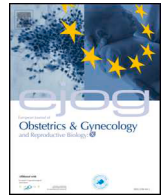




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## Attitudes and experiences with termination of pregnancy among Irish obstetrics & gynaecology trainees in the context of recent legal change: A survey study



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### ABSTRACT

**Objective:** This study examines Irish obstetrics and gynaecology trainees' experiences with and opinions of termination of pregnancy (ToP) after legal change.

**Study design:** We invited obstetrics & gynaecology non-consultant hospital doctors (NCHDs) to participate in a web-based survey through a professional e-mail listserv. We conducted descriptive statistical analyses of responses using Stata SE Version 16.

**Results:** A total of 102/202 (50.5%) trainees responded to the survey. Of these, 61.8% believed that ToP should be allowed on request up to 12 weeks and in limited circumstances thereafter (in line with current law), and 19.6% believe ToP should be allowed on request even after 12 weeks. Knowledge about the abortion law was high (70.6% achieved a perfect knowledge score). Since the new law came into effect, 61.8% of trainees reported participation in abortion care, though only 25.5% had performed surgical procedures. More than 75% of respondents would like to receive more training in all clinical skills related to ToP. In the future, 67.6% of respondents would be willing to provide TOP in all circumstances allowed by law.

**Conclusion:** Irish obstetrics & gynaecology NCHDs are generally supportive of the legislation. Few trainees have performed surgical abortions, and most would like to receive additional clinical training related to ToP.

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### Introduction

On May 25th, 2018, a popular referendum repealed the Eighth Amendment to the Irish Constitution, which had "acknowledged the right to life of the unborn with due regard to the equal right to life of the mother" and had banned abortion under all but the most extreme circumstances [1]. In December of the same year, the Regulation of Termination of Pregnancy Bill was signed into law, legalizing abortion upon request up to 12 weeks of pregnancy, and after 12 weeks (until fetal viability) if a woman's life or health is at risk, or if there is a fetal abnormality likely to lead to death within 28 days of birth [2]. Provision of services started on 1st January 2019, 11 days after the Bill was signed into law.

Termination of pregnancy (ToP) is provided free of charge through the public health system, and the care model emphasizes community-based provision of early medical abortion (EMA) by general practitioners (GPs). After 9 weeks and 6 days or if community-based care is contraindicated, medical or surgical ToP is provided in hospital maternity wards by obstetrician-gynaecologists together with midwives, as was recommended by the Institute of Obstetricians & Gynaecologists' clinical guideline document [3,4].

In Ireland as in other countries, women's access to timely and comprehensive abortion services within the public healthcare system depends on the successful implementation of the much-awaited legislation. This requires, among other things, healthcare providers who are willing and competent to provide ToP [5,6]. Early reports indicate that fewer than 20% of Irish GPs have signed up to provide EMA, and that only 53% (10 out of the 19) of maternity units are providing ToP services. Although the community-based service appears to be meeting the needs of many, geographic inequities in

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access to care persist, and referral pathways into secondary care are not well established [3].

Understanding provider-level barriers to abortion provision is key to improving access both in the community and in hospitals. Non-consultant hospital doctors (NCHDs) are physicians who are training to become consultants in a particular specialty. Obstetrics & gynaecology NCHDs provide much of the clinical care in maternity hospitals and represent the future of the Irish obstetrics and gynaecology profession. A survey of obstetric NCHDs conducted in 2015, prior to the Repeal of the Eighth Amendment, revealed that many of them had been actively involved in the provision of pre- and post-abortion care, and that most were theoretically supportive of increasing access to ToP in Ireland [7]. Since then, the landscape of abortion care in Ireland has radically changed, and it is important to understand the role that NCHDs are playing in this new service.

The objective of this study is to describe Irish obstetrics & gynaecology NCHDs' opinions of and experiences with termination of pregnancy two years after the service was first introduced. We also examine training received and assess the remaining training needs in a population that is key to guaranteeing future access to abortion in Ireland.

