

### LJMU Research Online

Maxwell, C, McKendrick, J, Hanlon, C, Penson, P and Fleming, V

Exploring pharmacists' views surrounding conscientious objection to abortion and implications in practice.

http://researchonline.ljmu.ac.uk/id/eprint/14868/

Article

**Citation** (please note it is advisable to refer to the publisher's version if you intend to cite from this work)

Maxwell, C, McKendrick, J, Hanlon, C, Penson, P and Fleming, V (2021) Exploring pharmacists' views surrounding conscientious objection to abortion and implications in practice. International Journal of Pharmacy Practice. ISSN 2042-7174

LJMU has developed LJMU Research Online for users to access the research output of the University more effectively. Copyright © and Moral Rights for the papers on this site are retained by the individual authors and/or other copyright owners. Users may download and/or print one copy of any article(s) in LJMU Research Online to facilitate their private study or for non-commercial research. You may not engage in further distribution of the material or use it for any profit-making activities or any commercial gain.

The version presented here may differ from the published version or from the version of the record. Please see the repository URL above for details on accessing the published version and note that access may require a subscription.

For more information please contact <a href="mailto:researchonline@ljmu.ac.uk">researchonline@ljmu.ac.uk</a>

http://researchonline.ljmu.ac.uk/

#### OXFORD

#### **Research Paper**

# Exploring pharmacists' views surrounding conscientious objection to abortion and implications in practice

## Clare Maxwell<sup>1,\*,</sup>, Jane McKendrick<sup>1</sup>, Claire Hanlon<sup>1</sup>, Peter Penson<sup>2,</sup> and Valerie Fleming<sup>1</sup>

<sup>1</sup>School of Nursing and Allied Health, Liverpool John Moores University, Henry Cotton Building, 15–21 Webster Street, Liverpool, L3 2ET, UK

<sup>2</sup>School of Pharmacy and Biomolecular Sciences, Liverpool John Moores University, James Parsons Building, Byrom Street, Liverpool L3 3AF, UK

\*Correspondence: Clare Maxwell, School of Nursing and Allied Health, Liverpool John Moores University, Henry Cotton Building, 15–21 Webster Street, Liverpool, L3 2ET, UK. Email: c.maxwell@ljmu.ac.uk

Received July 27, 2020; Accepted March 6, 2021.

#### Abstract

**Background** General Pharmaceutical Council standards (UK) state 'pharmacy professionals have the right to practise in line with their religion, personal values or beliefs as long as they ...make sure that person-centred care is not compromised', indicating a potential conflict for pharmacists who wish to exercise their right to conscientious objection (CO) to abortion while maintaining a duty of care to their patients.

**Objective** The objective of this study was to explore pharmacists' views of conscientious objection to abortion and whether this included the supply of EC and the impact on practice.

**Method** Eighteen UK pharmacists were interviewed using semistructured interviews. Interviews were transcribed verbatim, imported into NVivo11 and analysed using thematic analysis.

**Key findings** Five themes were identified: beliefs as to what constitutes abortion, influences on beliefs, conflicts of conscience, accommodating conscience and professional obligations. Views were polarised in relation to the role of emergency contraception (EC) as an abortifacient. Religion was often viewed as the reason underpinning CO to abortion. Conflicts in relation to CO to abortion included the role of referral and EC and employability for objectors. Some pharmacists viewed their role of providing patient choice as incompatible with the right of CO to abortion.

**Conclusions** This study shows the conflicts and challenges surrounding CO to abortion in professional pharmacy practice. While the majority of pharmacists believe CO to abortion should and could be accommodated, this can prove challenging in certain working environments, both in relation to ensuring a duty of care to patients is upheld and due to the ongoing debate concerning EC and whether it has a definitive role in abortion or not.

Keywords: pharmacists; conscientious objection; abortion; emergency contraception; abortifacients

© Oxford University Press 2021.

