

"Trans-forming" dental practice norms: Exploring transgender identity and oral health implications

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ABSTRACT

Objective: This narrative review explores current research to broaden understanding and awareness of the transgender experience while identifying oral health needs and proposing strategies of inclusivity to optimize oral health outcomes. **Methods:** A comprehensive electronic literature search was conducted in the following online databases: PubMed, Google Scholar, CINAHL, and Education Source. The search yielded 35 articles with a wide range of study designs and methodologies.

Results & Discussion: Several themes emerged from the literature, including psychosocial oral health implications, barriers to oral health care, inclusive dental practice strategies, and cultural competence of oral health providers. **Conclusion:** The transgender population experiences many social and health disparities that stem from discrimination. Systemic inequalities, coupled with other barriers to care, have significant oral health implications for this population. Implementing inclusivity strategies and gaining awareness of the transgender experience will contribute to better oral health outcomes in this community.

RÉSUMÉ

Objectif : La présente analyse documentaire explore les recherches actuelles visant à élargir la compréhension et la sensibilisation à l'expérience transgenre tout en définissant les besoins en matière de santé buccodentaire et en proposant les stratégies d'inclusion pour optimiser les résultats de santé buccodentaire. **Méthodologie :** Une recherche documentaire électronique exhaustive a été menée dans les bases de données en ligne suivantes : PubMed, Google Scholar, CINAHL et Education Source. Cette recherche a produit 35 articles ayant une vaste gamme de plans d'études et de méthodologies. **Résultats et discussion :** Plusieurs thèmes sont ressortis de la littérature, y compris les implications psychosociales de la santé buccodentaire, les obstacles aux soins buccodentaires, les stratégies inclusives de pratique dentaire et la compétence culturelle des fournisseurs de soins buccodentaires. **Conclusion :** La population transgenre connaît de nombreuses inégalités sociales et sanitaires qui relèvent de la discrimination. Les inégalités systémiques, combinées à d'autres obstacles aux soins, ont des répercussions importantes sur la santé buccodentaire de cette population. La mise en œuvre de stratégies d'inclusion et la prise de conscience de ce que vivent les transgenres contribueront à améliorer les résultats en matière de santé buccodentaire de cette communauté.

Keywords: discrimination; health care curricula; oral health barriers; oral health care providers; transgender; transgender dental health; transgender identity; transgender oral health

CDHA Research Agenda category: risk assessment and management; capacity building of the profession

CDHA/CJDH STUDENT WRITING COMPETITION

Our annual writing competition, proudly sponsored by PHILIPS Sonicare, encourages students in a diploma, baccalaureate or degree-completion program to develop a love for writing and research and to recognize the possibilities that such endeavours offer for personal and professional growth. The editorial board of the *Canadian Journal of Dental Hygiene* is delighted to publish the winning literature review entry from its 2021–2022 competition, which ably addresses the Canadian Dental Hygienists Association's 2015–2021 dental hygiene research agenda categories of "risk assessment and management" and "capacity building of the profession."

INTRODUCTION

Transgender or gender nonconforming are broad terms encompassing individuals who identify or express a gender different from their biological sex.^{1,2} More often than not, binary systems are employed to classify sex, gender or sexual orientation into dichotomous categories.³ A transgender person falls into an alternative category, where their gender identity does not conform to what is typically associated with their sex assigned at birth.³ Gender may be viewed as a spectrum on which transgender individuals

may identify as male, female, somewhere in between or agender.⁴ Some transgender individuals may experience gender dysphoria, a clinical term describing severe distress or disability related to this misaligned internal and external sense of gender.^{5,6} For this reason, transgender men and women are increasingly finding the support to transition to their chosen gender, which may include changes in social expression, psychotherapy, hormone therapy, and gender-affirming surgery (Table 1).^{5,6}

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Table 1. Terminology and definitions^{2,3,10,13,14,27,35}