## Materials & methods

We conducted a cross-sectional web-based survey of obstetric NCHDs in the Republic of Ireland. We invited all 202 NCHD members of the Junior Obstetrics and Gynaecology Society (JOGS) to participate in the survey, using the group's e-mail listserv. We chose to survey trainees through the JOGS listserv because this society's members include NCHDs in official training posts (scheme) and those who are in non-training or stand-alone posts (non-scheme). As such, it is more representative of the overall population of Irish NCHDs. Of note, we estimate that there were approximately 275 obstetrics & gynaecology NCHDs in Ireland in 2020 [8], including scheme and non-scheme trainees, and the JOGS listserv at the time when our survey was administered included 202 (73.5% of all trainees).

The survey was hosted on REDCap electronic data collection tools at the Albert Einstein College of Medicine (Bronx, NY) [9,10]. Here, we report methods and results according to the guidelines set forth in the Checklist for Reporting Results of Internet E-Surveys (CHERRIES), where applicable, as this survey was administered by e-mail rather than as a survey posted on a website [11].

We designed the survey based on our own experience as clinician-educators, abortion providers and researchers. Where possible, we adapted questions that had been used in previous questionnaires. For example, we adapted some of the demographic questions and categories, as well as the question on attitudes towards termination of pregnancy, from the 2015 survey of obstetrics NCHDs [7].

The survey included 62 items presented on 8 screens. It asked about respondents' demographic information; about their knowledge of the new abortion law; about their opinion towards abortion; about training received and future training desired for abortion-related clinical skills; about their experience providing ToP care in this 2-year period; and about their willingness to provide ToP in the future. We also included some open-ended questions to further explore reasons for willingness to provide ToP.

We asked about clinical skills considered to be important to providing abortion care in the hospital setting: early pregnancy ultrasound, medical abortion (first and second trimester), manual vacuum aspiration, suction dilation and curettage (D&C), and dilation and evacuation (D&E). To measure knowledge of the abortion law, we designed 5 hypothetical clinical scenarios and one question about conscientious objection. The clinical scenarios asked whether for a patient at a particular gestational age and in particular circumstances ToP would be considered legal or illegal in Ireland. We

considered participants who responded correctly to all 6 questions to have a perfect "knowledge score". We piloted the survey with ten Irish and American obstetrics & gynaecology trainees prior to administering it.

We sent the survey invitation to the JOGS listserv in November of 2020, with two reminders after the initial invitation. The e-mail invitation included a link to the survey. Participation in this study was voluntary. The first survey screen was an informed consent document which participants agreed to prior to beginning the survey. Survey respondents received a 15 Euro Amazon Gift Card as a participation incentive. The survey responses were anonymous, but participants who wished to receive the incentive provided an e-mail address in a separate survey not linked to their responses.

We considered survey responses to be complete and included them in the analysis if data on willingness to provide ToP in the future was available. We used STATA SE Version 16 Software (StataCorp 2021) to conduct descriptive statistical analyses of response data. We conducted content analysis of the open-ended questions. To do so, we categorized responses into several groups and counted the number of responses for each group.

The Albert Einstein College of Medicine's Institutional Review Board approved this study on 14th January 2020 (IRB# 2019-10977). The Society of Family Planning (grant # SFPRF20-03, PI Bianca Stifani) funded this study. The grant application process included external peer review for scientific quality but no patient or public involvement panel. The funder did not play any role in conducting the research or writing the paper.

## Results

We received a total of 102/202 completed survey responses (50.5% response rate). Approximately 60% (n = 62) of respondents were female. Most (69.6%, n = 71) were of Irish nationality. More than one third (37.3%, n = 38) identified as atheist or agnostic, and a similar proportion identified as Catholic (36.3%, n = 37). More than half felt that religion did not influence their everyday life at all (58.8%, n = 60), or that it did so in few areas (23.5%, n = 24). Almost all worked in either tertiary (55.9%, n = 57) or secondary (40.2%, n = 41) maternity units. (Table 1).

Table 2 shows abortion knowledge and experiences. Most respondents (70.6%, n = 72) had a perfect abortion knowledge score. One quarter (23.5%, n = 24) reported having been involved in abortion care outside of Ireland, and three quarters (76.5%, n = 78) worked in units that are currently providing ToP. More than 60% of these NCHDs have participated in ToP care since the service was introduced (61.8%, n = 63), but only 25.5% (n = 26) have provided surgical ToP.

