# Prejudice Against Gender and Sexual Diversity among Medical Students from the 1st to the 8th Semesters of a Medical Course in Southern Brazil

# Preconceito contra Diversidade Sexual e de Gênero entre Estudantes de Medicina de 1º ao 8º Semestre de um Curso da Região Sul do Brasil

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**PALAVRAS-CHAVE**

- Preconceito.
- Educação Médica.
- Gênero E Saúde.
- Homossexualidade.
- Estudantes.

**RESUMO**

*As disparidades no oferecimento de cuidado em saúde à população de Lésbicas, Gays, Bissexuais, Travestis e Transexuais (LGBT) são evidentes e documentadas. O preconceito molda-se na naturalização de padrões instaurados e mantidos por diversas instituições, e a literatura corrobora com a existência de preconceito contra LGBT em escolas de medicina. A educação médica, historicamente consolidada em modelo biomédico-farmacêutico, concreto, positivista, hospitalocêntrico, com enfoque em um processo saúde-doença unicausal, representa um status conservador que se mantem rígido há um século. A despeito de programas e diretrizes nacionais e internacionais que orientam medidas inclusivas e de combate à discriminação, é verificada a presença de preconceito contra LGBT na prática médica e inclusive durante o processo educacional médico, notando-se atitudes preconceituosas entre os estudantes de medicina. Objetivo: analisar o perfil de atitude e o preconceito contra diversidade sexual e de gênero entre estudantes de um curso de Medicina. Métodos: foram empregados questionários autoaplicáveis a 391 estudantes de primeiro ao oitavo semestre de um curso de Medicina público da região sul do Brasil no ano de 2017. Resultados: obteve-se uma taxa de resposta de 85,2% dos entrevistados. O nível de preconceito com base nas assertivas variou de 69% a 89%. Entre os respondentes, 74,9% concordaram que o sexo entre dois homens é errado, 83,9% consideraram homens gays nojentos, 83,9% acreditaram que a homossexualidade masculina é uma perversão, 80,9% afirmaram que o sexo entre duas mulheres é totalmente errado, 83,9% afirmaram que as meninas masculinas deveriam receber tratamento. Em relação à comparação da distribuição dos resultados quanto ao gênero declarado dos estudantes, observou-se que os estudantes autodeclarados masculinos foram mais preconceituosos que as estudantes autodeclaradas femininas. A distribuição de preconceito entre estudantes que se autodeclararam masculinos variou entre 81,5% a 94,4%, e entre as estudantes que se autodeclararam femininas, variou entre 57,3% e 76,4%. Os dados corroboraram para a importância de integrar a temática de saúde LGBT de forma obrigatória aos currículos e de construir mecanismos de apoio à estruturação pedagógica que auxiliem as aulas e/ou disciplinas a cumprirem seu papel.*

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**KEY-WORDS**

- Prejudice.
- Medical Education.
- Gender and Health.
- Homosexuality.
- Students.

**ABSTRACT**

*Disparities in the provision of health care to the lesbian, gay, bisexual, transvestite and transsexual (LGBT) population are evident and have been documented. Prejudice is shaped by the naturalization of standards established and maintained by several institutions; the literature corroborates the existence of prejudice in medical schools. Medical education, historically consolidated in the biomedical-pharmaceutical, concrete, positivist, hospital-centered and adoptive model of the unicausal health-disease process, represents a conservative status that has remained rigid for a century. In spite of national and international programs and guidelines that guide inclusive measures and to fight discrimination, the presence of prejudice against the LGBT community in medical practice and even during the medical educational process is verified, noting prejudiced attitudes among medical students. Objectives: this study aims to measure attitude and prejudice against sexual and gender diversities among students of a medical school. Methods: self-administered questionnaires were used for 391 students from the first to the eighth semester of a Public Medicine Course in the Southern Region of Brazil, in the year 2017. A response rate of 85.24% course of the first eight semesters. Results: the minimum level of prejudice among the assertions was 69% while the maximum was 89%. 74.9% of students agree that sex between two men is wrong, 83.9% find gay men disgusting, 83.9% believe that male homosexuality is a perversion, 80.9% say that sex between two women is totally wrong, 83.9% say that male girls should receive treatment. Regarding the comparison of the distribution of the results to the declared gender of the students, it is observed that the self-declared male students are more prejudiced than the female self-declared students. The distribution of prejudice among self-professed male students ranged from 81.5% to 94.4%. Among the students who declared themselves female, ranged from 57.3% to 76.4%. The data corroborate the reiterated importance of integrating the subject of LGBT health in a mandatory way and to build mechanisms to support the pedagogical structuring of the content that help the classes and / or disciplines to fulfil their role.*

