

Attitudes towards abortion in graduate and non-graduate entrants to medical school in Ireland

Kevin O'Grady,¹ Kieran Doran,² Colm M P O'Tuathaigh³

¹Medical Student, School of Medicine, University College Cork, Cork, Ireland

²Senior Lecturer in Healthcare Ethics, School of Medicine, University College Cork, Cork, Ireland

³Lecturer in Medical Ethics, School of Medicine, University College Cork, Cork, Ireland

Correspondence to

Dr Colm M P O'Tuathaigh, Medical Education Unit, Brookfield Health Sciences Complex, University College Cork, College Road, Cork, T12 DX01, Ireland; c.otuathaigh@ucc.ie

KO'G and KD contributed equally to this study.

Received 30 April 2015

Revised 31 July 2015

Accepted 15 September 2015

Published Online First

16 October 2015

ABSTRACT

Background Recent legislation has sought to clarify abortion law in Ireland, allowing abortion where pregnancy endangers a woman's life, including through risk of suicide. Previous studies have shown that medical students' attitudes towards abortion can predict their likelihood to provide abortion care services in the future.

Aim To survey graduate-entry (GEM) and undergraduate-entry (i.e. school-leaver; DEM) medical students in Ireland on their attitudes to abortion, in light of recent changes in legislation.

Methods Irish medical students completed an 18-item anonymous questionnaire, measuring knowledge and attitudes regarding abortion, and current Irish abortion law.

Results Of 525 respondents (response rate 52.9%), 92% indicated that abortion was justified in specific circumstances. Over 80% stated that abortion was justified in cases of risk to the life of the mother (including risk of suicide) or where the fetus would not survive until term. 58.2% believed abortion was justified in the case of certain fetal developmental and genetic defects. 56.6% expressed a willingness to perform a legal abortion in their future practice. GEM students were more likely than DEM students to support availability of abortion services across each of the clinical scenarios. This effect was largely mediated by differences in religious adherence and continent-of-origin across both cohorts.

Conclusions The majority of students, regardless of mode of entry, believed abortion was justified where there was a real risk to the life of the mother (including risk of suicide) or in cases of fetal non-viability. The most significant determinant of students' beliefs was religious adherence.

INTRODUCTION

In 1992, the Irish Supreme Court ruled that abortion is permitted when a

Key message points

- ▶ This survey of Irish medical student attitudes towards abortion is the first such study since the introduction of legislation allowing abortion where pregnancy endangers a woman's life.
- ▶ The majority of respondents supported the provision of abortion services; the exception was in the case of specific fetal developmental and genetic defects, where less unanimity was observed.
- ▶ Religious adherence and nationality emerged as significant predictors of whether a student supported availability of abortion services.

pregnant woman's life is at risk, including at risk from suicide. In the years that followed, legislation was not enacted which might clarify this position, resulting in lack of clarity for both physicians and women regarding the legality of abortion in these circumstances. Between 1980 and 2013, it is estimated that at least 158 252 women from the Republic of Ireland have travelled to the UK to access abortion services.¹ On 1 January 2014, a new abortion law came into effect in Ireland, having been signed into law in July 2013.² With the 'Protection of Life During Pregnancy Act', abortion remains illegal in the country except where pregnancy endangers a woman's life, including through a risk of suicide. The new law aims to clarify the conditions in which termination of pregnancy is permitted, and to create procedures to regulate women's access to services under it. However, it has been noted that multiple approvals from health professionals (a requirement of the legislation) may



CrossMark

To cite: O'Grady K, Doran K, O'Tuathaigh CMP. *J Fam Plann Reprod Health Care* 2016;**42**:201–207.

delay or effectively prohibit access to a legal abortion in certain circumstances, notably where an abortion is sought due to risk of suicide.³ Abortion remains banned under most other circumstances; for example, where there exists an inevitably fatal fetal abnormality.

