Sexuality and gender identity teaching within preclinical medical training in New Zealand: content, attitudes and barriers

Oscar Taylor, Charlene M Rapsey, Gareth J Treharne

ABSTRACT

AIMS: To investigate inclusion of sexuality and gender identity content, attitudes and barriers to inclusion of content in preclinical curricula of New Zealand medical schools from the perspective of key teaching staff.

METHOD: Staff responsible for curriculum oversight at New Zealand’s two medical schools were invited to complete a mixed-methods survey about sexuality and gender identity content in their modules.

RESULTS: Of 24 respondents, the majority included very little content relating to sexuality or gender identity (33%) or none at all (54%). This content was deemed important by most participants (69%), and none believed there should be less such content in their curriculum. Time was reported to be the main barrier limiting inclusion of such content.

CONCLUSIONS: Our finding of limited content is consistent with international literature. Our findings extend the literature by revealing that barriers to greater inclusion of content are not due to overt negative attitudes. Staff responsible for preclinical medical curriculum oversight have positive attitudes about content relating to sexuality and gender identity but perceive curriculum space to be a limiting barrier. This is important as it informs approaches to change. Future interventions with medical schools should focus on methods to increase diverse content as part of existing teaching, education to increase knowledge of LGBTQI relevant material and potentially incorporate strategies used to address unconscious bias. Addressing the perceived barriers of time constraints and lack of relevance is required to ensure medical students receive training to develop the competencies to provide positive healthcare experiences for all patients regardless of sexuality and gender identity.

People with marginalised sexual and gender identities face many health inequities across diverse areas, including cancer, addiction and mental health difficulties, domestic violence and sexual health. Research indicates negative healthcare experiences are common for lesbian, gay, bisexual, transgender, queer/questioning and intersex (LGBTQI) individuals. These experiences include assumptions about sexuality alongside minimal options for disclosure, the use of incorrect gender pronouns, discriminatory statements regarding the person’s identity and even refusal of treatment. The recent Ministry of Health commissioned report, “Mental Health promotion and prevention to gay, lesbian, bisexual, transgender and intersex population in New Zealand”, emphasised that not all doctors are equipped to provide appropriate care for these populations. For example, one participant reported, “...I guess where I met hostility is within hospitals when I have been ill and doctors (not normally nurses) do not know how to cope with my partner being my partner or us being close or wanting information from them and sharing it with my partner.”
Fear of negative experiences and lack of trust in a doctor’s understanding of LGBTQI needs may result in individuals being reluctant to disclose their sexuality or gender identity, perpetuating health inequalities through compromising integrated healthcare.12–15 Additionally, patients may not be aware of the value in disclosing their gender identity, sexuality or sexual behaviours to doctors,13,14 further emphasising the need for doctors to sensitively elicit this information. Medical training must address issues of diversity in sexuality and gender to counter the many health inequalities resulting from marginalisation and dissatisfaction with medical care among LGBTQI individuals.13,15–23

International research investigating teaching staff’s perspective of medical education related to LGBTQI health indicates significant gaps.20 A recent survey of key curriculum staff from 14 medical schools in Australia and one in New Zealand found that 60% of schools include five or fewer hours of LGBTQI content in preclinical education. Specific figures are not reported for the one New Zealand school that responded and the survey was limited by including only one key staff member from each school, which is unlikely to be someone with detailed knowledge of the content of all modules.24 In a review of LGBTQI content in North American medical schools, the median time dedicated to this content was five hours over the entire programme of study.25 The majority of institutions surveyed had some LGBTQI content but mainly in preclinical years. However, when asked about the quality of their institution’s LGBTQI content in the surveys from North America and Australia/New Zealand, around half of staff felt it was fair and around a quarter felt it was poor.24,25 Although international evidence shows some LGBTQI-specific content exists in medical programmes, there is a need to understand how to ensure this content is more than poor or fair, and it is pertinent to consult teaching staff to explore their confidence to include relevant LGBTQI content at appropriate points in the curriculum.

Overall, there is a lack of evidence regarding medical school teaching staff’s attitudes and confidence in teaching LGBTQI healthcare and what barriers they perceive to effectively educating medical students about LGBTQI healthcare. The purpose of this study was to survey module conveners within New Zealand medical schools to investigate what is currently taught about LGBTQI healthcare and to determine convenors’ attitudes to teaching LGBTQI healthcare, given an increasingly secular and politically accepting climate in New Zealand. Same-sex marriage was legalised in New Zealand in 2013 and there is less conflict between religion and sexual diversity in New Zealand than in Australia, North America and the UK, but not universal acceptance.26 This makes New Zealand medical schools a pertinent location to explore coverage of LGBTQI content and barriers to coverage.

