

City University of New York (CUNY)

CUNY Academic Works

Publications and Research

Hostos Community College

2022

LGBTQ+ and dental education: Analyzing the present and recommendations for the future

Colin M. Haley

University of Illinois at Chicago

Diana V. Macri

CUNY Hostos Community College

Herminio L. Perez

Rutgers University

Scott B. Schwartz

University of Cincinnati

[How does access to this work benefit you? Let us know!](#)

More information about this work at: https://academicworks.cuny.edu/ho_pubs/102

Discover additional works at: <https://academicworks.cuny.edu>

This work is made publicly available by the City University of New York (CUNY).

Contact: AcademicWorks@cuny.edu

ORIGINAL ARTICLE

LGBTQ+ and dental education: Analyzing the present and recommendations for the future

Colin M. Haley DDS, MED¹ | Diana Macri RDH, BSDH, MEd² |
Herminio L. Perez DMD, MBA, EdD³ | Scott B. Schwartz DDS, MPH^{4,5}

¹Department of Oral Medicine and Diagnostic Sciences, University of Illinois at Chicago College of Dentistry, Chicago, Illinois, USA

²Department of Allied Health, Eugenio Maria de Hostos Community College, Bronx, New York, USA

³Department of Restorative, Rutgers School of Dental Medicine, Newark, New Jersey, USA

⁴Division of Pediatric Dentistry and Orthodontics, Cincinnati Children's Hospital Medical Center, Cincinnati, Ohio, USA

⁵Department of Pediatrics, University of Cincinnati College of Medicine, Cincinnati, Ohio, USA

Correspondence

Scott B. Schwartz, DDS, MPH, Division of Pediatric Dentistry and Orthodontics, Cincinnati Children's Hospital Medical Center, 3333 Burnet Ave, MLC 2006, Cincinnati, OH 45229, USA.
Email: scott.schwartz@cchmc.org

Abstract

LGBTQ+ populations constitute increasing proportions of children, adolescents, and adults in the United States. Compared to their heterosexual counterparts, this group suffers from health inequities, including oral health. The report "Oral Health: Advances and Challenges" identified the LGBTQ+ community as an underserved population which faces significant barriers in accessing oral health care. Coverage of LGBTQ+ topics in formal education settings in both dental schools and dental hygiene programs is scarce, which contributes to inequities within this group. Increasing curriculum content related to LGBTQ+ populations is of utmost importance to promote optimal patient-provider interactions while improving oral health outcomes. Ensuring equity in oral health care provision will require deliberate, consistent efforts on the part of all stakeholders. Dental and allied dental education programs have made important strides in enhancing equity and inclusion in their institutions by engaging campus groups that support LGBTQ+ populations, creating mentorship programs, and collaborating with non-profit advocacy groups. Such efforts have successfully empowered LGBTQ+ patients, providers, and allies who are committed to further closing the knowledge gap. Most of the research regarding LGBTQ+ inclusion efforts have been done in the medical arena and there is a void in the data available from the dental profession. To fill this void, recommendations are offered that institutions can easily implement to expand LGBTQ+ diversity and inclusion visibility.

KEYWORDS

allied dental education, cultural diversity/cultural humility, dental hygiene, dental hygiene curricula, curriculum development, dental education, LGBTQ

1 | INTRODUCTION

Increasing social awareness and evolving, more accepting attitudes toward lesbian, gay, bisexual, queer, questioning, intersex, asexual, and agender individuals facilitated the ability for people to be open about their true identity. (The authors recognize the diversity of gender and sexual

identities within this population, but for the purposes of this paper, will abbreviate it as LGBTQ+.) In 2021, an estimated 7.1% of the US population identified as LGBTQ+, up from 4.5% in 2017. Within that group, 57% identify as bisexual, 21% as gay, 14% as lesbian, and 10% as transgender.¹ Younger individuals, such as members of Generation Z, are even more likely to identify in this group, with one in

six 18–23-year-olds identifying as LGBTQ+.¹ Not only are these individuals showing up as patients, they are matriculating to dental education programs as students and serving as faculty and administrators. Despite newly acquired rights, such as the legalization of same-sex marriage and increasing protections, like Title VII prohibiting discrimination against transgender individuals, LGBTQ+ persons still face a host of negative consequences, including within health care and higher education.