Surveys of physician attitudes towards provision of abortion services have highlighted the important role of professional background and religious beliefs in determining attitudes towards abortion. In the UK, a survey of 700 general practitioners (GPs) reported that 82% of those sampled were in favour of abortion being available to all women. Approximately 67% of those opposed to abortion on personal grounds still supported the Abortion Act 1967, which legalised provision of abortion services by registered practitioners in the UK.⁴ In contrast to the situation that applies in mainland Britain, abortion is not legal in Northern Ireland, except under specific clinical circumstances. In a cross-sectional survey of 150 GPs in Northern Ireland, the prevailing cultural and religious divide was reflected in GPs' attitudes towards abortion. In summary, Protestant doctors were far more likely to refer their patients for an abortion in Britain. In contrast, a greater proportion of Catholic doctors' patients were more likely to carry unwanted pregnancies to term.⁵ A survey of Irish GPs revealed that 51% of respondents ($n=325$, both GPs and GP trainees) agreed that abortion should be available to all women. Some 35% stated that abortion should either be prohibited entirely (10%) or only allowed in specific circumstances (25%), and these respondents were older and more often Catholic than their 'pro-choice' counterparts.⁶

It has been demonstrated that attitudes toward abortion displayed by students during medical school are significant predictors of likelihood that qualified physicians will perform abortions in their future practice.⁷ A study conducted over the period of a decade (the 1980s) in freshman and fourth-year medical students enrolled at Johns Hopkins University School of Medicine revealed that the vast majority of those polled favoured the availability of abortion, where comfort with referral was greatest in cases where the woman's life is in danger and in cases of rape. Notably, student attitudes did not change significantly as they progressed through medical school. UK-based studies have reported that up to two-thirds of medical students described themselves as 'pro-choice'.⁸ Cultural and religious influences were observed in a multicentre international survey involving medical students in Oslo, Norway and Belfast, North Ireland.⁹ It was reported that 78% of Norwegian students in Norway were in favour of access to abortion services, but only 14% of their Belfast counterparts shared this viewpoint. Further analysis revealed that these group differences were attributable to differential religious adherence between the two groups.

In a recent study, Fitzgerald and colleagues investigated attitudes to abortion among graduate-entry medical students in an Irish medical school. The majority (72.8%, $n=169$) of the total sample characterised their beliefs as moderately/strongly pro-choice.¹⁰ Closer examination revealed that their responses were distributed as follows: abortion should not be legally available (7.1%); abortion should be allowed in limited circumstances only (35.5%); abortion should be legally available upon request (55%); and unsure (2.4%). Some 58.8% of respondents indicated that they might perform a legal abortion once qualified. However, the majority of Irish medical students enter medical school via the school-leaver route (i.e. undergraduate-entry), which might lead us to question how representative the views of that sample (66.7% Irish; 29.2% North American) are of the overall Irish medical student population. Distinct academic, cognitive, and socio-emotional profiles have been described for graduate entrants relative to undergraduate-entry counterparts. Graduate entrants have been rated as significantly more conscientious, communitarian in moral orientation, and demonstrating different attitudes to medical professionalism relative to undergraduate-entry students.^{11 12} The aim of the present study was to survey attitudes of Irish medical students to abortion in the light of recent changes in Irish legislation. Additionally, this study is the first to systematically compare non-graduate- vs graduate-entry medical students' perceptions of, and attitudes towards, abortion.

METHODS

Study participants

This was a quantitative, cross-sectional survey-based study. Anonymous questionnaires were distributed at lectures between August and October 2013. All lectures were located in Cork University Hospital lecture theatre and in University College Cork medical school. Medical students from all years ($n=992$), and enrolled on both the undergraduate-entry (DEM) and graduate-entry medicine (GEM) programmes, were invited to participate on a voluntary basis. Approval was granted by the Clinical Research Ethics Committee of the Cork Teaching Hospitals in April 2013.

