

A contemporary review of LGBTQ+ healthcare teaching in the UK medical curriculum

ORIGINAL RESEARCH

AUTHOR

Alice Barber
University of Leeds

Alexander Flach
University of Leeds

Emily M. Pattinson
Newcastle University

Address for Correspondence:
Alice Barber
University of Leeds,
Clarendon Way,
Leeds, LS2 9NL

Email: um18a5b@leeds.ac.uk

No conflicts of interest to declare.

Accepted for publication: 12.06.22

ABSTRACT

Background: Changing societal views and the increasing prevalence of online education has created an environment ideal for the evolution and change of the medical curriculum. One area in need of improvement is LGBTQ+ healthcare teaching. Current literature demonstrates that LGBTQ+ individuals have higher levels of poor mental and physical health than heterosexual, cis-gender individuals. Therefore, it is key that the medical curriculum is made more inclusive of the LGBTQ+ population to ensure future doctors can provide inclusive care. This review aimed to examine the current literature on LGBTQ+ healthcare teaching in UK medical curricula, identify potential barriers to change, and explore suggestions of how to improve LGBTQ+ healthcare teaching in medical curricula.

Methods: Literature searches were carried out using the PRISMA framework. The databases used were PubMed, Ovid, Embase, AMED, Global Health and Scopus. The searches were carried out in July 2021.

Results: 15 relevant papers were reviewed. Three main themes were identified: 1) medical students (or medical schools) believed current education on LGBTQ+ healthcare was insufficient; 2) students reported wanting more in-depth practical education on LGBTQ+ health; 3) the potential impact of a lack of LGBTQ+ healthcare education on clinicians' confidence and ability to treat LGBTQ+ patients.

Discussion: LGBTQ+ healthcare is lacking in the UK medical curriculum which has the potential to negatively impact patients. The teaching that is present is firstly inconsistent which leads to disparities and unreliability for LGBTQ+ patients. It is also heavily focused on sexual health which can lead to damaging stereotypes. Despite there being barriers to improving LGBTQ+ healthcare education, we present practical suggestions to overcome these. Further research should explore in greater depth the level of knowledge of medical students on LGBTQ+ healthcare, and their perceptions of curriculum improvements, in order to establish a basis for future curriculum change.

INTRODUCTION

The UK has a turbid history with heteronormativity and the LGBTQ+ community. (1) In the 1980s, the then Prime Minister Margaret Thatcher introduced Section 28 of the Local Government Act 1988 that criminalised the teaching of homosexuality in schools. (2) Whilst this was repealed in 2003, (3) its legacy has left a long-term gap in the curriculum for students to learn about diverse genders and sexualities. A report by LGBTQ+ rights charity, Stonewall, found that even in 2014, 37% of primary school teachers and 29% of secondary school teachers were not aware that they could teach about LGBTQ+ specific issues, (4) such as discrimination, diverse genders and sexualities, LGBTQ+ families and LGBTQ+ sexual health. As a consequence of Section 28, we now have healthcare professionals and medical educators, like the rest of the UK population, who were not able to learn about LGBTQ+ specific issues and health during their education. (5) Thus, they would not have had the basic foundations of knowledge of the LGBTQ+ community laid before they commenced tertiary education, such as medical training. Therefore, it is key that basics of LGBTQ+ health are taught during medical training, in order to account for this knowledge gap. It is also important to consider the larger impact that the Section 28 legislation had on societies attitudes as a whole, in addition to the direct impacts it had on education. As a potential consequence, not only are many clinicians ill-prepared to treat LGBTQ+ patients, but it has also led to many anti-LGBTQ+ attitudes amongst healthcare professionals which can be damaging to both LGBTQ+ patients and staff. (6) This is highlighted by Bachmann and Gooch whose report found that almost one in four LGBTQ+ people had “witnessed anti-LGBT remarks by healthcare staff”. (7)

A lack of understanding, and even discrimination, within healthcare settings may explain why LGBTQ+ individuals are more likely to experience poor physical and mental health compared to the general population and are thus less likely to seek help. (8,9) A fear of being discriminated against, inappropriate curiosity, being outed without consent (when a person’s gender identity or sexuality is shared with others without their consent), and a lack of understanding of the complex health needs of LGBTQ+ individuals are all cited as barriers to engaging in healthcare services. (7) For example, a dangerous lack of understanding of cervical cancer screening for trans individuals assigned female at birth (AFAB) has been identified. (10) This knowledge deficit regarding the physical and mental health of LGBTQ+ individuals indicates not just a lack of education on LGBTQ+ identities in school-aged children, but also of a failure in medical schools to fill this knowledge gap and ensure doctors are sufficiently equipped with the relevant knowledge and communication skills to treat all their patients.

These gaps in education have impacted current clinicians. The literature has previously established that many clinicians are not sufficiently aware of LGBTQ+ healthcare. For example, one study reported a large disparity in perceptions of collecting patient information of sexual orientation, (11) with 80% of healthcare staff believing this would offend patients, yet only 11% of patients questioned stated they would be offended. This suggests a hetero-

cis-normative culture that could be cultivating a gross exaggeration of the social sensitivity around the discussion of sexuality and gender in the general public, and a level of fear and uncertainty in how to discuss it. Smith and Matthews found that nearly one third of the doctors questioned maintained homophobic attitudes and HIV-phobic attitudes. (12) Furthermore, research suggests that many healthcare professionals held incorrect beliefs that sexual intercourse between women carries little-to-no risk of sexually transmitted infections (STIs), hence why lesbian women were less able to access contraception and treatment for STIs. (13) These findings depict a healthcare workforce ill-equipped with the knowledge they need to treat LGBTQ+ patients.