Sex	Anatomical and biological, based on internal and external sex organs, chromosomes, and sex hormones
Intersex	A variety of conditions in which a person is born with reproductive or sexual anatomy that does not fit the typical definitions of female or male
LGBTQ+	An acronym for lesbian, gay, bisexual, transgender, queer (or sometimes questioning), and all other sexual and gender minorities
Gender	Psychological and social; refers to the characteristics of men or women that are socially constructed
Gender identity	Psychological; refers to the inherent sense of being a man or woman, somewhere in between or agender
Gender dysphoria	Underlying or incessant anxiety when an individual's expressed gender is different from the one that was assigned at birth
Transgender	An umbrella term encompassing those whose gender identities or gender roles differ from those typically associated with the sex they were assigned at birth
FTM/MTF	FTM: Female to male; a person identifying as male whose sex at birth was assigned as female (transman) MTF: Male to female; a person identifying as female whose sex at birth was assigned as male (transwoman)
Cisgender	An individual whose gender identity and gender expression align with the sex assigned at birth
Transexual	An outdated term reserved for a transgender person who has gone through some sort of bodily transition to conform with a gender identity that does not match their assigned sex
Genderqueer, nonbinary, genderfluid, agender	An individual whose gender identity does not align with a binary understanding of gender, including those who think of themselves as both male and female, neither, moving between genders, a third gender or outside of gender altogether (agender)
Gender nonconforming	An individual whose gender identity or gender expression differs from the gender norms associated with the sex they were assigned at birth
Transitioning	The process of shifting towards a gender role different from that assigned at birth, which can include a social transition (new names, pronouns, clothing) and a medical transition (hormone therapy, surgery)
Gender-affirming	Instead of outdated terminologies, such as sex change and gender reassignment, gender-affirming interventions are used to describe the various ways individuals choose to align their bodies with their gender identity. These may include chest binding, genital tucking or packing, hair removal, hormone therapies, and surgery
Gender expression	How a person acts, dresses, speaks, and behaves to show their gender
Minority stress	Chronically high levels of psychological distress endured by members of stigmatized minority groups
Cisnormative	The assumption that everyone has a gender identity that matches their assigned sex
Heteronormative	The assumption that heterosexuality is the default sexual orientation
Trauma-informed care	An approach to care which recognizes and acknowledges the impact of past and present traumatic experiences

Approximately 200,000 adults living in Canada identify as transgender, representing 0.53% of the population.⁷ However, transgender people are often underreported due to familial, social, and psychological stressors related to public acceptance.⁸ Despite recent attention in the media and civil rights conversations, this marginalized community experiences many social and health disparities that stem from discrimination, stigmatization, and transphobia.⁹ According to research, the transgender population has elevated rates of unemployment, homelessness, depression, anxiety, family rejection, physical and mental abuse, suicide risk, substance abuse, and engagement in risky behaviours.^{3-5,10} In addition, they face significant barriers to general and oral health care, such as financial constraints, a lack of cultural competence, and bias among clinicians.^{3,5} Although oral health care settings recognize these societal disadvantages, there is limited research on the transgender experience within these facilities.^{4,11} Furthermore, most oral health professionals have minimal educational preparation in transgender issues and their implications for oral health.¹¹

To meet population oral health needs, adapting client care to diverse demographics is imperative for oral care providers. More recently, there has been a growing urgency to treat marginalized groups, including the transgender community, with cultural sensitivity in an effort to reduce oral health barriers.^{2,8} Although most oral health professionals have likely treated transgender clients, there remains a lack of understanding of this population's experiences and how those experiences affect oral health outcomes.³ Raising awareness of the transgender population is essential for discerning how to provide oral health services in a supportive and inclusive manner.³ Oral health professionals are responsible for providing quality oral care to all clients and must therefore gain perspective on the needs and concerns of transgender individuals.³ The purpose of this narrative review is to broaden understanding and awareness of the transgender experience while identifying oral health needs and exploring strategies of inclusivity to optimize oral health outcomes in the transgender community.

METHODS

A comprehensive electronic literature search of PubMed, Google Scholar, CINAHL, and Education Source was conducted using the following search terms: “qualitative study,” “transgender,” “oral health care,” “barriers,” “dentist,” “dental hygiene,” “minority stress,” “periodontal disease,” “hormonal therapy,” “trauma-informed care,” and “dental education”. Only relevant and credible literature written in English, available in full text, and peer reviewed was selected for review. No restrictions were placed on publication dates to establish changing themes over time. The search yielded 35 articles, including phenomenological studies, grounded theory studies, cross-sectional studies, 1 retrospective study, 1 case series, 1 modified Delphi study, and 1 case-control study, which employed quantitative, qualitative, and mixed-method designs. Three studies were conducted in India and one in Columbia. Literature and systematic reviews were examined for background information.

RESULTS AND DISCUSSION

Key themes emerged from the literature reviewed, including psychosocial oral health implications, barriers to oral health care, inclusive dental and dental hygiene practice strategies, and cultural competence of oral health care providers.

Psychosocial oral health implications

Discrimination faced by the transgender population is significant, widespread, and stems from multiple sources, including societal bias and familial rejection.^{4,6} Consequently, lack of education and unemployment are quite common within this marginalized group, contributing to poverty and homelessness.^{1,8,12} Not only are transgender individuals structurally disadvantaged, but they tend to endure elevated rates of harassment, violence, and gender crimes, resulting in physical and mental health complications.^{1,8,12} These societal inequalities have several direct and indirect effects on the oral health of transgender clients.

