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RESEARCH ARTICLE

Students' Perceptions of the Integration of Sexual and Gender Minority Constructs within the Dental Curriculum

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ABSTRACT

Background and Objective: The sexual and gender minorities (SGMs) are at risk for various health disparities. To address this, the World Health Organization (WHO) calls for the training of healthcare providers who demonstrate cultural competence. To facilitate this, studies have suggested the inclusion of SGM-specific constructs in the curriculum that is complemented with campus climate-related efforts. This study aimed to determine the degree of coverage of cultural competence towards the SGM constructs in the required curriculum and describe the campus climate towards the SGM of a dental school in the Philippines from the students' perspective.

Methodology: A convergent parallel mixed-methods design was employed. A survey questionnaire was developed and administered to determine the coverage of SGM-specific constructs. This was followed by semi-structured interviews to discuss the campus climate towards the SGM. Data collection utilized a two-stage stratified random sampling method for the survey while a purposive sampling method was used for interviewing dental students enrolled in a private, non-sectarian school.

Results and Conclusion: Survey results show that the most reported covered concepts are the oral manifestations of sexually transmitted diseases and the use of inclusive terminologies. Interview responses reveal instances of inadvertent perpetuation of heteronormative ideologies, however, the campus climate is perceived as neutral towards the SGM. The integration of the two datasets reveals incongruences between the curricular coverage and the perceived campus climate. Nevertheless, findings imply that the dental curriculum remains largely objective and asexual. Additionally, the integration underscores the importance of complementing curricular content with an inclusive campus climate in developing cultural competence among dental students.

Keywords: *sexual and gender minority, dental curriculum, campus climate, mixed methods design*

Introduction

The members of the sexual and gender minority (SGM) population have specific healthcare needs [1]. However, due to their perceived deviation from social norms on sexual orientation and gender identification and expression, they are often subjected to stigma and discrimination, due, in part to the lack of awareness of health professionals [1,2]. This creates a unique circumstance that increases their risk to various health disparities which are not particularly inherent to them but stem from various factors [1,3]. Health disparities include increased Human Immunodeficiency Virus (HIV) burden, increased chronic disease risk, as well as an increase in suicidal ideation and attempts [1].

As gender intersects several determinants of health, healthcare students would benefit from a curriculum that facilitates understanding and addressing the needs of the gender-diverse population [4]. Various medical education organizations have recommended the integration of SGM-specific topics in the formal and informal aspects of the curriculum [5]. In dentistry, demonstrating respect for diversity

has been identified as a required competency [6,7]. Respect for diversity facilitates the development of cultural competence which is considered contributory to reducing the health disparities faced by the SGM population [8,9]. Literature search on dental curriculum and SGM yielded research that studied LGBT content coverage, educational methodology, as well as student perceptions of the school climate for the LGBT members, most of which were implemented in the United States or Canada [5,10,11]. Findings include non-inclusion of SGM content in the required curricula of three out of ten dental schools, lack of interest in SGM-specific training among dental students compared to medical students, and SGM students perceiving more discrimination and less support than non-SGM respondents [5,10,11]. The development of cultural competence is not limited to the increasing coverage in the formal curriculum. Attention must also be paid to the learning environment climate as students also learn from the culture and values of the campus [9,12,13].

There is currently no available data describing the integration of SGM constructs in the dental curriculum and the existing campus climate in the Philippines. Therefore, this study aimed to determine the degree of coverage of cultural competence constructs towards the SGM population within the required curriculum. It also aims to describe the campus climate toward the SGM population of a dental school in the Philippines from the students' perspective.

Methodology

This study was approved by the University of the Philippines Manila Research Ethics Board (UPMREB 2020-667-01). A convergent parallel mixed-method design was employed to provide a comprehensive description of the integration of SGM-related constructs in the dental curriculum [Figure 1]. A survey questionnaire was used to collect quantitative data on the degree of coverage of cultural competence constructs in the required curriculum. A series of semi-structured interviews were implemented to collect qualitative data on the campus climate towards the SGM. Data were collected from dental students enrolled in a private, non-sectarian higher education institution. At the time of the implementation, the transition to a revised curriculum mandated by the country's Commission on Higher Education (CHED) was ongoing. This subsequently divided the participants into two groups; those who are in their first to third year of study taking the new curriculum (NC) and those who are in their fourth to sixth year taking the old curriculum (OC). After securing approval from the university administration, individual email invitations containing pertinent information on the study and the informed consent form were sent to the students. Students who agreed to participate were provided with a link to the survey questionnaire or the form to indicate their preferred schedule for the interview.

As there was no available tool that could adequately measure the objectives of the study, a survey tool informed by the existing literature was developed [9,10,14-18]. To facilitate analysis, the items on the questionnaire were divided into two parts—constructs on cultural knowledge and cultural skills. These were based on the Model of Cultural Competence developed by Campinha-Bacote [18]. A stratified random sampling method was employed for the cross-sectional survey and the sample size was computed using Cochran's formula. Before the actual data collection, a pilot testing of the questionnaire was implemented among dental students from the same university and the questions were modified as needed. The responses were subjected to the Pearson chi-square test to determine if there are statistical differences in the coverage of SGM-specific constructs between the two types of curricula. The test was run using IBM SPSS Statistics 27.

An interview guide was also developed for the semi-structured interviews based on the existing literature [19,20-23]. To facilitate analysis, two a priori constructs loosely based on the Campus Climate Framework developed by Milem *et al.* were used as posts for discussion—Institutional Policies and Social Interactions [19]. A purposive sampling method was employed by recruiting the student council year-level officers for the interviews. As elected representatives, they are tasked to collate student concerns and to speak on behalf of their year level. The semi-structured interviews were implemented over recorded video calls which were transcribed verbatim in MS Word and uploaded to Atlast.ti to facilitate thematic analysis. To supplement the lack of participants for the interviews, documents such as the student handbook and patient charts used in the infirmary were also reviewed to substantiate the responses, particularly regarding institutional policies.

Both datasets were collected concurrently and analyzed separately before being integrated to come up with meta-inferences. The integration of the two datasets is shown through a joint display table where responses to selected items in the survey questionnaire were presented together with related interview responses regarding the SGM climate. This provided a visual means to generate meta-inferences beyond those obtained through a separate analysis of the qualitative and quantitative data sources [24,25].