One approach towards tackling this knowledge deficit is changing the training of the future medical workforce. Medical education in the UK is already experiencing a paradigm shift towards more inclusive teaching and curricula, notably with the publication of ‘Mind The Gap’ (14) - a handbook showing clinical signs on black and brown skin. This guide highlighted a lack of diversity in curricula, producing clinicians unprepared to work with all patient groups. Moreover, the publication of the General Medical Council’s (GMC) report titled ‘Promoting excellence’ required medical schools to give students the “opportunity to gain [...] understanding of the needs of patients from diverse social, cultural and ethnic backgrounds [...] and with protected characteristics”. (15) These moves towards cultural change indicate a desire, both from the student body and educational governance, to make medical training more inclusive and representative. Examples from changes to the curriculum in other areas of equality, diversity, and inclusion (EDI) can be used as the foundations for introducing LGBTQ+ healthcare into the curriculum. The following review aimed to consolidate what is known about the level of knowledge on LGBTQ+ healthcare in medical students, and the way students themselves believe their education on LGBTQ+ healthcare can be improved.

METHODS

Searches

Between 5/07/21 and 21/07/2021, searches were conducted in the following databases: PubMed, Ovid, Embase, AMED, Global Health and Scopus, as well as back-searching of references. The databases were selected by the authors based on the topic area and target participant group. The search terms used were: ((LGBT*) AND ((medical school) OR (medicine)) AND ((UK) OR (United Kingdom) OR (Britain))). The search terms were selected through an iterative process and from discussion within the research group and key stakeholders to ensure a wide range of potential publications were identified.

Inclusion/exclusion criteria

All papers were screened by the lead author and secondary screening was undertaken by other members of the research team. Initially, all papers were screened by reading the title and abstract, and full text screening followed for all papers that satisfied the inclusion criteria in the first stage. Papers were included in the final review if they clearly referred to the discussion of LGBTQ+ healthcare

teaching in the UK medical curriculum. Only articles published in English were included due to the focus on the UK-wide medical curriculum.

Quality assessment

This current review used the critical appraisal skills programme checklist to assess the quality of all papers included in the review. (16) Due to the small number and standard of papers identified, low quality was not used as a reason for exclusion.

Data extraction

All papers that satisfied the inclusion criteria and quality assessment were entered into a data extraction table by the research team. The following data was extracted: authors' names, year of publication, methodological approach, main findings, and links to LGBTQ+ teaching in medical curriculum.

Data synthesis

The current review utilised narrative and thematic analysis to synthesise the papers included due to the variety of different methodological approaches. This involved immersion within the dataset, followed by manual coding of data by all members of the research team individually in isolation. The research team then collectively and collaboratively grouped codes into similar categories. Finally, narrative exploration of the categories done both individually and collaboratively allowed us to develop themes.

RESULTS

The initial searches identified 132 papers. After the removal of duplications (N=29), papers were screened, of which 15 papers were included in the review (see figure 1). The papers ranged in date of publication from 2000 to 2021. The papers found in the literature search are detailed in appendix 1.

Despite the minimal research into the inclusion of LGBTQ+ healthcare in the UK medical curriculum, three main themes were prevalent across the existing literature. The first theme centred around the UK medical curriculum severely lacking in LGBTQ+ healthcare teaching. 8 out of the 15 (53%) papers reviewed indicated that either the medical students themselves or those delivering the curriculum thought education on LGBTQ+ healthcare was insufficient. (18, 20, 22, 26, 27, 28, 30, 32) Parameshwaran et al. demonstrated the lack of LGBTQ+ specific training, (28) reporting that 84.9% of respondents did not believe they had received specific teaching on LGBTQ+ healthcare. Further, Tollemache et al. stressed that LGBTQ+ healthcare teaching was usually relegated to single modules, (32) commonly sexual health. Stott also highlighted how key to training "organized exposure" to LGBTQ+ patients is, (30) demonstrating the significance of the current lack of practical LGBTQ+ healthcare training. Moreover, in addition to insufficient levels of teaching, a lack of consistency between the extent and quality of LGBTQ+ healthcare teaching between UK medical schools was also found – the amount of teaching on LGBTQ+ healthcare varied from 3 to 55 hours, which may further disadvantage medical graduates and increase disparities. (32)

The second theme that emerged from the analysis showed that UK medical students and medical schools want more teaching on LGBTQ+ healthcare. Out of the 15 papers, 4 (27%) specifically mentioned that either medical students or medical schools actively wanted more LGBTQ+ healthcare teaching. This was illustrated by Arthur et al. who found in their survey of 252 medical students that most of their students (85%: n = 198) desired more teaching on LGBTQ+ healthcare. (18) Moreover, the literature also discussed how any future change should be carried out. The suggestion that changes should be centralised so that all medical students received the same level of LGBTQ+ healthcare education was repeated. (22, 27, 32) For example, Tollemache et al. explained how it is necessary for organisations with responsibility, (32) such as the GMC, to explicitly align themselves with the importance of teaching LGBTQ+ healthcare in the medical curriculum. Further, the literature also presented a significant number of suggestions regarding ways that LGBTQ+ healthcare could be included in the curriculum, as outlined in Table 1.