#### Introduction

The ethical principle of conscientious objection (CO) to abortion is of interest to a wide spectrum of people such as ethicists, lawyers, politicians and health professionals. Section 4(1) of the 1967 Act provides that no one is under any duty to participate, contrary to his or her conscience, in any treatment authorised by the Act unless in a life threatening emergency.<sup>[1]</sup> When applying this in health care settings, it often becomes the centre of acrimonious debate.

The literature is divided as to the extent to which conscientious objection should be permitted, one author proposing that in some European countries laws need to be amended to ensure CO is not being utilised to undermine women's access to abortion.<sup>[2]</sup> Wicclair debates the key issues of conscience and integrity in medicine, concluding that "...there is a need for a more nuanced understanding and analysis of the relevant morals and values" (p.227).<sup>[3]</sup>

The major issue in relation to CO, in which community pharmacists are involved is the supply of emergency contraception (EC), relevant legislation being introduced in 2001.<sup>[4]</sup> The primary controversy with EC has been its possible abortifacient effect.<sup>[5]</sup> Debate has focused on the morality of its use and supply, and whether pharmacists may refuse to supply it on moral or religious grounds.<sup>[6, 7]</sup> An understanding of the mechanism of action of EC is thus essential to discussing ethical issues of these products, although a detailed review of their pharmacology is beyond the scope of the current paper. The outcome of administration of any drug used in this context is likely to depend upon the dose and timing of administration in relation to the menstrual cycle.<sup>[8]</sup>

The most common EC regimen is effective if taken within 72 h of unprotected intercourse although it is sometimes used with diminishing effectiveness between 72 and 96 h.<sup>[9]</sup> A recent Cochrane review investigating the comparative effectiveness and safety rather than the mechanism, of interventions for EC, concluded that levonorgesterol cannot prevent implantation of a fertilised egg.<sup>[10]</sup> This review supports another judgement seemingly held, although less confidently asserted, by the authors of a systematic review more directly concerned with mechanistic actions.<sup>[8]</sup> However, many of the studies upon which this judgment seems to rest have limitations in respect of external validity because they were conducted in cell culture models,<sup>[11, 12]</sup> included small numbers of participants<sup>[13]</sup> or measured surrogate endometrial markers.<sup>[14]</sup> Therefore, such judgements seem to be based upon an 'absence of evidence' rather than 'evidence of absence'.

An alternative drug, ulipristal acetate, administered as a single 30 mg dose, is thought to be effective if taken up to 120 h after unprotected intercourse.<sup>[9]</sup> A systematic review points to pre-fertilisation mechanisms being responsible for the effects of ulipristal, but calls for more research.<sup>[15]</sup> Such research should not exclude post-ovulatory mechanisms, and another recent review of the evidence concludes that, dependent upon timing, post-ovulatory mechanisms might contribute to the clinical effectiveness of ulipristal.<sup>[16]</sup> An alternative progesterone receptor modulator, mifepristone, has been shown both to inhibit implantation and induce abortion, although at higher doses typically used in EC.<sup>[17]</sup> Such research has influenced the General Pharmaceutical Council's standards. In essence the lack of consensus as to whether EC can in some cases be considered abortion, mirrors the dilemmas concerning the medical profession and, those of nursing and midwifery.<sup>[18, 19]</sup>

There are very few published UK-based studies utilising empirical research on matters of conscience in pharmacy. Cooper *et al*.'s qualitative study of community pharmacists' views of ethical and religious

beliefs influencing their thoughts on EC reported mixed views, reflecting those of other professions<sup>[20]</sup> and concluded that their sample viewed ethical issues in a legalistic, self-interested way thus finding it difficult to discuss ethical issues and reflect upon patients' and pharmacists' values in a broader context. A more recent systematic review of pharmacy users' and staff experiences and attitudes towards the delivery of a large range of pharmacy-based sexual health services included three studies from England and one from Scotland specifically concerned with conscience and EC.<sup>[21]</sup> Another study of 126 pharmacists in Poland concluded that 15% of participants would exercise the right to conscientious objection if the European Council Resolution on Conscientious Objection<sup>[22]</sup> were legally sanctioned in Poland, although this is actually the case.<sup>[23, 24]</sup> A study omitted from the review,<sup>[21]</sup> reports from a survey of 1975 pharmacists in Nevada concluded that religion significantly predicted pharmacists' willingness to dispense EC. The authors' analyses showed that "Catholics and evangelical Protestants were significantly more likely to refuse to dispense at least one medication in comparison to non-religious pharmacists" [p.161].[25]