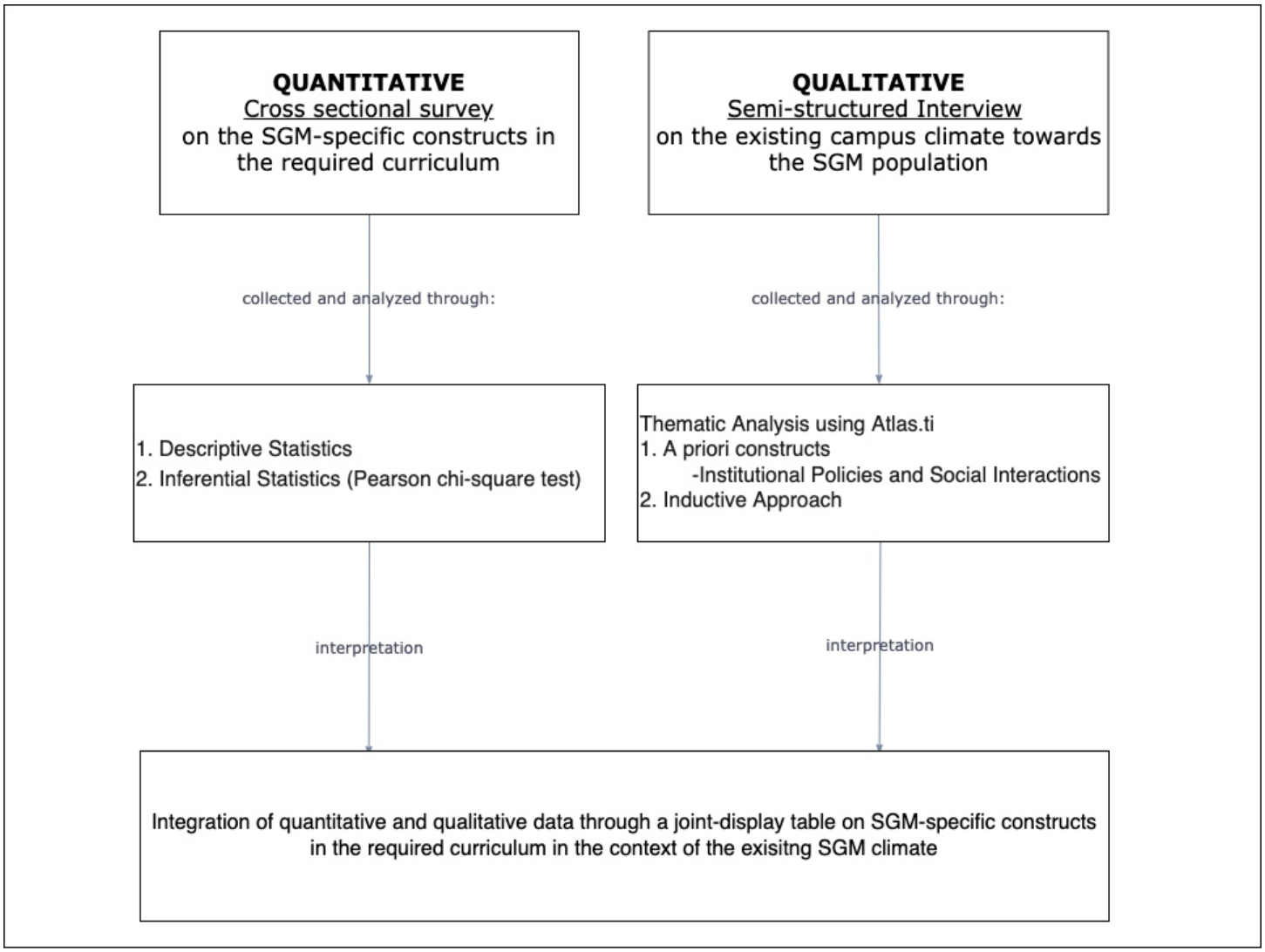

Figure 1. *Schematic Diagram of Methodology from Data Collection to Analysis and Interpretation*

Results

Among the 304 students invited to participate in the online survey, 132 responded to the invitation for an overall response rate of 44%; of this, 118 (39%) agreed to participate while 14 (5%) declined. Among the 12 student leaders invited to the semi-structured interview, 5 students (41%) responded to the invitation but only 3 (25%) consented to participate. There were 18 (15%) male students, 86 (73%) female students, 1(0.85%) student identified as gay, 1(0.85%) identified as lesbian, 9 (8%) identified as bisexual, 1(0.85%) identified as panromantic asexual, and 2 (2%) students preferred not to disclose their sexual orientation [Figure 2].

Quantitative Component

Perceived Coverage of SGM Constructs in the Required Curriculum

Figure 3 shows the frequency distribution of the perceived coverage of 12 SGM-specific constructs. Coverage means the constructs were discussed in the classroom or the clinical setting. Table 1 presents the frequency distribution for each type of curriculum. To facilitate analysis, the constructs were divided into sections on Cultural Knowledge and Cultural Skills. Cultural Knowledge constructs include cultural values and health disparities concerning the SGM population that dentists must know to provide culturally competent healthcare. Cultural Skills constructs develop the competence to accurately perform culturally-based physical assessments. The Pearson chi-square test was used to determine if there are statistical differences in the perceived coverage in each type of curriculum. Except for "item A" ($p < .001$), "item B" ($p < .001$), "item C" ($p = .012$), and "item E"($p = .046$), the differences in the perceived coverage of concepts for the two types of curriculum were found to be statistically non-significant.