Study instrument

Medical students' knowledge of, and attitudes towards, ethical and medico-legal issues surrounding abortion were assessed in a newly devised 17-item questionnaire. It consisted of three sections: (a) demographic and educational background [gender, age, year of programme, mode of entry to medicine (DEM, GEM), nationality, religious adherence]; (b) attitudes towards abortion and early life matters (dichotomous response items assessing attitudes regarding moral basis of abortion, circumstances

under which it might be justified, willingness to perform a legal abortion when appropriately qualified and trained); (c) status of the unborn (multiple-choice items assessing views regarding gestation time limits for abortion, and when the fetus may be considered 'human'); and (d) knowledge of current Irish law and about abortion. Face and content validity of the questionnaire content was established via: (a) consultation with healthcare ethics academic staff based in University College Cork and (b) review of questionnaires previously employed to measure attitudes to abortion in medical students.^{9 10}

Data analysis

The frequency of responses was collated and calculated for every question posed. Relationships between responses and factors such as gender, mode of entry to medicine, or frequency of religious service attendance were then explored using cross-tabulation. The significance and strength of these relationships was investigated using Pearson's χ^2 analysis, which is used to test whether the association between two categorical variables is statistically significant. Binary logistic regression was employed to investigate relative significance of the following factors on selected attitudes towards abortion: mode of entry, continent of origin (nationality re-categorised into three levels: 'European', 'North American', 'Asian'), religious adherence (based on self-reported religious adherence), gender, age, and year of programme. The data were analysed using SPSS V.20 (New York, NY, USA: IBM Corporation).

RESULTS

A total of 525 students participated in this study, a response rate of 52.9% (525/992). Table 1 provides a summary of the demographic and educational characteristics of the study sample. The majority of the respondents (76.8%) belonged to the DEM programme. While the majority of respondents across both programmes were Irish nationals (DEM vs GEM, 67.2% vs 61.5%), the highest non-national grouping in the DEM programme was Malaysian (26.8%), whereas Canadian students comprised the highest non-national group in the GEM programme (33.6%).

When asked whether they would consider themselves religious, 39.4% ($n=205$) responded 'no', 47.3% ($n=246$) responded 'somewhat religious', and 13.3% ($n=69$) responded 'extremely religious'. Pattern of frequency of religious service attendance was as follows: 'no' ($n=186$, 35.3%); 'sometimes' ($n=180$, 34.2%); 'frequently' ($n=110$, 20.9%); and 'everyday' ($n=46$, 8.7%). GEM students were significantly less likely than DEM students to classify themselves as 'somewhat religious' (DEM vs GEM, 49.0% vs 41.8%) or 'extremely religious' (DEM vs GEM, 16.3% vs 3.3%; $\chi^2=22.72$, $p<0.001$).

Table 1 Demographic and educational characteristics of the sample population ($n=525$ students)

Characteristic	DEM ($n=403$)	GEM ($n=122$)
Age		
Range	17–41	22–39
Mean (SD)	21.2 (2.8)	25.7 (3.2)
Sex n (% of total n)		
Male	167 (41.4)	56 (45.9)
Nationality n (% of total n)		
Irish	271 (67.2)	75 (61.5)
Malaysian	108 (26.8)	0 (0.0)
Canadian	0 (0.0)	41 (33.6)
Singaporean	12 (3.0)	0 (0.0)
Other	12 (3.0)	6 (4.9)
Year of programme n (% of total n)		
Year 1	106 (26.3)	49 (40.2)
Year 2	93 (23.1)	36 (29.5)
Year 3	60 (14.9)	21 (17.2)
Year 4	67 (16.6)	16 (13.1)
Year 5	77 (19.1)	

DEM, undergraduate-entry medical student; GEM, graduate-entry medical student; SD, standard deviation.

Attitudes towards abortion and early life matters

Table 2 summarises DEM and GEM student responses for each item pertaining to the moral basis for abortion, and under what circumstances students believe abortion is justified. Over half (64.1%, $n=337$) of the total student sample stated that abortion is not morally wrong, with the remaining sample agreeing with the alternative position. Most respondents (92.1%, $n=480$) stated that abortion is justified under certain circumstances. When required to specify clinical circumstances where abortion might be justified, over 80% of respondents (Table 1) stated that abortion was justified where there was a real risk to the life of the mother, or where the fetus would not survive until term. A small majority (56.8%) believed that abortion 'on demand' is justified, and a similar proportion (58.2%) stated that abortion was justified in the case of developmental and genetic defects in the fetus. χ^2 analysis revealed that GEM students were more likely to be supportive of the moral basis of abortion ($\chi^2=30.37$, $p<0.0001$) and were more likely to state that abortion was justified if consistent with the mother's wishes ($\chi^2=15.04$, $p<0.0001$), where there is a risk to the health of the mother (including suicide) ($\chi^2=4.24$, $p<0.05$) or where there are developmental or genetic defects in the fetus ($\chi^2=13.60$, $p<0.0001$).