The third theme identified was the subsequent lack of understanding and potential negative impacts for LGBTQ+ patients due to students feeling unprepared to treat LGBTQ+ patients. One third of the papers reviewed reported that the lack of LGBTQ+ healthcare teaching caused a decrease in confidence towards treating LGBTQ+ people, which then progressed to the poorer treatment of LGBTQ+ people. (18, 26, 28, 29, 30) Parameshwaran et al. explained how clinicians not being aware of how "sexual and gender identities intersect with health needs" (28) can lead to situations where clinicians are not in the situation to provide the best care possible for LGBTQ+ patients. For example, if a clinician is not aware of the details of gender affirmative medicine, they may not be best situated to discuss past procedures with patients if necessary. Patients may themselves also be worried about lack of understanding of clinicians, which could lead to disengagement with healthcare and therefore worse outcomes. (7)

DISCUSSION

The current literature review explored LGBTQ+ inclusion in medical curricula. This was done to provide a foundation for further research into the baseline knowledge of students on LGBTQ+ healthcare, how this is influenced by the teaching they receive, and how students think further teaching on LGBTQ+ healthcare would benefit their clinical practice. The main findings centred around three key themes: 1) there is currently insufficient inclusion of LGBTQ+ healthcare in UK medical curricula; 2) there is a demand for the inclusion of LGBTQ+ healthcare from both medical students and educators; and 3) this lack of teaching can impact students' preparedness for working with patients who are LGBTQ+. While there appears to be some teaching on LGBTQ+ healthcare in UK medical schools, the literature is clear that the current level is insufficient to prepare students for the complexities of caring for LGBTQ+ communities.

The current teaching is insufficient

LGBTQ+ healthcare is clearly not seen as a priority in current medical education, as it is neither compulsory nor assessed. (32) As Wormald et al. found in their research, inclusion in assessment and increased weighting can increase students' motivation to learn and understand concepts. (33) Moreover, inclusion in assessments allows medical schools to evidence their students' level of competency. Therefore, by including aspects of LGBTQ+-specific healthcare in medical assessments, such as the science of gender and sex, medical schools would be better equipped to ensure students understand core concepts related to the care of LGBTQ+ populations.

Currently, the onus is on individual teaching staff to include LGBTQ+-specific content. This allows for significant variation in the content and amount of teaching that students are provided - which would not occur if the content was regulated by a governing body. Additionally, due to the established lack of LGBTQ+ training, the people with the most knowledge on LGBTQ+ healthcare are most likely to be LGBTQ+ themselves. (28) Therefore, it is likely to be LGBTQ+ people who have the burden of teaching placed on them - further burdening the LGBTQ+ community. Furthermore, by not directly employing staff to teach LGBTQ+ healthcare, as is usually the case for other topics in medicine (such as gynaecology or anatomy) it could indicate that less importance is being given not only to this topic but also to the LGBTQ+ population as a whole. This can further lead to the impression on medical students that LGBTQ+ healthcare is not important, potentially leading to either conscious or subconscious discrimination against LGBTQ+ patients. Additionally, without stability in the structure of LGBTQ+ healthcare teaching there are more chances for variation in standards of teaching, and therefore lower levels of competency in LGBTQ+ healthcare amongst different students.

Lack of teaching can impact patient care

This lack of LGBTQ+ healthcare education could potentially impact the quality of patient care received by LGBTQ+ patients. Firstly, if a doctor does not understand aspects of LGBTQ+ healthcare, such as gender affirmative treatment, it is unlikely that the doctor will be able to provide the most clinically appropriate treatment. Secondly, inequality in levels of teaching means that LGBTQ+ patients can't guarantee that the doctor treating them will be sufficiently educated in LGBTQ+ healthcare. This could lead to sub-standard care and increased anxiety in LGBTQ+ patients around accessing healthcare. It is also important to note the impact that doctor prejudice can have. In many cases, a patient's access to care, particularly secondary care, is reliant on a doctor listening to what they have to say and acting on this - it is the case the majority of the time that a referral to secondary care has to be done by primary care. (34) It would be naive to think that if a doctor had direct prejudices against LGBTQ+ patients, whether due to lack of knowledge or otherwise, that it would not impact on their decision making. Therefore, these factors emphasise the multitude of ways

that patient care can be detrimentally affected by lack of LGBTQ+ healthcare education.

Another problem encountered with the UK medical curriculum is that much of LGBTQ+ inclusion is focused within sexual health teaching, (26, 32) leading to the hyper-sexualisation of the LGBTQ+ community. This perpetuates the outdated stereotypes of promiscuity and dangerous sexual practices that can lead to future clinicians holding unconscious biases. This in turn reduces LGBTQ+ people's identities to purely their sexuality and/or gender identity rather than taking into account all aspects of an individual's identity. Additionally, this alienation can lead to even more bias against the LGBTQ+ community from clinicians who may not be used to discussing sexuality, as they may see sexuality as the primary presentation of LGBTQ+ patients. Further, the assumption that the only healthcare service where LGBTQ+ identities are relevant is sexual health is dangerous, as research shows that LGBTQ+ individuals experience higher rates of physical and mental illness when experiencing "minority stressors", (35) such as discrimination and judgement. Spotlighting sexual health can lead to other illnesses being ignored or pushed out of the view of healthcare professionals.