Table 3 shows NCHDs' beliefs about termination of pregnancy. The most common response aligns with current Irish law – 58.8% (n = 60) believe ToP should be allowed on request up to 12 weeks and in limited circumstance after 12 weeks. Approximately 20% (n = 20) believe that ToP should be available upon request even after 12 weeks, and another 20% (n = 19) believe the law should be more restrictive.

When asked about their willingness to provide ToP in the future, most respondents (67.6%, n = 69) said they would be willing to do so in all circumstances allowed by the law, while 14.7% (n = 15) would be willing to do so in some but not all circumstances allowed (Table 4). Approximately 1/3 of respondents indicated more comfort providing medical versus surgical ToP (30.4%, n = 31). Table 5 shows a selection of open-ended responses we received to the question "Why do you feel differently about medical and surgical ToP?" The themes raised by these responses are that surgical ToP feels more real and requires more active participation from the provider, while medical abortion feels more detached. Also, some expressed

**Table 1**

Demographic and post characteristics of 102 Irish non-consultant hospital doctors who responded to a web-based survey about termination of pregnancy.

	n	(%)
Gender		
Male	38	(37.3)
Female	62	(60.8)
Other / nonbinary	2	(2.0)
Age		
24 or younger	3	(2.9)
25–29	21	(20.6)
30–34	38	(37.3)
35–39	35	(34.3)
40 or older	5	(4.9)
Nationality		
Irish	71	(69.6)
UK, US or Canada	9	(8.8)
Other EU	7	(6.9)
Other non-EU	13	(12.7)
Missing	2	(2.0)
Religion		
Atheist / agnostic	38	(37.3)
Catholic	37	(36.3)
Muslim	12	(11.8)
Protestant	7	(6.9)
Other	4	(3.9)
Refuse to answer	4	(3.9)
Influence of religion on everyday life		
Not at all	60	(58.8)
In few areas	24	(23.5)
In many areas	11	(10.8)
In everything I do	6	(5.9)
Refuse to answer	1	(1.0)
Province		
Connacht	12	(11.8)
Leinster	57	(55.9)
Munster	28	(27.5)
Ulster	4	(3.9)
Missing	1	(1.0)
Unit type		
Tertiary	57	(55.9)
Secondary	41	(40.2)
Other or unsure	3	(2.9)
Missing	1	(1.0)
Post Type		
RCPI	69	(67.6)
Non-training or stand-alone	30	(29.4)
Other	4	(3.9)
Grade		
Intern	3	(2.9)
Senior house officer	18	(17.6)
Junior registrar	7	(6.9)
Registrar	26	(25.5)
Specialist registrar	48	(47.1)

UK: United Kingdom; US: United States; EU: European Union; RCPI: Royal College of Physicians of Ireland

concerns about higher rates of surgical complications with surgical procedures.

Table 6 shows the training received, perceived comfort level, and desire for future training on clinical skills related to termination of pregnancy. The only skill for which a significant proportion of NCHDs had received substantial training (52%, n = 53) is early pregnancy ultrasound. The majority of trainees (78–84%) would like to receive more training in all the skills listed in the survey.

Approximately half of respondents (46.1%, n = 47) reported prior participation in values clarification workshops and having received information about conscientious objection (48%, n = 49). In the future, 65.7% (n = 67) would like to participate in more such workshops, and 75.5% (n = 77) would like more information about conscientious objection (Table 7).

**Table 2**

Knowledge of the Irish abortion law and experience with termination of pregnancy among 102 Irish non-consultant hospital doctors who responded to a web-based survey.

	n	(%)
Knowledge of abortion law		
Perfect Score	72	(70.6)
Not perfect score	30	(29.4)
Have you ever been involved in abortion care outside Ireland?		
Yes	24	(23.5)
No	78	(76.5)
Are ToPs being provided in your unit at this time?		
Yes	78	(76.5)
No	11	(10.8)
Unsure	13	(12.8)
Does your consultant trainer provide ToP?		
Yes	47	(46.1)
No	19	(18.6)
Unsure	36	(35.3)
Have you participated in ToP care since Jan 2019?		
Yes	63	(61.8)
No	30	(29.4)
Unsure	9	(8.8)
Have you performed surgical ToP?		
Yes	26	(25.5)
No	37	(36.3)
Have you managed patients during hospital admissions for medical ToP?		
Yes	59	(57.8)
No	4	(3.9)