As the dental profession embraces diversity and inclusion in clinical and academic spaces, a deeper understanding of this historically marginalized population is necessary to promote equity in outcomes and opportunities. As such, this article aims to describe the current state of oral health education as it pertains to LGBTQ+-identified populations, including challenges in the academic oral health space and the benefits of updating the educational and organizational approach to improve cultural humility and patient outcomes.

2 | LGBTQ+ POPULATIONS IN DENTAL EDUCATION CURRICULA

In order to provide informed care, it is essential health providers be aware of the specific risks and needs of this community while simultaneously appreciating the multidimensional nature of this population. Health inequities within LGBTQ+ populations are not the same and some identities within this group, such as transgender, may have vastly different experiences and risks. The intersection of gender identity and sexual orientation with other personal characteristics such as race, age, and ability also modulate how those who identify as LGBTQ+ experience oral health care.

Individuals that identify as LGBTQ+ are at a higher risk of substance use disorder, sexually transmitted diseases, certain cancers, bullying, anxiety, depression, and suicide.² Patients in this community may experience poorer quality of care compared to their heterosexual counterparts. This may be the result of stigmatization, stemming from individuals having experienced discrimination in the past or being fearful of discrimination. Note that, 57% of LGBTQ+ adults say they have been subjected to slurs and 53% to offensive comments in their lifetime.³ Barriers to care also exist with providers lacking cultural sensitivity during interactions and having limited awareness of the needs of this community.⁴ Both stigma and lack of practitioner preparedness contribute to quality of care discrepancies and may contribute to poorer overall health outcomes for individuals who identify as LGBTQ+.⁵ The anticipation of prejudicial events, actual experience with discrimination, and internalized stigma are the foundation of the Minority

Stress Theory.⁶ Initially developed to understand mental health disparities among LGBTQ+ populations⁷, this is further applied to explain why this group may also avoid necessary care, which contributes to existing health care inequities.⁶

In “Oral Health: Advances and Challenges,” the National Institute of Dental and Craniofacial Research report, the LGBTQ+ community was identified as an underserved population that faces discriminatory experiences and social stigma, resulting in health inequities and barriers to accessing healthcare.⁸ Despite research limitations on LGBTQ+ health inequities, there are ways for oral health professional schools to educate the new generation of professionals on related topics. Studies have documented the overall health inequities and consequences in this population, but the effect on oral health is less clear. One study noted that individuals identifying as bisexual or homosexual were more likely to report their oral health as poor, though there was no clinical basis noted for this disparity.⁹ Among individuals identifying as transgender, they are more likely to fear discrimination and maltreatment at the dental office and one study found that only 10% reported visiting the dentist regularly due to fear of discrimination.¹⁰ There needs to be more research done in different settings to truly understand the oral health condition of the LGBTQ+ population. While more research is needed, it is clear that there is work to be done to increase inclusivity and acceptance of individuals identifying as LGBTQ+, specifically those identifying as transgender. This work needs to start at the dental education level to graduate providers that are sensitive and welcoming to the needs of diverse populations.

Currently, the breadth and depth of LGBTQ+-specific curricula are varied across institutions. According to one study, 29% of dental schools and 48% of dental hygiene programs do not cover LGBTQ+ content.¹¹ Dental schools that cover these issues dedicate approximately 3.68 h to related content, while hygiene programs dedicate only 1.25 h.¹¹ The most common topics covered and time of coverage (dental %, hygiene %) include HIV (85%, 53%), oral disease risk (63%, 54%), and barriers to accessing care (58%, 38%).¹¹ Lectures are the most common method of delivery for this information.¹¹ Enhancing the current LGBTQ+ curriculum in what and how it is taught can help reduce barriers and improve outcomes for those seeking and receiving care. In another study, students feel their institutions demonstrated insufficient LGBTQ+ information, resources, and support.¹² In a survey, only 13.3% of dental student leaders agreed that their dental education prepared them well to treat patients from LGBTQ+ backgrounds.¹³ In general, there is a lack of training addressing the needs of patients, students, and faculty members that identify as LGBTQ+.¹⁴

