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Abstract

This study aimed to gain an updated perspective of the teaching and learning experience of abortion care among Australian medical students. All 2020 Australian final-year medical students were invited to complete a twelve-question cross-sectional electronic survey. While it appears that abortion care is taught in most Australian medical schools, in some it is not, and where the topic is presented, structured and standardised teaching is still lacking. Students' confidence around abortion care once they are in practice is low, and the majority of students showed a strong desire to have more direct abortion placement exposure. The current abortion curriculum in Australia needs updating and expansion.

Introduction

The practice of induced abortion has been decriminalised in most states and territories in Australia over the past two decades.⁽¹⁻³⁾ Recent literature indicates that a majority of Australians support these changes.^(4, 5) While at least 100,000 abortions are performed annually⁽⁵⁾, abortion laws and regulations vary between jurisdictions with differences in legal criteria and service provision.^(2, 4, 6)

Providing quality abortion-care education to future doctors is essential to women's health. While not all medical graduates will ultimately be involved in abortion provision, there is a public expectation that doctors will have a basic knowledge of abortion practice, relevant law, and the care of women experiencing abortion complications.⁽⁷⁾ Junior doctors may also encounter women with abortion complications presenting in their resident rotations regardless of their chosen future career paths. Moreover, increasing exposure to abortion training in medical schools has been shown to increase women's access to abortion-care services due to increasing numbers of potential abortion providers.⁽⁸⁾ While it is known that some medical schools provide such teaching, the nature and extent of abortion education across Australian medical schools has not yet been well researched.⁽⁹⁾ Our study aimed to use an electronic survey to determine to what extent abortion education is included in Australian medical students training. We sought to know whether local legal requirements for abortion provision, counselling, methods of abortion, complications, post-abortion care and other topics are included in the medical schools' curriculum.

Materials and Methods

This was a cross-sectional electronic survey. All 3,678 Australian final year medical students⁽¹⁰⁾ in 2020 were invited to answer a twelve-question survey via a database held by the Australian Medical Students Association (AMSA). The survey was active between 1st July and 30th October 2020. The questionnaire was developed following discussions with abortion providers and AMSA representatives, and in line with previous studies seeking the opinions of Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG) members around abortion care.⁽¹¹⁾ The questions were designed to be solely on the topic of what was taught about abortion, not on the opinions of respondents of the practice or provision of abortion in Australia.

Inclusion criteria were: final year medical students in 2020 having completed an obstetric term and agreeing to participate. Eleven of twelve questions were quantitative in nature. These questions checked respondents' eligibility; collected demographic data (limited to the state or territory where the respondent's school was located to protect anonymity of students and schools); then asked whether abortion care was taught; how the topic was delivered; and the subject content. Abortion legislation awareness and students' confidence in providing abortion care were assessed in later questions. The final question collected students' opinions regarding abortion education and free-text responses were invited.

Consent was taken as implied by student participation in the survey. Ethical approval for the study was provided by James Cook University Human Research Ethics Committee (H8070). Descriptive statistics was performed on quantities' variables. Thematic analysis (Braun & Clarke method)⁽¹²⁾ was used to assess the free comments made by students.

Results

There were 320 respondents from across all states and territories. Inclusion of abortion-care education in their medical course was reported by 254 (79.4%) students, and a high proportion of students in every jurisdiction indicated they received abortion-care education. Table 1 indicates the responses for each state or territory. Among the 66 (20.6%) students who did not have any abortion teaching, all (100%) indicated they would like the topic included in the curriculum.

The survey also examined the delivery and content covered in abortion teaching. Abortion was taught as the primary topic in 163 (64.2%) students' training in contrast to 91 (35.8%) where abortion was a secondary topic. Table 1 describes the direct and indirect delivery of abortion education in each state: 119 (47.0%) of respondents reported they learnt about abortion from lectures and tutorials only, and 89 (35.0%) through clinical attachments (dedicated experience in abortion services: 18; incidental experience in the O&G rotation: 71). Only 46 (18%) of students indicated they had both lectures/tutorials and clinical placements. The subject content of abortion teaching varied greatly across schools: information on contraception and family planning was provided for 218 (85.8% of students); abortion methods 205 (80.7%); ethical considerations 192 (75.5%); legal dimensions 192 (75.5%); complications 138 (54.3%); pre-

and-post abortion counselling 105 (41.3%); investigation and management of complications 75 (29.5%); and referral services 69 (27.2%).

Table 1 also reports students' awareness of the legal status of abortion in their state/territory of training. Overall, 124 (48.8%) of students were correct, 89 (35.0%) were incorrect and 41 (16.1%) answered unsure. In general, students were not confident about managing complications arising from abortions. When asked about caring for women with complications of medical abortion, 33 (13.0%) felt 'confident', 125 (49.4%) neutral, and 96 (37.6%) 'not at all confident'. For complications of surgical abortion the responses were: 'confident': 40 (15.6%), 'neutral': 102 (40.3%) and 'not at all confident': 112 (44.1%).