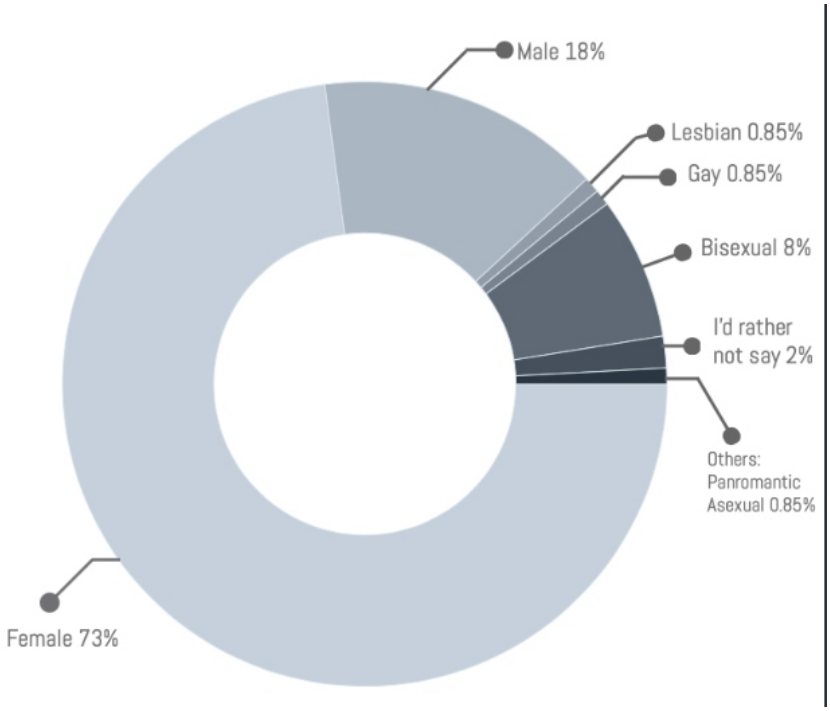

Figure 2. *Distribution of Participants According to Sexual Orientation and Gender Identity.*

Panromantic Asexual - people who report significantly less sexual attraction but can feel romantically attracted to people of any gender (Praus and Graham, 2007)

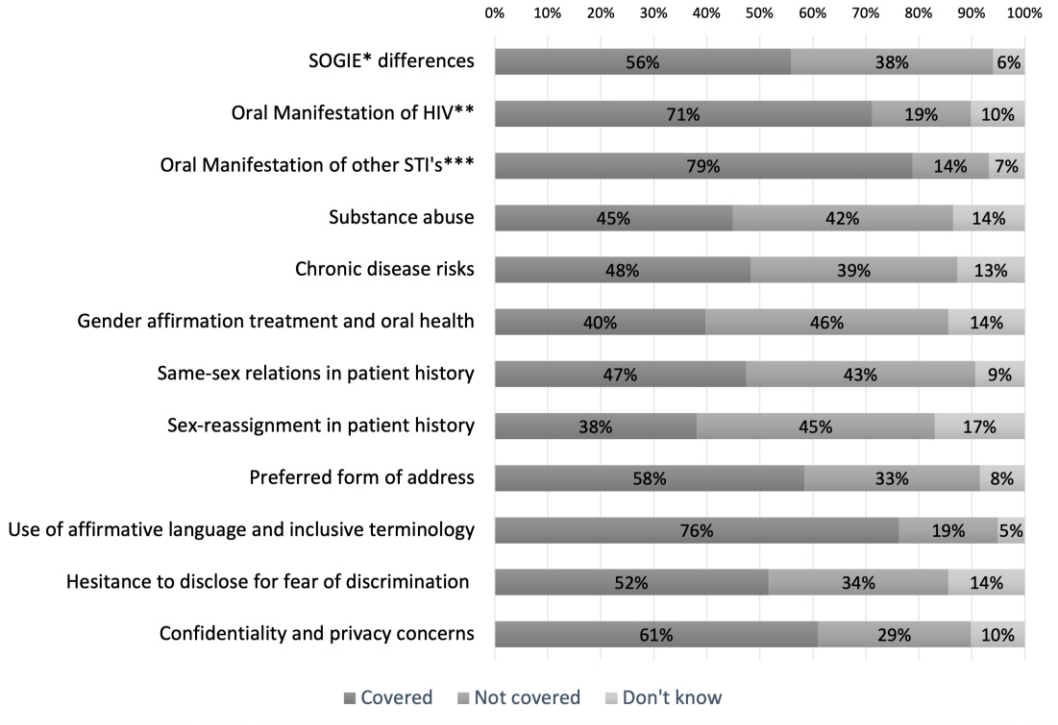

Figure 3. *Frequency Distribution of Students' Perceived Degree of Coverage of SGM-specific Concepts.*

Figures are from the Combined Responses of Students Enrolled in the Old and New Curriculum
Note:*SOGIE-Sexual Orientation, Gender Identity, and Gender Expression,
**HIV-Human Immunodeficiency Virus, ***STI's-Sexually Transmitted Diseases

Table 1. *Frequency Distribution and Chi-square Comparing the Perceived Coverage of SGM-specific Concepts in the Required Curriculum According to the Type of Curriculum*

Cultural Knowledge		Curriculum		
	Perceived Coverage	New Curriculum (n_1=44)	Old Curriculum (n_2=74)	p-value*
a. Difference between sexual orientation and gender identity and gender expression	Covered	34 (77%)	32 (43%)	**<.001***
	Not Covered	5 (11%)	37 (50%)	
	Don't Know	5 (11%)	5 (7%)	
b. Oral Manifestations of HIV	Covered	24 (55%)	60 (81%)	**<.001***
	Not Covered	11 (25%)	11 (15%)	
	Don't Know	9 (20%)	3 (4%)	
c. Oral Manifestations of other STIs	Covered	28 (64%)	64 (86%)	**.012***
	Not Covered	10 (23%)	5 (7%)	
	Don't Know	6 (14%)	5 (7%)	
d. Alcohol, tobacco, and other substance abuse	Covered	22 (50%)	31 (42%)	.672
	Not Covered	17 (37%)	32 (43%)	
	Don't Know	5 (11%)	11 (15%)	
e. Chronic disease risks specific to the LGBT population	Covered	15 (34%)	42 (57%)	**.046***
	Not Covered	23 (52%)	23 (31%)	
	Don't Know	6 (14%)	9 (12%)	
f. Oral health implications of gender affirmation treatment	Covered	18 (41%)	29 (39%)	.975
	Not Covered	20 (45%)	34 (46%)	
	Don't Know	6 (14%)	11 (15%)	
Cultural Skills				
g. Obtaining information about same-sex relations in a culturally sensitive manner when conducting history taking	Covered	22 (50%)	34 (46%)	.095
	Not Covered	15 (34%)	36 (49%)	
	Don't Know	7 (16%	4 (5%)	
h. Obtaining information about sex reassignment in a culturally sensitive manner when conducting history taking	Covered	16 (36%)	29 (39%)	.736
	Not Covered	19 (43%)	34 (46%)	
	Don't Know	9 (20%)	11 (15%)	
I. Asking about the preferred form of address when interacting with patients for the first time	Covered	23 (52%)	46 (62%)	.501
	Not Covered	16 (36%)	23 (31%)	
	Don't Know	5 (11%)	5 (7%)	
j. Use of affirmative language and inclusive terminology to engender patient trust and create a supportive environment	Covered	32 (72%)	58 (78%)	.311
	Not Covered	7 (16%)	13 (18%)	
	Don't Know	5 (11%)	3 (4%)	
k. Hesitance of the LGBT population to disclose their sexual orientation and gender identity for fear of discrimination and substandard care	Covered	21 (47%)	40 (54%)	.353
	Not Covered	14 (32%)	26 (35%)	
	Don't Know	9 (20%)	8 (11%)	
l. Confidentiality and privacy concerns resulting in reluctance of the LGBT population to disclose their sexual orientation and gender identity	Covered	25 (57%)	47 (63%)	.747
	Not Covered	14(32%)	19 (26%)	
	Don't Know	5 (11%)	8 (11%)	

