52-58.85)	39	40.21	(24.00-58.88)	35	36.08	(22.10-52.91)	9	9.28	(4.03-19.94)	7	7.22	(3.49-14.34)
5-10 years ago	20	12.12	(7.37-19.30)	77	46.39	(36.54-56.52)	60	36.36	(23.53-51.48)	51	30.91	(19.27-45.61)	10	6.06	(2.17-15.77)	8	4.85	(2.32- 9.84)
11-20 years ago	34	15.81	(9.85-24.40)	101	46.98	(36.83-57.38)	87	40.47	(28.64-53.51)	81	37.67	(25.41-51.74)	29	13.49	(8.49-20.76)	15	6.98	(4.26-11.21)
Over 20 years ago	42	14.84	(9.61-22.22)	103	36.4	(26.67-47.37)	95	33.57	(23.95-44.78)	80	28.27	(18.99-39.85)	29	10.25	(6.42-15.96)	14	4.95	(2.66- 9.02)

Table 13. Experience and skills by participant characteristics: post-abortion care

	Inspection of products of conception to ensure completion			Providing contraceptive counselling			Contraceptive implant insertion			Intrauterine device insertion			Assessment of post-abortion complications		
	n	%	95% CI	n	%	95% CI	n	%	95% CI	n	%	95% CI	n	%	95% CI
Total															
	208	27.1	(21.17-33.94)	587	76.23	(70.52-81.14)	243	31.6	22.99-41.69	159	20.68	(15.30-27.33)	297	38.54	(31.21-46.43)
Type of service	768			770			769			769			768		
SRH clinic	32	28.1	(10.34-56.92)	105	91.3	(82.59-95.87)	84	73.04	59.20-83.50	43	37.39	(28.47-47.26)	36	31.58	(18.75-48.00)
Maternity service	62	31.5	(26.12-37.37)	116	58.59	(52.40-64.52)	2	1.02	0.22- 4.47	1	0.51	(0.11- 2.26)	40	20.3	(13.07-30.15)
GP practice	4	2.56	(0.84- 7.58)	118	75.64	(68.46-81.63)	37	23.72	17.77-30.91	30	19.23	(13.48-26.68)	44	28.21	(22.12-35.21)
Pharmacy	0	.	.	45	83.33	(70.85-91.14)	2	3.7	0.90-13.97	2	3.7	(0.90-13.97)	2	3.7	(0.93-13.64)
Abortion provider	110	44.5	(33.02-56.67)	203	82.19	(74.37-88.00)	118	47.77	32.75-63.21	83	33.6	(24.22-44.49)	174	70.45	(60.91-78.48)
Professional role	763			765			764			764			763		
Doctor	46	26.3	(17.23-37.92)	160	90.91	(85.44-94.46)	94	53.41	41.42-65.02	98	55.68	(43.85-66.90)	108	61.71	(51.63-70.88)
Nurse	85	32.6	(21.70-45.70)	209	80.08	(72.24-86.13)	130	49.81	38.48-61.15	52	19.92	(15.14-25.76)	103	39.46	(29.90-49.91)
Midwife	73	27.7	(21.55-34.71)	163	61.51	(54.72-67.88)	15	5.68	2.94-10.70	5	1.89	(0.89- 4.00)	80	29.92	(19.91-42.31)
Pharmacist	3	4.84	(1.11-18.70)	52	83.87	(72.63-91.06)	3	4.84	1.53-14.27	3	4.84	(1.56-14.03)	5	8.06	(2.89-20.55)
Gender	762			764			763			763			762		
Female	198	29.7	(23.44-36.89)	504	75.45	(69.19-80.79)	213	31.93	22.56-43.04	132	19.79	(14.19-26.91)	256	38.29	(30.41-46.84)
Male	9	9.68	(4.45-19.77)	78	83.87	(74.25-90.36)	28	30.11	19.51-43.36	25	26.88	(17.89-38.29)	37	39.78	(29.11-51.53)
Age group	763			765			764			764			763		
Under 30	22	26.2	(17.82-36.73)	64	76.19	(65.97-84.08)	13	15.48	7.77-28.47	7	8.33	(3.72-17.61)	23	27.38	(17.71-39.77)
30-39	62	29.8	(22.15-38.79)	156	75	(65.79-82.40)	68	32.69	21.65-46.05	39	18.75	(12.02-28.05)	88	42.31	(31.25-54.20)
40-49	60	28.9	(20.66-38.69)	161	77.03	(69.55-83.13)	61	29.33	20.52-40.02	46	22.12	(15.30-30.85)	85	40.38	(31.40-50.07)
50 or over	63	24.1	(17.44-32.18)	202	76.81	(67.68-83.96)	99	37.64	27.21-49.36	65	24.71	(18.13-32.74)	99	37.79	(29.69-46.62)
When qualified	761			763			762			762			761		
Less than 5 years ago	27	27.8	(19.90-37.46)	71	73.2	(63.37-81.17)	16	16.49	8.17-30.50	7	7.22	(3.06-16.09)	32	32.99	(20.13-49.02)
5-10 years ago	44	26.7	(18.42-36.94)	123	74.1	(66.16-80.71)	37	22.42	13.33-35.20	18	10.91	(5.81-19.56)	67	40.61	(31.99-49.84)
11-20 years ago	67	31.2	(23.17-40.45)	163	75.81	(67.60-82.48)	78	36.28	25.62-48.48	57	26.51	(18.36-36.66)	90	41.4	(32.19-51.24)
Over 20 years ago	68	24	(17.35-32.27)	225	79.23	(70.44-85.92)	110	38.73	28.27-50.35	75	26.41	(19.79-34.29)	105	37.1	(28.33-46.82)

For the most part, doctors had more training and experience in the different aspects of care across the patient journey, except for administering or dispensing abortion medication, supporting home management of abortion and discussing disposal of products of conception, where a greater proportion of nurses had training or experience. Training and experience in most abortion care activities amongst pharmacists was low, with the exception of contraceptive counselling, in which nearly nine in 10 were trained/experienced (Table 13).

The scoping review of interventions aimed at preparing non-specialist health professionals for a role in abortion provided examples of approaches warranting exploration, though lack of robust evaluation limited the evidence on their effectiveness. Training interventions aimed at increasing inclination to provide abortion typically addressed values and attitudes. Approaches included use of Values Clarification and Attitude Transformation (VCAT) workshops, which showed some success in encouraging health professionals to explore their views on abortion. 'Storytelling' was used to help existing abortion providers to deal with stigma experienced in the course of their work. Among interventions aimed at increasing health professionals' skills and knowledge, those that comprehensively covered the entire patient journey were rare, as were those enabling health professionals to use skills in real life settings. Attitudes appeared more resistant to intervention than skills and knowledge. Of interest were examples of complex interventions, mainly carried out in LMICs, which combined health professional training and preparation with attempts to change the

social context of abortion, through public education and stakeholder engagement. Such approaches were also the most challenging to evaluate yet evidence of impact, though sparse, was promising.

Lessons from other countries

In Australia and Canada, abortions can be provided in primary care settings by GPs/family doctors as well as in hospitals and abortion clinics. In Canada MA can also be prescribed by nurse practitioners (who are more similar to GPs in the UK), which has advantages with regard to cost effectiveness. In Sweden, by far the majority of abortion care is provided by midwives, in hospitals or outpatient clinics, although a doctor must always have ultimate oversight. In all three countries nurses can be involved, but cannot prescribe or dispense. This was highlighted by a nurse interviewee in Canada:

> *"Where I work almost all of the work is nursing work, staffing the central hotline, booking all the appointments across the province, making the referrals for ultrasound and bloodwork, ... counselling, ... phlebotomy, ... ultrasound, … all the medication, we, like we do everything except the [makes sucking sound] right, that's what we don't do."* (CAN_03)

Although abortion is covered in medical curricula in all case study countries, the extent of training provided is limited and variable – sometimes offered in as little as one or two lectures for pre-licensure students, with most training taking place in the internship and residency programs required prior to independent practice. It was often described as optional or having to be actively sought out by students, or something they simply came across by accident, though there were also examples of comprehensive abortion care being routinely embedded in training (often led by 'champions' e.g., in Canada).

> *"Right now, to get training in like the actual procedure of doing abortion, most people who are in either medical school or doing a family practice residency, are doing, you know, they have to really seek it out themselves …it's not really incorporated into the programmes."* (CAN_09)

Stakeholders highlighted the critical role of incorporating abortion training into medical curricula, in order to embed abortion care into health systems and make provision more sustainable and less reliant on 'champions'.

> *"I think that [training] would be the best way to start, and once you've got more doctors interested in it and, you know, they've got the skills then they will continue providing those services throughout the rest of their medical career."* (AUS_04)

In Sweden, abortion is a popular area for midwives to work in and there is pride and satisfaction in their role there. In Canada and Australia, there have been barriers to GPs taking on abortion care as part of their scope of practice, including feelings of isolation, stigma, and lack of confidence, as well as health system barriers. Stakeholders highlighted that there was a lot that could be done to mitigate some of these barriers, and that it was necessary to lay the groundwork to facilitate provision: "*you can't force GPs to do it but what you can do is lay the groundwork because we know lots of GPs want to do it"* (AUS_01). Facilitators for primary care provision included – support, for example virtual communities of practice, and robust referral pathways for those who cannot be

served in primary care settings or in case of complications. Primary care provision was seen by stakeholders as a positive development to improve access to abortion in Canada and Australia, particularly given their large remote populations, despite the barriers. Expanded roles among other providers in Sweden, especially GPs, was generally not seen as necessary or desirable, as the midwife led model was considered to work well. Whilst there is some support in Canada and Australia for nurses taking on greater responsibilities in abortion care, a minority considered this to be outside of nurses' competencies and other barriers were limitations on legislation in terms of prescribing and also remuneration. In Canada, nurses can prescribe some medications, but mifepristone is not currently one of them. Of note in both Canada and Australia, although any GP could provide abortion, fewer than 10% of those in practice had chosen to do so. In each case the proportion of rural or remote GPs providing abortion is higher than among GPs practicing close to the urban centres where purpose-specific abortion facilities are located.

6.2.5 What is the case for and against mainstreaming abortion care?

In this section we draw on data from the health professionals' survey to explore their attitudes to mainstreaming abortion into other services; interviews from patients with recent experience of abortion to investigate their views on where abortion could be provided, and by whom; and country case studies to identify lessons learned for the British context from settings where abortion is provided differently.

Perspectives of health care professionals

Health professionals were asked to express agreement with three statements relevant to whether abortion should be mainstreamed into routine health care: *'Wider health care practitioner involvement in abortion provision ensures a more holistic service for women'; 'I do not consider that the service I work in should provide abortion support and care';* and '*Abortion should be standard practice in my specialty'.*

Agreement that wider health professional involvement in abortion provision ensures a more holistic service for women was very high, with 85% of all practitioners agreeing (see Table 14). Those working in general practice expressed lower levels of agreement than those working in SRH, maternity and abortion services. Younger respondents expressed higher levels of agreement than older respondents. Agreement was higher among those who reported that religion was not important in their lives, compared to those for whom it was very important, and among those with political beliefs left of centre compared with right or right of centre.

Around a third of non-specialist providers agreed with the statement that abortion should be standard practice in their specialty (Table 14). Support was considerably higher than was opposition to the idea among health professionals in all specialties, except those working in general practice. Fewer than one in five HCPs working in general practice, and one in four of those working in pharmacies, were in favour of incorporating abortion provision into their practice compared with

more than half of those working in SRH services. Support was lower among those who reported that religion was very important in their lives compared to those for whom it was not important.

Fifteen percent of non-specialist providers agreed with the statement that the service they work in should not provide abortion support and care, with over half disagreeing. Opposition to the idea was highest in GP and pharmacy settings, with nearly one in four opposed, and lowest among SRH clinic settings, where just seven percent opposed. Opposition increased with increasing age and was also higher among those for whom religion was very important, compared to those for whom it was quite important or not important.

Free-text comments from some health professionals questioned the need to change a system that was working well. Others were, in principle, sympathetic to mainstreaming provision, but in practice saw major challenges. These focused predominately on resource and capacity issues. Adding abortion provision to current workloads in primary care was considered unrealistic: *"cannot with so many different competing targets" (*Doctor, General practice, England); *"funding and staff! NHS staff are already under enormous pressure"* (Midwife, Abortion service, England). Similar views were expressed by some in SRH services.

Misgivings also focused on patient safety and quality of care. Impartiality was seen as more assured in specialist than general health services. Where involvement in abortion provision was against health professionals' beliefs it was feared that staff may be pressured to deliver abortion care. Mainstreaming was seen as yielding insufficient footfall to ensure quality of care. Comments also revealed concerns that the time factor would be a threat to quality of care in general practice.