Improvement of the oral health system and outcomes for this population require targeted additions to what is already taught. Currently, the incorporation of topics related to the LGBTQ+ community supports Commission on Dental Accreditation (CODA) standards focused on fostering a humanistic culture (Standards 1–3) while providing graduates with fundamental principles and practice of behavioral science to support patient-centered care in a multicultural environment (Standards 2–16 and 2–17).¹⁵ In allied dental educational programs, particularly dental hygiene, the CODA standards require their graduates to be competent in communicating verbally and in writing to the safe and written provision of oral health services for diverse populations (Standards 2–15).¹⁶ Future research on LGBTQ+-related oral health inequities and concerns of this population related to oral health are needed to adequately meet this standard.¹¹

There is no ideal model that trains future oral health providers to meet all the needs of LGBTQ+ populations. However, there is a baseline level of knowledge and sensitivity needed to meet CODA standards and improve overall comprehension of LGBTQ+ populations in a health care context. With this in mind, dental education institutions should, at a minimum, deliver content with the intent of students' understanding¹⁷:

1. Sexual orientation, gender identity, and LGBTQ+ terminology
2. Health needs and risks
3. The potential impact of LGBTQ+ related discrimination on health inequities
4. Provision of inclusive care

While the delivery of this information currently occurs primarily via lecture, the authors propose a three-pronged approach – Didactics-Discussion-Delivery – to enhance provider competence in treating LGBTQ+ patients (Figure 1). Introduction of material related to terminology, health inequities, and essentials of providing inclusive care may occur initially via didactic presentations. After students have a basic foundational knowledge of LGBTQ+-specific health issues, small group discussions create a space for students to explore the topics, providing the opportunity to both apply knowledge to LGBTQ+-specific case scenarios and have an open discussion, potentially addressing individual biases in the process.¹⁷ Finally, students should have real-world interactions delivering care to members of the community in a health setting, either through dedicated rotations, external clinical sites, or the use of standardized patients. Real-world experience is essential for students striving to provide inclusive person-centered care. Future research on the impact of these interventions could focus on outcomes of

student comfort and knowledge as well as standardized patient and real-world patient feedback.

Evidence from the medical area corroborates this approach. Medical students with increased didactic and clinical exposure to LGBTQ+ populations increased sensitivity and positive attitudes towards the needs of the population.^{18,19} Furthermore, a survey assessing nurse education on LGBTQ+ topics revealed that students who participated felt empowered in providing care to the population while acknowledging the value of the information received in their current and future roles as health-care professionals.²⁰ Therefore, it stands to reason that increased didactic and clinical exposure to LGBTQ+ populations in undergraduate, post-graduate, and allied dental education will improve knowledge and comfort in treating these patients in practice.

Curriculum materials and our day-to-day interactions need to support a culture of inclusion, which necessitates a change in the language and images that we use regularly. This includes using language that is free of bias, avoids perpetuating stereotypes, and uses inclusive images that represent patient diversity.²¹ Educators need to work on including educational materials that reflect diversity in sexual orientation, sexual expression, and gender identity while not pathologizing LGBTQ+ identity as abnormal. Changing the narrative around LGBTQ+ populations from a conventional individualistic perspective to a health equity perspective is also needed. For example, instead of having materials that reinforce LGBTQ+ patients being more at risk for substance use disorder and mental health issues, efforts should be made to recognize the conditions that create this vulnerability.²² For example, transgender youth may be more likely to participate in risky behaviors with known oral health consequences, but this may be the result of discrimination, lack of family acceptance, and being thrown out of the home as a result of their identity. There is evidence to suggest that the COVID-19 pandemic and associated quarantines exacerbated this dynamic.²³ Therefore, these oral health risks are not the result of being transgender directly, but the societal implications that create this vulnerability. Using inclusive language, adding curriculum materials that reflect the diversity, and rethinking the narrative in which we present patients aids in the development of an inclusive culture that addresses issues around health inequity.