There is clearly a paucity of empirical literature and this study aims to address some of the gaps. Thus the aim of this study is to explore pharmacists' views of conscientious objection to abortion and whether they believed this also included the supply of EC and the impact on practice in two UK locations.

#### Method

Ethical approval was granted by Liverpool John Moores University (UREC 18/NAH032) and was ratified by the Health Research Authority (246528).

A qualitative study, using semi-structured face-to-face interviews was undertaken to capture rich, in-depth data on a subject that was potentially emotive.<sup>[26]</sup> Key interview questions were developed from an extensive literature review aligned to the study aim. Open-ended questions and prompts were included in order to facilitate exploration of the participants' views and experiences while maintaining a focus on the subject matter *per se* (see Table 1 for interview schedule).

#### Table 1 Interview schedule

- Can you tell me about your role in advising women who are seeking advice relating to pregnancy termination? How do you feel about that? Is this something you come across often in the work you carry out?
- Tell me, is prescribing or dispensing the morning after pill something you come across often? How do you feel about this personally?
- What, in your opinion, constitutes 'participation' in the procedure of termination?
- What does 'conscientious objection' mean to you?
- What do you identify as the limitations to CO as a pharmacist? What are you own limits?
- What has helped to form your views?
- Did you have any particular views on this prior to commencing work in the profession?
- Have your views changed over the time you have worked in the profession?
- Have you ever refused or considered refusing to give EC? What were the circumstances? What happened? How did it make you feel?
- Do you know anyone who has refused/objected to give EC? What were the circumstances? What happened? How do you feel about this?
- What training have you received on CO?

Inclusion criteria required the pharmacists to be UK registered and currently practising in hospital or community pharmacy settings in either the Liverpool or Glasgow areas, chosen because they provide the full range of abortion services available overall in the UK. Working as a *locum* did not preclude pharmacists from the study and they could have any number of years' experience, including being newly qualified. The broad nature of the inclusion criteria was a deliberate attempt to capture data which represented a diversity of views, experiences and perspectives held by the participants.

A multi-method approach to recruitment was adopted. Hospitalbased pharmacists were recruited via research department coordinators who emailed the study information and research team's contact details to them. In addition, a research poster was displayed in hospitals with the research team's contact details. Participants were also recruited through 'snowballing', a sampling technique whereby 'insiders' locate further respondents to participate.<sup>[26, 27]</sup> Participants, who had been interviewed disseminated the study information to other colleagues via email and/or text. The study information was posted on a local health professional Facebook page serving Liverpool; however, no participants responded to this. Recruitment was undertaken over 1 year. All interviews took place at a time and setting convenient to the participant such as their place of work, their own home or a neutral setting, lasted 28-74 min and were audio digitally recorded. Three team members (C.M., C.H. and J.M.) undertook the interviews between April 2019 and March 2020. Consistency between the interviewers was attained by use of the interview schedule and by regular meetings to reflect upon and discuss the interviews. The interviews were transcribed verbatim, with all identifiers removed to ensure anonymity. Participants were allocated randomly selected pseudonyms during coding to maintain confidentiality.

Data analysis was undertaken manually by two authors (C.H. and J.M.) using Braun and Clarke's six stage thematic analysis

to ensure that a systematic yet flexible inductive, data-driven approach was employed.<sup>[28, 29]</sup> In order to ensure a rigorous and transparent process of analysis, initial codes and themes were developed by the person who had carried out the interview. Transcripts were then swapped between authors and the same process applied, ensuring each interview was independently coded and themed twice. The emergent codes and themes from all of the interviews were then reviewed by two authors (C.H. and C.M.). A high similarity index between the two sets of codes and themes was noted and minor changes were made to the theme names. A final step to further analytical rigour was undertaken by a third author not involved in the interviews (V.F.). Using a 'fresh eyes' approach the author reviewed the codes, themes and verbatim comments for constructive alignment and again only minor changes were made. Five themes emerged from the data (Figure 1).