Table 14. Health Professional Attitudes Towards Mainstreaming of Abortion Care

	Wider health care practitioner involvement in abortion provision ensures a more holistic service for women			I do not consider that the service I work in should provide abortion support and care*			Abortion care should be standard practice in my speciality		
	n	%	95% CI	n	%	95% CI			
Total									
Agree	654	85.47	(82.07-88.32)	80	15.44	(11.57-20.32)	191	37.02	(30.38-44.18)
Neither agree nor disagree	86	11.26	(8.97-14.04)	146	28.19	(23.51-33.39)	178	34.5	(30.32-38.93)
Disagree	25	3.27	(2.17- 4.92)	293	56.37	(48.76-63.69)	148	28.49	(22.76-35.00)
Agreement									
Type of service	764			518			516		
SRH clinic	102	89.47	(82.22-93.98)	8	7.02	(3.19-14.75)	66	58.41	(41.20-73.78)
Maternity service	183	92.89	(86.10-96.50)	23	11.68	(6.26-20.74)	83	42.35	(34.25-50.87)
GP practice	112	72.26	(63.17-79.82)	37	23.87	(17.00-32.44)	29	18.71	(13.03-26.12)
Pharmacy	45	84.91	(73.30-92.02)	12	23.08	(13.81-35.96)	13	25	(15.53-37.67)
Abortion provider	211	86.12	(82.60-89.03)	.	.	.	.	.	.
Professional role	759			515			513		
Doctor	132	75.86	(67.92-82.35)	22	20	(13.31-28.92)	27	24.55	(17.80-32.83)
Nurse	225	86.21	(82.12-89.48)	20	13.42	(6.95-24.35)	66	44.59	(30.43-59.70)
Midwife	238	90.46	(85.01-94.07)	26	13.2	(7.56-22.03)	79	40.31	(32.56-48.56)
Pharmacist	53	86.89	(76.38-93.14)	12	20.69	(12.30-32.67)	16	27.59	(17.92-39.93)
Currently provides abortion care	757			513			511		
Yes	406	87.5	(84.18-90.20)	14	6.17	(3.34-11.10)	113	50	(40.49-59.51)
No	241	82.19	(76.13-86.98)	64	22.46	(17.88-27.81)	77	27.11	(21.73-33.26)
When qualified	761			517			515		
Less than 5 years ago	89	91.75	(83.89-95.96)	4	6.56	(2.20-17.97)	28	45.9	(32.18-60.27)
5-10 years ago	148	89.16	(83.29-93.13)	15	13.39	(7.81-22.01)	42	37.84	(27.89-48.93)
11-20 years ago	185	85.98	(80.35-90.20)	16	11.85	(7.25-18.78)	51	38.06	(29.90-46.96)
Over 20 years ago	228	80.57	(75.46-84.82)	45	21.63	(16.03-28.53)	70	33.65	(25.67-42.70)
Gender	762			518			516		
Female	578	86.64	(83.21-89.46)	66	14.83	(10.68-20.24)	169	38.15	(30.94-45.92)
Male	71	76.34	(66.00-84.29)	14	19.72	(11.74-31.19)	22	30.99	(22.27-41.30)
Age group	763			518			516		
Under 30	81	96.43	(89.04-98.90)	3	5.17	(1.94-13.05)	27	46.55	(33.42-60.18)
30-39	183	87.98	(82.21-92.06)	18	13.64	(8.76-20.61)	53	40.15	(31.56-49.39)
40-49	176	83.73	(78.50-87.89)	21	14.38	(9.19-21.82)	52	36.11	(25.50-48.27)
50 or over	212	81.23	(76.41-85.25)	38	20.99	(15.09-28.44)	59	32.6	(24.58-41.78)
Importance of religion in life	762			517			515		
Very important	40	66.67	(53.52-77.65)	20	42.55	(29.47-56.77)	6	13.04	(5.87-26.51)
Quite important	123	84.25	(77.08-89.48)	15	13.27	(8.16-20.86)	36	31.86	(22.76-42.59)
Not important	458	88.05	(84.98-90.57)	40	12.01	(7.98-17.68)	140	42.17	(34.27-50.49)
Political beliefs	759			516			514		
Right/right of centre	22	73.33	(53.59-86.75)	5	20.83	(8.10-43.99)	8	33.33	(16.24-56.33)
Centre	97	84.96	(76.18-90.88)	16	19.28	(12.70-28.16)	24	28.92	(19.94-39.91)
Left/left of centre	209	92.07	(88.15-94.77)	16	10.74	(6.41-17.44)	64	42.95	(33.35-53.12)
None	248	82.12	(77.10-86.24)	27	12.98	(7.95-20.49)	81	39.13	(29.87-49.25)
Country	764			518			516		
England	479	86.15	(81.85-89.56)	65	15.85	(11.82-20.93)	151	36.92	(30.92-43.35)
Wales	68	87.18	(77.21-93.17)	7	9.86	(1.89-38.36)	30	42.86	(16.67-73.76)
Scotland	106	81.54	(74.65-86.89)	8	21.62	(10.66-38.94)	10	27.03	(14.98-43.78)

*Non-abortion specialist providers

Perspectives from patients with recent experience of abortion

Responses from patients with recent experience of abortion on the advantages and disadvantages of integrating abortion into routine health care were mixed. Most had experienced abortion provided by a specialist service, and so their reflections were hypothetical. Some thought that mainstreaming could help normalise abortion by signposting abortion services alongside other health care services or providing care in a setting or by a provider that they would also visit for other reasons:

> *"Like if it was just, when I go to get a smear test, I just popped into my GP and there was like, clinicians in there that I just went in and had a smear, why can't it be integrated into services like with that as well?"* (13)

Integrating abortion care into other settings was seen by many as expanding the range of options available to people seeking an abortion: "*different women are going to want different things*" (38).

> *"There may be some women who find the whole process too intimidating, or too kind of like, overwhelming and therefore they might need a separate area to go to… I don't think that then means that every single abortion clinic, every single abortion service needs to have its own separate place. I think that [it] can be mix and match."* (13)

Many thought that being able to access abortion care in general practice and pharmacy settings would offer an advantage in terms of convenience:

> *"I don't see any reason why* [medical abortion shouldn't be available in a pharmacy*], I mean you can go get Viagra at a pharmacy, without prescription, I'm sure so, yeah, why make it harder?"* (22)

However, patients saw some disadvantages to obtaining their abortion care from non-abortion-specialist providers. Concern was expressed that a provider in a GP or pharmacy setting may not be able to spend sufficient time with the patient during the consultation and referred to their experiences of feeling rushed during GP appointments. *"GPs just want to see you as quick as possible. I feel they would just pop it [the abortion medication] in a bag, here are your instructions, kind of on you go"* (11). They also worried about the capacity of a GP to be able to give them an appointment promptly, noting waiting times for doctor's appointments: *"if I had to wait for a GP appointment, that could have taken days, even if it's an emergency appointment"* (10). The same was said about pharmacy provision, where some though there may be insufficient time to deal with: *"such a significant experience – not something you can do quickly"* (09). Respondents generally felt that non-specialists would be able to provide good care with training and did not express concerns about clinical competencies. Critically though, they valued the non-judgmental care that they had received from specialist abortion providers and some had doubts as to whether non-specialists would provide the same. Specialist services were seen as likely to be better informed and more value neutral. In more than one instance, women had initially approached a specialist service in preference to primary care because of a suspicion that their GP would be against abortion.

> *"I felt like everyone that that I spoke with [at the abortion clinic] was very sensitive to the situation… I don't know. Maybe would a GP be so aware? I don't know, but I guess yes."* (12)

> *"I didn't really want to go through my doctors because my actual doctor… her and her husband both work in the same surgery and they're quite religious… the husband is quite against abortions, so I thought: It's best not to go through to them."* (04)

How normal their abortion was made to feel was a key criterion determining patient satisfaction. This, however, tended to depend not on where, but on how they were treated, and critical to their

satisfaction was receiving non-judgmental, empathetic care. A matter-of-fact approach and a non-judgemental manner prompted reflections such as *"everyone made it just feel very normal"* (11); *"not judging, just quite normal"* (43). Paradoxically perhaps, feeling stigmatised was seen by some as less likely in a specialist service (*"sexual health clinic […] is kind of like a judgment-free zone",* 188) than in a general health setting. Specialist services were seen as normalising abortion precisely because they were stand-alone. *"it was quite relieving to see that there were other girls here, probably for the exact same thing"* (11); in this sense a specialist clinic setting made this participant feel less alone in her experience. The contrast was drawn with general practice, where: *"everyone's there for different things, […] the old woman who's got a cough will be wondering what [you're] doing"* (24). Where specialist services were seen as stigmatising, patients perceived censure as stemming from outside the service, because of the possibility of encountering protesters or themselves being seen entering.

Lessons from elsewhere?

In Canada most medical abortions are performed by family physicians, although the proportion of family physicians who provide abortion is low (around 5%). Barriers have included organisational issues, e.g., billing codes for MA, (rarer) problems due to conscientious objection, and 'inertia' among some urban physicians with a preference for referring patients to nearby abortion clinics. Concerns also stemmed from a lack of infrastructure: availability of ultrasound and access to surgical care in case of need, but the stakeholders we interviewed also acknowledged that these concerns are not necessarily well founded:

> *"People need to resist this idea that you can't do this work unless you're you know within five steps of an ER and unless you have immediate access to ultrasound and unless you have blah, blah, blah right... And we're seeing that once people start doing the work, they realise they can do the work [and]…, [it] just makes perfect sense".* (CAN_03)

Concerns also stemmed from a lack of infrastructure: availability of ultrasound and access to surgical care in case of need. MA is seen as more feasible in primary care than is VA. In Australia, too, provision of MA in primary care was considered desirable because of its potential to improve access, particularly in remote areas, and in addressing workforce shortages. However, integration of MA into primary care has been slow. Providers of MA must satisfy training and registration requirements to prescribe and dispense MA, which is a perceived barrier to provision. Roughly 10% of GPs are registered providers of MA. Further barriers to provision in primary care include provider attitudes and feelings of isolation, difficulties in setting up necessary links with hospital facilities and dispensing pharmacists, and current funding models. Facilitators of primary care provision of MA include establishing strong referral networks and communities of practice and peer support. In Sweden, midwives are the main providers, in hospitals or outpatient clinics, although by law a doctor has ultimate oversight. A key facilitator to provision of abortion by midwives there has been their historic involvement in wider reproductive health care: "*being pregnant and giving birth, but also not wanting to be pregnant, contraception and ending an unwanted pregnancy, it's kind of like the whole thing...to be able to follow women in all these areas, from young girls to older women"* (SWE_05), and this also seen as a factor that meant they could provide very high quality care. In Canada midwives'

involvement in abortion care is limited but stakeholders here also highlighted the value of integrating abortion in midwifery care:

> *"[It] truly places abortion as part of the spectrum of care that happens in a lifespan in terms of reproductive health … a lot of midwives are highly motivated to provide abortion care, they feel like it's within … the realm of what they want to be offering."* (CAN_07)

7.0 Discussion

Data gathered across Work Packages 1-4 provides an evidence-base to contribute towards understanding how abortion care is experienced and provided, and how care and services could be improved in Britain. The contextualisation and framing of the findings of the study have been extensively influenced by the stakeholder consultation convened as part of Work Package 5. Their advice and suggestions were invaluable in providing insights into the implications of the findings for feasible policy and practice intervention. In this section, we discuss the implications of our findings for abortion care in Britain in relation to its regulation, who should provide abortion care and how care should be provided and delivered.

7.1 The regulation of abortion

Our data show generally liberal attitudes towards the regulation of abortion among health professionals in Britain. Nine out of 10 thought abortion was completely a woman's choice, and a clear majority supported the idea of abortion being treated as a health rather than a legal issue. Fewer than one in 10 saw abortion at any gestational age as contrary to their personal beliefs and a similarly small minority were against second trimester procedures. Views were generally more permissive among nurses and midwives than among doctors and pharmacists.

Comparisons of our findings with those of other studies are made difficult by differences in the questions asked, in the populations under study, and in the recency of investigation. Other studies in Britain have found similarly favourable attitudes among health professionals towards the regulation of abortion. [56,58] We found no other studies exploring knowledge of regulations governing abortion provision in Britain nor any that compared attitudes towards abortion by service type or profession. The views of health professionals appear to be generally in line with those of the general public, 70% of whom according to the most recent authoritative data support allowing abortions if the woman does not want the child. [87]

According to our survey, roughly one in five of all health professionals, rising to one in three among men and among respondents aged under 30, were unaware of the legal requirement for abortion to be certified by a doctor. A similar proportion of patients with recent experience of abortion were also unaware of the requirement. We found no other studies exploring knowledge of regulations governing abortion provision in Britain. The lack of knowledge of this aspect of the law among many patients and health professionals, particularly younger practitioners, adds to a sense that the current requirement is of diminishing relevance in the current context, when most abortions are medical – most notably, the requirement that two doctors should sign certifying that the grounds for abortion have been met.

The view of both health professionals and patients in our study was that in this respect the law is out of step with current practice. Their accounts of the procedure for certifying the abortion make clear that, in practice, it generally falls to nurses and midwives carrying out the consultation to establish

that the specific grounds for abortion have been met. The doctor responsible for signing the certificate has, according to these accounts, rarely seen the patient. From the health professionals' perspective, the current procedure causes unnecessary delay in the abortion process. Recommended alternatives were either to allow other health professionals to sign or to remove the requirement entirely from abortion regulation. The objections of patients related rather to the grounds themselves. From their perspective, the patient's reasons for not continuing the pregnancy were considered sufficiently valid without needing to be shoe-horned into the requisite clause.

Such views are substantiated by those of the UK Government's Scientific and Technology Committee (STC) [88] which stated that there is no good evidence that the requirement for two doctors' signatures serves to safeguard women or doctors, and that the status quo may in fact cause avoidable delays leading to later abortions. Alignment between these views and those expressed by the participants in our study indicates that a decision to amend the current law to allow 'appropriately trained, competent practitioners' such as registered nurses and midwives, to make the clinical decision or, alternately, to remove the need for authorisation altogether, would be supported by health professionals in Britain. Attempts to change the legal position of nurses in abortion provision have so far failed to materialise into tangible changes to current abortion laws in Britain. Previous attempts were to be debated under the Human Fertilisation and Embryology Bill in October 2008, but were not called due to time constraints. [89] However, recent high-profile cases of prosecutions under the 1967 Act may indicate renewed momentum. [90] In 2022, the RCOG and FSRH called on the UK government to decriminalise abortion to ensure women are no longer in fear of criminal sanctions for accessing essential healthcare services. [91]

Preliminary SACHA findings were aired in the House of Commons, at a presentation by the team to the All-Party Parliamentary Group on Sexual and Reproductive Health on the 7th of March 2023. [92] As a direct result, discussion around the need for removal of two doctors' signatures to approve abortion received extensive media attention. [93–98] Further dissemination of findings from the SACHA study can be expected to further fuel and inform debate.

Current regulations in Britain not only determine the criteria by which an abortion can be certified as legal, but also who can provide abortion and where it can be performed. Alterations to the law would also be required to facilitate greater involvement of non-specialist health professionals and more diverse use of premises. We next discuss the significance of our findings in these contexts.

7.2 Where should abortion be performed?

Integration of abortion provision into routine medical services is often held to be the key to 'normalising' abortion and removing stigma. Its "separateness" serves to isolate abortion from mainstream services and to marginalise those providing abortion services. [99] The policy of the British Medical Association [100] states that abortion should be decriminalised in respect of health professionals administering abortions within the context of their clinical practice.

An important question for the study related to which services abortion should be mainstreamed into. We found that little more than a third of all health professionals working outside of abortion services would like to see abortion as standard practice in their service though views varied markedly by specialty. Enthusiasm for incorporating abortion into existing practice was highest among health care staff working in SRH services, where the majority endorsed the idea, and lowest in general practice where fewer than one in five were in favour. Nearly two-thirds of those working in SRH services reported that extension of roles in abortion care would increase job satisfaction and in free text comments they mentioned capability to provide holistic care as a reason for this. The strong support among health professionals in community SRH services for greater participation in abortion provision backs the suggestion that such services may be more sensitive to the needs of abortion patients and better able to provide follow up care such as contraception. [77]

As long ago as 2007, the RCOG and House of Commons Science and Technology Committee [88] called for an expansion of places considered suitable for abortion, citing community SRH services. This would simply mean that such sites would need to be licensed for provision of abortion (currently they are not unless they are within an NHS hospital which provides abortion).

Enthusiasm for integrating abortion provision into primary care was markedly lower. In this respect, our findings are at odds with recent international evidence suggesting the merits of doing so [101–104] and the recommendation that insights from low- and middle-income countries might translate to the UK setting [102] should perhaps be treated with caution. Differences in Britain are likely to be attributable to contextual factors, notably the existence of independent abortion providers on the one hand, and on the other the pressures under which the NHS is operating and the consequent burden on primary care. Policy needs to be congruent with professional opinion – urging practitioners to take on abortion provision is inadvisable if they have neither the time, nor the resources. The potentially negative consequence of expansion of place needs consideration. Abortion is time-sensitive and current waiting times for appointments in primary care may reduce timely access. Lack of clinical facilities may be less problematic for medical abortion care but more so for surgical provision. If resources are moved away from the independent sector, surgical abortion options for patients may be further reduced.