**P-value calculated with chi-square test, difference in the perceived coverage between the two types of curricula is considered statistically significant if p<.05*

For Cultural Knowledge, the most perceived concepts covered were "oral manifestations of HIV" (NC 55%, OC 81%; p < .001) and "oral manifestations of other STI's" (NC 64%, OC 86%; p = .012). For Cultural Skills, the most perceived covered concept was "use of affirmative language and inclusive terminology to engender patient trust and create a supportive environment" with 90 (76%) participants responding that it was covered (NC 72%, OC 78%; n.s.). For both constructs, the least perceived covered concept was gender affirmation treatments, specifically the "oral health implications of gender affirmation treatment" (40%) and "obtaining information about same-sex reassignment in a culturally sensitive manner during history taking" with 53 (45%) participants stating that it was not covered in the required curriculum.

Qualitative Component

Thematic analysis of the interview responses followed the techniques outlined by Braun and Clarke (2006) and by Ryan and Bernard (2003) in identifying themes. As mentioned, two a priori constructs served as posts for discussions, and from these, themes were identified.

Institutional Initiatives

The structures and policies regarding the SGM members in the community contribute to the organizational dimension of the campus climate. Under this construct, the respondents were asked about non-discrimination policies, self-identification in forms, and university-based SGM organizations/activities. Two key themes became apparent.

A. Apparent Need for Institutional Support for the SGM

All the respondents answered that they were unaware of policies supporting the SGM, particularly anti-discrimination policies. One participant mentioned the absence of such policies in the student handbook. The responses suggest student awareness of the concerns of the SGM population which may be addressed with institutional policies. One student considers it beneficial to have school-based organizations since the LGBT community transcends generations, necessitating visible institutional support.

"*I don't know any school-based organization that takes care of the LGBT community per se. I think it will help the University community po na mag-open 'dun sa topic… And hindi lang po for the students but also for the teachers, administrators, and staff po. Kasi siyempre the LGBT community isn't limited lang po naman for this generation e.*" (I don't know any school-based organization that takes care of the LGBT community per se. I think it will help the University community to be open to the topic… not only for the students but also teachers, administrators, and staff because the LGBT community is not limited to this generation.)

While there are no specific anti-discrimination policies written in the student handbook, a section specifically states that graduates are expected to be caring and trustworthy citizens who "*commit to social justice, principles of sustainability, and respect for diversity.*" Diversity includes all aspects of human differences. With this statement, the institution mandates that their students are trained to understand the cultural differences of diverse populations, SGM included.

B. Existing Policies Limiting Gender Expression

The participants also mentioned that the existing policies, particularly the prescribed uniform, limit gender expression. The prescribed uniform described in the handbook is based on one's sex; the wearing of long hair, earrings, make-up, colored nails, and outlandish hairstyle of male students are considered slight offenses. Regarding this, one respondent remarked:

"*I think may purpose naman po siguro 'yun, parang there's no discrimination… Siguro more of limiting lang po talaga.*" (I think it has a purpose. I don't think there is discrimination…just limitations.)

While the student rationalized the policy, they recognized that this deters the SGM population's ability to self-identify. The same sentiment is echoed regarding most of the forms they fill out where the options are often limited to "Male/Female" only. The forms with more options are the medical records, guidance counseling-related forms, and patient charts for the dental infirmary patients. When asked about their opinion on being able to self-identify in forms, a student offered a poignant observation.

"*Siguro po, small thing lang po siya sa ibang tao. Pero natandaan ko po kasi na na-feel ko 'wow, may 'others' na part dito…nakakatuwa po.*" (Maybe it's not a big deal for others but I remember feeling, "wow, 'others' is an option here". It delighted me.)

Social Interactions

Under this construct, the respondents were asked to share instances of witnessing or experiencing collective supportive attitude or discriminatory actions/judgmental remarks towards the SGM population. Three themes became apparent.

A. Unfavorable Interactions Due to Apparent Stigma

Most of the respondents did not directly acknowledge negative interactions with the SGM. However, their responses to the other questions in the interview reveal an apparent social stigma surrounding the SGM population which they attributed to various reasons, the most common is religion. A student relates an encounter with a religious professor who views being an SGM as a sin. Aside from religion, this is also attributed to age as illustrated in the following account.

"*Sa class, our professor asked…ano po kasi, medyo matanda na po so of course 'yung mindset niya is if you're a female, boyfriend dapat hinahanap sa'yo. One time nag-ask siya sa classmate namin, 'ikaw hija, wala ka bang boyfriend?*'…'*Nung una, nahihiya pa pero sinabi niya na, 'may girlfriend po ako'. Doon lang po namin nalaman, hindi naman po kami nagulat…siguro sa generation 'din po kasi natin, mas open na po tayo.*" (In class, since our professor is rather old, her mindset is that females should have boyfriends. She once asked in class, '*How about you, hija, don't you have a boyfriend?*' At first, my classmate was shy to answer but eventually admitted that she has a girlfriend. We only learned it that day, although we weren't surprised, maybe because our generation is more open about it.)