Even when there is no blatant discrimination, the perception of social stigma may cause transgender individuals to conceal their identity and internalize societal transphobia with the expectation that they will encounter rejection or violence.⁴ This expectation can result in a psychological response termed minority stress, which occurs when marginalized groups face chronic levels of increased stress.^{4,13,14} From an oral health perspective, ongoing elevated stress can cause tissue damage due to prolonged inflammation, which is a risk factor for periodontal disease.³ Furthermore, stress heightens the risk of aphthous stomatitis, cold sores, bruxism, and temporomandibular pain.³

In addition to stress, depression and anxiety are also linked to discrimination, gender dysphoria, family rejection, and abuse.^{3,4,6,13,14} Research findings demonstrate increased rates of suicide and self-harm within the transgender

population.^{6,7,14} As a result, oral neglect, dental fear, and treatment abandonment are quite prevalent within this community.^{2-4,7,13-15} Several studies also suggest that these mental health issues can lead to engagement in harmful behaviours such as smoking, alcohol consumption, and illicit drug use.^{1-4,6,13,15} These high-risk habits can contribute to various adverse oral health outcomes, including nicotine stomatitis, tooth loss, candidiasis, fibrosis, leukoplakia, and cancer.^{1,2} Based on these findings, oral health professionals should be mindful of the complex determinants of oral health that affect the transgender community.

While most oral care providers and transgender clients do not recognize a direct connection between gender dysphoria and oral health, several indirect comorbidities exist.¹⁶ First, studies report that transgender individuals engage in harmful eating behaviours due to body dissatisfaction.^{2,4,16} Transgender males may prefer a more muscular body, while transgender females typically desire a thin frame.² While most oral health professionals are aware that certain eating disorders cause enamel erosion and increased caries, understanding their prevalence in the transgender community is paramount.² Second, gender-affirming hormone therapy is an essential component of medical interventions for transgender individuals to treat gender dysphoria and support their gender transition.² Although there is limited research on hormonal treatment and its effects on the oral cavity, some studies have shown altered bone density for transgender men and women.^{2,17} Given this potential, transgender individuals may be at increased risk of jaw fractures.¹⁷ Estrogen deficiency also has the potential to be associated with osteoporosis and periodontal disease. However, research is inconsistent.^{18,19} Fluctuating sex hormones are correlated with an exaggerated inflammatory reaction, hormone-influenced gingivitis, and increased instances of pyogenic granulomas.^{13,20} There may also be a heightened risk for xerostomia, lichen planus, pemphigoid, Sjögren's syndrome, and burning mouth syndrome, as observed during menopause.^{13,21}

Other oral health implications include the prevalence of human immunodeficiency virus (HIV), which is significantly higher in the transgender community compared to the overall population (1.4% versus 0.3%).¹³ Transgender individuals who participate in unprotected anal intercourse, engage in sexual activities with multiple partners, or provide sex work are especially at risk.^{2,3} Unsafe needle practice involving injections of hormones, drugs or silicone for bodily enhancements can also increase incidence rates.³ While HIV has several related oral manifestations, risky sexual behaviours and contaminated needles put individuals at added risk of other sexually transmitted infections and pathologies.^{2,3} Most notable to dentistry is the human papillomavirus (HPV) because of its significant implications for oropharyngeal cancer.^{2,6,8} Despite evidence suggesting discomfort in discussing a

client's sexual history, oral health professionals should be prepared to advocate for safe sexual behaviours, HPV vaccinations, and ongoing risk assessments.^{2,6,8}

Barriers to oral health care

Discrimination, real or perceived, is not only limited to societal and familial settings but has also been known to occur in health care environments.⁴ Research has shown that transgender individuals have been denied access to medical treatments and received substandard care.⁴ A robust study involving 27,000 transgender individuals revealed that one-third of participants reported at least one negative health care experience; this included being refused treatment by practitioners, verbal harassment, physical and sexual assault, or having to teach the provider about transgender culture.^{4,15} Because of these experiences and the fear of future mistreatment, transgender clients often delay, avoid or abandon health care altogether.^{9,10,13,15,22}

Furthermore, the mistreatment and psychological trauma experienced by the transgender community can result in higher levels of dental anxiety and further avoidance of oral care.¹⁵ According to Heima et al.¹⁵, transgender individuals report higher dental anxiety than cisgender individuals, which could be explained by minority stress. Not only are avoidance behaviours a substantial detriment to oral health, but they can also increase vulnerability to negative self-evaluations.⁹ Studies have reported poor self-perceived oral health among the transgender community, attributed to a lack of oral health knowledge, limited access to dental care, and harmful lifestyle habits.^{1,9} Transgender individuals tend to be less satisfied with their oral health, believing they have a higher need for dental treatment, which causes embarrassment and tension.²³ In their study, Prates et al.²³ observed that transgender participants were more likely than control participants to say that nervousness and shame about the condition of their teeth affected their daily lives. Oral health care providers should be aware of these specific predictors for transgender clients.