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## INTRODUCTION

Among the main causes associated with the lack of health care for Lesbian, Gay, Bisexual, Transvestite and Transgender (LGBT) individuals, are discrimination and prejudice[1], as contemporary Western societies are still structured based on these parameters of exclusion and – as part of these societies – health professionals reproduce them [2,3].

Barriers to adequate care play an important role in the increased rates of certain conditions in this population, as prejudice against LGBT individuals still persists in the medical community and has a negative impact on health and social stigmatization. Better professional training of physicians is required to give insight to the real needs of the LGBT population and provide adequate care and comfort to reduce health disparities.[1]

Prejudice is an important category for Sociology, defined by Giddens[2] (p.81) as "preconceived ideas about an individual or group, ideas that are resistant to change, even in the face of new information (...)" and by Jesus[3] as "preconceived judgment of something or someone, based on stereotypes. It predisposes to certain attitudes towards the object of prejudice, which may or may not manifest itself as discrimination". Prejudice is a form of violence that can be expressed in relation to several characteristics: social, aesthetic, gender, among others[1].

Prejudice is the result of a trajectory in which naturalizations of patterns occur, established and maintained by several institutions: family, school, the media [2]. These patterns generate a separation of things and of people, distributed between the normal and the abnormal, which is marginalized in many ways. In relation to gender and sexuality, there are culturally presented foundations in society, with definite functions regarding what is male and what is female, whether in the private or public settings[4]. As a result, cis-heteronormativity is established, which can be understood as a set of norms that define the expression of a person's gender through their gen-

der designated at birth (genital organ) in a perspective of heterosexual relationship.[5,6]

The National Curriculum Guidelines of the Medical Undergraduate Course (DCNM) were launched in 2001 and seek to define the principles, foundations, conditions and procedures of medical education, as well as the profile of the graduate doctor[7]. The DCNM instituted by the National Education Council in 2014[8] define in its article 5 that "In Health Care, the undergraduate student will be trained to always consider the dimensions of biological, subjective, ethnic-racial, gender, sexual orientation, socioeconomic, political , environmental, cultural, and ethical diversity, as well as other aspects that encompass the spectrum of human diversity that singularize each person or social group"[8].

Despite the importance of these guidelines, one must consider that regarding prejudice, an important dimension of medical education is the hidden curriculum, defined by Galli[9] as "a set of experiences and stimuli that the student receives without having been foreseen or planned". For Rego[10] the hidden curriculum is one of the 3 elements that are part of medical education, as well as the formal curriculum – planned and regimented about what is intended to be taught in undergraduate school – and the parallel curriculum – extracurricular activities that change what was formally planned.[10]

The matter of gender and sexual diversity is marginalized in all health sciences and underemphasized even within the scope of health education. Regarding the subject of LGBT prejudice, medical education is intrinsically based on the cis-heteronormative teaching[11], which either makes LGBT people invisible to health services, or considers them as deviating from the norm for their sexual orientation and gender identity – considered as diseases.