In another account, the negative interaction involved using the term *bakla* (gay) to taunt a classmate. It was attributed to immaturity and considered a display of toxic masculinity.

B. Favorable Interactions

The interview responses also raised instances of favorable interactions toward the SGM population. For instance, when the student's sexual orientation was inadvertently exposed, the professor was able to rectify the situation by stating that it is time to be open and accepting of the LGBT community. Among students, favorable interactions are instances where the preference for working with the SGM members is explicitly expressed. The student attributed this to the work ethic of the population.

C. Online Interactions Affect Perceived SGM Climate

Because of the ongoing pandemic at the time of the implementation, online interactions affected the perceived campus climate. In the absence of personal interactions, online platforms provided alternative avenues for interactions. This is more evident in the responses of those enrolled in the new curriculum. Social networking sites enabled communication and facilitated discovering each other's characteristics.

"*Nalaman po namin na ganun po ang SO (significant other) niya…sa isang random post po.*" (We learned about their 'significant other' because of a random post)

Online communications from the university offices also account for the perceived climate as one respondent recounted reading a workplace post regarding sexual identity. The respondents also articulated awareness of the possible difference between the online climate and the traditional face-to-face classes.

Learner Autonomy in Formation of Attitude towards the SGM

The last theme that came up in the responses cannot be classified under the predetermined constructs. All respondents shared the same insight that regardless of educational efforts, it is ultimately the student's mindset that determines their attitude.

"*I think it's up to the student kahit ano pa pong pa-orientation niya, kung 'yung student…is discriminatory, walang magbabago po 'dun…regardless of the activities.*" (No matter what kind of orientation is implemented, if the student discriminates against the LGBT, nothing will change.)

Throughout the interviews, the responses were consistent that while there is no explicit supportive attitude towards the SGM population, the overall campus climate was not necessarily discriminating.

"I think the LGBT climate is not discriminatory in a way that we bring the LGBT community down but [in the] School of Dentistry, we all see ourselves as dentistry students, regardless of gender."

Mixed Data

The quantitative and qualitative results were integrated to describe the congruence of the curricular coverage and the perceived campus climate. To facilitate the integration, only the 'covered' responses were considered and were juxtaposed with related interview responses and document excerpts. For this study, survey items reported as 'covered' by at least 60% of the respondents were considered concepts with significant coverage. The derived meta-inferences are centered on the congruence of the two datasets. Table 2 is a joint display that shows varying instances of both congruence and incongruence between the reported curricular coverage and the surrounding climate.

Table 2. *Joint Display on Survey Results, Related Interview Responses, and Handbook Policies*

Survey results on the frequency of the perceived degree of coverage of SGM-specific concepts (See Figure 1)		Related Interview Responses and Handbook Policies	Meta-Inferences on the congruence of the curricular coverage and the perceived campus climate
Difference between sexual orientation and gender identity and expression	56%	-The guidance and counseling department uses forms that allow students to self-identify by including a third option (others) when asked for gender. The department also utilizes the Workplace by posting reminders on sexual identity. -The patient chart leaves a blank space after the gender, allowing the students and/or patients who fill up the form to self-identify.	Favorable Incongruence The perceived coverage of this construct is not considered significant. However, the awareness of the difference between sexual orientation and gender identity is reflected in some organizational aspects of the campus climate.
		-The prescribed uniform for the pre-clinical students is based on their sex. The wearing of long/unkempt hair (for male students), outlandish hairstyle, hair color, and accessories are considered slight offenses and have sanctions if repeatedly done. -The prescribed uniform is perceived to limit their gender expression, especially for those who would like to "cross-dress". -Self-identification in school forms is perceived to be possible if it is based on identified sex at birth, however, it may be difficult for those who identify as part of the SGM population as options are sometimes limited to 'male' and 'female'.	Unfavorable Congruence Institutional policies that are perceived as limiting in the expression of one's gender identity reflect the perceived lack of coverage on SOGIE.
Oral Manifestation of HIV	71%	-When asked regarding school activities that raise awareness of the SGM concerns, a student responded that there was a seminar on diseases, specifically, HIV.	Unfavorable Congruence Significant coverage does not necessarily translate to cultural competence. The interview response seems to perpetuate the stigmatizing association of HIV with the SGM population.
Use of affirmative language and inclusive terminology to engender patient trust and create a supportive environment	76%	-One of the expected graduate attributes is that the students show "respect for diversity".	Favorable Congruence The significant coverage of this construct seems to reflect the institutional goal of the attributes of their graduates.
		-A student relayed an incident where a faculty member inadvertently exposed someone's sexual orientation by asking a female student about a boyfriend, assuming heterosexuality.	Unfavorable Incongruence The assumption of heterosexuality and neglect to use inclusive terms such as "partners" is inconsistent with the reported coverage. While this cultural skill construct is covered, the social interactions may not have reinforced the reported curricular content.
Hesitance of LGBT population to disclose their sexual orientation and gender identity for fear of discrimination and substandard care	52%	-One student shared encountering homophobic professors who think that being part of the LGBT population is a sin. -Some students use the term "bakla" to insult another student.	Unfavorable Congruence Survey results seem to indicate a lack of coverage which seems to be reinforced by the surrounding social dimension of the campus climate.
Confidentiality and privacy concerns resulting in the reluctance of the LGBT population to disclose their sexual orientation and gender identity	61%	-Students talk among themselves who are members of the SGM population like it is a taboo.	Unfavorable Incongruence Survey results indicate significant coverage of the concept of confidentiality and privacy. However, it is not reflected in the surrounding climate as information regarding one's sexual orientation gets passed around.