On further evaluation of oral care barriers, several studies identified education, income, and employment levels as dominant factors.^{1,9,13,24} According to Gonzales et al.,²⁴ approximately 32% of transgender men and 22% of transgender women have below a high school level of education, compared to 13% of cisgender adults. Transgender adults also report lower levels of household income and considerably higher unemployment rates, with 33% of study participants claiming they did not seek care within the last year because of financial constraints.^{13,24} Apart from the fact that transgender individuals are less likely to be able to afford oral care, they are also less likely to have dental insurance.²⁴ Transgender adults may experience difficulties enrolling in health insurance plans or be denied coverage based on their legal versus chosen name or identified gender.^{4,13} As a result, oral health tends to be a low priority, with toothaches and emergency

appointments being the main reason for dental visits.^{13,16}

Transgender individuals not only face barriers to oral care, but they are also at elevated risk of experiencing discriminatory behaviours in private clinical practice.⁴ Contributing to the negative experience of transgender persons in the dental clinic is a lack of cultural competence and professionalism among staff, the prevalence of cishnormative and heteronormative assumptions, being questioned about identity, and continuous use of assigned sex or name.^{4,10,15} Carlström et al.¹⁰ describe the situation of a nonbinary person being questioned and pressured to choose between identifying as either a male or a female by oral health care providers who were unfamiliar with the concept. When oral health professionals use the wrong name, wrong pronouns or well-intentioned terms of endearment that do not match the identified gender, transgender individuals feel mistreated and disrespected.^{4,10} In addition to the use of preferred terminology, these clients also appreciate being treated according to their health care needs and not having a focus placed on their transgender experience.¹⁰ For these reasons, oral health professionals should adopt a trauma-informed approach to care, keep an open mind, and ask relevant questions while respecting transgender individuals so they feel like any other client.²⁵ By recognizing and acknowledging the widespread impact of past and present traumas, oral health care providers can contribute to maintaining a safe and validating environment in which transgender clients can express themselves freely, potentially improving engagement and treatment adherence.²⁵

In contrast to most medical research, Macdonald et al.⁴ interviewed transgender adolescents and young adults, who mainly reported neutral or positive dental experiences. Similar to the findings of Carlström et al.,¹⁰ some participants mentioned mixing up pronouns or being called by the wrong name, but these instances were addressed quickly without interruption to care.^{4,26} Transgender individuals also identified open-bay operatories as a source of anxiety as they preferred to discuss sensitive topics in a more private area.⁴ Despite these concerns, most transgender participants had few issues accessing oral care and disclosing their identity in the dental setting.⁴ However, given that many of the participants were under parental supervision, the positive responses or environment that clients experienced may not have been possible without interventions from caregivers.⁴

An alternative explanation for transgender individuals' propensity to view their experience with the oral care team more favourably than that with medical providers is that there may be a belief that gender identity does not factor into the dental or dental hygiene scope of practice.⁴ As a result, the fear of mistreatment may have less influence on the decision to seek oral care.⁴ Research indicates that transgender individuals may even avoid disclosing their gender identity and other transition-related information

or comorbidities to oral health professionals.^{5,16} However, when pertinent health information is not disclosed, it undermines the oral health care provider's ability to provide culturally competent and comprehensive care.^{5,16}

Inclusive dental and dental hygiene practice strategies

A welcoming environment with open dialogue and rapport is essential to counteracting many of the recognized oral health care barriers faced by transgender clients.²⁷ As discussed previously, communicating with transgender individuals in an adequate and non-offensive manner, including correct usage of evolving terminology, pronouns, and gender-neutral terms, is of utmost importance in establishing a trusting relationship.¹⁰ In addition to verbal communication, clinical records that designate a section for chosen names and identified gender will demonstrate respect and protect dignity.^{4,26} Other common findings that contribute to positive oral care experiences for transgender clients are trans-friendly clinic environments with professional staff who promote privacy and integrity, and clinicians with knowledge of transgender issues.^{4,10} A

rainbow flag or sticker on display can help transgender clients identify trans-friendly offices (Figure 1).^{4,27} In addition, promoting local resources, providing gender-neutral washrooms (Figures 2 and 3), having a private office area for confidential discussions, and enforcing a zero-tolerance of transphobia may help encourage inclusivity and acceptance.^{4,17,27}