That said, in the country case studies, both Canada and Australia provide abortion in primary care settings, with the majority of medical abortions being providing by GPs or family physicians in both settings. This was considered by stakeholders to have had positive impacts on access to care, particularly in rural settings. It was also seen as contributing to "normalising" abortion care by providing it alongside other routine services. However, uptake among primary care providers is relatively low; less than approximately ten percent in both countries, although this is increasing. There was no clear consensus from stakeholders as to whether abortion care is best provided by dedicated standalone clinics or integrated into broader healthcare provision, but the merits of a combining both to optimise accessibility and choice were highlighted. Although Women's Health Hubs were not specifically targeted in the SACHA survey, their recent development exemplifies attempts to provide more integrated services for women. Run by primary care or sexual and reproductive service providers the Hubs currently provide services for contraception, menstrual

problems, and menopause, but there are potential opportunities in the future to include abortion care and the provision of or signposting to abortion services are mentioned for consideration in the Women's Health Hubs Service core specification.

The views of patients on the appropriate premises for abortion care and support vary. We see in some of their accounts a distinct preference for stand-alone specialist abortion services on the grounds, paradoxically perhaps, that abortion thereby seems more normalised since all patients are there for the same purpose. Conversely, others are wary of the stigmatising effect of being seen to enter specialist services, and the possibility of encountering protesters. The COVID ruling allowing abortions to take place in the patient's home does not extend to the homes of friends, partners, or family, nor to other premises the patient might deem more suitable. Our finding that the home environment does not always allow sufficient privacy - to express pain, for example, or to deal with bleeding - lends weight to the suggestion that the legally permitted premises for abortion [20,101] might be extended to include appropriate non-clinical settings away from home. [105]

7.3 Who should carry out abortions in Britain?

The increase in the prevalence of medical abortion provides the opportunity for non-abortion specialists to provide support and care. Again, an important question relates to which health professionals should most appropriately extend their role in abortion. Our study evidences significantly more favourable attitudes towards abortion, and higher levels of enthusiasm for providing abortion, among nurses and midwives compared with doctors and pharmacists. Nearly half of nurses embraced the idea of routinely providing abortion and the majority saw it as likely to increase job satisfaction, though there was less willingness to extend roles to surgical abortion. By contrast, most doctors saw abortion as out of scope for their service, and as burdensome. The fact that some four out of five doctors are, according to our research, reluctant to do abortions may cast in doubt the wisdom of mandating that abortions should be provided by them. On the other hand, accommodating the wishes of the one in five doctors who would like to be involved would significantly increase capacity and thought might be given to ways of enabling them to do so. Areas of care that pharmacists most commonly reported that they would be willing to do with training included dispensing and administering medication, informing patients what to expect during a medical abortion and discussing disposal of the products of conception. Other areas of reproductive health expansion of roles have helped improve patient pathways, for example, in the case of postpartum contraception by midwives and over-the-counter emergency contraception at pharmacies. In our study, the willingness of nurses and midwives who currently do not insert contraceptive implants and IUDs to do so with training was high.

Contrary to our survey findings, a systematic review found that in primary care, doctors were more supportive of medical abortion service provision than nurses and pharmacists, but even amongst the doctors, poor knowledge, fear of criminal prosecution and conservative attitudes were barriers to provision or referral. [101] Reported religious affiliation and religiosity amongst medical students and nurses has been associated with more favourable attitudes towards conscientious objection. [41,58,59]

However, critics of the right to conscientious objection argue that "refusing medical care based on personal beliefs is a negation of evidence based medical practice and a repudiation of the overriding goal of medicine – to care for patients". [106] A systematic review of midwives' attitudes found more objection for moral reasons rather than religious or legal ones. [107] This supports the findings in our study that some midwives working in maternity services would be prepared to do a manual vacuum aspiration for foetal abnormalities or miscarriage at 14+ weeks gestation, but did not want to do earlier abortions (medical or surgical) for other reasons.

An important question, as noted above, concerns the permission of health professionals to provide abortion. Alterations to the regulations governing abortion is required to facilitate greater involvement of non-abortion specialist health professionals. Nurses, and to a lesser extent midwives, emerge as the mainstay of abortion care yet they are currently not permitted under the law to prescribe abortion medication, or to carry out vacuum aspiration, despite midwives and clinical nurse specialists in early pregnancy care being allowed to do so in cases of miscarriage.

While decriminalisation has been viewed as a positive step in countries such as Canada and Australia, the evidence is that it alone does not necessarily lead to extension of roles to other non-abortion specialist providers. Such evidence illustrates the potential for logistical and organisational barriers, such as the lack of integrated networks between services, competing interests and poor administration to lead to delays for patients between their first contact with a service and having an abortion [33,44,] and highlights areas where preparations can be made to maximise the potential benefits of decriminalisation of abortion with respect to who can provide it. The main barriers to extending roles identified by health professionals in our survey included time constraints, lack of support staff and inadequate training. Lack of competence is a factor that hinders non-abortion specialist involvement in abortion provision. [33,108] A review of understanding of medical abortion among primary care providers revealed insufficient knowledge, inadequate skills, and low confidence levels. [101,109] Lack of training opportunities was cited as a key barrier. Coverage of abortion in medical education is reportedly variable and opportunities for professional development are few. [110] In medical curricula worldwide, clinical sexual and reproductive health topics, such as safe pregnancy, childbirth and contraceptive methods, are more frequently taught than abortion. [111] Providing a broader range of health professionals with the knowledge and skills to play a role in abortion provision is, therefore, seen by many as an urgent requirement. [101,109,112,113] Our scoping review identified that there is still an important gap in the evidence base on the effectiveness of training interventions to improve abortion knowledge and skills amongst health professionals.

Stigma from others for providing abortion care were the least reported barriers, but still reported by around a quarter of all participants. Perceived or actual stigma from colleagues has also been cited as a barrier to undertaking abortions, even amongst obstetricians and gynaecologists. [114,115] In Australia, continued stigma and negative attitudes toward abortion among potential non-abortion specialist providers remained concerns despite decriminalisation. [116]

In Australia and Canada, stakeholders interviewed for the study, including providers, perceived the benefits of extending roles in abortion care to non-abortion specialists to outweigh the challenges of

doing so. While many of the barriers to extending roles are structural, such as funding models, and dependent on government priorities, some can be mitigated. For example, in Australia providers of medical abortion must satisfy training and registration requirements to prescribe and dispense the medication. In Canada however, these were in place initially but were quickly removed, and uptake among family physicians subsequently increased. Further barriers to provision in primary care included provider attitudes and feelings of isolation, and difficulties in setting up necessary links with hospital facilities and dispensing pharmacists. Many of these barriers are likely applicable to extending roles in Britain, and effective ways to mitigate these barriers can start now. These include setting up communities of practice and provider networks to counter feelings of isolation among non-abortion specialist providers and establishing strong referral pathways. There is much groundwork that can be laid already, to prepare the workforce for changes in how abortion services are provided. Stakeholders were positive about the potential for greater involvement of appropriately trained midwives and nurses in the provision of all aspects of abortion care, and highlighted how well placed these professionals were to offer holistic person-centred care. Barriers to extension of these roles primarily related to the need to extend scope of practice, complexity of funding models for these staff (which are less applicable to the UK context), and resistance from doctors' professional colleges.

In Sweden, where abortion care is primarily midwife led, stakeholders we interviewed overwhelmingly considered this to be the optimal model of providing abortion care. Two key benefits of midwife led care under the Swedish model, where midwives are involved in reproductive health care across the life course, were that abortion services are provided alongside other reproductive health care, and that services can be provided in geographically evenly distributed outpatient clinics. However, since the role of the midwife in Sweden is broader than their role in Britain, it is a model that may be more challenging to implement here.

The evidence from patients is that they are more concerned with receiving non-judgemental, empathetic, and responsive care and rather less concerned with which health professional provides this. Their responses showed that different people, having different abortions, at different times, have different preferences; optimal abortion care services would provide a wide range of options to suit these different circumstances. Making abortion care available in primary care settings would offer more convenience for some and could help normalise abortion by providing it alongside other routine health services. Significantly, it could improve access to early medical abortion in places without nearby specialist services. However, our findings suggest that recommendations for abortion care to be mainstreamed into primary care should be adopted with caution – waiting times and attitudes of non-abortion specialists were a concern for some, and among health professionals, inclination and capacity in general practice was lower than other settings. Integrating abortion care into SRH clinics may be an avenue that has more potential to be successful in increasing the options available to those seeking abortion care. Critically, patients with recent experience of abortion highly valued the empathetic and non-judgmental care that they had received; expansion of abortion care provision to a wider range or settings and/or providers must be accompanied by appropriate training, and this must include attitudes as well as clinical competencies.

NICE Guidelines and Quality Standards highlight the importance of good access to abortion services, choice of provider and procedure and safe and effective patient pathways. [117,118] However, criticism of current abortion service commissioning in England includes loss of skills and experience within the NHS sector because of over-reliance on the independent sector. [119] The issue of sub-optimal tariffs was raised during the Stakeholder consultation as a factor negatively affecting the resources abortion services had to provide surgical abortions and other areas of related abortion care, such as contraception. The consequences of sub-optimal tariffs and complex commissioning arrangements is that procedures, such as surgical abortion, and elements of care, such as provision of contraception, are at risk due to the greater cost for the abortion provider – which could reduce choice for patients and timely access to care and lead to "cherry-picking" of cases. The RCOG have produced an exemplar service specification which highlights the need for the commissioning of evidence-based, quality and properly resourced abortion services that can be accessed by patients in a timely manner. [119]

There is potential to expand roles in abortion care, particularly amongst nurses and midwives, and investment in adequate resources, training and commissioning infrastructures is needed to support this.

7.4 How should abortion be provided?

The overwhelming majority of patients interviewed in the qualitative component of the study reflected positively on their abortion experience. They valued the respectful and non-judgmental way in which they were treated, and the reassurance and empathy they received. Those who had a medical abortion at home appreciated the privacy and autonomy afforded by home management, and the convenience and comfort of being in a familiar environment. Those who had a surgical abortion, although often facing worse access to the procedure, were also largely content with their experience. The clear finding of high levels of satisfaction with abortion care in Britain is reflected in research by others. [105,120–122]

Importantly then, in identifying areas with potential for improvement, the focus here is on enhancement rather than remedial action. Suggestions for improvement centred on four main themes across the patient journey: for timely care, the need for consistency between expectations and the reality of the abortion experience; for improved access to emotional support in addition to medical care; and the importance of choice.

7.4.1 The importance of timely care

An issue seen by participants as crucial at all stages of the patient journey was the necessity for timely care, important in all areas of healthcare but especially relevant to abortion care because of the time-critical nature of this procedure. For the most part, patients were impressed with the speed and efficiency of service. Prompt care has benefits for both the patient and the health system: NICE estimates a 1-day reduction in the average waiting time for abortion could save the NHS £1.6 million

per year in the costs of procedures and treating adverse events. [117] Guidelines for abortion care for Britain [117] stating that patients should wait no longer than a week for their initial assessment, and no longer than a week from assessment to their procedure, according to the accounts of women in our study, were usually, but not always, adhered to. Delays appeared to occur more commonly in surgical abortion provision, particularly where other health services needed to be accessed for underlying health conditions.

Appeals by our participants for reassurance to reduce anxiety during the waiting time align with recommendations made in recent literature. [120] Their suggestions for measures to reduce delays included widening and updating informational sources; raising awareness of the possibility of self-referral; and ensuring that health professionals other than specialist abortion providers had the necessary knowledge to signpost appropriately to avoid confusion over which services should be approached. The recommendations made in national abortion care guidelines for streamlined, integrated services and centralised referral [117] are of particular relevance in the context of England and Wales where reportedly three major independent providers all have separate booking systems, with no clear indication to patients as to which they should opt for (Comment in WP5 stakeholder consultation).

7.4.2 Consistency between expectations and reality

Notable instances running counter to the generally positive experiences described included unexpectedly high levels of pain and bleeding reported by many of those interviewed. This applied also to surgical abortion but was more evident in the context of medical abortion as found by others [123.] The representation of SACHA Study patients home managing medical abortion who reported experiencing severe pain is in line with estimates from quantitative research of between half and three-quarters of such patients reporting moderate to high levels of pain. [124–127] Although for some patients, the comfort of home abortion may mitigate pain, for others pain may be more strongly felt outside of clinical facilities, where regular monitoring would be routine and additional pain relief and/or reassurance could be offered. Others have shown ineffective use of painkillers during home-managed medical abortion; in one study, nearly 25% used no analgesia at all. [126,127] Identifying patients at risk for severe pain, for example those with a history of dysmenorrhoea and anxiety, [126] and those self-reporting a low threshold of pain tolerance will clearly help in targeting and tailoring appropriate support in pain management. Further, additional research on experience of pain during abortion has been urged by some [128] and empirical work on how pain control might be improved is currently underway. [129]

A key area for improvement emerging from the study was the extent to which patients were prepared for their abortion experience by the clinical providers. As noted by others [120,130] ensuring consistency between patients' expectations and their actual experience is crucial to patient satisfaction. According to patients' accounts, at the stage of help-seeking and consultation, many had expected to feel judged but were pleasantly surprised by the supportive and non-judgmental treatment they received. For the abortion procedure itself, however, feeling unprepared for the levels of pain and bleeding experienced, and for dealing with the products of conception, not only

constituted an affliction in itself, but also led to anxiety about whether the symptoms were normal. The inadequacy of language reportedly used in the consultation to describe extremes of pain and bleeding, albeit not in every case, has been noted in previous research, [120] and perhaps underlines the tension between providers' desire to reassure and minimise distress and the patients' need for clarity and forewarning. Clearer and more candid descriptions of the range of experiences with respect to pain, bleeding, and products of conception may have enabled them to make better informed decisions on procedure and premises.

7.4.3 The need for emotional support

The clear need expressed by patients in our study for emotional as well as medical support - at the consultation, at the procedure itself, and post-abortion – has been widely recognised by others. [131–133] Resource constraints may limit the extent to which health professionals are able to provide such support, but the adoption of several low-cost alternatives put forward by patients themselves seem promising. According to their accounts, explicit signposting to available support at all stages of the abortion experience is essential but needs to be sufficiently prompt to benefit patients at the time at which it is needed. Calls by the patients we interviewed for real-life accounts of experiences of abortion patients, opportunities to connect to other abortion patients, and peer-support structures to help reduce feelings of isolation, all have appeal in the context of abortion, which is rarely talked about. Assistance from abortion doulas has proven effective for those without personal support networks. [134]

7.4.4 The importance of choice

Our study and others confirm the importance of choice to patients, and the need to tailor and target different approaches to the needs of specific populations. [123,135] Dual issues to be considered in this context are whether patients are equipped to make choices, and whether there are options available for them to do so. For the first, accuracy and comprehensiveness of information provided to patients has significance for their ability to make informed choices. Health professionals need to strike a balance between alarming and reassuring patients, but by not elaborating on the full range of possible experiences, they may have inadvertently reduced the options available to patients. While many of the patients we interviewed would have changed nothing about their abortion experience, some claimed that, in hindsight, they would have chosen an alternative procedure. Qualitative data, such as those generated in our study, provide limited opportunity to compare medical and surgical abortion in terms of patient satisfaction. In larger quantitative studies, surgical procedures have been rated more highly, especially on the specific criterion of pain control [123] but caution is needed in generalising their findings to the current context of home management.