Attitudes to status of the unborn

When asked to specify when the fetus should be granted 'human' status, the following response pattern was observed: 'conception' ($n=75$, 14.4%); '14 days' ($n=56$, 10.7%); '22 weeks' ($n=235$, 45%); '26 weeks'

Table 2 DEM vs GEM: attitudes towards abortion and reasons for justification

Reasons for justification	DEM (n=403) Yes [n (% of total)]	GEM (n=122) Yes [n (% of total)]	Total (n=525) Yes [n (% of total)]	p*
Is abortion morally wrong?	165 (42.4)	17 (14.5)	182 (35.9)	0.001
Is abortion ever justified?	365 (91.0)	115 (95.8)	480 (92.1)	0.058
Is abortion justified if it is consistent with the wishes of the mother?	201 (52.1)	84 (72.4)	285 (56.8)	0.001
Is abortion justified if there is a real risk to the health of the mother (excluding suicide)?	377 (94.9)	116 (96.7)	493 (95.4)	0.309
Is abortion justified if there is a real risk to the life of the mother? (with suicide as a possible cause of risk)?	325 (81.3)	108 (89.3)	433 (83.1)	0.024
Is abortion justified if there are developmental and genetic defects in the fetus?	204 (53.7)	84 (73.0)	288 (58.2)	0.001
Is abortion justified if the fetus will not survive to term?	351 (87.9)	113 (93.4)	464 (89.2)	0.060

*Results from χ^2 comparisons of DEM vs GEM across categorical response items.

DEM, undergraduate-entry medical student; GEM, graduate-entry medical student.

($n=114$, 21.8%); and ‘birth’ ($n=42$, 8%). A follow-up question probed this matter further, and the distribution of responses observed where students were asked to specify the gestation threshold point after which abortion should be illegal is presented in Figure 1. No relationship was observed between mode of entry to medicine and responses to either of these questionnaire items (all $p>0.05$). A small majority (56.6%, $n=288$) of respondents stated that they would “be willing to perform a legal abortion (provided that you were correctly trained) where there had been informed consent by the pregnant female patient”; this response pattern did not differ according to mode of entry to medicine ($p>0.05$).

Knowledge of current Irish law regarding abortion

Table 3 indicates that a significant proportion (25.7%) of the total sample were unaware of current Irish law regarding abortion, as they responded that, based on their understanding, abortion could not be legally carried out in certain situations. This pattern of responding was observed equally in DEM and GEM students ($p>0.05$).

Effect of gender and students’ continent of origin

Female respondents were significantly more likely to agree that developmental and genetic defects were a justification for abortion than males (males vs females,

51.9% vs 62.5%; $\chi^2=5.5$, $p<0.05$). Females were also more likely to confer ‘human’ status on the unborn at ‘22 weeks’ (males vs females, 42.9% vs 46.5%; $\chi^2=11.78$, $p<0.05$). Continent of origin was also assessed in relation to questionnaire responses. Students from the Asian continent were more likely (relative to both European and North American students) to respond that: abortion is morally wrong ($\chi^2=148.1$, $p<0.0001$); abortion is never justified ($\chi^2=16.4$, $p<0.0001$); abortion is not justified if it is consistent with the wishes of the mother ($\chi^2=45.2$, $p<0.0001$); abortion is not justified if there are developmental and genetic defects in a fetus ($\chi^2=6.8$, $p<0.05$); abortion is not justified if the fetus will not survive to term ($\chi^2=26.5$, $p<0.0001$); and abortion is not justified where there is a real risk to the life of the mother (with suicide as a possible cause of risk) ($\chi^2=23.4$, $p<0.0001$). Additionally, Asian continent students were more likely to grant ‘human’ status to the fetus at either ‘conception’ or ‘14 days’ ($\chi^2=25.6$, $p<0.01$). Lastly, students from the Asian continent were also more likely to respond ‘no’ ($n=81$, 68%) than European ($n=215$, 36.0%) and North American ($n=12$, 26.7%) students when asked whether they would be willing to perform a legal abortion (provided that they were correctly trained) ($\chi^2=42.14$, $p<0.0001$).