#### Results

Twenty participants were recruited, however due to two 'no shows' 18 were ultimately interviewed. It was agreed among the team that data saturation had been reached after the 18 interviews due to no new codes and themes emerging. (see Table 2 for participant demographics using pseudonyms).

#### Beliefs as to what constitutes abortion

This theme focuses on the role of EC as a potential abortifacient which was closely linked to individual interpretations of foetal viability. These interpretations were polarised at times,

...we are not letting a baby grow...you are kind of killing the baby, indirectly." Philip Some people say right, anything that happens to that fertilised egg after that would be classed as an abortion... Personally I don't think it is". Pascal

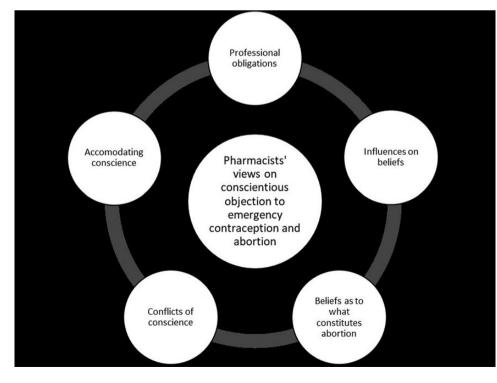


Figure 1 Themes from interview data

#### International Journal of Pharmacy Practice, 2021, Vol. XX, No. XX

| Pharmacist pseudonym | Years of experience | Place of work   | Objector? |
|----------------------|---------------------|-----------------|-----------|
| Pamela               | 15                  | Community based | No        |
| Pascal               | 20                  | Community based | No        |
| Patricia             | 7                   | Community based | No        |
| Patrick              | 7                   | Community based | No        |
| Paul                 | 20+                 | Hospital based  | Yes       |
| Paula                | 14                  | Hospital based  | Yes       |
| Pauline              | 30+                 | Community based | No        |
| Pedro                | 12                  | Community based | No        |
| Penny                | 10                  | Community based | No        |
| Percy                | 18                  | Hospital based  | Yes       |
| Peter                | 2                   | Hospital based  | No        |
| Petra                | 25+                 | Hospital based  | No        |
| Petronella           | 1                   | Hospital based  | No        |
| Phillip              | 3                   | Hospital based  | Yes       |
| Phillipa             | 7                   | Hospital based  | Yes       |
| Phoebe               | 30                  | Hospital based  | No        |
| Pearce               | 12                  | Hospital based  | No        |
| Рорру                | 10+                 | Community based | Yes       |

#### Table 2 Participant demographics

Many participants perceived their role as being 'removed' from participating in abortion particularly in relation to the supply of EC or abortifacients. This was often framed in practical terms,

It's a business transaction" Paula

#### Influences on beliefs

This theme illustrates the key drivers underpinning abortion beliefs. Although some participants described this in terms of past personal experiences, the majority cited religion as the main influence,

Fundamentally, I'd say I am an objector. Part of that is religion, upbringing." Philippa

Interestingly one pharmacist described how CO being based on religion was problematic due to it potentially 'opening up' the right to CO,

"It's important that the debate isn't about religion ...you can end up with a really kind of relativist situation there where people kind of claim all kinds of exemptions from all kinds of things. And then you know religion ends up trumping all sorts of other considerations and I don't think that's necessarily helpful." Paul

#### Conflicts of conscience

The theme exhibits the complexities associated with a pharmacist's right to exercise CO. This could be impacted by work environment,

Whenever you're locuming, you can't really enforce your own opinions or beliefs. If the pharmacist offers that as a service... you can't really, as the locum, turn that customer away" Philippa