Figure 2. Recommendations by Entero Communications and the Canadian Standards Association Group for universal washroom signage in health care facilities⁴⁰



Figure 1. Logos and images representing the gender and sexual diversity of LGBTQ+ communities



Positive Space Campaign



LGBTQ+ Pride Flag



Transgender+ Pride Flag

Sources: Positive Space Campaign and the Equity & Inclusion Office, University of British Columbia^{38,39}

Figure 3. Gender-inclusive washroom signage at a) the University of British Columbia; b) the Vancouver Park Board; and c) the City of Kelowna⁴¹⁻⁴³



Transgender clients prefer that oral providers take it upon themselves to find information rather than expecting the clients to explain transgender concepts.¹⁰ Therefore, oral care clinics would benefit from equality, diversity, and inclusion training. Educating staff on the transgender experience and increasing awareness of this vulnerable group's emotional, social, and physical needs is imperative to providing client-centred care.^{4,10} Not only will this new knowledge increase comfort and confidence in the clinician, but it will also reduce stigmatization and avoidance of care.^{10,28,29} Ultimately, engaging in respectful dialogue and understanding transgender issues while focusing on clients' health care needs will optimize oral health outcomes (Table 2).¹⁰

Oral health care provider cultural competence

The lack of knowledge and inadequate educational preparation among oral health professionals when working with the transgender community has been a long-standing concern.^{10,26,29} In a survey of 411 practising clinicians, researchers reported that approximately 80% had treated transgender clients, yet 81% of those same participants had never received any related training.⁴ Based on these findings, professional dental and dental hygiene programs should focus on integrating transgender client education and cultural competence into their entry-to-practice educational programming.¹¹ Although some institutions have acknowledged this important issue, most oral health professional programs have been slow to make this transition.¹¹

Even when health care programs incorporate cultural sensitivity education into their curricula, content that addresses gender minorities is often lacking or insufficient.^{10,30} Research reveals that North American dental schools dedicate an average of only 2 hours to LGBTQ+ education.^{11,31} Comparatively, American dental hygiene programs provide even less coverage, with 48% of schools including none at all.³¹ While highlighting the

lack of education on these topics, Obedin-Maliver and colleagues³² also noted that transgender-specific content often tended to be part of a larger discussion of sexual and gender minorities. An additional study by Green et al.³³ compared medical, nursing, and dental students. Of these participants, dental students were the least comfortable discussing sexual health, reporting fewer hours of client exposure, and the least likely to say that their instructors demonstrated competence in this area.^{28,33} These findings are consistent with Hillenburg et al.³¹ and enforce the need for ongoing improvements to oral health care curricula.^{31,33} As academic health care programs work towards these goals, the prevalence of transgender clients and professionals in their communities should be considered to foster an inclusive environment and respect for the expertise of this population.³⁴

Literature critique

Limitations of this narrative review include the lack of diversity in study types and the inclusion of research from other countries that may have vastly different cultural norms related to gender identity. Several studies utilized online questionnaires or surveys, making it challenging to monitor if participants qualified for inclusion. However, online data collection through written self-reports can generate more in-depth information about participant experiences while providing anonymity. In contrast, many quantitative publications included reliable questionnaires and large sample sizes to increase validity.

Numerous qualitative studies employed grounded theory and phenomenology methodologies. These study designs typically included small sample sizes and purposive sampling, which is appropriate for gaining a deeper understanding of transgender experiences.³⁶ All studies either included structured or semi-structured interviews. Trained and calibrated students performed structured interviews and noted nonverbal behaviours,

Table 2. Ten inclusive dental and dental hygiene practice strategies^{4,6,16,26}

1. Gender-neutral washrooms (without male or female labels on the door) to increase comfort and inclusivity
2. Use of preferred language and terminology. Most transgender individuals prefer pronouns that reflect their gender identity, while some prefer gender-neutral pronouns: <ul style="list-style-type: none"> • He/him/his for transmen • She/her/hers for transwomen • They/zhe/thon for gender-neutral
3. Separate sections on the dental chart for "sex at birth" and "gender identity"
4. Separate sections on the dental chart for "legal name" and "chosen name"
5. Asking about client-specific pronouns or how the client would like to be addressed
6. Efforts to avoid making assumptions about gender or using terms such as "darling" or "dude"
7. Posting a rainbow flag or sticker as a sign of acceptance and comfort to clients and families
8. Connecting clients and families with local resources if possible
9. Becoming educated on the specific health issues faced by the transgender community and being knowledgeable about the recommended standards of practice
10. Having a designated private area for transgender clients in case they wish to discuss sensitive matters or confidential information

minimizing bias and enhancing interrater reliability.³⁶ However, some semi-structured interviews were conducted over the phone without nonverbal cues, possibly leading to misinterpretations during data collection.