A total of 109 students (42.9%) identified having more opportunities for clinical exposure to abortion care as the most effective way to enhance their abortion education experience. Other possible improvements were: more clinical tutorials (76 students - 29.9%), abortion providers teaching the subject (59 students - 23.4%), and involving different stakeholders (pro-choice groups, religious leaders and lawmakers) to speak to students (10 students - 3.8%).

Thematic analysis of the 103 free comments revealed two main themes: suggested improvement for the subject, and appreciation of the opportunity to have learnt about abortion. Table 2 provides a summary of the identified themes and students' free comments.

Discussion

This is the first study to provide a comprehensive cross-sectional view of the current extent of abortion education in Australian medical schools since abortion law reform and decriminalisation began more than twenty years ago. Most medical schools now include abortion education in their curriculum, and such education usually has abortion as the primary subject of discussion, with the exception of Western Australia (WA).

With regards to the content, contraception/family planning, abortion methods, and ethical and legal considerations are frequently included. Interestingly, despite the fact that 75.3% of

respondents recalled being educated about the legal dimension of abortion, only around half of them could correctly identify the current legal status of abortion in their state of training. Moreover, information about counselling, management of complications and multidisciplinary referral services often appears to be lacking. Such inadequate exposure could explain the low confidence levels reported by students in their ability to manage complications arising from medical and surgical abortion. Hence, new medical graduates may not be able to recognise abortion complications early, initiate basic management, and refer to relevant teams. These findings are concerning.

Providing quality abortion education to medical students remains a global challenge. Espey et al surveyed 126 obstetrics and gynaecology rotation directors in the United States (US) and found that 23.0% of medical students had no formal abortion education, a rate similar to that reported in our study.⁽¹³⁾ The lack of universal abortion training for medical students has also been reported in Canada, the United Kingdom and Norway.⁽¹⁴⁾ The US study also reported 32.0% of students having lectures only, as the primary form of abortion education, and just 45.0% having some clinical experience, as opposed to 47.0% and 53.0% respectively in Australia revealed by the current study. The US study also reported that 96.0% of students supported the topic being included in the curriculum.⁽¹⁵⁾ A Malaysian survey also showed 90.0% of local medical students wanting more education on abortion practice and legal aspects of abortion.⁽¹⁶⁾ The current study did not directly examine students' support of the curriculum, however, 66 (100.0%) of respondents whose medical school did not offer abortion education would like this to be included. Current literature identified the lack of abortion service in the training region, patients' refusals for student's involvement, short placement time, and competition of other health topics for teaching time as other barriers.⁽¹⁷⁾

A better way to deliver abortion education needs to be devised and validated by future research. The free comment section showed that students highly valued abortion clinic placement and recommended increasing such exposure as only 18 out 79 (22.8%) students had such opportunity. Emerging evidence suggests that sensitive counselling, multidisciplinary team involvement and psychological support are also essential for abortion care,⁽¹⁸⁻²⁰⁾ however, these were not included in the updated RANZCOG medical school curriculum.⁽⁹⁾

The main limitation to our study is that respondents chose to participate and were not randomised in any way, potentially creating bias. The respondent size is relatively small affecting the generalisability of findings. However, the information sought was factual rather than opinion on the topic of abortion, and there was concurrence across the answers. We therefore believe that the information gained is pertinent to the subject of the teaching of abortion care in Australian medical schools.

This study highlights that while abortion care is taught in most Australian medical schools, structured and standardised teaching is still lacking. Students' confidence around abortion care is inadequate, and the majority of students showed a strong desire to have more direct abortion placement exposure. The current Australian medical curriculum will need to expand in significant ways in order to equip new graduates with necessary skills to provide basic and safe care for women requesting induced abortion.

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Table 2

Table 2: summary of identified theme from students' free comments

Identified main themes	Frequency	Example of students' comment extract <i>(student's state of training is provided at the end of the comment)</i>
Suggested improvements:		
Received teaching was evidence-based and of high quality, there were gaps, and more extensive teaching would have been welcome. (A number recommended a core or uniform curriculum item on abortion across Australia)	38	<p data-bbox="718 481 1398 694"><i>A very important aspect of women's health that needs to be covered in greater depth. - VIC</i></p> <p data-bbox="718 593 1398 694"><i>Education with Australian data and experience should be included. - SA</i></p> <p data-bbox="718 761 1398 1691"><i>My University only provides lectures around the legal and ethical considerations relating to abortion. during Year 1 and Year 2. All other clinical learning was incidental through clinical placements and relies on self-directed learning. Essentially my university provides no lectures/tutorials at all in Year 3 and Year 4, which risks graduating students having significant gaps in fundamental clinical knowledge. I think there needs to be a core curriculum for all final year medical on key topics from a range of specialities, including O&G and education around abortion, to ensure we have a better understanding before internship. I think having clinical placement in an abortion health service and having specialists to teach the subject would both be valuable. - QLD</i></p> <p data-bbox="718 1758 1398 2011"><i>Although abortion law is variable depending on the state (in which) you practice, I strongly believe there should be unified syllabus in the medical curriculum about abortion. The O&G college should take the lead in develop it to ensure the minimum standard of all Australian graduates is met and that they can take care of women wanting</i></p>