Changes to educational institutions need to go beyond curriculum interventions and expand into the general ethos of our profession. With both LGBTQ+ patients and students facing discrimination,^{5,24} it is of utmost importance that any bias is addressed in dental education. These biases could be explicit, or consciously accessible and controlled. They could also be implicit, or associations or attitudes that may unknowingly affect an individual's

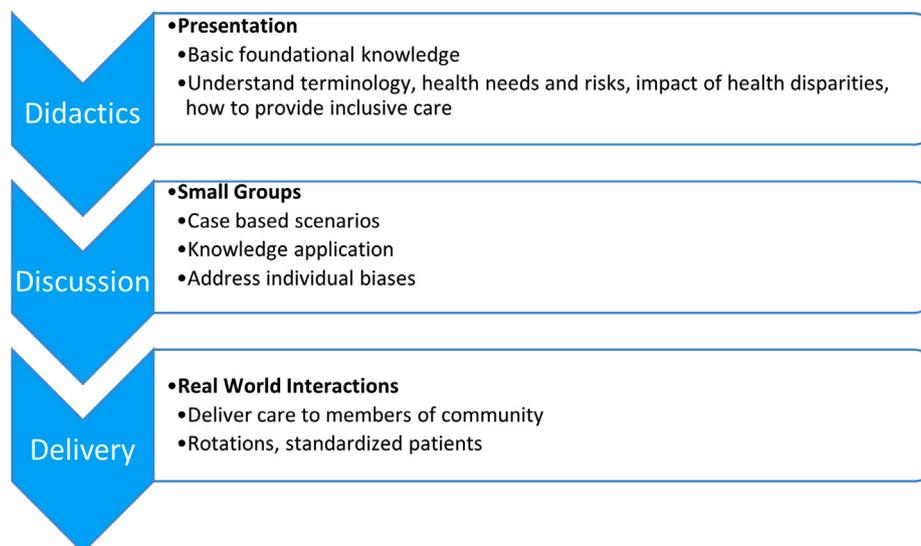


FIGURE 1 Didactics-Discussion-Delivery approach to LGBTQ+ material.

perception or actions towards another.²⁵ While individuals may believe they are not providing care in a biased manner, evidence suggests that heterosexual health care providers have consistent and strong implicit preferences for heterosexual patients when compared to LGBTQ+ patients.²⁶ Furthermore, bias is correlated with poorer access to services, quality of care, and health outcomes in LGBTQ+ populations.²⁷

Creating inclusive environments is a challenging task and requires deliberate, consistent efforts on the part of all members of the academic community. The first step towards successfully reducing bias among health care professions students is to increase bias awareness knowledge.¹⁷ Dental teaching institutions should consider programs that encourage the broader academic community to examine their own biases toward LGBTQ+ individuals. Successful strategies in reducing implicit racial and ethnic biases in medical students include those which seek to increase bias awareness, such as an implicit association test; perspective-taking; and seeking counter-stereotypic information.¹⁷

While dental education has predominantly adopted humanistic environment policies and inclusive mission statements, changes to the culture that address and mitigate bias take time and require conscious efforts at both the organizational and individual levels. At the organizational level, leadership needs to make outward-facing commitments to culture change and implement diversity training for all members of the institution. Providing mentorship and sponsorship of intentionally diverse experiences, including those from LGBTQ+ backgrounds, creates opportunities for the promotion of dialogue among members of different identities and often leads to transformational change.²⁸ Individually, these interactions provide

the time for self-reflection on personal biases as well as for us to question and actively counter stereotypes.²⁵ Deliberate, consistent interventions at all levels that support diverse communities are needed for large-scale changes in culture to occur.