Ways forward for LGBTQ+ inclusive medical curricula

Numerous barriers to including more LGBTQ+ healthcare teaching have been noted and addressing these may be the first step to making the curriculum more LGBTQ+ inclusive. Although not exhaustive, the barriers identified include lack of time; lack of resources; unpreparedness of medical schools to teach LGBTQ+ healthcare; and lack of space in the curriculum. In order to address these barriers, we believe an overarching force to encourage all medical schools to provide high quality, standardised teaching on LGBTQ+ healthcare is required from a regulatory body, such as the GMC. A well-recognised barrier is that the medical curriculum is extremely full. We argue that incorporating LGBTQ+ people and healthcare scenarios into existing teaching, such as case studies and communication scenarios, can allow better representation of LGBTQ+ patients, without inflating the curriculum size. We have also identified the value of including LGBTQ+ educators. As well as providing an invaluable lived experience, this contributes to solving the problem that many medical students have not had contact with LGBTQ+ people. Whilst this goes beyond the scope of this review, it is also worth noting that a vast quantity of medical students' learning happens outside of the classroom and on clinical placement. Therefore, in order to embed positive values and understanding of LGBTQ+ healthcare needs, we must also address the issue of teaching the clinicians from which medical students will be learning.

LGBTQ+ healthcare teaching must also be embedded throughout the undergraduate curriculum, with consistently spread-out teaching, rather than one-off sessions which are easily forgotten. Consistent teaching will also prevent the use of tokenistic 'tick box' sessions. This method of continual teaching would also best represent the fact that LGBTQ+ people experience a wide range of different health conditions and may present in many different types of clinical settings. Furthermore, educators must ensure that it is

clear that LGBTQ+ patients are not a homogenous group and can have various healthcare needs. This may be currently reinforced by the current focus on sexual health in LGBTQ+ teaching therefore, incorporating LGBTQ+ health into different aspects of medical teaching, such as obstetrics, will help to ensure a more accurate representation. On a similar note, lesbian, gay and bisexual health should be separate to teaching on transgender health due to the fact that they have many separate health needs.

Finally, whilst formal curricular methods are important to discuss, we must consider the role of the hidden curriculum. (36) Medical schools are able to control the formal curriculum but cannot standardise the experiences that individual students gain through their clinical placements and hidden curriculum. Whilst medical schools cannot directly influence the behaviours of healthcare professionals, we argue they have a duty to work with NHS partners to ensure medical students are learning in an inclusive environment. Through instilling LGBTQ+-inclusive behaviours and perceptions among future healthcare professionals, we can work towards creating a more inclusive environment from which future medical students will be able to learn.

Strengths and limitations

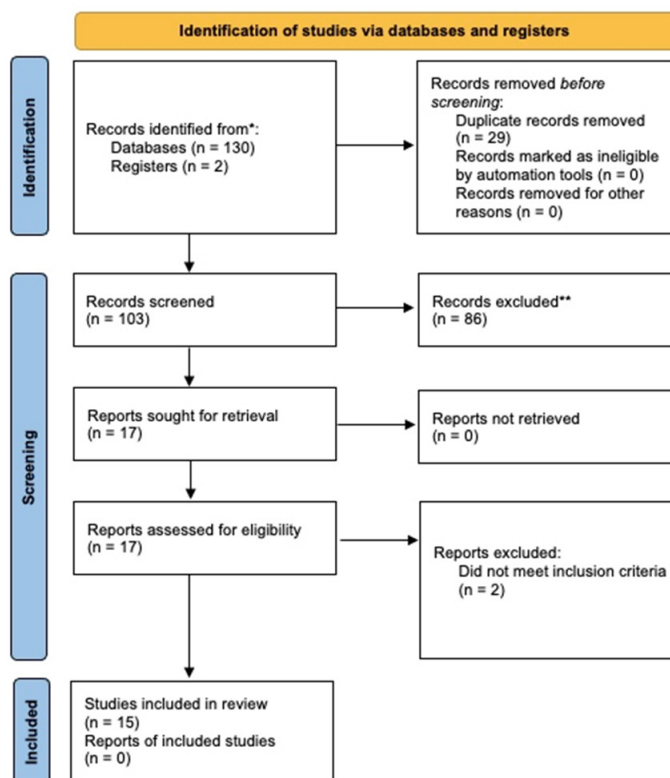
This paper sought to collate the current findings on LGBTQ+ healthcare teaching in the UK medical curriculum. Through searching a large range of databases, this review thoroughly covers the published research in this area. Completing the literature search in such a recent time frame also allows for the most current knowledge in this area to be included. Despite this, the research in this area is limited, which is reflected by the number of papers included in this review. This review only included research regarding medical schools in the UK, which means findings of potential relevance from outside of the UK were excluded. This review also focused on medical students specifically and not qualified clinicians or other healthcare professionals, which may have also led to the exclusion of potentially relevant research. This review is also limited in the conclusions it can come to from the literature due to the fact that of the original research on this topic, most papers included only students from single medical schools. The majority of the medical schools researched were also in the South of England, so the conclusions may not be representative of medical schools in the North of England, Scotland, Wales or Ireland.