There should be more provision of information, and emphasis, on the ethical, legal and social aspects of abortion in addition to explanation of abortion procedures and the consultation processes of abortion care

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*abortion or going through abortion. - NSW
Very important part of women's healthcare and a basic human right- all doctors should know how to counsel a woman and approach potential complications regardless of their beliefs. – QLD*

A review of abortion study is long overdue! The curriculum not only needs to cover the legal and ethical dimension, but also the evidence-based practice, emotional care and further referral services. - WA

While taught about the clinical side of termination of pregnancy, no teaching is given regarding legality, counselling, alternatives, mental healthcare, available services or other aspects important for holistic care. Seeking a termination, or having complications, is likely to be a traumatic situation, and inexperienced or inadequately trained JMOs present an aggravating factor to this trauma. There should be dedicated training for approaches, counselling and exposure around this matter. - WA

Wanted more clinical exposure to the actual practice of abortions and the counselling preceding procedures, although a number felt that actually witnessing (or taking part in) abortions should be optional, in case students held conscientious objections to the practice

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We have received helpful lectures on abortion and have opportunity to view STOPs at gynae theatres. However we have never had the opportunity for a patient encounter regarding abortion and feel that we are missing the real world clinical experience to provide care for women seeking abortions. Therefore I believe having a component of obgyn clinical placement dedicated to abortion will be useful. - QLD

It is important to include clinical experience in relation to abortion services so that students are prepared when they enter their professional careers. - VIC

I think it is crucial for all medical students to have a clinical experience related to abortion services. Even for those who are conscientious objectors, it is important to know how the process works, and where and when to refer women for safe and appropriate care. - QLD

Having at least one tutorial on the topic would be useful as it is not common to encounter abortion cases in a clinical environment (particularly in more conservative areas such as North Queensland). I think as health professionals, everyone would have different opinions on abortion and different preferences as to whether they would like to perform one with a patient. Regardless, all students should be well versed on the topic and prepared to respond to a woman requesting an abortion in a respectful manner. - QLD

While gaining hand-on experience in abortion services can be experience enriching, this should be optional as some students may have conscientious objection towards abortion. - NSW

This is where a small number of students (five) introduced the idea of ‘anti-abortion’ views being heard, as part of medical school teaching, which we registered as a sub-theme:

Anti-abortion group should also be invited to participate in the development of the curriculum to give a more balanced view. - WA

Highly satisfied and appreciated with current abortion education:			
Abortion was well covered, no deficiency identified.	12		<i>I believe I have had pretty thorough teaching about termination of pregnancy...and feel confident in managing and referring women to termination services - NSW</i>
Impressed by what they had learned through abortion education	8		<i>I attended an optional speaker outside of university hours, that was hosted by our student body. The guest speaker explained in great detail medical abortions, and how they are implemented from a clinical perspective, most of what I learned about this topic would have been missed if I did not attend this voluntary session. - QLD</i>

Table 1

Table 1: Responses by training states and territory

State of training*	Is abortion included in the medical curriculum?		Is abortion presented as the primary topic?		Performance of student abortion with re
	<u>Included</u> <i>n₁ (%)</i>	<u>Not included</u> <i>n₂ (%)</i>	<u>Primary topic</u> <i>n₃ (%)</i>	<u>Secondary topic</u> <i>n₄ (%)</i>	<u>Correctly identified</u> <i>n₅ (%)</i>
QLD	96 (82.8%)	20 (17.2%)	70 (72.9%)	26 (27.1%)	53 (55.2%)
VIC	23 (63.9%)	13 (36.1%)	14 (60.9%)	9 (39.1%)	11 (47.8%)
NSW	26 (72.2%)	10 (27.8%)	16 (61.5%)	10 (38.5%)	7 (26.9%)
ACT	10 (100.0%)	0 (0%)	7 (70.0%)	3 (30.0%)	0 (0%)
WA	63 (79.7%)	16 (20.3%)	23 (36.5%)	40 (63.5%)	36 (57.1%)
SA	10 (58.8%)	7 (41.2%)	7 (70.0%)	3 (30.0%)	4 (40.0%)
TAS	16 (100.0%)	0 (0%)	16 (100.0%)	0 (0%)	6 (37.5%)
NT	10 (100.0%)	0 (0%)	10 (100.0%)	0 (0%)	7 (70.0%)
National (total):	254 (79.4%)	66 (20.6%)	163 (64.2%)	91 (35.8%)	124 (48.8%)

Legends:

* QLD = Queensland, VIC = Victoria, NSW = New South Wales, ACT = Australian Capital Territory, WA = Western Australia, SA = South Australia

** options for student to choose: either of a.) fully legalised, b.) partially legalised with restrictions and special requirements, c.) not legalised, d.) not available

Reference: de Costa C, et. al. Abortion law across Australia--A review of nine jurisdictions. Aust N Z J Obstet Gynaecol. 2015 Apr;55(2):103-108.