2.1 | Challenges and opportunities for LGBTQ+ professionals in academic dentistry

The literature on LGBTQ+ experiences in professional education predominantly addresses the medical environment. A 2019 systematic review seeking to determine the effectiveness of health provider programs (medical and dental) in treating LGBTQ+ patients produced only one article related to dental schools.¹⁷ That study surveyed dental school administrators' knowledge of policies or practices in place at their institutions that provide LGBT students with the academic, social, or emotional support they need.¹⁴ While the participants agreed that LGBT students were entitled to as much access to student services as other students, almost 75% did not believe there was a need to provide specialized academic support for LGBT students.¹⁴ Additionally, only half reported peer advocacy and support groups in their institution while the other half indicated they were not available or that they did not know.¹⁴

Other forms of bias have been reported in professional education. Transgender and gender non-binary medical students and physicians reported censoring their speech and behavior to avoid disclosing their gender identity.^{24,29} Residency applicants reported feeling excluded when interviewers used incorrect pronouns or

antiquated terminology when referring to one applicant's sexual orientation.³⁰ LGBTQ+ healthcare academics report being “passed over for promotion, tenure, and leadership opportunities; being denied referrals from heterosexual colleagues; social ostracism; and subjection to derogatory comments and behaviors in the workplace from both coworkers and patients.”³¹ Research related to how others perceive the leadership ability of LGBTQ+ professionals exposes additional biases: gay male employees were seen as less suitable for gender-neutral or masculine leadership positions. Contrastingly, they were also seen as more suitable for leadership positions seen as feminine than heterosexuals.³²

The authors of the systematic review concluded that biases negatively affecting LGBTQ+ populations' health outcomes could be modified by incorporating implicit bias training in the program's curriculum.¹⁷

1. Build motivation for change by building awareness. Providing information regarding inequities in health care and the role of provider bias and encouraging students to reflect on their current views.
2. Bias awareness strategies should be practiced in a supportive and individualized learning environment, such as patient simulation. In this way, students receive direct feedback while minimizing student defensiveness.
3. Utilize strategies, such as perspective-taking and intergroup contact to minimize implicit bias moving forward.

Students in dental, allied dental, and medical institutions have reported feelings of anxiety regarding their sexuality and how it would affect their performance in school, with some reporting hiding their identities and witnessing anti-LGBTQ+ stigma and discrimination.²⁴ As of this writing, there are no studies that examine the LGBTQ+ experience from the student perspective in oral health education. There are, however, personally published anecdotes from dental students: “My biggest hesitation before starting dental school was whether I would be out of the closet or not. I was terrified that my sexuality would affect my success in my education because of the conservative history of our profession. To an extent, I feel like I was not able to perform my best while a student and avoided countless social events, leadership opportunities, and getting to know my professors due to the constant anxiety of being an LGBTQ+ individual.”³³ Anxiety related to identity should not preclude individuals from achieving success in their professional education. It is not surprising to see why LGBTQ+ professionals have experienced fear and anxiety related to the disclosure of their sexuality in the workplace: until 2020 it was legal in half the states to either not hire

or fire someone because they identified as LGBTQ+. In *Bostock versus Clayton County*, the Supreme Court ruled that firing an employee merely because they are gay or transgender “defies the law”. This was a major victory for LGBTQ+ workers and mirrors Americans' increasingly supportive views of same-sex rights.

The lack of representation of LGBTQ+ individuals in the workplace and associated leadership positions is not unique to academic dentistry. As such, some organizations in the general workforce created various modes of support that could also be beneficial for dental education institutions. For example, *Out and Equal Workplace Advocates* “partner with Fortune 1000 companies, government agencies, and organizations across industries with diverse missions to provide LGBTQ+ executive leadership development, comprehensive diversity and inclusion training and consultation, and professional networking opportunities that build inclusive and welcoming work environments.”³⁴

In addition, advocacy organizations, such as the *Houston Equality Dental Network*, have taken the lead in creating resources for LGBTQ+ professionals. This group aims to “advance equality for LGBTQ+ dental professionals in their work and learning environments.”³⁵ Their website provides several resources, including a blog that spotlights LGBTQ+ dental providers and their career trajectories, as well as a list of LGBTQ+ friendly providers in the Houston metro area. Expanding this type of resource benefits patients who are seeking affirmative care, as well as providers who need supportive and local professional networks. Ideally, programs should also be developed that strive to educate the broader dental community and address the challenges faced by the professional LGBTQ+ population. For example, in 2021, the American Dental Education Association and the American Institute of Dental Public Health partnered to deliver “Strengthening LGBTQ+ Inclusion in Dental Education”, a free webinar with panelists who discussed the current landscape of LGBTQ+ inclusion within dental programs.³⁶