In view of the data summarised above illustrating important group differences dependent on continent of origin, multiple regression analysis was conducted in order to determine whether the relationship between mode of entry to medicine and attitudes to abortion (Table 2) might be mediated by demographic differences across both groups (i.e. DEM, GEM) or differences related to differential religious adherence in both groups (as determined by the answer to the question “Are you religious?”). Table 4 describes the results of the regression analysis for each of the attitudes which were identified as different in GEM versus DEM in the χ^2 analysis. The medical programme emerged as a significant independent predictor of response to the question whether abortion

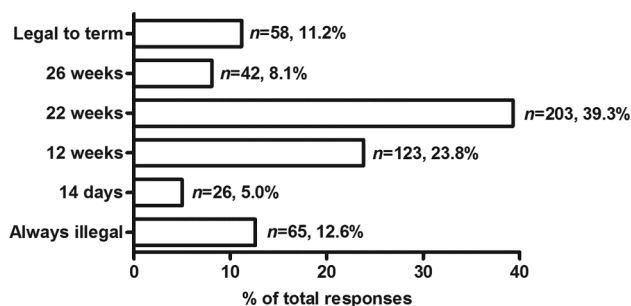


Figure 1 Distribution of student responses when asked to specify gestation threshold point after which abortion should be illegal.

Table 3 DEM vs GEM: knowledge of current Irish law regarding abortion

Question	DEM (n=403) Yes [n (% of total)]	GEM (n=122) Yes [n (% of total)]	Total (n=525) Yes [n (% of total)]	p*
In your understanding of the law, can abortion be legally carried out in Ireland in certain situations?	294 (73.9)	91 (75.8)	385 (74.3)	0.381

*Result from χ^2 comparison of DEM vs GEM in relation to item responses.

DEM, undergraduate-entry medical student; GEM, graduate-entry medical student.

was 'morally wrong', confirming that GEM were less likely to agree when presented with that question. However, for each of the other items, it was shown that DEM versus GEM differences identified in the earlier analysis were mediated by the factor 'continent of origin' and/or 'religious adherence'.

DISCUSSION

The present study confirmed that attitudes to abortion reflect multiple factors including academic and

cultural background, as well as presence and strength of religious beliefs. Our data revealed numerous differences between DEM and GEM students in relation to attitudes to abortion and under what circumstances it should be permitted. However, we also demonstrated that these differences were largely determined by both cultural factors and differences in frequency of religious belief, which is in agreement with previous surveys of medical students' views regarding abortion.⁹ Interestingly, after adjusting for confounding variables, GEM were still less likely than DEM students to regard abortion as morally wrong, which is consistent with earlier reports that these groups differ in some psychological characteristics.¹² The distribution of nationalities in the current sample accurately reflected the nationalities in Irish medical schools overall as well as the nationalities of non-consultant hospital doctors currently working in Ireland.

Some 35.9% of students believed that abortion is morally wrong. Previous surveys of medical students have not addressed this question in the same manner. However, we contend that this question is very relevant as previous research has demonstrated that medical students and doctors have the ability to separate their personal beliefs or opinions from their duty of care to patients.^{4 13} The majority (92.1%) of students agreed that abortion could be justified in certain clinical situations. This reflects the results seen elsewhere in the literature, where at least 90% of medical students surveyed felt that abortion could be justified in certain situations.^{10 14}

Given these results, it was appropriate to investigate potential clinical scenarios in which an abortion might be indicated as a medical intervention. In relation to the case where a mother's wish or desire might represent a justification for an abortion, 56.8% of respondents answered affirmatively. Other studies have examined students' beliefs regarding what has been termed abortion 'on demand'. The only previous study of medical students' views in an Irish university setting described a very similar pattern of responses, with 55% of students in favour of granting abortions on request.¹⁰