In addition, a number of participants highlighted the contradictions and complexities in relation to referral and participation in abortion,

..I think a kind of direct referral to someone else would kind of feel like some direct or I guess indirect participation ...I can't say I'd feel entirely comfortable about it..." Paul "...you can signpost to somewhere where they can get it, which sort of undermines the objection in the first place." Patricia

Participants also discussed the possible conflicts emerging within their changing role, particularly in relation to the provision of EC,

I guess in a situation where you don't come into any contact with abortion in your work place you don't necessarily feel the need to advertise your objection to that. But when something changes then that becomes a problem doesn't it?" Poppy

A number of participants discussed the conflict between 'employability' and the right to exercise CO, describing how in certain environments this would be problematic,

I'd be cautious of perhaps working in an environment where ... you don't get another pharmacy for miles around so then that might become an issue for you." Paul

#### Accommodating conscience

The theme 'focuses on facilitating CO in practice. All of the participants knew that CO was a pharmacist's right and most discussed the need to refer if CO was exercised. Many felt strongly that it was important to 'refer on' in order to protect the patient, with some viewing this as a 'dereliction of care' if it was not undertaken. However, participants were not always clear on referral requirements,

I don't know if it's unethical not to signpost them..." Petronella

In line with this, almost all of the participants described their pharmacy education/training as having very little or no discussion surrounding CO.

Most participants believed CO could be accommodated within pharmacy practice. However, some highlighted that accommodation was more challenging in community and that referral was essential in this case

Many of the participants highlighted the lack of clear guidance regarding CO as being problematic; however, it was recognised that the development of such guidelines was equally problematic due to 'grey areas' and individual circumstances,

"...it's difficult to have a clear guideline... because there is not a scenario that would be the same.." Percy

It was evident that for a minority of participants a guideline was not required due to them believing that the conscience clause should not be available,

... I believe quite strongly that pharmacists, doctors, whatever shouldn't have a right to say no to these people. ....personally I don't think that clause should be there..." Pedro

#### **Professional obligations**

The theme encompasses the participants' views on their role in relation to providing information on EC. This was often described in terms of providing 'choice' to patients. Many of the participants described how patient choice should be the priority, although they noted that this was not always straightforward to facilitate when a colleague objected, this was depicted as a '*delicate balance*' (Philippa). Some participants did not believe colleagues should have the right to refuse EC, with the right to CO being viewed as 'incompatible' with their profession,

But you come in to this job knowing that services like this are in place....so I mean if you are that strongly viewed then maybe this career is not for you." Pearce

#### Discussion

The five themes that emerged from the data partially support in the findings from previous studies but also shed new light on the topic. While we were seeking information about participants' views on CO rather than their own beliefs on abortion, the latter were offered by most participants who determined it as being in relation to when a foetus is deemed viable. This complex and at times subjective issue, was highlighted earlier in this paper, with the participants' sometimes polarised views as to whether EC could induce abortion being illustrative of the ongoing debate surrounding this. However, most spoke only hypothetically about their own involvement in abortion via the dispensing of EC or abortifacients, even though they were asked directly at interview about their experiences in relation to this. This then led to their thoughts as to whether CO was of any relevance to their practice, revealing a level of 'detachment' adopted between them and any potential contribution to participating in the abortion procedure. This detachment of the participants from the topic takes a different view from the findings of Cooper et al.<sup>[20]</sup> who noted that the 23 pharmacists in their qualitative study spoke in a self-interested way. In considering that findings of that study their three categories were determined from the top down reflecting whether or not their sample was prepared to dispense emergency contraception giving consideration to ethical, religious and practical, concerns, whereas our themes were data driven.