CONCLUSION

To conclude, despite limited research in this area, the existing literature reveals that many UK medical schools do not currently provide sufficient teaching on LGBTQ+ healthcare to prepare their students to treat LGBTQ+ patients. Although there have been multiple barriers identified that prevent medical schools from improving their LGBTQ+ healthcare education, the authors have shown that there are ways to increase the representation of LGBTQ+ people in medical teaching – and that students themselves also want this teaching. Moving forwards, to ensure that any changes made are effective and sustainable in the long term, further research needs to be conducted to assess the baseline knowledge of students on LGBTQ+ healthcare, how this is influenced by the teaching they receive on LGBTQ+ healthcare, and how students think further teaching on LGBTQ+ healthcare would benefit their clinical practice. It is necessary to collate this data to stress the importance of LGBTQ+ education in medicine, as without data, it is difficult to push forward change. Discussions regarding curriculum improvement must be based on empirical findings and must involve a central governing body to lead to solutions that are sustainable and effective.

Figure 1: PRISMA flowchart (17)

PRISMA 2020 flow diagram for new systematic reviews which included searches of databases and registers only



*Consider, if feasible to do so, reporting the number of records identified from each database or register searched (rather than the total number across all databases/registers).

**If automation tools were used, indicate how many records were excluded by a human and how many were excluded by automation tools.

Table 1: Suggestions for LGBTQ+ healthcare teaching found in the literature

Suggestion for LGBTQ+ healthcare teaching	Paper(s) suggesting this method
Self-evaluation/assessment	Bidell, M.P. 2017 (19)
Teaching spread consistently throughout different parts of the curriculum	Brice, J., et al. 2020 (20), McCann, E., et al. 2018 (27), Arthur, S., et al. 2021 (18)
Clinical scenarios	Stott, D.B. 2013 (30)
Patient interviews	Stott, D.B. 2013 (30), McCann, E., et al. 2018 (27)
Small group workshops	Stott, D.B. 2013 (30), Henderson, M.H. 2000 (24), McCann, E., et al. 2018 (27)
Clinical clerkships	Stott, D.B. 2013 (30)
Videos	Stott, D.B. 2013 (30)
Essays + reflections	Stott, D.B. 2013 (30)
Organised clinical exposure to LGBTQ+ patients	Stott, D.B. 2013 (30)
Presentations	McCann, E., et al. 2018 (27)
Expert panels	McCann, E., et al. 2018 (27)
E-learning	McCann, E., et al. 2018 (27)
Peer teaching	McCann, E., et al. 2018 (27)
Incorporation of LGBTQ+ healthcare in formal assessment	Tollemache, N., et al. 2021 (32)
Communication skills sessions	Arthur, S., et al. 2021 (18)
Focus groups with LGBTQ+ people	Arthur, S., et al. 2021 (18)
Involvement of LGBTQ+ people in teaching	Taylor, A.K., et al. 2018 (31)
Role play	Taylor, A.K., et al. 2018 (31)

APPENDIX 1: DETAILS OF RESULTS FROM LITERATURE SEARCH

Authors Names	Year of Publication	Methodological Approach	Main Findings	Link to LGBTQ+ teaching in the medical curriculum
Arthur, S., et al. (18)	2021	Cross sectional observational study via survey	Survey of medical students at UK university found that there were overall positive attitudes to LGBTQ+ patients, but awareness of LGBTQ+ health issues and confidence in treating LGBTQ+ patients was very variable. Majority of students thought there wasn't enough teaching on LGBTQ+ healthcare and most (85%) wanted more.	Shows that LGBTQ+ teaching in the UK medical curriculum is lacking and that students want more in their curriculum
Bidell, M.P. (19)	2017	Resource development	Evaluation of a tool (LGBT-DOCSS) for clinicians to use to self-assess their knowledge on LGBTQ+ healthcare. Found that healthcare providers need to have knowledge in 3 areas to effectively treat LGBTQ+ patients: societal attitudes and prejudices to LGBTQ+ people; practical skills needed to treat LGBTQ+ people; and knowledge of LGBTQ+ healthcare inequalities Found a strong correlation between basic knowledge and clinical preparedness Need to differentiate between knowledge on LGB and transgender healthcare	LGBT-DOCSS provides a way for medical students to self-assess their knowledge and competencies in LGBTQ+ healthcare
Brice, J., et al. (20)	2020	Letter to the editor	LGBTQ+ teaching should be taught throughout the curriculum, incorporated into different speciality teaching, and involve LGBTQ+ patients. It is important this teaching occurs before students are sent on clinical placement	LGBTQ+ teaching needs to be a theme running through the whole of the medical curriculum
Davy, Z. (21)	2012	Literature review	Medical school teaching presents heterosexual and cisgender patients as the primary patients, with LGBTQ+ people being considered additional add ins There is a difference between LGB healthcare and transgender healthcare therefore they need to be addressed separately in teaching Teaching also needs to be careful not to frame all LGBTQ+ patients as the same	LGBTQ+ teaching should be incorporated as core to all teaching, rather than as a deviation from the baseline. There also needs to be teaching on both LGB people and transgender people as their healthcare needs may be different.
Donisi, V., et al. (22)	2020	Programme/training evaluation	Evaluation of a training programme for healthcare professionals across Europe called Health4LGBTI. Training improved the knowledge and attitude scores of all participants on LGBTQ+ healthcare Almost half of participants were themselves LGBTQ+ which indicates more willingness in this community to participate	Training programmes on LGBTQ+ healthcare can help to improve both knowledge and attitudes Training on LGBTQ+ healthcare for medical students needs to be mandatory as if optional it is likely that it will be the LGBTQ+ students themselves who are most likely to participate
Gishen, F., et al. (23)	2019	Literature review	In order for change not to be tokenistic, change to the medical curriculum needs to be centralised, involve students and patients, and be based on educational research	Change to make the UK medical curriculum more diverse should happen at a high up level with the change being implemented at all medical schools.
Henderson, M.H. (24)	2000	Programme/training evaluation	Findings revealed medical students involved (in 2000 so not current) had largely negative attitudes of LGBTQ+ people, even if they thought they had inclusive attitudes. Found that experiential group work was effective at getting students to evaluate their beliefs	LGBTQ+ healthcare teaching needs to be mandatory as the students who think they don't need to attend may still need to be educated. Experiential group work may be a good way to teach LGBTQ+ healthcare