ToP: termination of pregnancy

**Table 3**

Beliefs about termination of pregnancy among 102 Irish non-consultant hospital doctors who responded to a web-based survey.

	n	(%)
ToP should not be available to any woman in Ireland	3	(2.9)
ToP should only be allowed in very limited circumstances	16	(15.7)
ToP should be allowed on request up to 12 weeks and in limited circumstances after 12 weeks	60	(58.8)
ToP should be available upon request even after 12 weeks	20	(19.6)
Unsure or no definite opinion	3	(2.9)

ToP: termination of pregnancy

**Table 4**

Willingness to provide termination of pregnancy among 102 Irish non-consultant hospital doctors who responded to a web-based survey.

	n	(%)
Willingness to provide ToP in the future		
Not willing to provide any	6	(5.9)
Willing in some but not all circumstances allowed	15	(14.7)
Willing in all circumstances allowed by law	69	(67.6)
Unsure	12	(11.8)
Willingness to provide surgical ToP in the future		
None at all	4	(3.9)
In limited circumstances*	27	(26.5)
When woman prefers surgical over medical ToP	40	(39.2)
Unsure	25	(24.5)
Missing	6	(5.9)
Do you feel differently about providing medical versus surgical ToP?		
Yes	31	(30.4)
No	47	(46.1)
Unsure	24	(23.5)

ToP: termination of pregnancy; \*for example, real and substantial risk to the mother, fatal foetal abnormality, medical emergency, contraindication to medical abortion

## Discussion

This study shows that obstetrics & gynaecology trainees in the Republic of Ireland are mostly in agreement with the recent legal

**Table 5**

Content analysis for open-ended responses to the question “Why do you feel differently about medical and surgical ToP?”, among Irish non-consultant hospital doctors who responded to a web-based survey.

Why do you feel differently about medical and surgical ToP?	n
Surgical abortion requires more active participation than medical	10
“To perform a surgical abortion feels like I am the one sort of like ending its life directly and while I understand it's a woman's choice and I know it's the best choice that she has made for herself, it's not something I am comfortable with as opposed to prescribing medical management...”	
“However right or wrong this opinion lands, I feel medical top is aiding a woman whereas surgical top requires me to be the sole actor ending a pregnancy.”	
“Medical I wouldn't give second thought after consultation and decision made by patient. Surgical I am more involved in; will not impact my decision to perform procedure, but am likely to think about it briefly before/after”	
Visceral /distressing reaction to surgical abortion for the provider	6
“Difficult to explain. Surgical TOP seems violent in comparison to medical.”	
“Medical feels more distanced. A bit easier than surgical.”	
“I feel [surgical ToP] transfers some of the distress and responsibility from the woman to the clinician.”	
“Direct visualisation of TOP.”	
“I find the idea of a D&E quite upsetting.”	
Concern about surgical complications	2
“Operative difficulties and risks involved with surgery such as uterine perforation.”	
“Greater risk of complications. Need for feticide in some instances. Greater impact emotionally in performing procedure.”	
Other concerns	3

**Table 6**

Training received, comfort level, and future training desired in clinical skills related to termination of pregnancy among 102 Irish non-consultant hospital doctors who responded to a web-based survey.