When students were asked whether abortion was justified if there is a real risk to the life of the mother, either including or excluding suicide as a possible cause of risk, these questions were regarded by the authors as particularly significant because the issue of suicide has been a matter of contention amongst the

Table 4 Binary logistic regression modelling for prediction of student attitudes to abortion†

Variable	OR (95% CI)
<i>Is abortion morally wrong?</i>	
Mode of entry	4.60 (2.31–9.15)**
Continent of origin	
European (reference)	
North American	1.04 (0.33–3.27)
Asian	0.15 (0.08–0.27)**
Religious adherence	0.22 (0.14–0.35)**
<i>Is abortion justified if it is consistent with the wishes of the mother?</i>	
Mode of entry	1.07 (0.50–2.27)
Continent of origin	
European (reference)	
North American	0.52 (0.21–1.32)
Asian	1.82 (1.06–3.12)*
Religious adherence	2.54 (1.79–3.61)**
<i>Is abortion justified if there is a real risk to the life of the mother (with suicide as a possible cause of risk)?</i>	
Mode of entry	2.18 (0.69–6.83)
Continent of origin	
European (reference)	
North American	0.52 (0.13–2.05)
Asian	1.91 (1.00–3.63)*
Religious adherence	2.08 (1.36–3.19)**
<i>Is abortion justified if there are developmental and genetic defects in the fetus?</i>	
Mode of entry	0.47 (0.23–0.98)
Continent of origin	
European (reference)	
North American	0.79 (0.32–1.93)
Asian	0.57 (0.33–0.99)
Religious adherence	2.25 (1.58–3.20)**

†Adjusted for age, gender, year of programme.

*p<0.01, **p<0.01.

CI, confidence interval; OR, odds ratio.

Irish people in the various referenda on abortion. It was a central feature of the controversial Irish case of 'Attorney General v. X' in 1992, which established the right of Irish women to an abortion if a pregnant woman's life was at risk because of pregnancy, including the risk of suicide.^{3 15} Most respondents (83.1%) felt that risk to the life of the mother from any cause was justification for an abortion. However, when suicide is removed as a threat to life, the figure increased to 95.4%. Some students were clearly uncomfortable with the threat or risk of suicide as a justification for abortion.

With respect to whether abortion was justified if there are fetal developmental or genetic defects, this question had the lowest response rate of any of the questions dealing with abortion justification (496 respondents); this may reflect the complexity of this topic. Just over half (58.2%) the students stated that developmental and genetic defects were a justification for abortion. These answers are in agreement with the responses of medical students in Northern Ireland when asked about abortion and fetal abnormalities.⁹ No developmental abnormality was seen as a justification for abortion by more than 50% of respondents (excluding anencephaly, where 75% of students felt it was a justification). In the same study Norwegian medical students answered questions on a range of developmental abnormalities. At least 75% of Norwegian students felt there was justification for abortion when dealing with a variety of developmental defects.⁹

Most of the students (89.2%) felt that abortion was justified where the fetus would not survive to term. While many students are not comfortable with abortions due to developmental defects, a very large majority believe that abortions are justified in this scenario. This is another example of students largely agreeing with a clinical scenario that might justify abortion, but which is currently illegal in Ireland.

The data showed that 58.6% of students felt that abortion should be legal up until at least 22 weeks. 17.6% of students believed that abortion should definitely be illegal after 14 days (12.6% believed it should always be illegal). There is a discrepancy here, however, as 25.1% of students previously answered that a fetus should be conferred 'human' status by 14 days. The number of respondents for both questions was almost identical. This means that approximately 7% of the sample did not fully consider their responses. To grant a fetus human status at a certain gestation but to allow abortion at the same gestation is an ethically and legally complex position. These apparent contradictions once more highlight the complex nature of the abortion debate.