Participants in this study also offered their views as to what influenced their own or others' beliefs. Overwhelmingly, they put this down to religion with Catholics and Muslims being mentioned by a number of participants as being the colleagues who were most likely to object to providing EC. This counters the findings of Fleming *et al.*'s systematic review of reasons for conscientious objection,<sup>[19]</sup> which examined 10 articles from an initial field of 1085. In the 10 articles, 81 reasons argued in favour of and 35 against conscientious objection. Using predetermined categories of moral, practical, religious or legal reasons, 'moral reasons' contained the largest number of reasons. The reasons and their associated mentions in this category exceeded those in the sum of the other three categories, with practical reasons (n = 30) also outnumbering religious reasons (n = 15). However, there are many papers which have drawn upon religion as the main influence on CO and its influence cannot be disputed.<sup>[18, 30]</sup>

Participants also highlighted some of the conflicts of conscience they experienced in their practice and how these could potentially be accommodated. Two acknowledged the enigma of referral by objectors to other pharmacists, which is a requirement of the current standards of the General Pharmaceutical Council.<sup>[31]</sup> As with other studies, this is a controversial topic as some authors feel that by referring, one becomes complicit in the abortion.<sup>[5]</sup>

Other dilemmas included changes within the participants' role, particularly pertinent for those who have experienced the move to over the counter' supply of EC. This mirrors the situation in two recent cases of conscientious objection by midwives each of which reached the highest courts in their countries. One of them concerned two midwives who had been in their existing jobs for many years and the other a newly qualified midwife who was unable to secure employment in their home country after the midwife's status as an objector was made known.<sup>[32]</sup> While the grounds for these midwives' objections were the same, considering them from an employment perspective, the scenarios required different approaches to accommodating or rejecting their requests. The dilemma of the evolving role of pharmacists however, was not shared by all of the participants in the present study, and as with the theme concerning their beliefs about abortion, there was an overall sense of 'removal' with participants expressing that they were several steps away from abortion.

Although it is evident from this study that accommodation of CO in pharmacy practice is riddled with complexities, the majority of the participants recognise it should be a person's right to exercise it. This is in contrast to Fiala and Arthur who did not acknowledge the term but rename it 'dishonourable disobedience'.<sup>[33]</sup> However, this study brings to the fore a number of shortcomings concerning accommodating CO in pharmacy practice, which include lack of training around the subject, unclear guidance to work with and lack of knowledge in relating to referral and signposting.

The final theme of professional obligations is where the participants showed a considerable degree of insight, expressing that it was sometimes a difficult issue. However, whatever their own personal views, the majority felt that the client should come first. This supports the findings of Brock<sup>[34]</sup> who noted that "each profession has a responsibility to provide to the public a competent level of services-medical or pharmaceutical-and to monitor its individual members to assure that they do so" (p.192). When providing emergency contraception, it is the pharmacists themselves, rather than their assistants, who are required to serve the woman or the person she has designated on her behalf. As part of that service they collect certain demographic and health related data to assist them in determining whether or not to dispense the drug and offer advice about such things as longer term contraception. Thus, as Pellegrino<sup>[18]</sup> has pointed out an objector who is forced into providing the service may not be in the best position to advise the patient or their agent appropriately if they lack the necessary frame of mind to provide an empathetic service.

This study is the first of its kind to explore UK pharmacists' views on CO to abortion and provides a unique insight into how this can impact upon their practice. While we aimed to recruit as diverse a sample as possible, it does not include pharmacists practising

in remote areas where other challenges may be expected. We recommend that future research focuses on this particular group to explore the challenges they may encounter. Being a qualitative study it is not intended to be generalisable, but findings may be transferrable to pharmacists in other areas of the UK and internationally who read this article. The findings are particularly useful in highlighting the potential complexities of CO to abortion which can be used to open up dialogue and debate within day to day pharmacy practice and also further afield, concerning areas such as education and guidelines. Further research is needed to capture a wider range of pharmacists' views on CO to abortion. The authors of this paper are currently developing a national survey informed by this study's findings to investigate this.