It is well-known that members of minority groups flourish with relationships with others who look like them and professional education is no different. Medical residents reported feeling included when institutions “successfully identified the importance of our LGBTQ+ identities, paired us with LGBTQ+ interviewers, and provided concrete examples of institutional support.”³⁰ Data shows that LGBTQ+ students benefit greatly when they are paired with mentors who have a shared identity,²¹ and this intervention has substantial potential to recruit and support LGBTQ+ residents.²⁹ This approach is not unique to students; existing and potential faculty and staff would benefit from robust mentorship from LGBTQ+ leaders and recruitment focusing on LGBTQ+ interviewers and campus support.

Dental and allied dental programs and organizations have a unique opportunity to develop outlets that foster an inclusive environment for LGBTQ+ students and faculty at their own institutions that go beyond training and surveys addressing bias. Groups modeled after Genders and Sexualities Alliances (formerly Gay-Straight Alliances) can raise the visibility of the community by providing a safe place for all members of the school community to gather and organize programming. The University of Pennsylvania School of Dental Medicine is an example of an institution prioritizing this type of programming by engaging extramural campus resources like the University LGBT Center to support intramural activities like annual Pride Celebrations via their Penn Dental Pride Alliance. Recently, an anonymous donor made a leadership gift to launch the *LGBTQ+* Fund at the University of Pennsylvania School of Dental Medicine. Among the components of its mission, the *LGBTQ+* Fund aims to support research into eliminating LGBTQ+ bias in both the greater dental profession and the local educational community. Notably, the mission specifically includes career pathing for LGBTQ+ individuals.³⁷ Respectful inclusion in the health profession is imperative not only to enhance the community's health but also to benefit the learning, well-being, and sense of belonging of the LGBTQ+ population at our institutions.

2.2 | Best practices

Analyzing the existing data, the authors created some best practices which will encourage LGBTQ+ inclusivity and, hopefully, increase this population's representation in leadership positions:

1. Consider asking faculty and administrators to include pronouns after their names. While some may be concerned that requiring pronouns can force people to conceal or unintentionally reveal their identity, for others, it will send the message that there are allies on campus.
2. Consider the use of Pride emblems in email signatures or backgrounds when communicating virtually.
3. Ensure LGBTQ+ representation on program websites and in diversity statements.
4. Highlight curriculum regarding LGBTQ+ patients and outreach with local LGBTQ+ organizations.
5. If applicants identify themselves as LGBTQ+ in application materials, ask if they would like to be paired with LGBTQ+ residents and faculty interviewers.
6. Create an Out List and supply applicants with an LGBTQ+ point-person. An Out List is a list of students, faculty, staff, and alumni who publicly acknowledge

and celebrate that they are LGBTQ+ or are an ally of the community.

7. When discussing diversity in recruitment and orientation, include information on LGBTQ+ inclusion training and provide resources to LGBTQ+ students, residents, and employees. For example, discuss information on LGBTQ+ employee resource groups and information on health insurance coverage for gender-related services.
8. Determine where your institution falls on the Human Rights Campaign Health Equality Index, and advocate for policies that enhance workplace diversity, equity, and inclusion to recruit and retain LGBTQ+ faculty.³⁸
9. Ensure LGBTQ+ representation on selection committees.
10. Include implicit bias training for faculty, students, and administrators.
11. Establish mentorship opportunities. These may be between institutional leaders and faculty or staff, experienced faculty and junior faculty, or faculty and residents or students.

3 | CONCLUSION

The LGBTQ+ population has long been identified as needing more visibility in both the dental education curricula and the community, but the momentum needed has been slow to build. Increasing understanding of the LGBTQ+ population at the educational level while promoting positive perceptions within the academic community will facilitate better oral health outcomes for patients and improved experiences for current and developing oral health leaders.