APPENDIX 1: DETAILS OF RESULTS FROM LITERATURE SEARCH

Hunt, R., et al. (25)	2019	Literature review	<p>Whilst there is training materials available for healthcare professionals on LGBTQ+ healthcare, they are not effective due to the discrimination still seen.</p> <p>New teaching resources on LGBTQ+ healthcare need to be developed that involves behaviour change techniques and is based on current evidence.</p> <p>Teaching needs to be assessed afterwards to make sure that it has lead to behaviour change</p>	<p>The current resources on LGBTQ+ healthcare are not effective/sufficient.</p> <p>More resources need to be developed that include behaviour change techniques and that are assessed.</p>
Jamieson, A., et al. (26)	2020	Cross sectional observational study via focus group	<p>Study of 45 undergraduate medical students found that medical student knowledge of LGBTQ+ healthcare is limited outside of sexual or mental health</p> <p>Most students felt that more education on LGBTQ+ healthcare is needed.</p> <p>40% of participants were non-heterosexual - may be an opt in bias</p>	<p>Future LGBTQ+ teaching needs to make sure to not be solely focused on sexual and mental health</p> <p>Teaching needs to be mandatory to prevent opt in bias</p>
McCann, E., et al. (27)	2018	Literature review	<p>Found that there is very limited and variable inclusion of LGBTQ+ healthcare teaching in undergraduate healthcare professionals curriculum</p> <p>Teaching on LGBTQ+ healthcare needs to be made consistent in the curriculum, assessed, and backed by regulatory bodies</p> <p>Suggested teaching methods such as presentations, scripted interview sessions, group work, panels, e-learning and peer teaching</p>	<p>Any new teaching developed on LGBTQ+ healthcare needs to be made consistent in the curriculum, assessed, and backed by regulatory bodies</p>
Parameshwaran, V., et al. (28)	2017	Cross sectional observational study via survey	<p>Survey of 166 medical students found that 85% of participants thought they has a lack of LGBTQ+ healthcare education which lead to low confidence in treating LGBTQ+ patients.</p> <p>Emphasised that current clinicians also need teaching on LGBTQ+ healthcare due to learning in placement settings.</p> <p>Found that LGBTQ+ students are more likely to have sufficient knowledge on LGBTQ+ healthcare than non-LGBTQ+ students.</p>	<p>There is a lack of LGBTQ+ healthcare teaching in the UK medical curriculum.</p> <p>Future teaching needs to be compulsory as it is non-LGBTQ+ students least likely to have sufficient knowledge.</p> <p>Current clinicians also require LGBTQ+ healthcare education.</p>
Salkind, J., et al. (29)	2019	Programme/training evaluation	<p>Half day teaching programme was found to increase students confidence in using LGBTQ+ terminology and in clinically assessing LGBTQ+ patients.</p> <p>Found that the teaching was most beneficial in terms of knowledge and confidence in treating transgender patients as it was this area that had the lowest baseline knowledge</p> <p>LGBTQ+ people were involved in the teaching which was found to be useful for students and empowering for the LGBTQ+ visitors</p>	<p>One off teaching can be effective at improving confidence in treating LGBTQ+ patients</p> <p>Specific focus needs to be placed on educating medical students on transgender patients.</p>
Stott, D.B. 2013 (30)	2013	Cross sectional observational study via survey	<p>Survey of 56 medical students at the University of Cork found that lack of appropriate training meant that they didn't know how to manage sexual health consultations with LGBTQ+ patients, and 50% felt that medical school didn't equip them with the skills necessary to communicate with LGBTQ+ patients.</p> <p>Medical students wanted more training and suggested clinical scenarios, patient interviews, small group workshops, essays and clinical clerkship.</p> <p>Stated that LGBTQ+ healthcare teaching must be taught to medical students early and part of the centralised curriculum</p>	<p>More training involving clinical contact with LGBTQ+ patients is required so medical students are equipped to communicate with LGBTQ+ patients.</p> <p>LGBTQ+ healthcare teaching needs to be centralised in the curriculum and taught from an early stage.</p>
Taylor, A.K., et al. (31)	2018	Programme/training evaluation	<p>Half day training session for medical students (led by older medical students) found that the mixed methods teaching increased students' awareness of LGBTQ+ health inequalities and improved their consultation skills.</p> <p>The students particularly valued having other students (particularly LGBTQ+ students) as facilitators</p>	<p>Individual teaching sessions can be beneficial in improving knowledge of LGBTQ+ healthcare.</p> <p>Involvement of students in teaching is beneficial.</p>
Tollemache, N., et al. (32)	2021	Cross sectional observational study via survey	<p>Survey of 19 medical schools on their LGBTQ+ teaching found that:</p> <ul style="list-style-type: none"> • Amount of hours spent on LGBTQ+ health teaching varied from 3 - 55 hours • 84% reported space in the curriculum as barriers to teaching LGBTQ+ health • Overall respondents were dissatisfied with their coverage of LGBTQ+ health • LGBTQ+ health teaching was often made possible by individuals volunteering • LGBT+ health topics were assessed less than half the time 	<p>Needs to be centralised inclusion of LGBTQ+ healthcare in the medical curriculum to avoid variation.</p> <p>Needs to be dedicated staff to teach LGBTQ+ health to ensure it is reliably taught.</p> <p>Assessment of LGBTQ+ healthcare is key to ensure that learning is sufficient.</p>