#### Conclusion

While the majority of participants in this study believe CO to abortion should and could be accommodated, they also have a strong professional obligation to their patients, which can prove challenging for those who object. This appears to be exacerbated by certain working environments and also where there may be a deficit in training surrounding the subject of CO and a lack of clear guidelines. Furthermore, the issue of referral and whether it has an active role in participation in abortion is equally problematic and very much open to interpretation. Finally, the issue of the exact mechanism of action of EC and how this interacts with fertilisation remains open to debate and until the pharmaceutical evidence is conclusive this will continue to remain so. Leung et al. (2010) concluded that "For those who object to the use of emergency contraceptives because there is insufficient evidence to completely exclude the possibility of interference with implantation, emergency contraceptives are not acceptable contraceptives."[8] This would still seem to be an accurate reflection of the situation 10 years later.

#### Acknowledgements

The authors would like to express their thanks to the pharmacists who took part in the interviews.

#### Funding

This research was funded by the Economic and Social Research Council [grant number: ES/R008841/1]. The funding source had no involvement in this paper.

#### **Author Contributions**

C.M., J.M. and C.H. performed the research. V.F. designed the research study. J.M. and C.H. analysed the data. C.M. and V.F. wrote the initial draft paper. J.M., C.H. and P.P. contributed to the paper.

#### **Conflict of Interest**

The authors declare that they have no conflicts of interest.

#### References

- 1. United Kingdom Government. Abortion Act. London: HMSO, 1967
- Heino A, Gissler M, Apter D et al. Conscientious objection and induced abortion in Europe. Eur J Contracept Reprod Health Care 2013; 18: 231– 3. http://doi.org/10.3109/13625187.2013.819848
- Wicclair M. Conscientious objection in medicine. *Bioethics* 2000; 14: 205–27. http://doi.org/10.1111/1467–8519.00191

- Deans Z. Conscientious objections in pharmacy practice in Great Britain. Bioethics 2013; 27: 48–57.
- Lewis J, Sullivan D. Abortifacient potential of emergency contraceptives. *Ethics and Medicine* 2012; 28: 113–20. http://doi.org/10.111 1/j.1467-8519.2011.01918
- Deans Z, Might A. Conscience clause be used for non-moral or prejudiced reasons? J Med Ethics 2016; 42: 76–77. http://doi.org/10.1136/ medethics-2015–102798
- Blackall M. Lloyds Pharmacy Apologises to Woman Refused Emergency Contraception. London: The Guardian. 2019.
- Leung VW, Levine M, Soon JA. Mechanisms of action of hormonal emergency contraceptives. *Pharmacotherapy* 2010; 30: 158–68. http://doi. org/10.1592/phco.30.2.158
- Joint Formulary Committee. Emergency contraception. In Baxter K, ed. British National Formulary (BNF) 79. London: British Medical Association/Royal Pharmaceutical Society, 2020.
- Shen J, Che Y, Showell E et al. Interventions for emergency contraception. Cochrane Database Syst Rev 2019; 1: CD001324. http://doi. org10.1002/14651858.CD001324.pub6
- Lalitkumar PG, Laltikumar S, Meng CX *et al.* Mifepristone, but not levonorgestrel, inhibits human blastocyst attachment to an in vitro endometrial three-dimensional cell culture model. *Hum Reprod* 2007; 22: 3031–7. http://doi.org/10.1093/humrep/dem297
- Meng CX, Andersson KL, Bentin-Ley U et al. Effect of levonorgestrel and mifepristone on endometrial receptivity markers in a three-dimensional human endometrial cell culture model. *Fertil Steril* 2009; 91: 256–64. https://doi.org/10.1016/j.fertnstert.2007.11.007
- Durand M, del Carmen Cravioto M, Raymond EG *et al.* On the mechanisms of action of short-term levonorgestrel administration in emergency contraception. *Contraception* 2001; 64: 227–34. http://doi.org/10.1016/ s0010-7824(01)00250-5
- Meng CX, Cheng L, Lalitkumar PGL *et al.* Expressions of steroid receptors and Ki67 in first-trimester decidua and chorionic villi exposed to levonorgestrel used for emergency contraception. *Fertil Steril* 2009; 91(4 Suppl): 1420–3. http://doi.org/10.1016/j.fertnstert.2008.05.058
- Rosato E, Farris M, Bastianelli C. Mechanism of action of ulipristal acetate for emergency contraception: a systematic review. *Front Pharmacol* 2015; 6: 315. http://doi.org/10.3389/fphar.2015.00315
- Munuce MJ, Gomez-Elias MD, Caille AM *et al.* Mechanisms involved in the contraceptive effects of ulipristal acetate. *Reproduction* 2020; 159: R139–R149. http://doi.org/10.1530/REP-19–0355
- Gemzell-Danielsson K, Marions L. Mechanisms of action of mifepristone and levonorgestrel when used for emergency contraception. *Hum Reprod Update* 2004; 10: 341–8. http://doi.org/10.1093/humupd/dmh027
- Pellegrino E. The physician's conscience, conscience clause, and a religious belief: a catholic perspective. Fordham Urb Law J 2002; 30: 221–44.
- Fleming V, Frith L, Luyben A *et al.* Conscientious objection to participation in abortion by midwives and nurses: a systematic review of reasons. *BMC Med Ethics* 2018; 19: 31. http://doi.org/10.1186/s12910-018-0268-3
- Cooper R, Bissell P, Wingfield J. Ethical, religious and factual beliefs about the supply of emergency hormonal contraception by UK community pharmacists. J Fam Plann Reprod Health Care 2008; 34: 47–50. http://doi. org/10.1783/147118908783332122
- Gauly J, Ross J, Hall I et al. Pharmacy-based sexual health services: a systematic review of experiences and attitudes of pharmacy users and pharmacy staff. Sex Transm Infect 2019; 95: 488–95. http://doi.org/10.1136/ sextrans-2019–054096
- 22. Council of Europe. *European Convention on Human Rights*. Strasbourg, France: Council of Europe, 1950.
- Sezelwa D. Killing 'unborn children'? The catholic church and abortion law in Poland since 1989. Soc Leg Stud 2016; 25: 741–64. http://doi. org/10.1177/0964663916668247
- 24. Brzezinski M. The emergence of judicial review in Eastern Europe: the case of Poland. Am J Comp Law 1993; 41: 53–200. https://doi. org/10.2307/840716
- Davidson L, Pettis CT, Joiner AJ et al. Religion and conscientious cbjection: a survey of pharmacists' willingness to dispense medications. Soc Sci Med 2010; 71: 161–5. http://doi.org/10.1016/j.socscimed.2010.03.027