All qualitative studies were audiorecorded, transcribed verbatim, and coded until saturation, increasing data accuracy and scientific rigour.³⁶ A few studies also employed a professional transcriber, member checking or co-coding to enhance trustworthiness.^{36,37} However, none of the studies mentioned employed pilot testing or triangulation, potentially affecting data accuracy.³⁶ Qualitative publications on transgender experiences with oral health care were relatively limited, perhaps due to the sensitive topic and fear of stigmatization. As a result, various study findings were taken from medical or nursing literature, and of those related to dental care, the study participants fell within a narrow age range.

Alternatively, most quantitative studies were cross-sectional in design, which raises questions of selection bias and generalizability due to convenience sampling, along with challenges in assessing temporal relationships. Longitudinal follow-up studies would be valuable to determine cause-and-effect relationships. Furthermore, most studies collected data through self-reporting, possibly leading to recall and response bias, especially when describing access to oral care and sociodemographic characteristics. Small sample sizes were problematic in one study and required transgender participants to incorporate with other sexual minorities groups, which may have affected data accuracy and validity.

Research gaps and future research recommendations

There are numerous gaps in knowledge of the transgender experience and oral health outcomes. Studies on the oral health implications of hormonal therapies, for example, are limited. Likewise, information on barriers to oral care and transgender content in dental and dental hygiene programs is scarce and relies heavily on medical literature. Future research should include the Canadian transgender population as the transgender experience varies depending on cultural norms and psychosocial demographics. In addition to continued in-depth research exploring transgender experiences of oral health care, subsequent studies should focus on accumulating scientific knowledge to facilitate transgender education and practices for oral health care providers, along with consideration of practitioner biases, approachability, and accessibility. Moreover, various study designs should be employed, including strategies that access assorted population samples and use diverse data collection and analysis methods.

CONCLUSION

Despite increased visibility in recent years, the transgender population experiences many social and health disparities that stem from discrimination and a lack of culturally competent providers. These systemic inequalities, along with

other barriers to oral care, have significant implications for oral health. Major factors influencing these concerns are the limited or inadequate training of oral health professionals and minimal evidence-based research on gender minorities. Educating oral health care providers and increasing awareness of this vulnerable group's emotional, social, and physical needs is imperative to providing client-centred care. Accordingly, dental and dental hygiene practices should develop strategies to establish a welcoming environment with open dialogue and rapport. With this approach, transgender clients may feel comfortable seeking treatment, contributing to better oral health outcomes.

This narrative review offers a brief introduction to the challenges and oral care needs of transgender clients. Although primary research on this marginalized group is quite limited, all publications collectively touch on aspects of the transgender experience, including psychosocial oral health implications, barriers to care, clinical practice strategies, and oral health professionals' cultural competence. Yet, due to the minimal amount of evidence-based literature, oral health practitioners may find it challenging to provide culturally competent care based on these findings alone. Nonetheless, this review provides introductory knowledge and awareness of the transgender experience that oral health professionals can use as a starting point for improving the care they provide to this community.

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CONFLICTS OF INTEREST

The author has declared no conflicts of interest.

REFERENCES

1. Manpreet K, Ajmal M, Raheel S, Saleem M, Mubeen K, Gaballah K, et al. Oral health status among transgender young adults: a cross-sectional study. *BMC Oral Health*. 2021;21(1):1–6. Available from: <https://bmcoralhealth.biomedcentral.com/articles/10.1186/s12903-021-01945-x>
2. Conard L, Schwartz S. Supporting and caring for transgender and gender-expansive individuals in the dental practice. *J Dent Child (Chic)*. 2019;86(3):173–79. Available from: <https://pubmed.ncbi.nlm.nih.gov/31645261/>
3. Macri D, Wolfe D. My preferred pronoun is she: understanding transgender identity and oral health care needs. *Can J Dent Hyg*. 2019;53(2):110–117. Available from: <https://files.cdha.ca/profession/journal/2703.pdf>
4. Macdonald DW, Grossoehme DH, Mazzola A, Pestian T, Schwartz