REFERENCES

1. Gold M. The ABCs of L.G.B.T.Q.I.A.+ . The New York Times. 2018 June 21.
2. Local Government Act 1988. (c.9). London, UK: The Stationery Office.
3. Local Government Act 2003. (c.26). London, UK: The Stationery Office.
4. Guasp A, Ellison G, Satara T. Stonewall. The Teachers' Report 2014. 2014. London, UK: Stonewall [accessed 3rd Aug 2021]. Available from: https://www.stonewall.org/system/files/teachers_report_2014.pdf.
5. Lee C. Fifteen years on: the legacy of section 28 for LGBTQ+ teachers in English schools. *Sex Educ.* 2019;19(6):675-90.
<https://doi.org/10.1080/14681811.2019.1585800>
6. Bolderston A, Ralph S. Improving the health care experiences of lesbian, gay, bisexual and transgender patients. *Radiography.* 2016;22(3):e207-11.
<https://doi.org/10.1016/j.radi.2016.04.011>
7. Bachmann CL, Gooch B. *LGBT In Britain: Health Report.* London, UK: Stonewall; 2018.
8. McDermott E, Hughes E, Rawlings V. Norms and normalisation: understanding lesbian, gay, bisexual, transgender and queer youth, suicidality and help-seeking. *Cult Health Sex.* 2018;20(2):156-72.
<https://doi.org/10.1080/13691058.2017.1335435>
PMid:28641479
9. Hafeez H, Zeshan M, Tahir M A, Jahan N, Naveen S. Health Care Disparities Among Lesbian, Gay, Bisexual and Transgender Youth: A Literature Review. *Cureus.* 2017;9(4):1184.
<https://doi.org/10.7759/cureus.1184>
PMid:28638747
10. Connolly D, Hughes X, Berner A. Barriers and facilitators to cervical cancer screening among transgender men and non-binary people with a cervix: A systematic narrative review. *Prev Med.* 2020;135:106071.
<https://doi.org/10.1016/j.ypmed.2020.106071>
PMid:32243938
11. Maragh-Bass AC, Torain M, Adler R, Schneider E, Ranjit A, Kodadek LM, et al. Risks, benefits, and importance of collecting sexual orientation and gender identity data in healthcare settings: A multi-method analysis of patient and provider perspectives. *LGBT Health.* 2017;4(2):141-152.
<https://doi.org/10.1089/lgbt.2016.0107>
PMid:28221820
12. Smith DM, Mathews WC. Physicians' attitudes toward homosexuality and HIV: survey of a California Medical Society - revisited (PATHH-II). *J Homosex.* 2007;52(3-4):1-9.
https://doi.org/10.1300/J082v52n03_01
PMid:17594969
13. Murrain J. M. Barriers to infectious disease care among lesbians. *Emerg Infect Dis.* 2014;10(11):1974-78.
<https://doi.org/10.3201/eid1011.040467>
PMid:15550210

REFERENCES

14. Mukwende M, Tamony P, Turner M. *Mind the gap: A handbook of clinical signs in black and brown skin*. London, UK. St George's, University of London; 2020.
15. General Medical Council. *Promoting excellence: standards for medical education and training*. London, UK: General Medical Council; 2015 [accessed 3 Aug 2021]. Available from: https://www.gmc-uk.org/-/media/documents/promoting-excellence-standards-for-medical-education-and-training-0715_pdf-61939165.pdf.
16. Whyte I, Pattinson E, Leyland S, Soos I, Ling J. Performance and image enhancing drugs use in active military personnel and veterans: A contemporary review. *Transl Sports Med*. 2020;4(1):72-87. <https://doi.org/10.1002/tsm2.186>
17. Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *BMJ*. 2021;372. <https://doi.org/10.1136/bmj.n71> PMID:33782057
18. Arthur S, Jamieson A, Cross H, Nambiar K, Llewellyn CD. Medical students' awareness of health issues, attitudes, and confidence about caring for lesbian, gay, bisexual and transgender patients: a cross-sectional survey. *BMC Med Educ*. 2021;21(1):56. <https://doi.org/10.1186/s12909-020-02409-6> PMID:33446197
19. Bidell MP. The lesbian, gay, bisexual, and transgender development of clinical skills scale (LGBT-DOCSS): Establishing a new interdisciplinary self-assessment for health providers. *J Homosex*. 2017;64(10):1432-60. <https://doi.org/10.1080/00918369.2017.1321389> PMID:28459378
20. Brice J, Shuttleworth J, Tan L, Mullins W. LGBT + health education: A student perspective. *Clin Teach*. 2020;17(5):585. <https://doi.org/10.1111/tct.13249> PMID:32991068
21. Davy Z, Siriwardena AN. To be or not to be LGBT in primary health care: Health care for lesbian, gay, bisexual, and transgender people. *Br J Gen Pract*. 2012;62(602):491-92. <https://doi.org/10.3399/bjgp12X654731> PMID:22947575
22. Donisi V, Amaddeo F, Zakrzewska K, Farinella F, Davis R, Gios L, et al. Training healthcare professionals in LGBTI cultural competencies: Exploratory findings from the Health4LGBTI pilot project. *Patient Educ Couns*. 2020;103(5):978-87. <https://doi.org/10.1016/j.pec.2019.12.007> PMID:31866197
23. Gishen F, Lokugamage A. Diversifying the medical curriculum. *BMJ (Clinical Research Ed.)*. 2019;364:300. <https://doi.org/10.1136/bmj.l300> PMID:30674468
24. Henderson MH. Acquiring and demonstrating attitudes in medical education: Attitudes to homosexuality as a case study. *Med*. 2000;22(6):585-91. <https://doi.org/10.1080/01421590050175578> PMID:21275694