**Methods**

**Participants**

All 38 academic staff responsible for preclinical curriculum oversight at New Zealand’s only two medical schools were contacted regarding participating in the study. The University of Auckland School of Medicine and the Otago Medical School provided a list of contact details for relevant staff. University of Otago Ethics, Category B, approval was given.

**Survey**

A mixed methods design was used, in which quantitative and qualitative data were collected using the Qualtrics online survey platform. The survey included questions informed by Otago Medical School curriculum27 and previously validated measures.18,25 Some questions were adapted to include questions specific to a participant’s module, to suit teaching staff rather than students, and using the acronym LGBTQI to encompass a wide scope of identities.

Quantitative data were collected by asking participants to indicate how LGBTQI content is taught in their module, their attitudes surrounding the level of such coverage and barriers encountered when trying to include such content in their module (see below for question wording). Qualitative data were collected in response to the question “Do you have any comments about the teaching of LGBTQI content?” This question was primarily included to help explain the
responses to closed questions but also to allow participants to raise issues not covered in those questions. The study is thus a concurrent QUAN + qual mixed method with the capitalised QUAN signifying the primary emphasis on the quantitative data.28

Coverage of LGBTQI content
Participants were asked “How much LGBTQI content is taught in your module?” with five response options ranging from ‘None at all’ to ‘A great deal’. Those who did include LGBTQI content were then asked how the content was covered in the module (‘Mostly interspersed throughout various parts of the curriculum’, ‘Mostly taught in discrete modules’, ‘Not officially taught’). Finally, all respondents were presented with a list of 25 content areas and asked to indicate which were relevant to their module. Content areas, displayed in Table 1, were selected using a curriculum map of content areas included in the current preclinical curriculum at the Otago Medical School.27 Participants were asked whether medical students in their module are provided with education in the previously selected content areas in relation to LGBTQI people.

Attitudes
Participants were asked how important they believe it is to educate medical students in the selected content areas relevant to their module, in relation to LGBTQI people. Response options ranged from ‘Very important’ to ‘Not at all important’. Participants indicated the extent they agreed that their module had good coverage of LGBTQI content, with response options ranging from ‘Strongly agree’ to ‘Strongly disagree’ (see Table 2). Finally, they were asked how much more or less time they felt should be dedicated to LGBTQI content in their module, with response options ranging from ‘Much more’ to ‘Much less’ (see Table 2).

Barriers
Participants were asked about barriers that could influence their inclusion of LGBTQI content in their module, including whether their school of medicine provided faculty development for teaching LGBTQI content, with response options being ‘yes’, ‘no’ or ‘don’t know’ and how easy or difficult they found teaching, finding time to teach and accessing resources to help teach LGBTQI using a 7-point scale ranging from ‘Extremely easy’ to ‘Extremely difficult’ (see Table 3).

Data collection and analysis
Data were collected from Otago Medical School in January 2017 and from the University of Auckland School of Medicine across April and May 2017. The survey was distributed by email using Qualtrics. A generic link was used rather than tracking responses from individual participants. Participants were informed that completing the survey indicated that they had provided consent. One reminder email was sent. A total of 24 staff (63%) gave consent and began the survey, with 21 completing the survey (55%). Responses of those who began but did not complete the survey were included in analyses where they had provided data. The response rates for participants completing the survey at the Auckland School of Medicine and the Otago Medical School were comparable (57% and 53% respectively).

The data are described as the percentage of participants selecting each response option. Due to the small sample size, standard error and confidence intervals would not be reliable and have not been included in this report. In order to analyse the qualitative data we applied a form of thematic analysis based on the phases and distinctions described by Braun and Clarke.29 In terms of these distinctions, our thematic analysis: i) aimed to provide a comprehensive description of the dataset of comments, ii) was data-driven (ie, inductive), iii) applied an essentialist/realist epistemology (ie, that participants’ comments provide a direct reflection of their experiences and intended meanings) and iv) sought semantic themes (ie, interpreting the surface meanings of comments). Of those who responded to the survey, 13 provided comments (54% overall; 38% from Auckland and 62% from Otago).
Results

Quantitative results

Content

When asked how much LGBTQI content was included in their module, 54% responded ‘None at all’; 33% responded ‘A little’; few responded ‘A moderate amount’, ‘A little’ or ‘A great deal’ (one participant each). LGBTQI content was reported to be taught in discrete blocks in 70% of these 11 modules (29% of all modules) and interspersed throughout various parts of the curriculum in 20% of the 11 modules (8% of all modules). A convenor of one of these 11 modules responded that LGBTQI content was ‘Not officially taught’, and another did not respond.