- 26. Bryman A. Social Research Methods, 5th ed. Oxford: Oxford University Press, 2016.
- 27. Fielding N, Lee R, Blank G. The SAGE Handbook of Online Research Methods. 2nd ed. London: Sage, 2017.
- Braun V, Clarke V. Successful Qualitative Research: A Practical Guide for Researchers. London, UK: Sage Publications, 2013.
- 29. Hawkins J. Thematic analysis. In M. Allen (ed.). *The SAGE Encyclopedia of Communication Research Methods*. Thousand Oaks: Sage, 2017, 1757-60. http://doi.org/10.4135/9781483381411. n624
- 30. Sepper E. *Taking Conscience Seriously*. Virginia: Law Review, 2012. 98(Research Paper No. 13-03-01): 101.

- 31. General Pharmaceutical Council. *Standards for Pharmacy Professionals*. 2017, General Pharmaceutical Council.
- 32. Fleming V, Ramsayer B, Skodic Zaksek T. Freedom of conscience in Europe? An analysis of three cases of midwives with conscientious objection to abortion. J Med Ethics 2017; 44: 104–8. http://doi.org/10.1136/ medethics-2016–103529
- Fiala C, Arthur J. Refusal to treat patients does not work in any country even If misleadingly labeled "Conscientious Objection". *Health Hum Rights* 2017; 19: 299–302.
- 34. Brock D. Conscientious refusal by physicians and pharmacists: who is obligated to do what, and why? *Theor Med Bioeth* 2008; 29: 187–200. http://doi.org/10.1007/s11017-008-9076-y