LGBT individuals experience multiple forms of discrimination in health services and have less access to them. It is estimated that among the approximately 10 million people in the United States who identify themselves as gay or lesbian[12], about 750,000 identify themselves as transgender individuals. For 40% of LGBT people, lack of adequate vocational education is the main barrier to care, with reports of refusal of care, maltreatment and verbal abuse. As a result, many LGBT people avoid medical treatment, including emergency services for fear of discrimination.[12]

In 2011, the National Policy for Comprehensive Health Care of Lesbian, Gay, Bisexual, Transvestite and Transgender population, established by the Ministry of Health, aimed at eliminating institutional discrimination and prejudice, is an attempt to provide better care to these individuals. The policy recognizes the existence of stigmas and their influence on the health-disease process, restating that the inclusion of diversity, elimination of discrimination, improved access, strengthening of social movements, as well as proposing better professional training, and fostering teaching and research activities are points that would provide the maintenance of LGBTT health according to the fundamental principles of SUS.[13,14]

Regarding international initiatives that attempt to change this scenario, the document by the Association of American Medical Colleges recommends that North-American medical schools promote the inclusion of curriculum contents that address the specific health care needs of LGBT individuals[12, 15]. The Institute of Medicine also recommends further research on the inequities identified in health services offered to LGBT people, including further investigation of professional attitudes and provided education due to the recurrently reported lack of training.[1] Moreover, The Joint Commission and US Department of Health and Human Services reinforce the need for medical education and cultural competency in LGBT health.[12]

The First Annual LGBT Health Workforce Conference, which took place in 2013 in New York, aimed at updating the used practices and the development of educational techniques that can adequately prepare professionals for the LGBT needs, and among the resolutions presented by some medical services as successful strategies for caring for the LGBT population are: education and training for care providers, development of resources and protocols, and addressing special needs.[15]

The present study aims to analyze the profile of prejudice against sexual and gender diversity among medical students from the 1st to the 8th semesters of a public undergraduate medical course in southern Brazil with regard to LGBT individuals.

## METHODOLOGICAL TRAJECTORY

This study is a quantitative cross-sectional investigation[16]. It was carried out in a medical undergraduate course in one of the Federal Universities in the southern region of Brazil, in operation since the 1950s in one of the three capitals of the southern region. The course has been undergoing curriculum restructuring for over 10 years and currently has approximately 20% of its workload in disciplines and curricular internships directed at Primary Health Care, with intense contact between the undergraduate students with the population. In the beginning of the Collective Health subject classes, the researchers explained about the research to all students and asked those who wanted to participate to read and sign the informed consent form. After that, the self-administered questionnaire was distributed to all classes of the first eight semesters, in the classroom, which were answered individually and

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without communication between the students. The collection took place between August and December of 2017. There was a response rate of 85.24% of the 391 students enrolled in that course during this period, with no refusals to participate, and the lack of response originated from the students who were absent on the day of data collection.

In the first part of the questionnaire, the 12 questions aimed to define the sociodemographic profile of the students and the second part consisted of 16 questions from the instrument built and validated by Costa et al.[17], to measure prejudice against sexual and gender diversity. The questionnaires were distributed collectively in the classroom, without the presence of the teacher and collected in a sealed container. Students who were absent on the questionnaire application day were accounted for the non-response rate.

The concept of Costa et al.[17], 'prejudice against sexual diversity and gender', was employed, measured by a Likert-type scale consisting of 16 items. For each item, the participants were categorized as "non-prejudiced" and "prejudiced", the first group being those who strongly disagreed, and the last group those who showed any minimum level of agreement with the item. Following the authors' recommendations, Pearson's chi-square test was used to compare the independence in the score distribution of the 'prejudice' variable between groups of the other independent variables (sociodemographic variables). Only for the gender variable showed a statistically significant difference in the Chi-square test ($p < 0.05$).

The research project was approved by the Ethics Committee on Research with Human Beings of Universidade Estadual de Santa Catarina (CAAE 34999514.4.0000.0118) and complied with the Legislation of Resolution N. 466, of December 12, 2012, by the National Health Council.

## RESULTS

Table 1 below shows the profile of students from the 1st to the 8th semesters of the medical school, according to sociodemographic characteristics.

There was a predominance of individuals who self-declared as males (53.1%). Regarding sexual orientation, the LGBT represented 10.7% of the sample, of which 23 men (gay and transsexual) and 13 women (lesbian and bisexual). Regarding skin color, 77.9% self-declared white, while the predominant age group is 17 to 21 years old, with 77.5%. Regarding the economic aspects, 82.4% of students reported a *per capita* family income > 1 minimum wage, of which 45.4% declared more than two minimum wages. As for religion, there is an interesting aspect regarding the medical population, in which 40% of students self-declared to be atheists and 42.7% Catholics. Regarding the type of relationship, 63.9% were single, followed by 33.4% of people who were dating. Regarding university admission, 29.3% declared they were quota holders. The distribution between the eight semesters of the course was similar, showing no statistical difference between them. Regarding the fact of having contact with sexual diversity, 95.2% of students reported having had contact with gays, 77.3% with lesbians and 21.8% with transgender individuals.