Training received	Comfort level		Desire for more training					
	n	(%)	n	(%)	n	(%)		
<b>Early pregnancy ultrasound</b>								
No training	7	(6.9)	Completely uncomfortable	4	(3.9)	Yes	83	(81.4)
Limited training	41	(40.2)	Somewhat uncomfortable	11	(10.8)	No	18	(17.6)
Substantial training	53	(52.0)	Somewhat comfortable	50	(49.0)	Unsure	1	(1.0)
			Completely comfortable	36	(35.3)			
<b>First-trimester medical abortion with mifepristone &amp; misoprostol</b>								
No training	21	(20.6)	Completely uncomfortable	12	(11.8)	Yes	82	(80.4)
Limited training	49	(48.0)	Somewhat uncomfortable	23	(22.5)	No	19	(18.6)
Substantial training	31	(30.4)	Somewhat comfortable	48	(47.1)	Unsure	1	(1.0)
			Completely comfortable	19	(18.6)			
<b>Second trimester medical abortion</b>								
No training	37	(36.3)	Completely uncomfortable	16	(15.7)	Yes	83	(81.4)
Limited training	44	(43.1)	Somewhat uncomfortable	39	(38.2)	No	16	(15.7)
Substantial training	20	(19.6)	Somewhat comfortable	36	(35.3)	Unsure	3	(2.9)
			Completely comfortable	10	(9.8)			
<b>Manual Vacuum Aspiration</b>								
No training	52	(51.0)	Completely uncomfortable	43	(42.2)	Yes	86	(84.3)
Limited training	42	(41.2)	Somewhat uncomfortable	37	(36.3)	No	13	(12.7)
Substantial training	6	(5.9)	Somewhat comfortable	15	(14.7)	Unsure	3	(2.9)
			Completely comfortable	7	(6.9)			
<b>Suction Dilation &amp; Curettage</b>								
No training	32	(31.4)	Completely uncomfortable	29	(28.4)	Yes	80	(78.4)
Limited training	42	(41.2)	Somewhat uncomfortable	26	(25.5)	No	19	(18.6)
Substantial training	28	(27.5)	Somewhat comfortable	32	(31.4)	Unsure	3	(2.9)
			Completely comfortable	15	(14.7)			
<b>Dilation &amp; Evacuation</b>								
No training	72	(70.6)	Completely uncomfortable	70	(68.6)	Yes	81	(79.4)
Limited training	22	(21.6)	Somewhat uncomfortable	19	(18.6)	No	17	(16.7)
Substantial training	7	(6.9)	Somewhat comfortable	8	(7.8)	Unsure	4	(3.9)
			Completely comfortable	5	(4.9)			

**Table 7**

Responses to questions about values clarification workshops and conscientious objection among 102 Irish non-consultant hospital doctors who responded to a web-based survey.

	n	(%)
Participated in values clarification workshops		
Yes	47	(46.1)
No	55	(53.9)
Would like to participate in more values clarification workshops		
Yes	67	(65.7)
No	31	(30.4)
Unsure	3	(2.9)
Received information about conscientious objection		
Yes	49	(48.0)
No	39	(38.2)
Unsure	14	(13.7)
Would like to receive more information about conscientious objection		
Yes	77	(75.5)
No	22	(21.6)
Unsure	3	(2.9)

change which partially decriminalized abortion, and more than 2/3 of them are willing to provide abortion care in the future. These findings are important because NCHDs are the future of the Irish physician workforce, and their willingness to provide care is important in guaranteeing access to secondary care when it is needed for termination of pregnancy.

In light of previous evidence [7], this study confirms that many NCHDs have some exposure to patients seeking abortion, and that most are supportive of expanding access to this service. Approximately 2/3 of NCHDs have beliefs about abortion that align with the legislation, and 2/3 are willing to provide ToP services. These rates are reflective of those of the general population in Ireland, as 66.4% voted in favour of the referendum to Repeal the Eighth Amendment [12]. This study adds to the literature because it shows that in this new landscape of legalized abortion in Ireland, NCHDs are willing to participate in the implementation of the service. Further, we highlight specific training needs that can be addressed with targeted interventions, thus increasing confidence in important clinical skills.

One interesting finding from this study is that 30% of respondents reported they feel differently and would be more willing to provide medical as opposed to surgical abortion. Some of this may be due to lack of exposure or lack of education about surgical abortion, as indicated by the erroneous statements about the greater risk of complications with surgical abortion [13]. However, several respondents reported greater hesitation to perform surgical procedures related to their own personal beliefs or emotions. To our knowledge, such a finding has not been as explicitly described in the literature about physician attitudes about abortion. In our study on the implementation of abortion services in Portugal, we found that implementers were worried that surgical abortion would “increase the number of objectors,” and therefore prioritized medical abortion in their national plan [14]. A survey of healthcare providers in Northern Ireland found that 60% would be willing to provide medical abortions, while only 50% would provide surgical abortion [15]. Our study of Irish NCHDs provides more direct evidence that at least in Ireland, there may be a real hesitation to provide surgical abortion specifically, even among obstetrician-gynaecologists. This should be further investigated as it may be relevant to other countries wishing to introduce abortion services.