Discussion

Integration of SGM Constructs in the Required Curriculum

This study viewed cultural competence as a process that healthcare providers develop to be able to work within the cultural context of their patients [18]. The survey results underscore the institution's intention to develop cultural competence through the integration of SGM constructs in the required curriculum. The student's response regarding the curricular coverage of the differences between sexual orientation, gender identity, and gender expression implies that the new curriculum is more responsive to the SGM healthcare needs. Understanding the distinction between these terms is foundational to culturally competent healthcare necessitating its inclusion in the required curriculum [1].

Coverage, however, does not necessarily equate to cultural competence [10]. That is, while the findings suggest adequate coverage of the oral manifestations of HIV and other STIs, the association of the topic with SGM might continue to perpetuate the stigmatization of the population [10]. Moreover, homophobic attitudes have been associated with unwillingness to treat HIV-positive individuals necessitating the need to emphasize context when covering these concepts [26]. As the increased risk for developing chronic diseases and substance abuse among the SGM is due to a multitude of socio-cultural factors including gay culture, HIV status, and sexual minority stress, coverage in the curriculum should not only be limited to its oral manifestations [27]. The inclusion of the patients' social context in the coverage facilitates the students' understanding of the factors affecting their patients' choices and this can result in health professionals who can work within the cultural context of their patients [18,28]. Aside from the health providers' lack of knowledge, bias against transgender individuals has been identified as a barrier to healthcare access [29]. To address this, the integration of transgender concepts in the required curriculum should include training on respecting the patients' self-identities when eliciting information on gender affirmation treatments as well as same sex-relations [13,30]. Additionally, a holistic approach must be adapted in the integration of SGM-specific constructs in the curriculum. Teaching-learning strategies should not be limited to the rote memorization of facts but should also include activities that develop an awareness of one's personal biases towards the population [31].

In the Philippines, the enactment of RA 1123 or the Universal Healthcare Act identified dentists as primary care workers who provide services such as individual counseling and health promotion. The integration of SGM-specific constructs in the required curriculum can contribute to the realization of this mandate. A culturally competent healthcare provider can set aside biases, facilitating the rendering of primary care service.

Alternatively, some authors argue that biases are not inherently bad. However, implicit biases are likely to have negative impacts on patients from stigmatized groups [32]. While the integration of SGM-specific constructs cannot guarantee a homophobic student to immediately set aside their personal biases, it can expose learners to alternative views, encourage recognition of their own biases, and promote reexamination of beliefs that may conflict with those of a health profession [31,33,34]. Training empowers them to differentiate their responsibilities as professionals, who treat without imposing their values on their patients, from their roles as individual citizens [30,33].

Campus Climate toward the SGM Population

While it parallels existing literature, the findings of this study add to the body of knowledge by distinguishing the specific dimension of the campus climate that shaped the perception and a different setting from earlier studies [11].

The campus climate is perceived as neutral towards the SGM and this is shown in the responses where both favorable and unfavorable interactions were noted. Instances of the inadvertent perpetuation of heteronormative ideologies were also noted. Heteronormativity is defined as the belief that there are two separate and opposing genders with associated roles that match one's assigned sex [35]. The policy on uniforms assumes heteronormativity and was perceived to limit gender expression. However, policies such as uniforms in formal training programs are deemed as part of the socialization of students into the profession [36]. Moreover, literature suggests that uniforms convey competency to clients of professions such as dentistry where first impressions can have an enduring impact on health outcomes [37]. Uniforms such as the white coat are also considered gender-neutral, which can conceal gender-typed biases [37].

In their framework, Milem *et al.* [19] recognized the role of key external forces such as government policies and sociohistorical forces in shaping the campus climate. In the Philippines, the Sexual Orientation and Gender Identity Expression Equality Bill has received a lot of media attention [38]. This may have contributed to the dental students'

awareness of the concerns of the SGM population. The learners' exposure to various SGM-supportive content in social media may have also contributed. This is one of the serendipitous findings of the study as the campus climate framework assumes that social interactions happen physically. Findings from this study reveal that the internet presence of school organizations as well as interactions online also affect the students' perception of the campus climate. This suggests the viability of utilizing social media platforms in establishing an active virtual learning environment [39].

The influence of heteronormative ideologies is apparent in both virtual and physical classroom interactions. It is rationalized and attributed by dental students to factors such as age and religion. This is not unexpected in a predominantly Catholic country as religious ideologies encourage traditional gender roles and upholds heteronormative attitudes [35]. The reluctance of the participants to acknowledge negative interactions like hearing judgmental remarks towards the SGM may be attributed to social desirability bias. This may have been affected by a prevailing collectivist culture that emphasizes good relationships with other group members [40]. Alternatively, students may be unaware of the influence of heteronormative ideologies within the institution. Notably, these ideologies can shape the way students understand the scope of dental education and eventually, their professional practice. While the results of this study seem to highlight the subliminal existence of heteronormativity in the dental curriculum, this may just reflect the heteronormativity of the broader society. It is impossible to eliminate its influences within the institution; however, raising consciousness on the issue allows for identifying areas for improvement.

Cultural Competence towards the SGM in the Dental Curriculum

The integration of the two datasets demonstrates that the development of cultural competence relies on both curricular efforts and institutional endeavors to create a supportive climate [11]. While increased coverage of SGM-specific constructs has been advocated, this may be counterproductive in that it can reinforce stereotypes [41]. In this study, the survey responses imply in-depth coverage of HIV in the required curriculum, yet the interview response implies that the curriculum and the surrounding climate may be perpetuating the stigmatizing association between HIV and the SGM [see Table 2]. Therefore, aside from an increase in coverage, an intentional multidimensional approach that contextualizes the issues faced by the SGM is proposed. Eclectic teaching-learning strategies include guest panel discussions with SGM members, video vignettes, community immersions, and student reflections on the topic of sexuality [31,33,34].

The institutional climate is a component of the hidden curriculum that is acknowledged to maximize the formal curriculum content [34,42]. A high-quality curriculum can be undermined by a climate that permits biases and promotes stigma [13]. Therefore, several strategies have also been suggested to improve the SGM climate. The inclusion of SGM in the non-discrimination policies, allowing self-identification in forms, and organizing of awareness-building activities were explored in this research. The installation of unisex bathrooms, specialized training on SGM issues, and the intentional recruitment of SGM staff who can serve as mentors for SGM learners as well as lobby for changes towards an equitable learning environment are also proposed [34,42]. Learners tend to emulate what they have learned via the hidden curriculum into their professional practice and even back to the academic environment should they become teachers underscoring the significance of addressing this aspect of the curriculum [43].