Regarding the total data, it is interesting to observe that the minimum level of prejudice was 69% (item "Masculine women make me uncomfortable") while the maximum was 89% (item "I think lesbian women are disgusting"), while 74.9% of students agree that 'Sex between two men is wrong', 83.9% 'Dislike gay men', 83.9% believe that 'Male homosexuality is a perversion', 80.9% say that 'Sex between two women is totally wrong', and 83.9% say that 'Masculine girls should receive treatment'.

Regarding homosexuality, 82.6% of the self-declared male students agree that sex between two men is wrong, 90.4% categorize male homosexuality as a perversion, 94.4% dislike gay men and 92.7% dislike lesbians. Among self-declared female students, 66.2% say that sex between two men is wrong, 76.4% categorize male homosexuality as a perversion, 72% dislike gay men and 79.1% dislike lesbians.

The biologicist perspective of sexuality is based on the idea that children should play with toys that are appropriate for their own gender for 86.5% of the self-declared male students and for 59.9% of the self-declared female students.

Feeling uncomfortable in the presence of effeminate men – by the way, not necessarily homosexuals – is a source of dislike for 82.6% of the self-declared male students and for 54.8% of the self-declared female students. In parallel, 74.5% of the self-declared female students and 92.1% of the self-declared male students declare that masculine girls should receive treatment.

Regarding the issue of transsexuality, 85.4% of self-declared male students and 57.3% of the self-declared female students said they were disgusted by transvestites; for 87.1% of self-declared male students and 67.5% of self-declared female students, men who behave like women should be ashamed, and 86.5% of self-declared male students and 76.4% of self-declared female students affirmed that women who see themselves as men are abnormal. 88.8% of self-declared male students and 71.3% of self-declared female students stated that sex change operations were morally wrong.

Regarding the comparison of distribution of results according to the self-declared gender of students, it is observed that self-declared male students are more prejudiced than self-declared female students. The distribution of prejudice among self-declared male students ranged from 81.5% to

**Table 1.**
**Profile of students from the 1st to the 8th semesters of the undergraduate medical course, 2017.**

| Characteristic | Categories | Frequency (%) | Standard deviation |
|---|---|---|---|
| Declared gender | Female | 157 (46.9) | 0.5000 |
| | Male | 178 (53.1) | |
| Sexual orientation | Heterosexual | 299 (89.3) | 7.573 |
| | Gay | 22 (6.6) | |
| | Lesbian | 5 (1.5) | |
| | Bisexual | 8 (2.4) | |
| | Transsexual | 1 (0.3) | |
| Self-declared ethnicity | White | 261 (77.9) | 0.415 |
| | Black | 15 (4.5) | |
| | Brown | 46 (13.7) | |
| | Others | 13 (3.9) | |
| Age | 17 to 21 years | 159 (74.5) | 11.843 |
| | 22 to 26 years | 150 (44.8) | |
| | 27 to 31 years | 20 (6.0) | |
| | > 31 years | 6 (1.8) | |
| | Total | 335 (100.0) | |
| *Per capita* family income | < minimum wage | 59 (17.6) | 24.943 |
| | Between 1 and 2 minimum wages | 87 (26.0) | |
| | Between 2 and 3 minimum wages | 99 (29.6) | |
| | Between 3 and 4 minimum wages | 45 (13.4) | |
| | More than 4 minimum wages | 8 (2.4) | |
| | Missing | 24 (7.2) | |
| Religion | Atheist | 134 (40.0) | 1.083 |
| | Catholic | 143 (42.7) | |
| | Evangelist | 16 (4.8) | |
| | Spiritualist | 27 (8.1) | |
| | Others | 15 (4.5) | |
| Relationships | Single | 214 (63.9) | 10.672 |
| | Married/ Consensual marriage | 9 (2.7) | |
| | Dating | 112 (33.4) | |
| Quota holder | Yes | 98 (29.3) | 13.118 |
| | No | 237 (70.7) | |
| Course semester | 1º | 42 (12.5) | 2.301 |
| | 2º | 41 (12.2) | |
| | 3º | 45 (13.4) | |
| | 4º | 40 (11.9) | |
| | 5º | 39 (11.6) | |
| | 6º | 44 (13.1) | |
| | 7º | 42 (12.5) | |
| | 8º | 42 (12.5) | |
| Contact with gays | Yes | 319 (95.2) | 0.214 |
| | No | 16 (4.8) | |
| Contact with lesbians | Yes | 259 (77.3) | 0.419 |
| | No | 76 (22.7) | |
| Contact with Transsexuals | Yes | 73 (21.8) | 0.413 |
| | No | 262 (78.2) | |