A small majority (56.6%) of students would be willing to perform a legal abortion. This number is congruent with the results of the previous study of Irish medical students, where 58% of students

reported that they would perform or would consider performing a legal abortion in their future careers.¹⁰ Similar studies carried out in the USA and Britain found that approximately 50% of students would be willing to perform an abortion.^{8 14 16}

The study has several limitations. The students' plans of future practice were not investigated; it may have been relevant to examine the beliefs of students who aimed to pursue a career in obstetrics or gynaecology. The response rate of 52.9% resulted in a large study but there were still over 400 University College Cork medical students who did not participate; this was either due to refusal to complete the questionnaire or to non-attendance at lectures. To increase our knowledge in this area it would be interesting to compare our data with that collected in other Irish medical schools.

CONCLUSIONS

This is the largest survey of Irish medical students' attitudes on abortion and early life matters, and the first study to systematically compare school leaver and graduate entrants to medical school with respect to their views on abortion. While 36.1% of students felt that abortion was morally wrong, it was clear that students could separate the moral from the medical, with 92% of students believing that abortion could be justified in certain circumstances.

The study identified factors which influence medical students' opinions in this area. While mode of entry to medicine, gender and continent of origin had significant influence on student's views, it was shown that students' beliefs were very much influenced by the strength of their religious devotion, as well as their continent of origin. Based upon the results of our analysis, we can conclude that religious adherence is the strongest determinant of an Irish medical student's perspective on the laws and ethics of abortion.

Competing interests None declared.

Ethics approval Clinical Research Ethics Committee of the Cork Teaching Hospitals.

Provenance and peer review Not commissioned; externally peer reviewed.

REFERENCES

- 1 Department of Health, UK. *Abortion Statistics, England and Wales*. London, UK, 2013. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/319460/Abortion_Statistics__England_and_Wales_2013.pdf [accessed 27 July 2015].
- 2 Protection of Life During Pregnancy Act 2013. Act No.35 of 2013.
- 3 Erdman J. Procedural abortion rights: Ireland and the European Court of Human Rights. *Reprod Health Matters* 2014;22:22–30.
- 4 Francome C, Freeman E. British general practitioners' attitudes toward abortion. *Fam Plan Perspect* 2000;32:189–191.

- 5 Francome C. Attitudes of general practitioners in Northern Ireland toward abortion and family planning. *Fam Plan Perspect* 1997;29:234–236.
- 6 Murphy M, Vellinga A, Walkin S, *et al.* Termination of pregnancy: attitudes and clinical experiences of Irish GPs and GPs-in-training. *Eur J Gen Pract* 2012;18:136–142.
- 7 Steinauer JE, Landy U, Jackson RA, *et al.* The effect of training on the provision of elective abortion: a survey of five residency programs. *Am J Obstet Gynecol* 2003;188:1161–1163.
- 8 Gleeson R, Forde E, Bates E, *et al.* Medical students' attitudes towards abortion: a UK study. *J Med Ethics* 2008;34:783–787.
- 9 Steele R. Medical students' attitudes to abortion: a comparison between Queen's University Belfast and the University of Oslo. *J Med Ethics* 2009;35:390–394.
- 10 Fitzgerald JM, Krause KE, Yermak D, *et al.* The first survey of attitudes of medical students in Ireland towards termination of pregnancy. *J Med Ethics* 2014;40:710–713.
- 11 O'Flynn S, Power S, Horgan M, *et al.* Attitudes towards professionalism in graduate and non-graduate entrants to medical school. *Educ Health* 2014;27:200–204.
- 12 James D, Ferguson E, Powis D, *et al.* Graduate entry to medicine: Widening psychological diversity. *BMC Med Educ* 2009;9:67.
- 13 Rosenblatt RA, Robinson KB, Larson EH, *et al.* Medical students' attitudes toward abortion and other reproductive health services. *Fam Med* 1999;31:195–199.
- 14 Dans PE. Medical students and abortion: reconciling personal beliefs and professional roles at one medical school. *Acad Med* 1992;67:207–211.
- 15 *Attorney General v. X*. I.L.R.M. 401, 1992.
- 16 Stennett RA, Bongiovi ME. Future physicians' attitudes on women's reproductive rights: a survey of medical students in an American university. *J Am Med Women's Assoc* 1991;46:178–181.