Participants were next provided with the list of the 25 curriculum content areas and asked to select areas relevant to their module (Table 1). For 50% of areas selected as relevant to their module, participants responded that students were provided with LGBTQI-specific education, whereas for 36% of areas selected as relevant to their module participants reported that students were not provided LGBTQI-specific education. For the other 14% of selected content areas, respondents did not know whether LGBTQI-specific education was provided in their module. For all 25 content areas, at least one participant responded that students are provided with education in relation to LGBTQI people in their module.

Table 1: Curriculum content areas and responses when participants were asked to select all the content areas that may be relevant in their module and whether their module provided education in relation to LGBTQI people in the content areas they had selected as relevant.

<table>
<thead>
<tr>
<th>Content area</th>
<th>Content area relevant to their module</th>
<th>Covered in relation to LGBTQI people in their module</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Barriers to accessing healthcare</td>
<td>11</td>
<td>5</td>
</tr>
<tr>
<td>Alcohol, tobacco or other drug use</td>
<td>12</td>
<td>4</td>
</tr>
<tr>
<td>Safe sex</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Sexually transmitted infections (not HIV)</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>HIV</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Chronic disease risk</td>
<td>12</td>
<td>2</td>
</tr>
<tr>
<td>Sexual orientation</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Gender identity</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>Disclosure of identity</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Intersex/disorders of sex development (DSD)</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>Transitioning (eg, male-to-female, female-to-male)</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Sex reassignment surgery</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Adolescent healthcare</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Mental health</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>Body image</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Unhealthy relationships (eg, abuse within and outside the family)</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>How your own values, attitudes and morals affect patient care</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>Development of sex characteristics</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Sexual dysfunction</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Requesting sexual health information/taking a sexual history</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Requesting information about a patient’s personal history</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>Doctor-patient relationship</td>
<td>11</td>
<td>3</td>
</tr>
<tr>
<td>Geriatric care</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Reproductive health</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Requiring community/family support</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>None are relevant</td>
<td>2</td>
<td>N/a</td>
</tr>
<tr>
<td>Total</td>
<td>171</td>
<td>70</td>
</tr>
</tbody>
</table>
Attitudes
In content areas selected as being relevant to the module they convene, participants responded that educating students in LGBTQI content was ‘Extremely important’ for 37% of selected content areas, ‘Very important’ for 32%, ‘Moderately important’ for 12%, ‘Slightly important’ for 11% and ‘Not at all important’ for 8% of selected content areas.

When asked to indicate whether their module had good coverage of LGBTQI content, the majority of participants disagreed (see Table 2), although one-third neither agreed nor disagreed. When asked whether more or less time should be dedicated to LGBTQI content in their module, no participants responded that there should be less, while the majority felt there should be the same and the rest felt that there should be more LGBTQI content (see Table 2).

Barriers
When asked how easy or difficult it is teaching LGBTQI content, the majority of participants responded that it is neither easy nor difficult (see Table 3), while 30% found it to be varying degrees of easy to teach, and 15% found it moderately difficult to teach.

Around half of participants reported finding the time to teach LGBTQI content to be difficult (see Table 3). Only 16% found it easy to find the time, and 37% found it neither easy nor difficult finding time. Just over half of participants responded that it was neither easy nor difficult accessing resources to help with teaching LGBTQI content (see Table 3), and 20% and 25% responded that it was easy or difficult, respectively.

When asked whether their school of medicine provided faculty support for teaching about LGBTQI healthcare, the

Table 2: Participants’ responses to the questions regarding their attitudes about LGBTQI coverage in their module.

<table>
<thead>
<tr>
<th>Question</th>
<th>Strongly agree</th>
<th>Agree Somewhat</th>
<th>Neutral</th>
<th>Somewhat disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>On the whole, your module has good coverage of relevant LGBTQI content.</td>
<td>10%</td>
<td>10%</td>
<td>10%</td>
<td>33%</td>
<td>19%</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Much more</td>
<td>Moderately more</td>
<td>Slightly more</td>
<td>About the same</td>
<td>Slightly less</td>
<td>Moderately less</td>
</tr>
<tr>
<td>How much more/less time do you feel should be dedicated to LGBTQI content, on the whole, in your module?</td>
<td>5%</td>
<td>24%</td>
<td>14%</td>
<td>57%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Table 3: Participants’ responses to the questions regarding ease of teaching LGBTQI content in their module.