- SB. "I just want to be treated like a normal person": oral health care experiences of transgender adolescents and young adults. *J Am Dent Assoc.* 2019;150(9):748–54.
5. MacKinlay-Byrne L. Caring for the transgender patient. *Dimens Dent Hyg.* 2020;18(1):40–43. Available from: <https://dimensionsofdentalhygiene.com/article/caring-transgender-patients/>
 6. Russell S, More F. Addressing health disparities via coordination of care and interprofessional education: Lesbian, gay, bisexual, and transgender health and oral health care. *Dent Clin North Am.* 2016;60(4):891–906.
 7. Ziegler E, Valaitis R, Carter N, Risdon C, Yost J. Primary care for transgender individuals: a review of the literature reflecting a Canadian perspective. *SAGE Open.* 2020;10(3):1–10. Available from: <https://journals.sagepub.com/doi/full/10.1177/2158244020962824>
 8. Vo A, Arnett M, Drake M, Reibel Y. Supporting the transgender community. *Dimens Dent Hyg.* 2020;18(8):40–43. Available from: <https://dimensionsofdentalhygiene.com/article/support-transgender-community/>
 9. Samuel SR, Muragabooopathy V, Patil S. Transgender HIV status, self-perceived dental care barriers, and residents' stigma, willingness to treat them in a community dental outreach program: cross-sectional study. *Spec Care Dentist.* 2018;38(5):307–312. <https://doi.org/10.1111/scd.12315>
 10. Carlström R, Ek S, Gabriëlsson S. "Treat me with respect": transgender persons' experiences of encounters with healthcare staff. *Scand J Caring Sci.* 2021;35(2):600–607. <https://doi.org/10.1111/scs.12876>
 11. Parish CL, Santella AJ. A qualitative study of rapid HIV testing and lesbian, gay, bisexual, transgender, and queer competency in the oral health setting: practices and attitudes of New York State dental directors. *Oral Health Prev Dent.* 2018;16(4):333–38.
 12. Nemoto T, Bödeker B, Iwamoto M. Social support, exposure to violence and transphobia, and correlates of depression among male-to-female transgender women with a history of sex work. *Am J Public Health.* 2011;101(10):1980–1988.
 13. Stefanou L, Beall A, Jennings H. Treating the transgender patient. *Dimens Dent Hyg.* 2018;16(1):48–51. Available from: <https://dimensionsofdentalhygiene.com/article/treating-the-transgender-patient/>
 14. McCann E. People who are transgender: mental health concerns. *J Psychiatr Ment Health Nurs.* 2015;22(1):76–81.
 15. Heima M, Heaton LJ, Ng HH, Roccoforte EC. Dental fear among transgender individuals—a cross-sectional survey. *Spec Care Dentist.* 2017;37(5):212–22.
 16. Macdonald DW, Grosseohme DH, Mazzola A, Pestian T, Schwartz SB. Transgender youth and oral health: a qualitative study. *J LGBT Youth.* 2022;19(1):92–106. <https://doi.org/10.1080/19361653.2020.1798839>
 17. Vlot MC, Klink DT, den Heijer M, Blankenstein MA, Rotteveel J, Heijboer AC. Effect of pubertal suppression and cross-sex hormone therapy on bone turnover markers and bone mineral apparent density (BMAD) in transgender adolescents. *Bone.* 2017;95:11–19. <https://doi.org/10.1016/j.bone.2016.11.008>
 18. Juluri R, Prashanth E, Gopalakrishnan D, Kathariya R, Devanoorkar A, Viswanathan V, et al. Association of postmenopausal osteoporosis and periodontal disease: a double-blind case-control study. *J Int Oral Health.* 2015;7(9):119–23.
 19. Kellesarian SV, Malmstrom H, Abduljabbar T, Vohra F, Kellesarian TV, Javed F, et al. Low testosterone levels in body fluids are associated with chronic periodontitis. *Am J Mens Health.* 2017;11(2):443–53.
 20. Jafri Z, Bhardwaj A, Sawai M, Sultan N. Influence of female sex hormones on periodontium: a case series. *J Nat Sci Biol Med.* 2015;6(Suppl 1):S146–S149.
 21. Grover CM, More VP, Singh N, Grover S. Crosstalk between hormones and oral health in the mid-life of women: a comprehensive review. *J Int Soc Prev Community Dent.* 2014;4(Suppl 1):S5–S10. Available from: www.ncbi.nlm.nih.gov/pmc/articles/PMC4247552/
 22. Alzate-Urrea S, Agudelo-Suárez A, Monsalve-Orrego J, Londoño-Candanoza F, Chinome-Flórez G, Julio-Pérez A, et al. Self-perceived discrimination in LGBT population in oral health services. Medellín, Colombia: a qualitative approach. *Glob J Health Sci.* 2016;8(12):152–62. Available from: <http://dx.doi.org/10.5539/gjhs.v8n12p152>
 23. Prates SG, Jesuíno RD, Paranhos LR, Havel AM, Gontijo LPT. Oral health self-perception for transgender people: a controlled cross-sectional study. *Biosci J.* 2021;37:1–7. <https://doi.org/10.14393/BJ-v37n0a2021-55794>
 24. Gonzales G, Henning-Smith C. Barriers to care among transgender and gender nonconforming adults. *Milbank Q.* 2017;95(4):726–48.
 25. Hall SF, DeLaney MJ. A trauma-informed exploration of the mental health and community support experiences of transgender and gender-expansive adults. *J Homosex.* 2021;68(8):1278–1297.
 26. Carabez RM, Eliason MJ, Martinson M. Nurses' knowledge about transgender patient care: a qualitative study. *ANS Adv Nurs Sci.* 2016;39(3):257–71.
 27. Horisk K, Underwood E, Petch M, Johnson A. Considerations in the management of trans patients. *Br Dent J.* 2021;230(5):283–84.
 28. Nowaskie DZ, Patel AU, Fang RC. A multicenter, multidisciplinary evaluation of 1701 healthcare professional students' LGBT cultural competency: comparisons between dental, medical, occupational therapy, pharmacy, physical therapy, physician assistant, and social work students. *PLoS One.* 2020;15(8):1–11.
 29. Ellaway RH, Thompson NL, Temple-Oberle C, Pacaud D, Frecker H, Jablonski TJ, et al. An undergraduate medical curriculum framework for providing care to transgender and gender diverse patients: a modified Delphi study. *Perspect Med Educ.* 2022;11(1):36–44.
 30. Aguilar E, Fried J. Enhancing dental and dental hygiene student awareness of the lesbian, gay, bisexual and transgender population. *J Dent Hyg.* 2015;89(1):11–16.
 31. Hillenburg KL, Murdoch-Kinch CA, Kinney JS, Temple H, Inglehart MR. LGBT coverage in US dental schools and dental hygiene programs: results of a national survey. *J Dent Educ.* 2016;80(12):1440–1449.
 32. Obedin-Maliver J, Goldsmith ES, Stewart L, White W, Tran E, Brenman S, et al. Lesbian, gay, bisexual, and transgender-related content in undergraduate medical education. *JAMA.* 2011;306(9):971–77.
 33. Greene MZ, France K, Kreider EF, Wolfe-Roubatis E, Chen KD, Wu A, et al. Comparing medical, dental, and nursing students' preparedness to address lesbian, gay, bisexual, transgender, and queer health. *PLoS One.* 2018;13(9):1–16.
 34. White W, Brenman S, Paradis E, Goldsmith ES, Lunn MR, Obedin-