94.4%. Among the self-declared female students, it ranged from 57.3% to 76.4%. It is noteworthy that for none of the items, the self-declared female students were more prejudiced when compared to the self-declared male students, with a minimum of 81.5% of prejudice among self-declared male students (item "I cannot understand why a woman would behave like a man") being higher than the maximum percentage among self-declared female students of 76.4% (items "Male homosexuality is a perversion" and "Women who see themselves as men are abnormal").

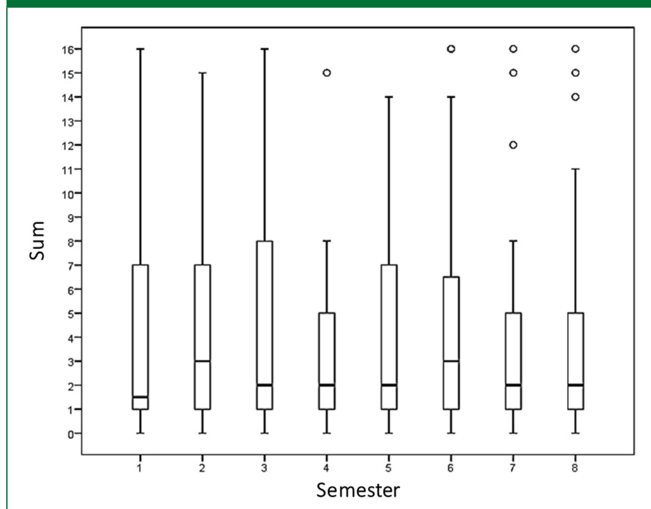
It is noteworthy that the three items related to the theme of transsexuality do not show statistically significant differences between the groups of self-declared male and female students (items "Men who shave their legs are weird", "I would go to a transvestite bar", and "Masculine women make me uncomfortable").

**TABLE 2.**
**Distribution of prejudice against sexual diversity and gender among students from the 1st to the 8th semester of an undergraduate medical course, South Region, Brazil, 2017.**