In terms of provision of options, the evidence from patients' accounts was that not all recalled that they had been offered a choice. The rationale for prioritising medical over surgical abortion where feasible was clear during the COVID pandemic when personal contact was restricted. However, the suggestion in our data that medical abortion continues to be encouraged as the preferred, or even the default, option is corroborated by other contemporary research. [135] A possible unintended consequence of the high prevalence of medical abortion in Britain - accounting for 87% of all

abortions carried out in England and Wales and 99% in Scotland in 2021 [136,137] may be to reduce choice of procedure. The unintended consequences of the increasing prevalence of medical abortion may lead to surgical abortion becoming unavailable in some settings even when it is necessary – because of insufficient numbers of patients to run surgery lists and due to the scarcity of opportunities for health professionals to learn surgical skills. This has implications beyond just abortion care, as surgical pregnancy termination skills are essential also in obstetric emergencies overall (comment in WP5 stakeholder consultation).

Strategies emerging from patients' reflections may have the capacity to address more than one area for improvement. Addressing the need for emotional support may help to alleviate pain [138,139;] for example, clear explication of the range of possible abortion experiences may help prepare patients for specific outcomes in addition to facilitating more informed choices; and story-sharing can help with both preparing for the practicality of abortion and lessening the feeling of emotional isolation in the process.

7.4.5 The role of telemedicine

We found strong support from health professionals and patients for incorporating telemedicine into abortion provision across all stages of the patient journey. This mode of delivery was seen to offer a range of benefits in terms of the service, logistics and patient comfort. Perceptions of these benefits in both medical and surgical abortion are confirmed in several studies and include its capacity to afford autonomy, privacy, comfort, and convenience to patients. [24,140–144]

Areas in which telemedical approaches were seen as needing to be strengthened are confirmed in fewer studies. Despite general affirmation of telemedical approaches among health professionals their concerns about the possible risks of determination of gestational age in medical abortion without routine ultrasound have been observed by others [141] and need to be addressed. Research shows a preference among most patients for not having an ultrasound; [145] adverse outcomes of the 'no-test' telemedicine model have been widely shown to be rare; [122,146,147] and clinical guidelines state that routine ultrasound scanning is not required as part of abortion care. [1,118,148] Our finding that some providers did express reservations with respect to not scanning patients highlights the importance of clearly communicating the evidence in health professional education and training. This is underlined by the evidence from our study of greater acceptability of telemedicine among experienced abortion providers and those confident of their skills in supporting home management.

From the patients' perspective, the finding that some felt more comfortable with a consultation without personal contact aligns with the findings of other studies. [145,149] Yet so too does the contrary preference expressed by others for a form of interaction involving an audio-visual element. [141,145] For these patients, the lack of opportunities provided by telemedicine for detecting facial cues, observing body language, and making eye contact at the stage of referral and consultation, and for some form of visual supervision at the stage of the procedure, were a limitation. In some cases, this may be best addressed by complementing or replacing telemedical approaches with in-person care and support. An alternative, as patients interviewed suggested, is the adjunctive use of telemedicine. The use of video

for telemedical communications where feasible, for example, could enhance patient care by providing the opportunity for exchanging non-verbal communication. Such approaches would also facilitate screen sharing of on-line materials between patients and health professionals as recommended by the patients.

The views of health professionals and patients suggest a range of possible options for further enhancing the benefits and addressing shortcomings of the telemedical model of abortion care. The clear need evidenced in our study for emotional and psychological support in addition to medical information and advice during abortion via telemedicine has been widely documented [31,35,61,62,68,144,145] and is referred to above. It may be that for some patients this can only be addressed by replacing telemedicine with in-person care, or by combining the two. A significant minority of patients, including higher proportions of patients under age 20 and those identifying as Black/African/Caribbean/Black British have been shown to prefer face-to-face care. [150] In-person care may also be appropriate in cases where there is doubt about whether the patient is making an autonomous decision uninfluenced by others, although telemedicine can also enable access to care for people in coercive situations. These findings support national guidelines that the option of receiving in-person care should be provided for those requiring it. [48]

For other patients, options exist for complementing telemedical support with alternative models of care. A hybrid approach was appealing to many patients, combining a telemedical consultation, for example, with in-person care. Other suggestions included incorporating patients' stories into the websites of abortion services may provide reassurance regarding what is normal. Research suggests that this would be welcomed by patients and health professionals alike. [151,152] Telemedicine also offers novel avenues for routine aftercare, which patients felt could be strengthened. They include automated opt-in SMS, email, or telephone reminders of the timing of pregnancy test to confirm completion. While capacity limitations and challenges in reaching patients may present challenges to in-person post-abortion follow up, automated support (via, for example, an SMS) could feasibly provide the aftercare requested by some patients.

7.5 Strengths and limitations

7.5.1 Strengths

The SACHA Study is the most comprehensive study on abortion to have been undertaken in Britain. A key strength of the study lies in its design. The five work packages provide comprehensive and complementary insights into the challenges and opportunities for abortion provision. The combination of qualitative and quantitative data collection methods generated rich data and the sampling strategy allowed exploration of the perspectives of both patients and health professionals. Researchers have previously looked at both but in separate studies, without comparison and in a single setting. [141] The study samples for primary data collection in Britain were drawn from all three countries.

A strength of the survey of health professionals derives from the sampling strategies adopted. The cluster sampling strategy increases the generalisability of findings. A recent review concluded that even in the age of declining response rates, the accuracy of results based on random sample surveys is generally higher than that achieved from non-probability convenience samples. [153] The wide range of practitioners consulted, drawn from both independent providers of abortion care and NHS facilities and including those who were and were not providing abortion, provided opportunities for comparisons between specialities and settings. In Britain, nurses and midwives have been less represented in previous surveys, and, to our knowledge, this is the first survey about abortion to include pharmacists. The response rate for the survey benefitted from the adoption of strategies to maximise recruitment, including use of postal questionnaires, with an online completion option; unconditional vouchers and repeated follow ups.

The methodological approach taken in the qualitative research enabling patients' priorities and preferences to be heard directly following their abortion enhances understanding of the meaning and significance of the experience for them. The qualitative component also benefitted from inclusion in the sample, patients with experience of both medical and surgical abortions, and in different regions of Britain. In eliciting patients' accounts of abortion experience, we encouraged reflection on the advantages and disadvantages of different approaches to abortion provision across all stages of the patient journey, and so were able to reveal time-specific challenges and opportunities at each. We captured a range of procedures, and we recruited participants of different ages and from different ethnic and socio-economic backgrounds. A further strength of the study is that patients were asked to comment not only on their preferences but also how they might be addressed.

The country case studies collected data from a range of sources – data on numbers and rates of abortions, documentary evidence from published and grey literature, and interviews with key stakeholders. This allowed triangulation of findings across different data sources. The countries selected were valuable for the insight they could provide on different models of abortion regulation, particularly the role that decriminalisation can play, and the lessons learned for fully harnessing the benefits of decriminalisation.

In the literature reviews, we present a systematic and transparent approach to the realist review, which was conducted in accordance with the RAMESES standards. A broad range of content expertise from our authorship team, patients and the public informed the review. The scoping review of training interventions aimed at preparing health professionals for a role in abortion provision is, to our knowledge, the first to do so.

7.5.2 Limitations

A major limitation of the study stems from its timing. Fieldwork was scheduled during the height of the COVID-19 pandemic and the survey of SRH clinic staff coincided with the mpox (monkeypox) outbreak with likely implications for both participation and reporting bias. For the first, health professionals most actively involved in coping with COVID-19 and mpox may have declined to participate because of workload and time pressures. For the second, the responses of those who did

may reflect heightened awareness of the constraints of their workload which may have influenced their propensity to be involved in abortion care and support. For patients, the stress of having an abortion during the pandemic may have limited their inclination to take part. A key objective of the international component of the study, to visit three countries in which abortion has been wholly or partially decriminalised, and to observe policies and practices first hand, was simply unachievable because of travel restrictions.

That said, the fact that fieldwork took place at the time of greatest impact of COVID-19 can be seen as both a strength and a limitation. The changes to protocols contingent on the pandemic, unforeseen at the stage of designing the study, meant that patients' reports and practitioners' responses did not reflect what had previously been normal working conditions. However, since those protocols were subsequently made permanent in Britain, the study opportunely provided a means by which they could be evaluated, so helping to inform and optimise future practice.

The rapid transition to telemedicine in Britain during the COVID-19 pandemic meant that in some ways the countries we selected as case studies to learn lessons from ended up being behind the curve compared to Britain in the way abortion is provided. In Sweden, for example, restrictions on home management of medical abortion remain, and in Canada and Australia telemedical provision is variable across states/provinces. Other countries, including those in low- and middle-income settings where self-managed abortion with accompaniment is common, would also provide valuable insights. In our chosen countries, we were limited in the amount of routine data that was available to us. This meant that the more complex time series analyses we had planned were not possible, although we were still able to usefully use the data to examine basic trends in abortion rates.

A limitation of the reviews was that the search strategies did not extend to grey literature, and we recognise that some reports of abortion training among non-abortion specialist health professionals may not be published in peer reviewed journals. Further, the specific outcomes used to structure the scoping review did not easily accommodate interventions operating across multiple aims. Attempts to draw reliable conclusions from the studies are hampered in many instances by the lack of robust methods of evaluation and limited by the fidelity with which they might be replicated in the 'real world'.

A hindrance for the health professional survey was that local R&D approvals were required in each of the NHS sites identified (excluding general practices as staff names and roles were in the public domain). Given this affected over 100 sites, gaining approvals was extremely time-consuming and resource intensive, and requirements for approval varied across different R&D departments. Some sites were lost because of these delays or because the study was not viewed as a priority by either the local R&D Departments or the site managers. While some managers were acting as 'gatekeepers' to protect staff due to limits on their capacity, others mentioned that they did not think the topic was relevant to their service. Some health professional groups who could potentially have an extended role in abortion care were not included in our survey, such as nurses working in early pregnancy units. NHS abortion services were included if they provided at least 100 abortions each year, of which 80% or more were classified as being carried out under Ground C of the Abortion Act. Therefore, the views and experiences of those within hospitals providing less abortions, which may be particularly relevant

for understanding ongoing training needs, were not included. Finally, responses to the survey may have been affected by social desirability bias. As guided by evidence to maximise our response rate, we needed to ensure that each questionnaire was as short as possible. There was inevitably a trade-off between the response rate and validity, but the former was important for generalisability. In the batch as a whole we achieved a balance of views that were positively or negatively framed.
With respect to the qualitative research exploring patients' perspectives, despite purposive sampling and an adaptive, tailored approach to recruitment, we did not capture patients who disclosed experiencing an abusive relationship at the time of their most recent abortion and the number of participants aged under 20 was small. Our inability to capture the views of patients in Northern Ireland, despite strenuous efforts to do so, was a source of major regret. We cannot be sure that the sample of patients was not biased towards more positive or more negative views and experiences.

In contrasting the views of patients and practitioners, the data were not strictly comparable. Health professionals were not specifically asked about the patient journey and their views expressed in free text comments were not made in response to questions systematically asked by researchers. Further, free-text comments may have failed to represent the views of health professionals overall; those with experience of complications consequent on remote care, for example, may have been more likely to provide additional information.

7.6 Translating the evidence into policy and practice

The SACHA study has produced a substantial body of data drawing on a diverse range of sources. We are hopeful that it will be widely used in the formulation of health care policy. This will depend to a large extent on the inclusion of abortion in action plans and strategic documents. Policy documents on women's health in each of the countries in Britain have been recently published. In Scotland, the Women's Health Plan for 2021-24 outlines a specific action plan for abortion care for the short (e.g., universally available option of telephone or video consultations), medium (e.g., local or regional provision for all mid-term trimester abortions) and long-term (review to ensure those wanting an abortion have accessible and person-centred care). [154] In Wales, the November 2022 Foundations for a Woman's Health Plan identifies the goal of accessible reproductive healthcare, which includes abortion, but no specific action plan is provided to date. [155] In England, the August 2022 Women's Health Strategy reports that plans for sexual and reproductive health are forthcoming later in the year but these have yet to materialise. [156]

8.0 Equality, Diversity, and Inclusion

Our goal was to place how care and support can be delivered for those wanting or having an abortion central to our research. Feedback from patients who had undergone abortion, including what they valued within their care, the barriers they encountered and areas for improvement, collated by BPAS, was used to shape the research questions and the proposed methods in our original application to ensure the study addressed the issues and concerns of those most directly affected by abortion. PPI representatives in the Advisory Group ensured that study materials were accessible, and they acted in advisory role across the study to input on design and interpretation. The PPI panel groups with patients who had had a recent abortion, which included diversity in relation to age, ethnicity and method of abortion, ensured that the interpretation of our findings and recommendations had direct relevance for patients.

In all our study communications we aimed to use inclusive images and language. The SACHA logo was specifically developed to be gender-neutral and not limited to women. Working with students at Kingston University enabled us to obtain wider public involvement in the study materials. In relation to language, we referred to patients rather than any gender-identifying terms, although all no participants in the WP4 interviews self-identified as other than women. We will be producing accessible materials for wider public dissemination.

The sampling framework for the qualitative interviews was designed to ensure that diverse views would be represented. Participants recruited were geographically diverse. We actively sampled participants who were non-White, non-British residents, and patients under 18 years. We were able to offer interviews in Polish, French, Welsh, and Arabic, in addition to English. Representation of people from minority ethnic groups in the study interviews was higher than would be expected within the general population.

We confined the demographic questions asked in the health professional survey to those that have been associated with attitudes in previous research, namely age, gender, importance of religion in life and political affiliation.

As described in the Methodology, the members of the WP5 consultation were invited to ensure diverse representation of different sectors nationwide, including health professionals, commissioners, those working in charitable sector, academics, and policymakers. This helped to ensure an integrated approach across recommendations.

9.0 Patient and Public Involvement priorities

The group discussions with PPI participants were fruitful. All had used BPAS for their last abortion (as this was how participants were identified) and were satisfied with the care received. All contributed and felt the SACHA findings overall aligned with their own experiences. At the end of the discussions, participants were asked to identify recommendations they would prioritise, which included:

- Improving access to abortion through 'the standard NHS', though this was recognised as possibly a long-term goal as stigmatisation of abortion by staff in these services and delays in appointments need to be addressed first. Opportunities were seen for potential expansion within sexual health services.
- Better signposting to specialist abortion services by general practice, pharmacies and other healthcare settings and online is required.
- Nurses and midwives should be able to manage and provide abortions.
- Abortion should be better incorporated into the RSE curricula.
- Provision of abortion support in education and work settings, including paid leave if required.
- Development of more opportunities for peer support managed through clinics to ensure a safe environment for those participating.
- More information to manage patient expectations for patients, but specific information for others who may be providing support, e.g., partner, friends, or family, was also mentioned.
- Better follow-up by clinics to check everything is OK was felt to be important.