EDITOR'S DISCLOSURE

This article is published in the *Journal of Dental Education* as part of a special issue. Manuscripts for this issue were solicited by invitation and peer reviewed. Any opinions expressed are those of the authors and do not represent the *Journal of Dental Education* or the American Dental Education Association.

REFERENCES

1. Jones J. LGBT identification in US ticks up to 7.1%. Gallup. Accessed March 22, 2022. <https://news.gallup.com/poll/389792/lgbt-identification-ticks-up.aspx>
2. HHS LGBT Issues Coordinating Committee. US Department of Health and Human Services Advancing LGBT Health & Well-Being 2015 Report. Accessed March 2022, 2022. <https://www.hhs.gov/sites/default/files/dhhs-lgbt-2015-annual-report.pdf>
3. NPR RWJF, Harvard T.H. Chan School of public health. Discrimination in America: experiences and views of

- LGBTQ Americans. 2017. <https://cdn1.sph.harvard.edu/wp-content/uploads/sites/94/2017/11/NPR-RWJF-HSPH-Discrimination-LGBTQ-Final-Report.pdf>
4. Hafeez H, Zeshan M, Tahir MA, Jahan N, Naveed S. Health care disparities among lesbian, gay, bisexual, and transgender youth: a literature review. *Cureus*. 2017;9(4):e1184. doi:10.7759/cureus.1184
 5. Lim F, Johnson M, Eliason M. A national survey of faculty knowledge, experience, and readiness for teaching lesbian, gay, bisexual, and transgender health in baccalaureate nursing programs. *Nurs Educ Perspect*. 2015;36(3):144-152.
 6. Meyer IH, Frost DM. Minority stress and the health of sexual minorities. In: Patterson CJ, D'Augelli AR, eds. *Handbook of Psychology and Sexual Orientation*. Oxford University Press; 2013:252-266.
 7. Meyer IH. Prejudice, social stress, and mental health in lesbian, gay, and bisexual populations: conceptual issues and research evidence. *Psychol Bull*. 2003;129(5):674.
 8. National Institute of Dental and Craniofacial Research. *Oral Health in America: advances and challenges*. 2021;3:A55-A56.
 9. Schwartz SB, Sanders AE, Lee JY, Divaris K. Sexual orientation-related oral health disparities in the United States. *J Public Health Dent*. Dec 2019;79(1):18-24. doi:10.1111/jphd.12290
 10. Heima M, Heaton LJ, Ng HH, Roccoforte EC. Dental fear among transgender individuals – a cross-sectional survey. *Spec Care Dentist*. 2017;37(5):212-222. doi:10.1111/scd.12245
 11. Hillenburg KL, Murdoch-Kinch CA, Kinney JS, Temple H, Inglehart MR. LGBT coverage in U.S. dental schools and dental hygiene programs: results of a National Survey. *J Dent Educ*. 2016;80(12):1440-1449.
 12. Feng X, Mugayar L, Perez E, Nagasawa PR, Brown DG, Behar-Horenstein LS. Dental students' knowledge of resources for LGBT persons: findings from three dental schools. *J Dent Educ*. 2017;81(1):22-28.
 13. Anderson JI, Patterson AN, Temple HJ, Inglehart MR. Lesbian, gay, bisexual, and transgender (LGBT) issues in dental school environments: dental student leaders' perceptions. *J Dent Educ*. 2009;73(1):105-118.
 14. Behar-Horenstein LS, Morris DR. Dental School administrators' attitudes towards providing support services for LGBT-identified students. *J Dent Educ*. 2015;79(8):965-970.
 15. Commission on Dental Accreditation Chicago. Accreditation standards for dental education programs. 2021.
 16. Commission on Dental Accreditation. Accreditation standards for dental hygiene education programs. Accessed March 22, 2022. https://coda.ada.org/~media/CODA/Files/dental_hygiene_standards.pdf?la=en