| Items from the scale by Costa et al.[34] | People self-declared as female | | People self-declared as male | | $Chi^2$ | Total | | $Chi^{2*}$ |
|---|---|---|---|---|---|---|---|---|
| | Agrees freq.(%) | Disagrees freq.(%) | Agrees freq.(%) | Disagrees freq.(%) | | Agrees freq.(%) | Disagrees freq.(%) | |
| Sex between two men is totally wrong. | 104 (66.2) | 53 (33.8) | 147 (82.6) | 31 (17.4) | 0.001 | 251 (74.9) | 84 (25.1) | 0.000 |
| I think gay men are disgusting. | 113(72.0) | 44 (28.0) | 168 (94.4) | 10 (5.6) | 0.000 | 281 (83.9) | 54 (16.1) | 0.000 |
| Male homosexuality is a perversion. | 120 (76.4) | 37 (23.6) | 161 (90.4) | 17 (9.6) | 0.001 | 281 (83.9) | 54 (16.1) | 0.000 |
| Sex between two women is totally wrong. | 124 (79.0) | 33 (21.0) | 147 (82.6) | 31(17.4) | 0.402 | 271 (80.9) | 65 (19.1) | 0.000 |
| I think lesbian women are disgusting. | 125 (79.1) | 32 (19.9) | 165 (92.7) | 13 (7.3) | 0.020 | 298 (89.0) | 37 (11) | 0.000 |
| Transvestites disgust me. | 90 (57.3) | 67 (42.7) | 152 (85.4) | 26 (14.6) | 0.000 | 242 (72.2) | 93 (27.8) | 0.000 |
| Men who behave like women should be ashamed. | 106 (67.5) | 51 (32.5) | 155 (87.1) | 23 (12.9) | 0.000 | 262 (77.9) | 74 (22.1) | 0.000 |
| Men who shave their legs are weird. | 107 (68.2) | 50 (31.8) | 135 (75.8) | 43 (24.2) | 0.117 | 242 (72.2) | 93 (27.8) | 0.000 |
| I can't understand why a woman would behave like a man. | 105 (66.9) | 52 (33.1) | 145 (81.5) | 33 (18.5) | 0.002 | 250 (74.6) | 85 (25.4) | 0.000 |
| Children should play with toys appropriate for their own gender. | 94 (59.9) | 63 (40.1) | 154 (86.5) | 24 (13.5) | 0.000 | 248 (74.0) | 87 (26.0) | 0.000 |
| Women who see themselves as men are abnormal. | 120 (76.4) | 37 (23.6) | 154 (86.5) | 24 (13.5) | 0.017 | 274 (81.8) | 61 (18.2) | 0.000 |
| Sex-change operations are morally wrong. | 112 (71.3) | 45 (28.7) | 158 (88.8) | 20 (11.2) | 0.000 | 270 (80.6) | 65 (19.4) | 0.000 |
| Masculine girls should receive treatment. | 117 (74.5) | 40 (25.5) | 164 (92.1) | 14 (7.9) | 0.000 | 281 (83.9) | 54 (16.1) | 0.000 |
| Effeminate men make me uncomfortable. | 86 (54.8) | 71 (45.2) | 147 (82.6) | 31 (17.4) | 0.000 | 233 (69.6) | 102 (30.4) | 0.000 |
| I would go to a transvestite bar. | 32 (20.4) | 125 (79.6) | 26 (14.6) | 152 (85.4) | 0.163 | 58 (17.3) | 277 (82.7) | 0.596 |
| Masculine women make me uncomfortable. | 100 (63.7) | 57 (36.3) | 131 (73.6) | 47 (26.4) | 0.051 | 231 (69.0) | 104 (31.0) | 0.000 |

**Legend:** *freq.(%) = absolute frequency (percentage); $Chi^2$ = Chi-square test value; $Chi^2$ * = Chi-square test value compared to the "prejudiced" versus "non-prejudiced" groups.*

**FIGURE 1.**
**Boxplot of quartile distribution of the sum of responses between semesters of the medical school, Southern Region, Brazil, 2017.**




Based on figure 1, it can be stated that there were no important differences in the results between the student groups among the eight investigated semesters of the course. It can be observed that the median ranged from 1.5 to 3 prejudice points, whereas in all phases, the prejudice for half of the assertions (8 points) was below 75% of all students, despite the high prevalence of prejudice. It is noteworthy that the data are not sufficient to infer the influence of the trajectory on the course over the eight semesters, as it was a cross-sectional study.

## DISCUSSION

Even though the indication that 25% of the medical students have a prejudiced position regarding the LGBT community is a shocking fact, the literature on the subject points to similar data. A 1986 study reports that 30% of physicians in a particular region of California would refuse admission to gay or lesbian students at medical school, even if they were highly qualified. The study also reports that 40% of these doctors would discourage gays and lesbians from seeking specialization, such as medical residency.[18]

In another study that interviewed nearly 1,000 doctors from New Mexico in 1996, regarding the attitudes of medical students and gay and lesbian doctors, the results indicate that 5% of doctors would refuse admission of known gay or lesbian students to medical schools. Regarding medical specialization, the study states that the greatest opposition was in relation to admission to medical residency in obstetrics (10.1%). The study concludes that despite the improvement in comparative data from previous studies, gays and lesbians still meet with strong opposition and difficulties in their pursuit of medical training and specialization.[19] When interviewing 1,335 osteopathic medical students in the United States regarding their perceptions when treating LGBT patients [20], the study showed that approximately 2% had very positive answers, 80% of students had positive answers in the evaluated scales, 15.5% had neutral and 2.5% had negative answers in relation to the topic.