These priorities align closely with those identified by patients (WP4) and key stakeholders (WP5). The only areas not previously identified were lack of information and support in education and work settings. Participants described difficulties disclosing the reason for absence and those who did received little, if any, support. PPI participants were highly motivated to engage. Although they were told the goal was to obtain their perspectives on our research findings and their implications for action, all were keen to share their personal experiences. They acknowledged a strength in their collective voice and identified the chance to help others having abortions as a key motivation for taking part. Research team members facilitating noted the therapeutic benefits of discussions which created a space for participants to share experiences, which for some had been kept secret.

Recruitment of PPI representatives in abortion research can be difficult due to stigmatisation and concerns about confidentiality. It is important to be mindful of the risks of using social media for abortion-related research as this may be a focus for anti-abortion activity, which aims to disrupt research or skew its findings. That said, we found it is possible to work with PPI representatives.

10.0 Recommendations for policy, practice, and research

Recommendations are directly informed by evidence from across the SACHA study, including consultation with professional and patient stakeholders. Some of the recommendations may require changes to current regulations, i.e., those relating to the authorisation of abortion; which health professionals are permitted to prescribe medication or carry out vacuum aspirations, and where abortion can be carried out. These recommendations are identified with an asterisk. Our policy recommendations relating to the regulation of abortion and strategies have the potential to be the main drivers of change in the short-term and warrant prioritisation. However, as we learnt from our international case studies this needs aligned with investment in education and service delivery. For this reason, the distinction made between recommendations for policy, and those for research, is to some extent arbitrary since the relationship between the two is often bi-directional – changes to practice, for example, often leading to changes in policy.

10.1 Recommendations for policy

Our findings suggest the need for:

- a critical review of how abortion services might best be regulated
The current regulatory framework for abortion services, that is, that abortion is criminalised unless specific criteria are met, limits potential evidence-base service innovations that would be likely to benefit service-users. The current law on abortion in Britain is poorly understood by service-users and many service providers and commands little support from either group.

- a strong policy steer to ensure implementation of recommendations for practice
Greater visibility of abortion in national and local strategies relating to women's health and sexual and reproductive health, with corresponding action plans, will provide greater impetus for changes needed.

10.2 Recommendations for practice

Our findings suggest the need for:

- reappraisal of the requirement for patients to provide reasons for wanting an abortion*
Instead of the requirement for two doctors' signatures, health professionals would consent the patients they care for. Safeguarding would be assured as for any other procedure.

- the necessary mechanism to be put in place to introduce abortion care and support in adequately resourced community SRH services.*
Our data show that provision of abortion care and support in community SRH services could improve access to clinical settings in areas under-served by the independent sector and facilitate an integrated approach to SRH care.

- exploration of opportunities for medical abortion care and management in other settings.*
Women's Health Hubs provide potential opportunities. Commissioners would need to consider and monitor capacity and resource issues to prevent unintended consequences for quality of care.

- protocols for permitting appropriately trained nurses and midwives to prescribe abortion medication and perform vacuum aspiration for abortion need to be developed, evaluated and expedited.*
Extension of roles will ensure sufficient cadres of professionals with the skills needed to offer choice and address current risk of valuable skills being lost.

- urgent provision of undergraduate training and continuing professional education to equip health professionals for abortion care and support.
Current undergraduate curricula focus on ethical and legal aspects of abortion but must comprehensively address clinical management of abortion. Continued professional training is needed to ensure a full range of services available, including surgical abortions and long-acting contraception.

- improvements to tariffs for abortion services
Tariffs are currently sub-optimal and are set below NHS reference costs. They need to be reviewed to preserve and protect provision of a full range of abortion services).

- options for models of care and support to be offered and provided to patients
Commissioning of services must ensure the availability of options available to patients. Health professionals in contact with patients seeking advice about abortion should provide information facilitating informed choice in where to have the abortion (at home versus in a clinic), what procedure to have (medical or surgical) and how care and support is provided (via video or telephone consultation/ face-to-face/a combination of both).

- improvements to Integrated Care Pathways to facilitate access to a wider range of healthcare services, including contraception care
Better signposting online and from health professionals and access to contraceptive services will ensure patients have access to a full range of contraceptive options post-abortion to best meet their needs. Integrated Care Boards have the capacity to ensure the care pathways are in place and monitor impact.

10.3 Recommendations for research

Our findings suggest the need for:

- involvement in research of patients who have had an abortion

Continued work is needed to ensure that diverse groups of patients are represented in co-production and PPI activities.

- development and evaluation of interventions to improve patient-centred care

Specific points across the patient journey at which more empirical investigation into possibilities for intervention would be valuable include decision aids to help patients with initial abortion choices (including pregnancy options); videos to include a range of experiences to help manage expectations; peer support platforms enabling sharing of experiences; abortion doulas to provide support for home medical abortion; and digital follow-up to check on abortion completion and to provide advice on contraception.

- trends in abortion uptake and delivery to be monitored

National and local monitoring of methods of delivery of care (remote or in person) and abortion method (medical or surgical) should be undertaken to identify gaps in provision and inform commissioning of services. Monitoring of staff skills should be undertaken at local level to ensure surgical options are available promptly and accessible as required. Alternative methods of monitoring incidence and prevalence of abortion should be explored in the event of it no longer be a legal requirement that abortions should be reported.

- centralisation of R&D approvals to reduce resources required and to ensure consistency between procedures.

Collecting information on professional attitudes and practices is vital to guiding policy and identifying gaps in training and service provision. Unnecessary bureaucracy in ethical review processes is hindering such research and resulting in disproportionate time and funding spent on managing administration. A centralised system to obtain local approvals is needed. Calls have been made for greater harmonisation, simplification, and proportionality of processes. [157]

11.0 Additional information

11.1 Roles and responsibilities for study tasks

Table 15. Summary table of roles and responsibilities

	Kaye Wellings	Rebecca French	Annette Aronsson	Paula Baraitser	Sharon Cameron	Caroline Free	Louise Keogh	Aubrey Ko	Maria Lewandowska	Patricia Lohr	Ona McCarthy	Rebecca Meiksin	Clare Murphy	Wendy Norman	Melissa Palmer	Jennifer Reiter	Rachel Scott	Natasha Salaria	Jill Shawe	Sally Sheldon	Geoff Wong	Despoina Xenikaki
Conceptualisation	x	x		x						x					x		X		x	x	x	
Methodology	x	x		x					x		x	x			x		X				x	
Formal analysis	x	x		x		x			x		x	x			x	x	X	x	x		x	
Investigation	x	x	x	x											x		X					
Funding acquisition	x	x																				
Data Curation	x	x		x		x					x				x		X					
Resources			x		x		x			x			x	x								
Writing - Original Draft	x	x		x					x			x					X	x	x		x	
Writing - Review & Editing	x	x	x	x	x	x	x		x	x	x	x		x	x	x	X	x	x	x	x	
Visualisation	x	x		x					x						x							
Supervision	x	x		x											x		x		x		x	
Project administration	x	x						x			x				x							x
Funding acquisition	x	x																				

Disclosure of interests

Caroline Free

HTA General Committee 21/02/2019-31/03/2023

Geoffrey Wong

HTA PCCPI Panel: 01/01/2015 - 31/05/2018

HTA Prioritisation Committee A (Out of hospital): 01/01/2015 - 31/03/2022

HTA Remit and Competitiveness Group: 01/01/2015 - 31/01/2021

HTA Prioritisation Committee A Methods Group: 27/11/2018 - 2022

HTA Post-Funding Committee Teleconference (POC members to attend) 01/01/2015 - 31/03/2021

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CRediT statement (see also Table 15)

Kaye Wellings: Conceptualisation (equal lead); Writing – original draft (equal lead); Formal analysis (equal lead); Writing – Editing and Reviewing (equal lead); **Rebecca French:** Conceptualisation (equal lead); Writing – original draft (equal lead), Formal analysis (equal lead); Writing – Editing and Reviewing (equal lead); **Annette Aronsson:** Investigation (supporting);
Paula Baraitser: Investigation (supporting); Writing – Editing and Reviewing (supporting); **Sharon Camereon:** Investigation (supporting)), Writing – Editing and Reviewing (supporting); **Caroline Free** Investigation (supporting); Writing – Editing and Reviewing (supporting); **Louise Keogh** Investigation (supporting); **Aubrey Ko:** Project administration (equal lead); **Maria Lewandowska:** Investigation (supporting); Writing – Editing and Reviewing (supporting); **Patricia Lohr:** Investigation (supporting); writing – editing and reviewing (supporting); **Ona McCarthy** Data Curation (equal lead); Analysis (equal lead), Writing – Editing and Reviewing (supporting); Analysis (equal lead); **Rebecca Meiksin** Investigation (supporting)), Writing – Editing and Reviewing (supporting); **Clare Murphy** Investigation (supporting); **Wendy Norman** Investigation (supporting); Writing – Editing and Reviewing (supporting); **Melissa Palmer** Investigation (supporting); Data curation (supporting), Writing – Editing and Reviewing (supporting); **Jennifer Reiter** Investigation (supporting), Writing – Editing and Reviewing (supporting); **Rachel Scott:** Data Curation (equal lead); Analysis (equal lead)
Natasha Salaria Investigation (supporting); Data curation (supporting); **Jill Shawe** Investigation (supporting; Writing - Editing and Reviewing (supporting); **Sally Sheldon:** Investigation (supporting); Writing - Editing and Reviewing (supporting); **Geoff Wong** Investigation (supporting); Writing - Editing and Reviewing (supporting); **Despoina Xenikaki:** Project administration (equal lead)

11.2 Confidentiality and Anonymity

Issues of confidentiality and anonymity arose in relation to Work Packages 2, 3 and 4.

Work Package 2:

- International case studies.

Appropriate steps were taken to ensure that confidentiality is maintained with respect to the data obtained, listed below.

- No individual level data were collected.
- Data collected were not copied or transferred to any third party. All outputs resulting from the data met with the principles of the National Statistics Code of Practice and the Protocol on Data Access and Confidentiality.
- Data were stored with proper safeguards to prevent unauthorised access. LSHTM has a server for holding confidential datasets, which allows tracking of access to the data and the secure electronic shredding of them at the deletion date.
- The research team undertook to notify the relevant bodies in each country of any changes in custodianship, or of any changes in the organisation, individuals having access to the data or systems on which the data were held.
- The research team undertook to report immediately to the relevant bodies in each country any breaches in any of the terms of the confidentiality agreement.
- We complied with country specific requirements for data access, storage, analysis and publication.

- Stakeholder interviews

Quotes were not directly attributed to individuals but labelled with their broad job category and their country. This was made clear to stakeholders in the information sheet accompanying the consent form. It was also made clear that they were not representing their organisation but were invited to speak based on their professional experience. Their comments were not linked to their organisation.

Work package 3: Survey of healthcare professionals

Each questionnaire pack included a Participant Information Sheet explaining the purpose of the study and giving assurance of confidentiality. Packs were posted to all identified individual professionals within each service at their workplace. Each health care professional was provided with a unique ID number, which was pre-recorded on their paper questionnaire and used in follow up emails. The ID number indicated country, type of service, site and batch, so that response rates could be calculated. Completion and submission of the paper or online questionnaire implied consent. Identifying information (names and contact details) were stored on a secure LSHTM server separately from the survey responses and were password-protected. Paper questionnaires were stored in a locked filing cabinet in a locked room (accessible only to the study team). Name and contact details were only used for research fieldwork purposes and will be destroyed at the end of the study. Information on professional role, type of service and nation were linked to questionnaire data using only ID numbers.

Work Package 4: Qualitative interviews with women with recent experience of abortion

Face to face interviews were conducted face-to-face, by phone, or by video conferencing software according to the participant's preference. Participants were assured of the confidentiality of the study, and that data would be anonymised.

Although the study included neither investigation of ongoing abuse or neglect involving a child, nor of ongoing thoughts of self-harm, it was possible that a participant could touch on such issues in their account. In the event of that happening, interviewers were instructed to notify the patient's clinical provider of this as a safeguarding issue. Participants were informed of this, and this information was provided in the patient information sheet and consent form.

Identifying information was stored separately from the original audio recordings and, where it appeared in transcripts, was removed. Recordings and transcripts were assigned a study identification number, and these as well as the document linking study identification numbers and participant's identifiable information (e.g., names, telephone numbers, email addresses) were password-protected. Participants were asked not to use their names on audio-recordings and researchers referred to the participant by study identification number on the recording, not by name. Interviews were recorded using an encrypted digital recorder then uploaded to a secure, password-protected server and deleted from the recorder within one week following the interview. Copies of transcripts stored on laptops for purposes of analysis were password-protected. All laptops provided by LSHTM are encrypted. The document linking study identification numbers and participant identifying information, as well as transcripts, were stored on the secure, password-protected server. Where participants complete paper Consent Forms, these were stored in a locked filing cabinet in a locked room (accessible only by organisational staff) at the office of the researcher taking informed consent. On publication, quotes from the interview transcripts were reported anonymously and some contextual details was altered in direct quotes in order to preserve confidentiality.

11.3. Data Sharing Statement

Under the conditions of the ethics approvals received, it is not possible to share any of the primary data collected

11.4. Ethics Statement

Table 16 summaries the ethical and NHS approvals required for Work Packages 2-5.

Table 16. Ethics and other approvals

Work package	Approvals
2: Case Studies	• LSHTM Ethics Committee (Ref: 22910) 5/5/2021 • The University of Melbourne Ethics Committee (Ref: 2021-21944-21811-2) 2/11/2021 • The University of British Columbia C&W Research Ethics Board (Ref: H21-01631) 26/7/2021 • Karolinska Institute Ethics Committee (Ref: 2021-06437-01) 15/3/2022
3. Health professional survey	• NHS Health Research Authority/Health Care and Research Wales (IRAS Approval ID 297849) 5/8/2021 • LSHTM Ethics Committee (Ref: 26332) 11/8/2021 • BPAS Research and Ethics Committee (Ref: 2021/08/FRE) 21/10/2021 • MSI Ethics Review Committee (application number 009-21) 22/11/2021

	• Participant Identification Centre (PIC) Agreement with the local Research and Development Departments/Health Boards for each NHS abortion, maternity and SRH service
4. Interviews with patients	• LSHTM Ethics Committee (Ref: 22761)) 25/5/2021 • BPAS Research and Ethics Committee (Ref: 2021/02/WEL) 9/6/2021 • NHS Research Ethics Committee/Health Research Authority (Ref: 21/LO/0236) 6/5/2021 • Approval with local Research and Development Departments/Health Boards for each participating site
5. Stakeholder consultation	• LSHTM Ethics Committee (Ref: 27468) 18/7/2022

11.5 Information Governance Statement

For the identification of health professionals working in the NHS sites (i.e., maternity services, NHS abortion providers and SRH clinics), a Participant Identification Centre (PIC) Agreement was required with the local Research and Development Department for each service. As names of health professionals working with general practices were in the public domain via practice websites it was not necessary to set up PIC agreements for these sites.