<table>
<thead>
<tr>
<th>Question</th>
<th>Extremely easy</th>
<th>Moderately easy</th>
<th>Slightly easy</th>
<th>Neutral</th>
<th>Slightly difficult</th>
<th>Moderately difficult</th>
<th>Extremely difficult</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching LGBTQI content?</td>
<td>0%</td>
<td>25%</td>
<td>5%</td>
<td>55%</td>
<td>0%</td>
<td>15%</td>
<td>0%</td>
</tr>
<tr>
<td>Finding time to teach LGBTQI content?</td>
<td>0%</td>
<td>11%</td>
<td>5%</td>
<td>37%</td>
<td>5%</td>
<td>37%</td>
<td>5%</td>
</tr>
<tr>
<td>Accessing resources to aid with teaching LGBTQI content?</td>
<td>0%</td>
<td>15%</td>
<td>5%</td>
<td>55%</td>
<td>20%</td>
<td>5%</td>
<td>0%</td>
</tr>
</tbody>
</table>
majority of participants responded that they did not know whether their school of medicine provided faculty support (74%), while 17% responded that there was no faculty support and 9% responded that there was support.

Qualitative results
Conveners have positive attitudes about LGBTQI content
Comments from participants indicated that they perceived the inclusion of LGBTQI content in the preclinical curriculum as an important and positive content area. An increased amount of LGBTQI content in the curriculum over recent years was described, as was the desire to further increase the amount of LGBTQI content.

“There was no LGBTQI content previously but I have put some content in this year and hope to improve it next year.”

Conveners perceive LGBTQI content as not relevant in their module
Despite the positive attitudes about including LGBTQI content in the preclinical curriculum, conveners commented that they did not believe their module was the place to include such content, and it was better taught elsewhere in the curriculum. Participants often expressed that LGBTQI content is not relevant in their module as sex, gender and sexuality is not important at the academic level their module covers, and that content would be more relevant in modules with a greater focus on patient work, and later in the curriculum.

“Whilst I absolutely believe it is an important part of the curriculum, I don’t believe [module] is the place to teach it in any depth. [Module] is focused on basic principles and very cellular/molecular. Very little distinction is made on the basis of sex or gender at this stage. Introducing the LGBTQI content at a stage where the students are more focused patient-based learning would seem more appropriate.”

Designated areas for teaching LGBTQI content exist
Participants also suggested that specific areas for teaching LGBTQI content are included in the curriculum. Entire modules were identified for teaching LGBTQI content, as were discrete blocks within modules dedicated to LGBTQI content.

“[Module] is an elective course […] It is entirely dedicated to teaching LGBTQI healthcare content.”

“We have two lectures and a two hour small group session of teaching [LGBTQI content].”

Discussion
The findings of this survey suggest that there is some coverage of LGBTQI content across various content areas in the preclinical curriculum in New Zealand medical schools, with around a third of respondents believing that good cover has been achieved. However, participants’ responses suggest that in a number of areas coverage is brief and insufficient. Participants were aware of this brief coverage in their modules, nevertheless fewer than 50% believed that more content should be included. Several contributing barriers to limited cover were identified, chiefly time constraints. These findings support previous surveys of medical students or teaching staff in Australia/New Zealand,24 South Africa,20 the US25 and UK18 through confirming low levels of content inclusion and extend these studies by finding, within New Zealand, that barriers to inclusion are more subtle than overt negative attitudes.

In the quantitative and qualitative findings, conveners reported positive attitudes towards the inclusion of LGBTQI content despite the limited coverage. This discrepancy between attitudes regarding inclusion and actual inclusion suggest that barriers other than negative attitudes towards LGBTQI healthcare are inhibiting conveners from incorporating this content into their teaching. The main barrier reported was space to include LGBTQI content. Given the considerable amount of content that is covered in the preclinical stages of the medical curriculum, it could be that conveners set aside LGBTQI content in favour of other content areas. This is a barrier that has been identified in research with teaching staff of other health professional training programmes.30

Thematic analysis revealed another barrier; many conveners do not believe LGBTQI content to be relevant to their teaching. Preclinical medical training includes strong grounding in basic sciences;
LGBTQI content may arguably be less relevant to include within subjects with minimal applied focus such as biochemistry. However, it may be that educators lack awareness of LGBTQI issues and therefore fail to recognise relevant teaching opportunities within these subjects (e.g., biochemistry of hormone treatment). Further, a failure to recognise the relevance of LGBTQI content may represent an uncritical acceptance of heteronormativity and cisnormativity. For example, consideration of ‘physiological’ sex differences within basic sciences could be informed by consideration of the relevance of transgender hormone treatments. In addition, conveners noted that while not relevant to their module, other individuals did teach LGBTQI content. This viewpoint takes the responsibility off the individual convener to include LGBTQI content. The result is that a few individuals are the only people attempting to cover LGBTQI content.