It is important to note that only 25% of our respondents have provided a surgical ToP, and that only 15% of our respondents said they feel completely comfortable providing a suction D&C (at least in the context of abortion), though most of our respondents were in their last years of training. This suggests that there is little exposure to surgical abortion, and the hesitation we describe with regards to this practice may be addressed – at least in part – by increasing

training and exposure. Values clarification workshops may also be useful in terms of exploring the nuances of individual willingness to provide services, and it is encouraging that 65% of respondents would like to participate in more such workshops.

Among trainees, willingness to provide in the future does not always lead to abortion provision [16] – one study in the United States, for example, found that only 3 of 18 physicians who planned to provide abortion care while in training were doing so 5–10 years later while in practice. Commonly cited reasons for being willing but unable to provide abortions included lack of professional support and practice autonomy [16,17]. However, abortion training is a predictor of future abortion provision. A US survey of graduating OB-GYN residents found that those who had performed more than 50 first-trimester abortion procedures were significantly more likely to provide abortion in their clinical practices [18]. Other similarly found that abortion training during specialty training is associated with future provision in independent practice [19,20].

An important limitation of this study is that it was a survey study with an approximately 50% response rate. As such it is likely subject to response bias; trainees who are most interested in the topic may have been more likely to respond to our survey. However, physician surveys generally have low response rates; a 2015 survey conducted with the same group of Irish trainees, for example, had a 28% response rate [7]. We sought to increase our response rate by providing a financial incentive and sending multiple survey invitations on the e-mail listserv, but even so we only achieved a 50% response rate. We know little about the demographics of Irish NCHDs as a whole; their overall numbers are also estimates because approximately half of trainees in non-training posts are not registered. A 2020 medical workforce report estimated that there were approximately 275 total obstetrics & gynaecology NCHDs in 2020, including 173 (63%) in official training posts, and an estimated 102 (37%) in non-training posts. We also know that their gender distribution was approximately 80% female in both basic and higher specialist training [8]. Based on this information we can conclude that our respondents represented approximately 37% (102/275) of all Irish NCHDs, that our distribution of scheme and non-scheme trainees was similar to the overall population distribution, and that males were over-represented among the respondents (37% of respondents versus 18–19% of NCHDs). Unfortunately, we are unable to compare respondents to the overall population across any other variables.

Another limitation of this study is that we did not use any validated questionnaires. However, we did use similar questions to those previously used with this population, particularly when asking about respondents' opinions about abortion.

This study also has several strengths. First, we conducted it during a transition period in which abortion services were being introduced. Our findings are likely to inform physician training and staffing in the context of policy and service implementation, as this study shows that many NCHDs want to be involved and desire additional training. Another strength of this study is that we allowed respondents to provide open-ended explanations to certain questions, which provided additional depth and rich data.

In conclusion, Irish NCHDs could be a valuable force for expanding access to abortion care at the secondary care level. We have demonstrated that these trainees are willing to provide termination of pregnancy in the future, but that many of them currently lack exposure and training, particularly when it comes to surgical procedures. For maximum impact on future access to safe abortion in Ireland, NCHDs need to be equipped with the necessary skills now so that they may enact their positive intentions later.

#### CRedit authorship contribution statement

BMS, NCB, WC, and NR had the original idea for the study. All authors participated in the design of the study and in the

development of the questionnaire. BPM and GC recruited survey respondents using the professional listserv of the Junior Obstetrics & Gynaecology Society. KA and BMS managed the ethical review and participant incentives. BMS analysed the data and wrote the first draft of the manuscript. All authors contributed to and approved the final version of the manuscript.

### Declaration of Competing Interest

None of the authors have any conflicts of interests to disclose.

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### Appendix A. Supporting information

Supplementary data associated with this article can be found in the online version at [doi:10.1016/j.eurox.2021.100137](https://doi.org/10.1016/j.eurox.2021.100137).

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