The London School of Hygiene & Tropical Medicine is committed to handling all personal information in line with the UK Data Protection Act (2018) and the General Data Protection Regulation (EU GDPR) 2016/679.

Under the Data Protection legislation, the London School of Hygiene & Tropical Medicine is the Data Controller, and you can find out more about how we handle personal data, including how to exercise your individual rights and the contact details for our Data Protection Officer here: https://www.lshtm.ac.uk/sites/default/files/data-protection-policy.pdf

11.6 Disclosure of Interest Statement

This study is funded by the NIHR [HSDR Project: NIHR129529]. The views expressed are those of the authors and not necessarily those of the NIHR or the Department of Health and Social Care.

11.7 Department of Health and Social Care Disclaimer

This publication presents independent research commissioned by the National Institute for Health and Care Research (NIHR). The views and opinions expressed by the interviewees in this publication are those of the interviewees and do not necessarily reflect those of the authors, those of the NHS, the NIHR, MRC, NIHR Coordinating Centre, the Health and Social Care Delivery Research programme or the Department of Health and Social Care.

11.8 Publications, conference papers and other presentations resulting from this study

Items in the media citing SACHA:
Major UK study recommends extending abortion powers to nurses (Nursing Times)
UK abortion law should change to reflect current practice, study suggests (Medical Xpress)
NHS nurses and midwives should be able to approve abortions, report argues (Yahoo News)
Nurses and midwives should be able to approve abortions, UK study concludes (The Guardian)
Need for two doctors to approve abortion 'should be scrapped' (Irish News)
Everything you need to know about having an abortion, according to a reproductive health expert (Glamour Magazine)
Abortion is safe, supported, and available in the UK. Why is the law so complicated? (The Guardian)
Scotland 'must act quickly' on abortion services as new study shows women 'overwhelmingly support' telemedicine provisions (The Scotsman)
Women support home-use of abortion pills and telemedical model of care (News-Medical.Net)
Scotland urged to continue at-home abortions (BBC)
We presented the findings of the SACHA Study at the All-Parliamentary Party Group on Sexual and Reproductive Health on the 7th of March 2023.

Broadcasting events:
Woman's Hour; BBC Analysis; ITV 10pm News

Conference presentations

International Federation of Abortion and Contraception Professionals, September 2022:
- COVID-19: abortion and contraception – impetus or impediment? Kaye Wellings and the SACHA Study Team.
- Decriminalising abortion in Britain: what do patients and providers think? Rebecca French and the SACHA Study Team.
- Perceptions of stigma among women receiving abortion care in Britain. Rachel Scott and the SACHA Study Team.

European Society of Contraception and Reproductive Health, May 2022.
- Abortion: improving the Patient Journey. Maria Lewandowska et al and the SACHA Study Team.

Publications
French RS; Palmer MJ; McCarthy O; Salaria N; Meiksin R; Shawe J; Lewandowska M; Scott R; Wellings K. Conducting a survey of abortion-related knowledge, attitudes and practices amongst health professionals in Britain, strategies adopted and lessons learned: evidence from the SACHA Study 2024-04-19 | Preprint DOI: 10.1101/2024.04.19.24306065

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Other dissemination events

'Findings of the SACHA Study': All-Parliamentary Party Group on Sexual and Reproductive Health on the 7th of March 2023.

Symposium on the findings of the SACHA study: June 2022, LSHTM.

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Appendix 1.

Table 17. Detailed characteristics of sample (WP4)

ID	Abortion method	Age	Ethnicity	Children	Previous abortions	Country
01	**Home MA**	**31-35**	**White British**	**No**	**No**	**England**
02	**Home MA**	**26-30**	**White British**	**No**	**No**	**England**
03	**Home MA**	**21-25**	**British Bangladeshi**	**No**	**Yes**	**England**
04	**Home MA**	**26-30**	**White British**	**No**	**No**	**England**
05	**Home MA**	**36-40**	**White British**	**Yes**	**Yes**	**England**

06	Home MA	36-40	White British	Yes	Yes	England
07	Home MA	41-45	White British	Yes	Yes	England
08	Home MA	31-35	White British	No	Yes	England
09	Home MA	21-25	White British	No	No	Wales
10	Home MA	31-35	White British	No	Yes	Scotland
11	Home MA	21-25	White British	No	No	Scotland
12	Home MA	26-30	White Irish	No	Yes	England
13	Home MA	21-25	White British	No	No	England
14	Home MA	26-30	White British	Yes	No	Scotland
15	Home MA	31-35	White British	Yes	No	Scotland
16	Home MA	31-35	White Polish	No	No	Scotland
17	Home MA	26-30	White British	No	No	Scotland
18	Home MA	36-40	White Canadian	No	No	Scotland
19	Home MA	21-25	White British	No	No	Scotland
20	Surgical	36-40	Not specified, Hungarian	Yes	Yes	England
21	Home MA	36-40	Not specified	Yes	No	Scotland
22	Home MA	26-30	White British	No	Yes	Scotland
23	Surgical	26-30	White British	No	Yes	Scotland
24	Home MA	26-30	White British	No	No	Scotland
25	Home MA	26-30	White British	Yes	Yes	England
26	Surgical	21-25	White British	No	No	England
27	Surgical	31-35	White British	Yes	No	Scotland
28	Home MA	26-30	White Hungarian	No	Yes	Scotland
29	Home MA	21-25	Pacific Islander	No	No	Scotland
30	Home MA	31-35	White British	No	No	England
31	Home MA	36-40	White British	No	Yes	Scotland
32	Home MA	16-20	White British	No	No	Scotland
33	Home MA	31-35	White British	Yes	Yes	England
34	Home MA	36-40	White British	Yes	Yes	England
35	Home MA	31-35	White British	Yes	No	England
36	Surgical	36-40	Black African	Yes	No	England
37	Home MA	21-25	White British	No	No	England
38	Home MA	16-20	White Asian	No	No	England
39	Home MA	21-25	White British	No	No	Wales
40	Surgical	31-35	Asian Nepali	Yes	Yes	England
41	Surgical	21-25	White German	No	Yes	England
42	Surgical	31-35	Black British	No	No	England
43	Home MA	16-20	Asian Afghani	No	No	England
44	Home MA	16-20	White British	No	No	Wales
45	MA at hospital	21-25	White British	No	No	Scotland
46	MA at hospital	16-20	White British	No	No	Scotland
47	Home MA	16-20	White British	No	No	Scotland

48	**Home MA (failed) & surgical**	**21-25**	**Middle Eastern**	**No**	**No**	**England**

Appendix 2. WP1 Scoping review - tables of included studies

Table 18. Training interventions aimed at influencing attitudes towards and inclination to provide abortion care and support.

Reference	Country; Year of intervention	Population (n)	Study type	Nature of intervention	Outcome (s)	Effect Description
Wu, 2006	USA 2003-2004	Family medicine residents (71)	Pre and post survey	Single lecture incorporated into family medicine residency	Proportion highly interested and/or would consider training in: - medical abortion - surgical abortion	Pre vs post lecture MA, no change:62% vs 62% Surgical abortion: increased interest 67% vs 81% (p<0.01)
Nothnagle et al, 2008*NB	USA 2003-6	3rd year medical students. (n=28)	Pre and post survey	Learner-centred abortion curriculum in family medicine residency. 3-4 half-day training sessions aimed at improving knowledge and skills; on-site presence in abortion clinics optional	Agreement with statements: Important for a PC physician to be familiar with abortion 1st trimester abortion should be taught routinely in family medicine residency MA should be taught routinely	 Pre: 24%; post: 28%; p=0.03 Pre: 15%; post: 23%; p=0.08 Pre: 20; post: 27%; p=0.016
González Vélez, 2012	Latin America: initially Columbia followed by Argentina, Mexico and Peru. 2009-10	Health care professionals, and decision makers'; broader civil society N not reported	Analysis of routinely collected statistics, documentary evidence, and qualitative assessment of progress towards goals	Macro-level, multi-faceted intervention aimed at broadening interpretation of 'health exception' as ground for abortion. Training of providers and decision makers and civil society by NGO 'La Mesa; online campaigns + dissemination of information through professional meetings.	Diffuse: qualitative assessment of the impact of disseminating this interpretation of the health exception (extent of understanding and views) Consequent changes in practice of health professionals in Latin American region	Data from two clinics in Colombia showed increases in the number of women who had a legal abortion following training.
Mosley et al, 2020	Sub-Saharan Africa and Latin America 2014/15	Abortion caregivers from 3 Sub-Saharan African (n=59) and and 7 Latin American countries (n=93).	Pre and post survey (6 months after Workshops)	*Providers Share Workshop*: aim: to encourage caregivers to share experiences of stigma in a group setting. intervention uses storytelling and arts-based methods to foster reflection, Six-session workshop guided by facilitator.	Measured change in perceived stigma, attitudes, and legal safety and advocacy engagement outcomes over time.	Pre and post surveys Stigma decreased significantly in Sub-Saharan Africa and Latin America. Unfavourable attitudes decreased in Sub-Saharan Africa (but not in Latin America where attitudes were favorable to start).
Fetters et al, 2015	Zambia 2009-10	Registered pharmacists and assistants (n=53)	Pre and post surveys. Follow up interviews 12–24 months post-training	Harm reduction training provided jointly by the Ministry of Health, University Teaching Hospital and INGO Ipas, aimed at addressing negative attitudes and practices among pharmacists. Part of multi-faceted intervention to remove barriers to safe abortion care + social and religious opposition to abortion.	Retention of information and training effectiveness. Survey questions selected to illustrate principles of a harm reduction approach to unsafe abortion	% pharmacy workers referring women to health care facility increased between surveys (47% to 68%, p = 0.03) % dispensing ineffective abortifacients decreased (30% to 25%) difference non-significant
Summit et al, 2017	USA 2012-14	Residents on family medicine programmes (n=214)	Pre and post surveys	Reproductive Health Education in Family Medicine (RHEDI) technical assistance and funding to family medicine residency programmes	Strong agreement that abortion is within scope of family medicine	Modest increase in proportion agreeing: Pre vs post: 69% vs 75% (p=0.025)

Turner et al, 2018	12 countries in Asia, Africa, and Latin America 2009-11	Providers, trainers, policymakers/other stakeholders, all in favour of abortion provision. n=641(from 43 VCAT workshops)	Pre and post surveys; 43 VCAT workshops out of a total of 118 produced usable data	VCAT workshops with abortion providers, trainers, policymakers and other stakeholders to mitigate the effects of stigma and increase provision of and access to abortion care. Community engagement and mobilization to increase knowledge of abortion services and rights.	Changes in scores (/100) in three domains: knowledge, attitudes and behavioral intentions related to abortion care.	Significant increases in mean knowledge scores pre and post workshops (49.0 to 67.1; $p < 0.001$) Modest increase in attitudinal score (78.2 to 80.9; $p < 0.001$) and behavioral intentions score (82.2 to 85.4; $p = 0.03$). Increase higher in those with prior negative attitudes
Sanitya et al, 2020	Thailand 2017-18	Health care professionals: nurses, O&G specialists, doctors, GPs	Pre and post survey	Training programs for HCPs aimed at providing information and challenging negative attitudes about abortion.	Attitudes towards adolescents and women with unplanned pregnancies and unsafe abortions; views on scenarios on abortions	Pre- and post-test responses: Median of combined average of all 9 responses on attitudes increased by 0.67 points; $p < 0.001$ Non-medical HCPs benefited most from training.
Guaihi et al, 2021	USA 2018/19	Residents in Catholic O&G family residence programme (n=47)	Pre and post survey	VCAT Workshop.in Catholic Hospital training programme	Moral acceptability of abortion scenarios: Agreement with reasons for abortion	Pre vs post; Agreement with reasons for abortion: Pregnancy undesired: 100% vs 100% p=.32; Financial instability: 73% vs. 83%, p = <0.01; Disruption of career/education: 71% vs 80%, p = <0.01

VCAT = Values Clarification and Attitude Transformation

Table 19. Training interventions aimed at increasing competence by improving knowledge and skills

Reference	Country Intervention year	Population (n)	Study type	Nature of intervention	Main outcome (s)	Key findings
Nothnagle et al, 2008	USA 2003-6	3rd year medical students. (n=36)	Pre and post survey	Learner-centred abortion curriculum in family medicine residency. Three to four half-day training sessions in abortion clinics aimed at improving knowledge and skills	Self-assessment of abortion-related skills: i) Speculum examination ii) Assessment gestational age (examination) iii) Assessment gestational age (ultrasound) iv) Referral of patients for abortion v) Discuss surgical abortion with patients vi) Ability to discuss MA with patients	Significantly increased scores (/5) on most skills: i) 4.77 pre vs 4.81 post; p=0.414 ii) 3.35 pre vs 3.96 post; p=<0.001 iii) 2.08 pre vs 3.08 post; p=<0.001 iv) 3.46 pre vs 4.27 post; p=0.001 v) 3.29 pre vs 4.27 post; p=<0.001 vi) 2.85 pre vs 4.0 post; p=<0.001
Jejeebhoy et al, 2012	India, (Bihar and Jharkhand) 2008-10	Allopathic physicians (n=10) Ayurvedic physicians (n=10) Nurses (n=10)	Observational study; two sided equivalence design. Comparison of assessment of key outcomes by trained physician (verifiers), and those of trainees.	MA training, supervised by Ipas. Mean length 10 days. Included classroom lessons, practice sessions (using pelvic models), hands-on training at facility and further training in the field. Providers performed minimum of 10 cases each of gestational age dating and assessment of completion of MA	Assessment of eligibility for MA and abortion completeness Client satisfaction	Assessments by trainees differed from those of the verifier in only small proportion of cases (3–4% for eligibility and 4–5% for completeness) Client satisfaction with abortion by ayurvedic practitioners was high.