Lastly, the integration of the survey results with the respondent's assertion that they are supported as dental students, regardless of gender, implies that dental training is asexual. That is, regardless of gender, all students are trained in the science of providing competent oral healthcare. This echoes the findings of Sana [44] on the social reproduction of medical students in another local university where it was found that the same standard of competence is set for all students, without regard for sex or gender.

Study Limitations

The relatively low response rate may have caused under representation in both the quantitative and qualitative parts of the study. This may be attributed to the limited nature of web surveys but it may also indicate a lack of interest in the topic among dental students [4,55]. Alternatively, it may be attributed to conflicts between the schedule of implementation and the students' academic load. Another limitation is that the interview responses may not be generalizable as campus climate may be different for every educational institution. Lastly, the meta-inferences presented in this study do not necessarily establish a causal relationship between the required curriculum and the campus climate. There were dimensions of the campus climate and aspects of cultural competence that were not measured in this research. Likewise, the benchmark used to delineate 'significant coverage' in this part study is arbitrary as a standardized reference for this is currently unavailable.

Conclusion

The results of this research echo the call of previous studies to complement required curriculum content with an inclusive campus climate. The continued implementation of an asexual curriculum that underscores the development of cultural competence towards the SGM is recommended. Also, different teaching-learning strategies covering the population's social context should be employed in incorporating SGM-specific constructs in the required curriculum. Institutional initiatives that accommodate SGM concerns are encouraged to foster inclusivity in the climate and reinforce the curricular content. Additional research studies that could triangulate data from other members of the university, as well as the patients, may provide a more comprehensive description of the curriculum.

References

1. Institute of Medicine, Board on the Health of Select Populations, & Committee on Lesbian; Gay; Bisexual; and Transgender Health Issues and Research Gaps and Opportunities. (2011) The health of lesbian, gay, bisexual, and transgender people: Building a foundation for better understanding. National Academies Press.
2. Ard K, Makadon H. (2012) Improving the Healthcare of Lesbian, Gay, Bisexual, and Transgender (LGBT) people: Understanding and Eliminating Health Disparities.
3. De Vries E, Kathard H, Müller A. (2020) Debate: Why should gender-affirming health care be included in health science curricula? BMC Medical Education, 20(1). https://doi.org/10.1186/s12909-020-1963-6
4. WHO. (2006) Integrating gender into the curricula for health professionals: Meeting report 4–6 December 2006. World Health Organization.
5. Greene MZ, France K, Kreider EF, Wolfe-Roubatis E, Chen KD, Wu A, Yehia BR. (2018) Comparing medical, dental, and nursing students' preparedness to address lesbian, gay, bisexual, transgender, and queer health. PLOS ONE, 13(9):e0204104. https://doi.org/10.1371/journal.pone.0204104
6. AJCCD. (2018) ASEAN Minimum Common Competency Standards for Dental Undergraduate Education. Retrieved from https://asean.org/storage/2012/05/AJCCD-ASEAN-Minimum-Common-Competency-Standards-Adopted-AJCCD-22.pdf
7. CHED. (2018) CMO 3. Revised Policies, Standards and Guidelines (PSG) for the Doctor of Dental Medicine (DMD) program.
8. Zweifler J, Gonzalez AM. (1998) Teaching residents to care for culturally diverse populations. Academic Medicine, 73(10):1056-1061. https://doi.org/10.1097/00001888-199810000-00012
9. Butler MM, McCreedy E, Schwer N, Burgess D, Call K, Przedworski J, Rosser S, Larson S, Allen M, Fu S, Kane RL. (2016) Improving cultural competence to reduce health disparities. Agency for Healthcare Research and Quality.
10. Hillenburg KL, Murdoch-Kinch CA, Kinney JS, Temple H, Inglehart MR. (2016) LGBT coverage in U.S. dental schools and dental hygiene programs: Results of a national survey. Journal of Dental Education, 80(12):1440-1449. https://doi.org/10.1002/j.0022-0337.2016.80.12.tb06231.x
11. Anderson JI, Patterson AN, Temple HJ, Inglehart MR. (2009) Lesbian, gay, bisexual, and transgender (LGBT) issues in dental school environments: Dental student leaders' perceptions. Journal of Dental Education, 73(1):105-118. https://doi.org/10.1002/j.0022-0337.2009.73.1.tb04643.x
12. Masella RS. (2006) The hidden curriculum: Value added in dental education. Journal of Dental Education, 70(3):279-283. https://doi.org/10.1002/j.0022-0337.2006.70.3.tb04083.x
13. Hollenbach A, Eckstrand K, Dreger K. (2014) Implementing Curricular and Institutional Climate Changes to Improve Health Care for Individuals Who are LGBT, Gender Nonconforming, or Born with DSD. Association of American Medical Colleges.
14. Monnin B. (2018) Cultivating Cultural Competency in the Dental Setting. Dimensions in Dental Hygiene, 16(1):40-43.
15. Stefanou L, Beall A, Jennings H. (2018) Treating the transgender patient. Dimensions of Dental Hygiene., 16(01):48-51.
16. Aguilar E, Fried J. (2015) Enhancing dental and dental hygiene student awareness of the lesbian, gay, bisexual and transgender population. J Dent Hyg. 89(1):11-6. PMID: 25690061.
17. Heima M, Heaton LJ, Ng HH, Roccoforte EC. (2017) Dental fear among transgender individuals - a cross-sectional survey. Special Care in Dentistry, 37(5):212-222. https://doi.org/10.1111/scd.12245
18. Campinha-Bacote J. (2002) The process of cultural competence in the delivery of healthcare services: A model of care. Journal of Transcultural Nursing, 13(3):181-184. https://doi.org/10.1177/10459602013003003
19. Milem J, Mitchell M, Anthony A. (2012) Making Diversity Work on Campus: A Research-Based