REFERENCES

25. Hunt R, Bates C, Walker S, Grierson J, Redsell S, Meads C. A Systematic Review of UK Educational and Training Materials Aimed at Health and Social Care Staff about Providing Appropriate Services for LGBT+ People. *International journal of environmental research and public health*. 2019;16(24):4976. <https://doi.org/10.3390/ijerph16244976> PMID:31817826
26. Jamieson A, Cross H, Arthur S, Nambiar K, Llewellyn CD. Patient sexual orientation and gender identity disclosure. *Clin Teach*. 2020;17(6):669–73. <https://doi.org/10.1111/tct.13182> PMID:33217175
27. McCann E, Brown M. The inclusion of LGBT+ health issues within undergraduate healthcare education and professional training programmes: A systematic review. *Nurse Educ Today*. 2018;64:204–14. <https://doi.org/10.1016/j.nedt.2018.02.028> PMID:29510349
28. Parameshwaran V, Cockbain BC, Hillyard M, Price JR. Is the lack of specific lesbian, gay, bisexual, transgender and queer/questioning health care education in medical school a cause for concern? Evidence from a survey of knowledge and practice among UK medical students. *J Homosex*. 2017;64(3):367–81. <https://doi.org/10.1080/00918369.2016.1190218> PMID:27184023
29. Salkind J, Gishen F, Drage G, Kavanagh J, Potts H. LGBT+ health teaching within the undergraduate medical curriculum. *Int J Environ Res*. 2019;16(13):2305. <https://doi.org/10.3390/ijerph16132305> PMID:31261831
30. Stott DB. The training needs of general practitioners in the exploration of sexual health matters and providing sexual healthcare to lesbian, gay and bisexual patients. *Med*. 2013;35(9):752–59. <https://doi.org/10.3109/0142159X.2013.801943> PMID:23808564
31. Taylor AK, Condry H, Cahill D. Implementation of teaching on LGBT health care. *Clin Teach*. 2018;15(2):141–44. <https://doi.org/10.1111/tct.12647> PMID:28401669
32. Tollemache N, Shrewsbury D, Llewellyn C. Que(e)rying undergraduate medical curricula: a cross-sectional online survey of lesbian, gay, bisexual, transgender, and queer content inclusion in UK undergraduate medical education. *BMC Med Educ*. 2021;21(1):100. <https://doi.org/10.1186/s12909-021-02532-y> PMID:33579262
33. Wormald B, Schoeman S, Somasunderam A, Penn M. Assessment drives learning: An unavoidable truth. *Anat Sci Educ*. 2019;2(5):199–204. <https://doi.org/10.1002/ase.102> PMID:19743508
34. Contact. An Introduction to the NHS. London, UK: Contact a Family; 2021. [Accessed 20th Sep 2021]. Available from: <https://contact.org.uk/help-for-families/information-advice-services/health-medical-information/health/secondary-care/>.

REFERENCES

35. Streed CG, Davis JA. Improving clinical education and training on sexual and gender minority health. *Curr Sex Health Rep.* 2018;10:273–80.
<https://doi.org/10.1007/s11930-018-0185-y>

36. Raso A, Marchetti A, D'Angelo D, Albanesi B, Garrino L, Dimonte V, et al. The hidden curriculum in nursing education: a scoping study. *Med Educ.* 2019;53:989–1002.
<https://doi.org/10.1111/medu.13911>
PMid:31144353



The **British Student Doctor** is an open access journal, which means that all content is available without charge to the user or their institution. You are allowed to read, download, copy, distribute, print, search, or link to the full texts of the articles in this journal without asking prior permission from either the publisher or the author.

bsdj.org.uk



[/thebsdj](https://www.facebook.com/thebsdj)



[@thebsdj](https://twitter.com/thebsdj)



[@thebsdj](https://www.instagram.com/thebsdj)

Journal DOI

[10.18573/issn.2514-3174](https://doi.org/10.18573/issn.2514-3174)

Issue DOI

[10.18573/bsdj.v6i1](https://doi.org/10.18573/bsdj.v6i1)



The **British Student Doctor** is published by **The Foundation for Medical Publishing**, a charitable incorporated organisation registered in England and Wales (Charity No. 1189006), and a subsidiary of **The Academy of Medical Educators**.

This journal is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License. The copyright of all articles belongs to **The Foundation for Medical Publishing**, and a citation should be made when any article is quoted, used or referred to in another work.



Cardiff University Press

Gwasg Prifysgol Caerdydd

The **British Student Doctor** is an imprint of Cardiff University Press, an innovative open-access publisher of academic research, where 'open-access' means free for both readers and writers.

cardiffuniversitypress.org