Lupi et al, 2012	USA 2009-10	3rd year medical students (n=105)	Randomised Controlled Trial* (105)	Pregnancy options counseling workshop focusing on communication skills and ethics. Students randomized into workshop and non-workshop groups.	Global competency in pregnancy options counseling Competency in communicational skills	No significant difference pre/post in competency in options counselling (10 items) in Workshop group: (36% pre vs 50% post; =.16)^ Counselling skills improved significantly.
Puri et al, 2012	Nepal	Auxiliary nurse-midwives (ANM): (Intervention District, n= 110; Comparison District, n=78)	Operational research; non-equivalent comparison group design, comparing districts.	Aimed at addressing lack of outreach provision; provided 13 auxiliary nurse midwives with skills to provide MA and 120 female community health volunteers (CHVs) with skills in communication and referral to expand access to medical abortion to rural women	Knowledge about legal conditions for abortion; location of safe abortion facilities; MA medications and correct gestational age for MA on part of ANMs Urine testing + referrals for abortion by CHVs	Increase in knowledge of MA medications and correct gestational age for MA in intervention vs comparison area*; and in proportion carrying out a urine test. No complications required referral; one incomplete abortion.
Tamang et al, 2015	Nepal, 2011	Pharmacy workers (mid-level HCPs: health assistants, nurses, auxiliary nurse-midwives and pharmacists)	Non-equivalent comparison group design	Orientation and training using a harm-reduction approach aimed at enabling pharmacists to provide correct advice to women on the use of MA. Intervention included an interactive meeting between pharmacy workers and qualified abortion providers from local registered abortion facilities.	Knowledge-related outcomes: Knowledge of permitted upper gestational age limit for first-trimester abortion using MA Familiarity with correct mode of administration MA Knowledge of successful completion of abortion	Pharmacists' knowledge increased, no increase in comparison group. Pre and post training: Intervention gp: 65%->97%; comparison gp: 69%->62% Intervention gp 22.%->88%; comparison gp: 77%; 49% Intervention group: 88%; comparison group

O'Donnell et al, 2018	USA, 2013	Health and social service providers (n=2620)	Pre and post survey	Professional development programme created by 'Provide', working with curriculum development experts to provide technical assistance, tools and resources to health and social service providers to give accurate, informed, and non-judgmental counselling and referrals for abortion care	Satisfaction with training Self-efficacy: equipped with skills & information to: - refer without fear of colleagues' judgment - refer a client for pregnancy termination - counsel on all unintended pregnancy options Increase in intention to provide: - non-judgmental pregnancy option counseling - referral for abortion care if needed - follow up with client	90% very satisfied Pre vs post: 84% vs 93%; p.<0001 44% vs 96%; p.<0001 51% vs 95%; p,.<0001 82 vs 94%; p<.0001 50% vs 80%; p<.0001 39% vs 71%; (p<.0001
Levy et al, 2018	USA, 2007-2013	Advanced practice trainees (nurse, midwives, clinical assistants, experienced in MA (n=47)	Prospective, observational cohort study: comparison group: physicians experienced in VA	Health Workforce Pilot Project: competency-based training model aimed at equipping advanced practice clinicians to perform uterine vacuum aspiration (VA) for first trimester abortion.	Procedural safety in carrying out vacuum aspiration for first trimester abortion. Main outcome measure: complication rates.	Odds of complications following VA did not differ between trainees and experienced practitioners ()R=0.99)
Pomerantz et al, 2019	USA 2017	2nd year medical students (n=113)	Pre and post survey	Pilot PBL module to enable students to counsel patients about pregnancy options.	% knowledge-based questions answered correctly Self-assessment of whether adequately informed	Mean quiz score: pre: 29%; post 40% (p < .001). 30% felt informed about abortion post PBL, 58% post (p < .001).

Tran et al, 2021	Humanitarian contexts of i) Uganda, ii) Nigeria, iii) Democratic Republic of Congo, 2019	Physicians, midwives, nurses, clinical officers, medical coordinators N= (i) 21; (ii) 21 (iii) 30	Mixed method design: pre-test and post-test survey + competency checklist + qualitative interviews	Clinical Outreach Refresher Training strategy for SRH (S-CORT) to update HCPs' competencies on uterine evacuation using both medication and manual vacuum aspiration. Preceded by VCAT workshop. Agencies involved: Ipas, Médecins du Monde, Save the Children, CARE.	Knowledge of correct procedures and competency (NB: competency scores incomplete and unsuitable for analysis)	Average scores rose significantly Uganda: 84 to 89%; Nigeria:45 to 52%;DRC: 56 to 76%.; In all three countries, workshop reportedly strengthened confidence and transformed attitudes towards providing uterine evacuation.

*Statistics for intervention group in Table 2 of this paper suggest possible errors in reporting; MA = Medical Abortion;

^Control group: change over time not reported

PBL: Problem Based Learning

Table 20 Studies describing abortion practice following training

Reference	Country Year of intervention	Population (n)	Study type	Nature of intervention	Main outcome (s)	Key findings
Block et al, 2012	USA 2016	3 consecutive classes of CREATE graduates from 5 residency programs (53)	Follow up survey of CREATE participants	CREATE (Continuing Reproductive Education for Advanced Training Efficacy),elective advanced training and leadership program for senior highly motivated residents aimed at helping them integrate abortion care into practice. Included participation in at least 4 advanced training sessions at high-volume clinics.	Self-assessed competence in service provision, intention to provide abortions, number of abortion procedures provided during residency, and program evaluation and satisfaction.	Almost 2/3 CREATE graduates had tried incorporating abortion into the primary care setting, only one third of program graduates were providing abortion services following graduation, and only a small number were doing so within the family medicine setting. Barriers included strength of competing interests, administrative and staff resistance.
Geenberg et al, 2013	USA Training 1999-2005 Follow up	Former RHP trainees (220)	Mixed method follow up phone survey with former trainees	Reproductive Health Programme (RHP) ran from 1999-2005	Proportion practicing abortion since training Barriers to provision amongst non-providers	>half (58.8%) have provided abortions since RHP; >MA (56.5%) than surgical abortions (47.1%). Barriers reported by non-providers were lack of skills, concerns about liability, and difficulty obtaining supplies.
Goodman et al, 2013	USA Training:2003-6; Follow up: 2008	Family medicine residents (116) 84% full participation 16% opt out	Follow up surveys of 4 year cohort. Full participation and opt out groups compared	Training four family medicine residency programs with a required abortion training rotation with provision for opt-out	Surveys addressed current reproductive health practice, desire to integrate services in ideal practice, perceived barriers, and desired support for provision of services.	Graduates fully participating in training more likely to provide abortion than those opting out Full participation vs opt out: Medical abortion: 26% vs 0%; p.<001 1st trimester aspiration: 24% vs 0%; p.<001 Barriers to involvement (among non-providers): included staff resistance, reimbursement issues
Summit, 2017	USA 2012-14	Family medicine residents (214)		Reproductive Health Education in Family Medicine (RHEDI) technical assistance + funding to family medicine residency programmes; integrated opt-out abortion and enhanced RH	Actual performance of abortion after RHEDI training Self-rated competency in abortion Provided MA Provided electric vacuum aspiration Provided manual vacuum aspiration	Pre vs post training 15% to 79% 14% vs 75% 9% vs 80% 12% vs 97% p=<001

Kaller, 2021	USA Date unspecified	Practicing pharmacists	Pre-post survey Baseline 47 Follow up 43	Multi-site mifepristone-dispensing intervention with 78% undergoing pre-study training	Intention to prescribe vs actual practice: Pre intervention: plan to dispense mifepristone Post intervention: dispensed mifepristone	Pre vs post 98% vs 86%
Mbehero, 2021	Western Kenya 2018-2020	175 HCPs (1 MD; 40 clinical officers, 134 nurses). 20 providers trained as mentors and on-the-job trainers	Data, monitoring and evaluation (M&E). No comparison pre and post or between groups.	'Closing the Gap' project, 3-week competency-based training for HCPs, alongside capacity building; infrastructure and supply chain improvement; community mobilization; and advocacy strategies for each county;. Training materials devised by Planned Partnership Global included abortion VCAT, methods of uterine evacuation, management of complications, and post-abortion contraception.		The CTG project was successful in reaching young people with SA, PAC, and contraception information, referrals, and services: over the three-year project period, two-thirds of SA and PAC clients served were aged 24 years or younger. —

Appendix 3. Table 21. Summary of papers included in the review

First Author	Date	Title	Source Type	Country	Setting	Participant Type	Number of Participants	Study Design	Is the paper relevant to the question?	Are the methods used appropriate?	Are the findings plausible?	Do conclusions support those of other studies?
Aiken, A. R. A	2018	Motivations and Experiences of People Seeking Medication Abortion Online in the United States	Original research paper	United States	Online	People seeking online medical abortion services	32	Qualitative interview study	Yes - paper explores motivations for considering self-managed abortion.	Yes - in-depth interviews were used to gather qualitative data on people's motivations and experiences of seeking online medical abortion.	Yes	Yes
Aiken, A.	2021b	Demand for self-managed online telemedicine abortion in eight European countries during the COVID-19 pandemic: a regression discontinuity analysis	Original research paper	Germany; Hungary; Italy; Malta; Netherlands; Northern Ireland; Portugal; Great Britain	Online	N/A	3915 requests for self-managed abortion to Women on Web (WoW)	Cross-sectional comparative analysis of requests for self-managed abortion pre- and post the Covid-19 pandemic	Yes - paper assesses whether the COVID-19 pandemic increased demand for self-managed medical abortion provided through online services and suggests reasons for trends in demand for online accessed abortion during the pandemic.	Yes - request rates in 8 countries are compared using regression discontinuity both before and after lockdown measures.	Yes	Yes
Atay	2021	Why women choose at-home abortion via teleconsultation in France: drivers of telemedicine abortion during and beyond the	Original research paper	France	Online	People accessing online medical abortion services	140	Mixed Methods (Cross-sectional survey of consultation data and email content analysis)	Highly - the paper explores drivers of at home, online supported, medical abortion during the pandemic and beyond.	Yes - the findings are based on appropriate analysis of consultations and emails extracted from an online medical abortion service to reveal the motivations and preferences of women seeking at home abortion.	Yes	Yes

		COVID-19 pandemic.										
Boydell	2021	Women's experiences of a telemedicine abortion service (up to 12 weeks) implemented during the coronavirus (COVID-19) pandemic: a qualitative evaluation	Original research paper	Scotland	Online	People accessing online medical abortion services	20	Qualitative interview study	Highly - paper explores women's experiences of accessing online medical abortion services.	Yes - the findings are based on appropriate use of qualitative interviews to explore women's experiences of telephone consultation; remote support; views on no pre-abortion ultrasound; and self-administration of abortion medications at home.	Yes	Yes
Ehrenreich	2019	Spatial dimensions of telemedicine and abortion access: a qualitative study of women's experiences	Original research paper	Utah, USA	Online	People accessing online medical abortion services	20	Qualitative interview study	Yes - the paper explores women's experiences of using online services for the first mandatory step when accessing medical abortion in Utah, an 'information visit'.	Yes - through in-depth interviews thoroughly explore experiences of using online services for information visits to fulfil abortion requirements.	Yes	Yes
Endler	2019	Telemedicine for medical abortion: a systematic review	Review	N/A	N/A	N/A	N/A	Systematic Review	Yes - the paper assesses the success rate, safety, and acceptability for women and providers of online medical abortion services.	Yes - a systematic review assessing a broad and significant number of relevant studies.	Yes	Yes
Erlank	2021	Acceptability of no-test medical abortion provided via telemedicine during Covid-19: analysis of patient-reported outcomes	Original research paper	United Kingdom	Online	People accessing online medical abortion services	1243	Qualitative survey study	Yes - the study reports patient-reported outcome measures assessing the quality of consultation, access to medicine after consultation, ability to manage the process at home and overall patient satisfaction.	Yes – early medical abortion patients invited to opt-in to a follow-up call post-procedure to answer clinical and satisfaction questions to measure acceptability of the service.	Yes	Yes

Eshre Capri Workshop Group	2017	Induced abortion	Workshop	N/A	N/A	N/A	N/A	N/A	Moderately - This paper presents commentary on induced abortion gathered at a workshop of experts in the field. The commentary included discussion of at home medical abortion with reference to online support.	N/A	N/A	Yes
Finch	2019	Impact of self-administration of misoprostol for early medical abortion: a prospective cohort study	Original research paper	Scotland	Home	People accessing abortion services both at home and at a facility	2430	Prospective observational study	Yes - the study explores the impact of Scotland's legalisation on home use of misoprostol for the purpose of early medical abortion on uptake and success rate, and on the provision of effective contraception on discharge.	Yes - prospective observational study followed the outcomes of two cohorts who received their abortion care, before and after the introduction of home use of misoprostol.	Yes	Yes
Fix	2020	At-home telemedicine for medical abortion in Australia: a qualitative study of patient experiences and recommendations	Original research paper	Australia	Online	People accessing online medical abortion services	24	Qualitative interview study	Highly - the study explores people's experiences obtaining a medical abortion through an online service and discusses people's reasons for choosing an online service.	Yes - in-depth interviews appropriately captures the experiences of people using the at-home telemedicine service.	Yes.	Yes
Gill	2019	Feasibility and Acceptability of a Mobile Technology Intervention to Support Postabortion Care in British	Original research paper	Canada	Abortion care facility	People attending an abortion care facility	58	Mixed-methods formative study (cross-sectional survey and semi-structured interviews)	Moderately - study aims to understand how people at surgical abortion clinics utilise their mobile phones to access health care information and their preferences for a mobile intervention	Yes - mixed-methods study appropriately explores a variety of aspects relevant to technology usage during abortion process.	Yes	Yes

		Columbia: Phase 1							that supports follow-up care.			
Gill & Norman	2018	Telemedicine and medical abortion: dispelling safety myths, with facts	Editorial	N/A	N/A	N/A	N/A	Editorial commentary on recent research regarding online medical abortion services	Moderately - This paper presents commentary on recent research regarding online medical abortion services.	N/A	N/A	Yes
Goldman	2021	Transcutaneous Electrical Nerve Stimulation to Reduce Pain With Medication Abortion: A Randomized Controlled Trial	Original research paper	N/A	Abortion care facility	People undergoing medical abortion.	251	Randomised controlled trial (RCT)	Yes - evaluates whether high-frequency transcutaneous electrical nerve stimulation reduces experiences of pain during medical abortion.	Yes – randomized control trial shows that participants who received high-frequency transcutaneous electrical nerve stimulation after medical abortion had significantly lower posttreatment pain scored compared to those that received a sham procedure.	Yes	Yes
Hamoda	2005	The acceptability of home medical abortion to women in UK settings	Original research paper	England and Scotland	Home	People seeking hospital based abortion care	553	Qualitative survey study	Highly - the study explores the acceptability of home medical abortion to people UK settings including managing pain and bleeding at home.	Yes - self-complete questionnaires adequately measure people's views on the acceptability of medical abortion at home.	Yes	Yes
Harden	2021	Women's experiences of self-administration of misoprostol at home as part of early medical abortion: a qualitative evaluation	Original research paper	Scotland	Home	People that had recently undergone early medical abortion	20	Qualitative interview study	Highly - the study explores the experiences of people who accessed at home medical abortion and reported benefits of at home administration including flexibility, privacy and comfort.	Yes - qualitative data is collected exploring what people desire and valued during the process.	Yes	Yes
Heath	2019	A comparison of termination of pregnancy procedures: Patient choice,	Original research paper	Sweden	Abortion care facility	People requesting an abortion		A mixed-method prospective comparative study	Yes	Yes	Yes	Yes