 17. Morris M, Cooper RL, Ramesh A, et al. Training to reduce LGBTQ-related bias among medical, nursing, and dental students and providers: a systematic review. *BMC Med Educ*. 2019;19(1):1-13.
 18. Obedin-Maliver J, Goldsmith ES, Stewart L, et al. Lesbian, gay, bisexual, and transgender-related content in undergraduate medical education. *JAMA*. 2011;306(9):971-977.
 19. Sanchez NF, Rabatin J, Sanchez JP, Hubbard S, Kalet A. Medical students' ability to care for lesbian, gay, bisexual, and transgendered patients. *Family Med* 2006;38(1):21.
 20. Elertson K, McNeil PL. Answering the call: educating future nurses on LGBTQ healthcare. *J Homosex*. 2021;68(13):2234-2245.
 21. Ruzycki SM, Holroyd-Leduc J, Chu P. The importance of developing and implementing an inclusive language and image policy in medical schools. *Acad Med*. 2022;97(1):9.
 22. American Medical Association and Association of American Medical Colleges. Advancing health equity: guide on language, narrative and concepts. Accessed March 22, 2022. <https://www.ama-assn.org/system/files/ama-aamc-equity-guide.pdf>
 23. Silliman Cohen RI, Bosk EA. Vulnerable youth and the COVID-19 pandemic. *Pediatrics*. 2020;146(1):e20201306.
 24. Dimant OE, Cook TE, Greene RE, Radix AE. Experiences of transgender and gender nonbinary medical students and physicians. *Transgender Health*. 2019;4(1):209-216.
 25. Marcelin JR, Siraj DS, Victor R, Kotadia S, Maldonado YA. The impact of unconscious bias in healthcare: how to recognize and mitigate it. *J Infect Dis*. 2019;220(Supplement_2):S62-S73.
 26. Sabin JA, Riskind RG, Nosek BA. Health care providers' implicit and explicit attitudes toward lesbian women and gay men. *Am J Public Health*. 2015;105(9):1831-1841.
 27. FitzGerald C, Hurst S. Implicit bias in healthcare professionals: a systematic review. *BMC Med Ethics*. 2017;18(1):19. doi:10.1186/s12910-017-0179-8
 28. Haley CM, Brown BP. Implementation of diversity, equity, and inclusion dialogue for second-year dental students. *J Dent Educ*. 2022;86(5):599-604. doi:10.1002/jdd.12862
 29. Raymond-Kolker R, Grayson A, Heitkamp N, Morgan LE. LGBTQ+ equity in virtual residency recruitment: innovations and recommendations. *J Grad Med Educ*. 2021;13(5):640-642.
 30. Awe A, Ai A. Interviewing For residency as an LGBTQ+ applicant: compounded problems with virtual interviewing. *J Surg Educ*. 2022;79(2):279-282.
 31. Tan TQ. Principles of inclusion, diversity, access, and equity. *J Infect Dis*. 2019;220(Supplement_2):S30-S32.
 32. Barrantes RJ, Eaton AA. Sexual orientation and leadership suitability: how being a gay man affects perceptions of fit in gender-stereotyped positions. *Sex Roles*. 2018;79(9):549-564.
 33. Barrerra A. Dentistry and LGBTQ+ health equity. 2021. <https://queerdoc.com/blog/dentistry-and-lgbtq-health-equity/>
 34. Advocates OaEW. Accessed March 31, 2022. <https://outandequal.org/who-we-are/>
 35. Network HED. Accessed March 31, 2022. <https://www.houstonequalitydental.org/ourstory>
 36. Dan Walker SH, Inglehart M. Strengthening LGBTQ+ inclusion in dental education. 2021. <https://www.youtube.com/watch?v=WatDGhc5EGg>
 37. Pennsylvania Uo. Pride in every smile. Accessed March 31, 2022. <https://giving.upenn.edu/pride-in-every-smile/>
 38. Campaign HR. Healthcare equality index. Accessed March 31, 2022. <https://www.hrc.org/resources/healthcare-equality-index>

How to cite this article: Haley CM, Macri D, Perez HL, Schwartz SB. LGBTQ+ and dental education: Analyzing the present and recommendations for the future. *J Dent Educ*. 2022;86:1191–1197. <https://doi.org/10.1002/jdd.13100>