- Maliver J, et al. Lesbian, gay, bisexual and transgender patient care: medical students' preparedness and comfort. *Teach Learn Med*. 2015;27(3):254–63.
35. McLemore KA. A minority stress perspective on transgender individuals' experiences with misgendering. *Stigma and Health*. 2018;3(1):53–64. Available from: <https://psycnet.apa.org/doiLanding?doi=10.1037%2Fsah0000070>
 36. Kanji Z. Decoding qualitative research for dental hygiene. *Can J Dent Hyg*. 2012;46(4):239–43. Available from: <https://files.cdha.ca/profession/journal/2165.pdf>
 37. Busetto L, Wick W, Gumbinger C. How to use and assess qualitative research methods. *Neurol Res Pract*. 2020;2:14. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7650082/>
 38. The University of British Columbia, Equity & Inclusion Office. Positive Space Campaign [Internet]. 2002 [cited 2022 May 5]. Available from: <https://equity.ubc.ca/resources/positive-space/>
 39. The University of British Columbia, Equity & Inclusion Office. Happy Pride: Do You Know Your Pride Flags? [Internet]. 2014 [cited 2022 May 5]. Available from: <https://equity.ubc.ca/news-and-stories/happy-pride-do-you-know-your-pride-flags/>
 40. Sign Media Canada. Wayfinding: Developing Inclusive Washroom Signage [Internet]. 2017 Sept 7 [cited 2022 May 10]. Available from: www.signmedia.ca/wayfinding-developing-inclusive-washroom-signage/3/
 41. The University of British Columbia, Equity & Inclusion Office. Inclusive Washrooms & Change Rooms [Internet]. n.d. [cited 2022 May 5]. Available from: <https://equity.ubc.ca/resources/gender-diversity/inclusive-washrooms-changerooms/>
 42. Takeuchi C. Vancouver city council approves trans equality action plan recommendations. *The Georgia Straight*, 2016 Jul 16 [cited 2022 May 10]. Available from: www.straight.com/life/737561/vancouver-city-council-approves-trans-equality-action-plan-recommendations
 43. City of Kelowna. *Community for all: Parks and buildings assessment report*. Kelowna, BC: City of Kelowna; 2018 Apr [cited 2022 May 10]. Available from: www.kelowna.ca/sites/files/1/docs/community/Planning/2018_attachment_b_parks_and_buildings_assessment_report.pdf