		emotional impact and satisfaction with care										
Hedqvist	2016	Women's experiences of having an early medical abortion at home	Original research paper	Sweden	Home	People accessing medical abortion at home	119	Cross-sectional (semi-structured telephone interviews)	Highly - paper investigates people's experiences of having a medical abortion at home including experiences of pain and bleeding.	Yes - descriptive and comparative design enable an in-depth and balanced conclusion. Study also investigates differences between groups of people.	Yes	Yes
Hoggart and Berer	2021	Making the case for supported self-managed medical abortion as an option for the future	Editorial	N/A	Online	N/A	N/A	Editorial commentary on recent research regarding online medical abortion services	Moderately – this paper reviews recent research on online medical abortion services highlighting benefits and pointing out need for further development of services, suggesting a need for access to 24 hours support.	N/A	N/A	Yes
Iyer	2021	Preferences for contraceptive counselling and access among abortion patients at an independent clinic in Texas	Original research paper	USA	Abortion care facility	People attending an abortion care facility	181	Cross-sectional survey study	Yes - study explores preferences for contraceptive counselling and access to contraception.	Yes - self-administered surveys used as an appropriate method considering legally restrictive setting and associated stigma.	Yes	Yes
Kavanagh	2011	Patients' attitudes and experiences related to receiving contraception during abortion care	Original research paper	USA	Abortion care facility	People accessing abortion at an abortion care facility	542	Cross-sectional survey study	Yes - study documents attitudes towards contraceptive services and identifies participants characteristics associated with desire for contraception and interest in LARC.	Yes - appropriate methods for exploring attitudes and characteristics associated with specific needs relevant to contraceptive use.	Yes	Yes
Kero	2010	Home abortion - experiences of	Original research paper	Sweden	Home	Couples - where the male partner had been	23 couples	Qualitative interview study	Moderately - the paper explores the male partner's experience of being	Yes - qualitative method ensures high detailed analysis in experiences of	Yes	Yes

		male involvement				present when their female partner had had an at home medical abortion			present and supporting their partner during an induced home abortion.	both the pregnant woman and her partner.		
Killinger	2022	Why women choose abortion through telemedicine outside the formal health sector in Germany: a mixed-methods study	Original research paper	Germany	Online	People accessing an online medical abortion service	1090	Cross-sectional study analysing data from online consultations	Yes - the paper aims to understand the motivations and barriers to access for people who choose online abortion services outside of the formal health sector.	Yes - a cross-sectional study of data contained in online consultations and a content analysis of over 100 email texts.	Yes	Yes
Levine and Cameron	2009	Women's preferences for method of abortion and management of miscarriage	Original research paper	United Kingdom	Abortion care facility	People undergoing medical abortion, surgical abortion and surgical management of miscarriage	148	Cross-sectional survey study	Yes - the study explores views on medical treatment at home, and surgery under local anaesthesia, to determine whether new services should be developed.	Moderately - small sample size of self-administered anonymous questionnaires.	Yes	Yes
Loeber	2016	Contraceptive counselling for women with multiple unintended pregnancies: the abortion client's perspective	Original research paper	Netherlands	Abortion care facility	Survey – People attending an abortion care facility Interviews – People attending an abortion care facility that had had more than three unintended pregnancies	212	Mixed methods (quantitative survey and semi-structured interviews)	Yes - study explores views on contraception use after induced abortion and post-abortion contraceptive counselling	Yes - mixed method approach appropriately explores experiences of post-abortion contraception and contraception counselling both in-depth and across a larger sample.	Yes	Yes

Lohr	2018	Telephone or integrated contraception counselling before abortion: impact on method choice and receipt	Original research paper	United Kingdom	Abortion care facility	People who had accessed abortion at an abortion care facility	18,573	Cross-sectional study of de-identified data	Yes - paper compares the characteristics of people who chose contraception counselling either over the telephone and separate from abortion consultation or face-to-face and integrated into consultation.	Yes - very large sample size which thoroughly explores demographic characteristics and contraceptive method choice.	Yes	Yes
Lokeland	2014	Medical abortion with mifepristone and home administration of misprostol up to 63 days' gestation	Original research paper	Norway	Abortion care facility	People seeking an at home medical abortion before 63 days'	1,018	Observational study	Yes - paper evaluates the acceptability of medical abortion at home, including pain and bleeding.	Yes – a large sample size of people experiencing at home abortion with follow up telephone recorded to asses bleeding, pain and acceptability.	Yes	Yes
Low	2021	Women's experiences of self-referral to an abortion service: qualitative study	Original research paper	Scotland	Abortion care service	People attending an abortion care service	21	Qualitative interview study	Yes - this study evaluates a self-referral service to abortion services by investigating its impact on people's experiences of the referral process.	Yes - semi-structured interviews to focus on people's experiences of the referral process.	Yes	Yes
Makenzius	2012	Autonomy and dependence - experiences of home abortion, contraception and prevention	Original research paper	Sweden	Home	People who have experienced an at-home abortion	37	Qualitative interview study	Yes - study explores people's experiences and needs related to care in the context of a home abortion.	Yes – interviews capture patients at-home abortion experiences and needs which fall under themes of autonomy (choice of at-home abortion, increase of privacy and control) and dependence (desire to be treated with empathy by health care workers and receive adequate information).	Yes	Yes
Matulich	2014	Understanding women's desires for contraceptive counselling at the time of	Original research paper	USA	Abortion care facility	People receiving surgical abortion at an abortion care facility	199	Qualitative survey study	Yes - paper investigates whether or not people presenting for a first-trimester surgical abortion want to	Yes - survey obtained demographic information and inquired about desire for contraceptive counselling.	Yes	Yes

		first-trimester surgical abortion							discuss contraception on the day of their procedure.			
Norman	2014	Access to Complex Abortion Care Service and Planning Improved through a Toll-Free Telephone Resource Line	Original research paper	Canada	Abortion care facility	N/A	N/A	Review of service provision model	Yes - study presents a review of a service provision model which has provided improved access to abortion care through a toll-free telephone abortion access and counselling service.	Yes - a descriptive analysis appropriately reports on the development and delivery of this service.	Yes	Yes
Oppegaard	2015	Clinical follow-up compared with self-assessment of outcome after medical abortion: a multicentre, non-inferiority, randomised, controlled trial	Original research paper	Austria; Finland; Norway; Sweden	Abortion care services	People requesting medical abortion	924	Randomised, controlled, non-inferiority trial	Yes - study compares clinical assessment with self-assessment of abortion outcome.	Yes - assigned people in a 1:1 ratio to attend routine clinical follow-up or to self-assess outcome at home with a semi-quantitative urine human chorionic gonadotropin test 1-3 weeks after abortion.	Yes	Yes
Pohjoranta	2018	Predicting poor compliance with follow-up and intrauterine contraception services after medical termination of pregnancy	Original research paper	Finland	Abortion care facility	People undergoing a medical abortion	605	RCT	Moderately - paper assesses factors associated with non-compliance with post-abortion services and evaluates differences in rates of attendance and intrauterine device insertion.	Yes – the study compared the intervention group booked to have IUD insertion 1-4 weeks after medical abortion and women in control group were advised to contact their PHC for follow-up and IUD insertion.	Yes	Yes
Pohjoranta	2020	Early provision of intrauterine contraception as part of abortion care - 5-year results of a randomised controlled trial	Original research paper	Finland	Abortion care facility	People undergoing an induced abortion	748	RCT	Moderately - paper investigates whether the incidence of subsequent termination of pregnancy can be reduced by providing IUD as part of the abortion service.	Yes – RCT assesses the effectiveness of early comprehensive provision of IUD after induced abortion. Intervention group provided with an IUD during surgical abortion and women in control group advised to	Yes	Yes

										contact primary healthcare for follow-up and IUD insertion.		
Powell-Jackson	2010	Benefits of using a digital video disk for providing information about abortion to women requesting termination of pregnancy	Original research paper	Scotland	Abortion care facility	People attending an abortion care facility and facility staff	226	Comparative cross-sectional survey design	Yes - paper examines the benefits of using a DVD for providing information about abortion.	Yes - questionnaires are used to appropriately measure people's satisfaction with the information received through the DVD and what more/less they would want it to include.	Yes	Yes
Purcell	2017	Self-managment of first trimester medical termination of pregnancy: a qualitative study of women's experiences	Original research paper	Scotland	Abortion care facility	People who are administered a medical abortion at a facility and return home to complete termination	44	Qualitative interview study	Yes - explores people's experiences of returning home to complete medical abortion, including self-monitoring of treatment process.	Yes - in-depth interviews to assess people's experiences in detail.	Yes	Yes
Rafferty & Longbons	2021	#AbortionChangesYou: A Case Study to Understand the Communicative Tensions in Women's Medication Abortion Narratives	Original research paper	United States	Online	People who have had a medical abortion	98 blog posts	Case study	Yes - study analyses people's narratives after having had a medication abortion though blogs posted on a website - Abortion Changes You.	Yes - using a case study approach enabled the study to explore multiple perspectives rooted in specific contexts.	Yes	Yes
Raymond	2018	Low-sensitivity urine pregnancy testing to assess medical abortion outcome: A systematic review	Review	N/A	N/A	N/A	N/A	Systematic review	Yes - the study explores data on the accuracy and acceptability of a strategy for identifying ongoing pregnancy after medical abortion treatment using a low-sensitivity pregnancy test (LSPT).	Moderately - A more comprehensive search across other databases could strengthen study.	Yes	Yes

Raymond	2017	Self-assessment of medical abortion outcome using symptoms and home pregnancy testing	Original research paper	United States	Abortion care facility	People undergoing medical abortion	343	Intervention study	Highly - study evaluates compliance with a strategy to enable medical abortion patients to assess treatment outcome on their own and decide whether to seek clinical follow-up.	Yes - appropriate methodology to clinically assess women's compliance to using a pregnancy test after medical abortion and women's ability to self-assess treatment outcome.	Yes	Yes
Reynolds-Wright	2020	Pain management for medical abortion before 14 weeks' gestation	Review	N/A	N/A	N/A	N/A	Systematic review	Yes - paper reviews pain relief regimens for the management of medical abortion.	Yes - wide variety of databases, conference abstracts and organisations systematically searched and analysed.	Yes	No
Reynolds-Wright	2021	Telemedicine medical abortion at home under 12 weeks' gestation: a prospective observational cohort study during the COVID-19 pandemic	Original research paper	Scotland	Online/Home	People choosing online medical abortion services	663	Prospective cohort study	Yes - the paper determines the efficacy of an online at-home medical abortion service, noting any complications after treatment and acceptability of care.	Yes - large sample size. Questionnaires and hospital database analyses allows for in-depth review of efficacy, complications and acceptability.	Yes	Yes
Robson	2009	Randomised preference trial of medical versus surgical termination of pregnancy less than 14 weeks' gestation (TOPS)	Original research paper	United Kingdom	Abortion care facility	People undergoing induced abortion and people attending a contraceptive and sexual health clinic	1,877	Randomised preference trial and economic evaluation with qualitative sub study	Yes - the paper explores the acceptability, efficacy and costs of medical abortion compared with surgical abortion and aims to understand people's decision-making processes and experiences.	Yes – participants are either randomly assigned a procedure type (with consent to random allocation) or choose their procedure type to evaluate whether in people without prior preference, acceptability of medical and surgical abortion is the same. A qualitative sub study explores people's preferences and decision making.	Yes	Moderately
Rowlands & Wale	2020	A Constructivist	Constructivist Vision	N/A	N/A	N/A	N/A	Constructivist vision	Moderately - This paper provides	N/A	N/A	Yes

		Vision of the First-Trimester Abortion Experience						commentary on how a high-quality abortion experience might be achieved in the first trimester if regulatory laws were dismissed.	commentary on recent research on induced abortion in the first trimester within the framework of a future vision of state obligation to provide high quality abortion care. This paper also provides an evidence-based set of ingredients that facilitate a positive high-quality abortion experience.			
Schmidt-Hansen	2020	Follow-up strategies to confirm the success of medical abortion of pregnancies up to 10 weeks' gestation: a systematic review with meta-analyses	Review	N/A	N/A	N/A	N/A	Systematic review	Yes - the review compares the effectiveness, safety, and acceptability of in-clinic and remote/self-assessment for confirming the success of medical abortion.	Yes - systematic review including RCT's from 2000 onward to ensure a broad range of studies captured. Quality of evidence compromised by small event rates, lack of blinding, and high attrition rates.	Yes	Yes
Sherman	2017	Providing experiential information on early medical abortion: a qualitative evaluation of an animated personal account, *Lara's Story*	Original research paper	Scotland	Abortion care facility	People who have had a medical abortion	13	Qualitative interview study	Yes - the study evaluates the views on an animated film, and its potential usefulness in providing information on medical abortion.	Yes - the use of interviews allows people to report their full experience and opinion in detail, also providing feedback or criticism.	Yes	Yes
Smith	2019	Current barriers, facilitators and future improvements to advance	Original research paper	Edinburgh, Scotland	Abortion care facility	People seeking induced abortion	154	Cross-sectional survey study	Yes - the study explores current barriers access to care, and what future improvements should	Yes - self-administered anonymous questionnaires to capture experiences.	Yes	Yes

		quality of abortion care: views of women							be implemented to abortion care services			
Smith	2017a	Women's views and experiences of a mobile phone-based intervention to support post-abortion contraception in Cambodia	Original research paper	Cambodia	Abortion care facility	People who had received a mobile phone based post-abortion contraception counselling service.	15	Qualitative interview study	Yes - the study assesses views and experiences of receiving the MObile Technology for Improved Family Planning (MOTIF) intervention, which aims to increase post-abortion contraception.	Yes - semi-structured interviews to capture in-depth data. Small sample size may be a limitation.	Yes	Yes
Smith	2017b	Process evaluation of a mobile phone-based intervention to support post-abortion contraception in Cambodia	Original research paper	Cambodia	Abortion care facility	People who had received a mobile phone based post-abortion contraception counselling service.	249	Process evaluation	Yes - the study assesses participants' interaction with the MOTIF intervention.	Yes - thorough process evaluation to assess associations with the intervention and post-abortion contraception use.	Yes	Yes
Upadhyay, U. D.	2021	Safety and Efficacy of Telehealth Medication Abortions in the US During the COVID-19 Pandemic	Original research paper	USA	Online	People accessing online medical abortion	141	Retrospective cohort study	Yes - the study assesses the safety and efficacy outcomes of a online medical abortion model.	Yes – appropriate methodology for assessing an online medical abortion service however the small sample size with some loss to follow-up, and thus some adverse events and ongoing pregnancies may have been undetected.	Yes	Yes
Whitehouse	2021	*It's a small bit of advice, but actually on the day, made such a difference...*: perceptions of quality in abortion care in England and Wales	Original research paper	England; Wales	Abortion care facility	People who have had an abortion at a facility withing the last 6 months	24	Qualitative interview study	Yes - the paper explores participants' experiences and views on abortion quality of care.	Yes - interviews are an appropriate methodology to assess experiences.	Yes	Yes

Wieβe	2008	Access to Abortion: What Women Want From Abortion Services	Original research paper	Canada	Abortion care facility	People seeking an abortion	441	Qualitative survey and interview study	Moderately - the paper identifies barriers to access for women seeking induced abortion at a facility.	Yes - questionnaire accurately explores demographic information, perceived barriers to access, and what women desire from abortion services. Interviews captured in-depth analysis to access questions.	Yes	Yes