Perspective.
20. Behar-Horenstein LS, Morris DR. (2015) Dental school administrators' attitudes towards providing support services for LGBT-identified students. Journal of Dental Education, 79(8):965-970. https://doi.org/10.1002/j.0022-0337.2015.79.8.tb05988.x
21. More FG, Whitehead AW, Gonthier M. (2004) Strategies for student services for lesbian, gay, bisexual, and transgender students in dental schools. Journal of Dental Education, 68(6):623-632. https://doi.org/10.1002/j.0022-0337.2004.68.6.tb03780.x
22. Snapp SD, Burdge H, Licona AC, Moody RL, Russell ST. (2015) Students' perspectives on LGBTQ-inclusive curriculum. Equity & Excellence in Education, 48(2):249-265. https://doi.org/10.1080/10665684.2015.1025614
23. Wilkerson JM, Rybicki S, Barber CA, Smolenski DJ. (2011) Creating a culturally competent clinical environment for LGBT patients. Journal of Gay & Lesbian Social Services, 23(3):376-394. https://doi.org/10.1080/10538720.2011.589254
24. Guetterman TC, Fetters MD, Creswell JW. (2015) Integrating quantitative and qualitative results in health science mixed methods research through joint displays. The Annals of Family Medicine, 13(6):554-561. https://doi.org/10.1370/afm.1865
25. Bacchus LJ, Buller AM, Ferrari G, Brzank P, Feder G. (2016) "It's always good to ask": A mixed methods study on the perceived role of sexual health practitioners asking gay and bisexual men about experiences of domestic violence and abuse. Journal of Mixed Methods Research, 12(2):221-243. https://doi.org/10.1177/1558689816651808
26. Sadowsky D, Kunzel C. (1995) Willingness of dentists to treat an HIV-infected patient. AIDS, 9(4):402-403. https://doi.org/10.1097/00002030-199504000-00017
27. Green KE, Feinstein BA. (2012) Substance use in lesbian, gay, and bisexual populations: An update on empirical research and implications for treatment. Psychology of Addictive Behaviors, 26(2):265–278. https://doi.org/10.1037/a0025424
28. Victoroff KZ, Williams KA, Lalumandier J. (2013) Dental Students' Reflections on Their Experiences with a Diverse Patient Population. Journal of Dental Education, 77(8):982–989. https://doi.org/10.1002/j.0022-0337.2013.77.8.tb05566.x
29. Macri D, Wolfe K. (2019) My preferred pronoun is she: Understanding transgender identity and oral health care needs. Can J Dent Hyg, 53(2): 23-32.
30. Sekoni AO, Gale NK, Manga-Atangana B, Bhadhuri A, Jolly K. (2017) The effects of educational curricula and training on LGBT-specific health issues for healthcare students and professionals: A mixed-method systematic review. Journal of the International AIDS Society,20(1):21624. https://doi.org/10.7448/ias.20.1.21624
31. Hawala-Druy S, Hill MH. (2012) Interdisciplinary: Cultural competency and culturally congruent education for millennials in health professions. Nurse Education Today, 32(7):772–778. https://doi.org/10.1016/j.nedt.2012.05.002
32. FitzGerald C, Hurst S. (2017) Implicit bias in healthcare professionals: a systematic review. BMC Medical Ethics, 18(1):19. https://doi.org/10.1186/s12910-017-0179-8
33. Brondani MA, Paterson R. (2011) Teaching Lesbian, Gay, Bisexual, and Transgender Issues in Dental Education: A Multipurpose Method. Journal of Dental Education, 75(10):1354–1361. https://doi.org/10.1002/j.0022-0337.2011.75.10.tb05181.x
34. Marcelin JR, Siraj DS, Victor R, Kotadia S, Maldonado YA. (2019) The impact of unconscious bias in healthcare: How to recognize and mitigate it. The Journal of Infectious Diseases, 220(2):62–73. https://doi.org/10.1093/infdis/jiz214
35. Van der Toorn J, Pliskin R, Morgenroth T. (2020) Not quite over the rainbow: The unrelenting and insidious nature of heteronormative ideology. Current Opinion in Behavioral Sciences, 34:160-165. https://doi.org/10.1016/j.cobeha.2020.03.001
36. Freidson E. (1983) The theory of professions: State of the art. The Sociology of the Professions, 19-37. https://doi.org/10.1007/978-1-349-16979-5_2
37. Furnham A, Chan PS, Wilson E. (2013) What to wear? The influence of attire on the perceived professionalism of dentists and lawyers. Journal of Applied Social Psychology, 43(9):1838-1850. https://doi.org/10.1111/jasp.12136
38. CNN Philippines Life Staff. (2020) 11 articles to understand why the SOGIE bill is important. Cnn. https://www.cnnphilippines.com/life/culture/2020/11/5/understanding-SOGIE-bill-importance.html
39. Spallek H, Turner SP, Donate-Bartfield E, Chambers D, McAndrew M, Zarkowski P, Karimbux N. (2015) Social Media in the Dental School Environment, Part B: Curricular Considerations. Journal of Dental Education, 79(10):1153–1166. https://doi.org/10.1002/j.0022-0337.2015.79.10.tb06009.x
40. Bergen N, Labonté R. (2019) "Everything Is Perfect, and We Have No Problems": Detecting and Limiting Social Desirability Bias in Qualitative Research - Nicole Bergen, Ronald Labonté,. Qualitative Health Research,

30(5). https://doi.org/10.1177/1049732319889354
41. Murphy M. (2014) Hiding in plain sight. Journal of Contemporary Ethnography, 45(3):256-289. https://doi.org/10.1177/0891241614556345
42. Snowdon S. (2013) Recommendations for Enhancing the Climate for LGBT Students and Employees in Health Professional Schools: A GLMA White Paper. GLMA.
43. Fallin-Bennett K. (2015) Implicit Bias Against Sexual Minorities in Medicine. Academic Medicine, 90(5):549–552. https://doi.org/10.1097/acm.0000000000000662
44. Sana EA. (2000) Social Reproduction of the Medical Profession. UP Manila Journal, 5(2).
45. Hardigan PC, Popovici I, Carvajal MJ. (2016) Response rate, response time, and economic costs of survey research: A randomized trial of practicing pharmacists. Research in social & administrative pharmacy : RSAP, 12(1):141–148. https://doi.org/10.1016/j.sapharm.2015.07.003