A possible explanation for these barriers is the primary use of block teaching rather than integrating LGBTQI content into existing curriculum. The findings suggested that LGBTQI content is typically taught in discrete blocks with minimal interspersion throughout the curriculum. The Association of American Medical Colleges has recommended that faculty take an integrative approach to adding LGBTQI content to medical curricula; for instance, including LGBTQI patients in existing lectures, case studies and exam questions. A structured review of the degree of diversity that exists in the written teaching material and exploration of the implicit or ‘hidden’ curriculum in New Zealand medical schools would be a good way to supplement the findings of the current study in future research.

In a US-wide survey of medical school deans, one of the most successful strategies for increasing LGBTQI content in medical curriculum was having “faculty willing and able to teach LGBT-related curricular content”. The present findings suggest that New Zealand medical school staff are willing to teach LGBTQI content, but report that they are not able to, given the barrier of an already full curriculum. We hypothesise that another process may also be at work whereby heteronormativity and cisnormativity are uncritically accepted, therefore opportunities for the inclusion of LGBTQI content that do not involve additional teaching time are missed, for example including people who are LGBTQI in existing case studies. Although explicit attitudes towards LGBTQI health were positive in this survey, the task of challenging heteronormativity and ciscentricity remains.

Faculty development has been identified as a method for facilitating the inclusion of LGBTQI content in healthcare education. The results of the present study suggest that faculty development is either not being offered to staff or engagement is low. Either way, staff are provided with little experience or education regarding LGBTQI healthcare. Further, if staff are unaware of the disproportionate burden of health needs experienced by LGBTQI people, then decisions regarding teaching priorities may be inadequately informed.

There were limitations to this study. A moderate response rate constrained generalisability. In addition, the study is limited by surveying only the pool of preclinical module conveners rather than including all staff. Although conveners are most likely to have an overview of the content of their modules it is probable that there would have been variations in response from individual teaching staff reflecting more accurate estimates of content and greater diversity of attitudes. Further, it is likely that curriculum content has developed over time and is shaped by various institutional practices for curriculum development and may not reflect recent decisions about how much LGBTQI content to cover.

Despite the survey being anonymised, participants may have wanted to present a favourable picture of their coverage resulting in socially desirable responding. A high percentage of participants responded with the neutral response option provided. This option may have been used frequently as an uncontentious answer and makes the results difficult to interpret. The likelihood of responses being explicitly or implicitly shaped by social desirability may also have been affected by survey item wording. That is, participants were asked to indicate whether there was “good” coverage. “Good” may have a moral valence that influenced participant responding toward the positive throughout the survey. Further, participants were not asked how important they
considered LGBTQI teaching; while participants may consider that it would be “nice” to have greater time to teach a range of topics, they may be unaware of the value of including LGBTQI content. This is consistent with the finding that lack of time was a major barrier to teaching; this reflects that LGBTQI content is not considered to be a priority. It would be useful to understand teaching staff’s understanding of the importance and relative importance of LGBTQI content in order to provide appropriate education to teaching staff. The extent of LGBTQI coverage in the final years of New Zealand medical school remains unknown; it will be important for future research to capture the explicit content at later levels as well as the implicit knowledge passed on as students work alongside senior clinicians. Past research suggests there is less LGBTQI content later in the medical school curriculum, however participants in the current survey indicated that greater cover was provided in later years, establishing whether this is the case is important to ensure adequate coverage of LGBTQI content across New Zealand medical schools. Furthermore, studies assessing student learning are required to determine the impact of teaching about LGBTQI healthcare.

Conclusion
This study adds to international literature about barriers to the inclusion of content relating to sexuality and gender identity in medical training. Preclinical medical school module conveners have positive attitudes towards teaching LGBTQI healthcare in New Zealand; however, content is briefly included in blocks within content areas where it is considered relevant and most staff do not believe that changes need to occur. The discrepancy between positive attitudes about the content and the limited inclusion could be explained by curriculum constraints, the belief that the content should be covered elsewhere in the curriculum, lack of experience with LGBTQI healthcare needs, lack of awareness of the importance of LGBTQI content and slow adaptation of curriculum to societal changes. Leaders of medical school curriculum development could consider implementing training that addresses unconscious bias, increases motivation among medical school teaching staff to prioritise the delivery of LGBTQI content and explore integrative approaches to including LGBTQI content in medical school curricula.

Competing interests:
Nil.

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