Many similarities were observed when drawing a parallel between the present study and the research carried out in 2014 by Lapinski et al.[20] in six medical schools in the United States, not only regarding the percentage number of prejudiced responses, but also in the similar pattern of evidencing veiled prejudice, since the attitude tends to be more negative in matters that deal more with the "private aspect of the person", when compared to the "medical aspect". Similarly, although very important and relevant, the study is criticized for ignoring the question of veiled prejudice and for evaluating less positive responses as 'neutral or indifferent' responses, when they may represent attitudes that are as prejudiced as those rated 'negative'.

Florez-Salamanca & Rubio[21], when analyzing sexual prejudice among medical students in 2013 in New York, conceptualize prejudice as the main factor of stigmatization and exclusion of the LGBT population, resulting in lower access and underutilization of health services by this population. Prejudice is a frequent finding among medical students and, if not eradicated, it represents a barrier in many ways to the adequate provision of health services to the LGBT community, suggesting the implementation of curricular medical training activities, as well as strategies that can raise awareness. and educate students and reduce prejudice in future doctors, such as interaction and direct involvement with LGBT individuals.

The veiled or subtle prejudice has its classic definition made by Meerens and Petigrew [22], as indirect, distant and cold, *versus* the blatant prejudice, which would be defined as direct, open and hot; moreover, this study proposes dimensions for these types of prejudice. In the case of subtle prejudice there would be three: (1) defense of traditional values, so that members of the group that are the target of prejudice act in unacceptable ways; (2) exaggeration of cultural differences, referring to the divergent perception of culture (values and behavior); (3) denial of positive emotions toward the other group, in the form of rejection and aversion to the other group. The authors used these dimensions to devise a scale to measure prejudice, which, however, is currently seen as a limited analysis of subsequently proposed scales, especially personalized scales, such as the prejudice against gender and sexual diversity, used by the authors of this study.[17,23]

The marked prejudice against transgender individuals is delineated in the literature, which particularly in health services, still faces basic obstacles such as the right to a social name, recognition of gender identity, and difficult access. Transsexual individuals meet important theoretical and practical professional unpreparedness that directly influences health care, including the difficulty of access to care among this population outside the public health system – demonstrating that the SUS may not be the base factor of prejudice in the search of a professional who can properly acknowledge and treat this population. [24-26]

According to White et al[1], the level of preparation and comfort of medical students in the care of LGBT patients is unknown, and the curriculum related to the LGBT topic is poor or reasonable. The topic they feel better prepared to deal with LGBT individuals is about HIV and other sexually-transmitted diseases, while the topics they feel the least comfortable with are sex reassignment surgery and gender transition.

It is noteworthy that the prejudice against LGBT individuals, although evident in the medical field, is not an exclusive one, with the literature pointing to other areas, especially within health, which often expose curriculum deficiencies as a milestone in the connivance and perpetuation of prejudice. It is observed that the existence of prejudice in several fields should not be a reason for its trivialization, but for its opposite, denoting the importance of the topic and the demand for measures that can reverse the current situation.

Brennan et al[27] studied the content that addresses the LGBT population in the US nursing curriculum, pointing out how limited it is and also that the health care of the LGBT population has often been neglected. A literature review of 17 articles on nursing professionals' attitudes toward LGBT patients showed evidence of negative attitudes in all reviewed studies. Although the review highlights important limitations of the studies – mainly methodological ones – the review concludes that more knowledge in the area, with the inclusion of LGBT content in the curriculum, is needed to improve cultural competency.[28] A study that interviewed LGBT nurses highlighted the lack of work policies to make them feel more

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included and safe.[29] A project involving dental students from Canada and the United States found that only 13.3% of the interviewed students felt prepared to treat the LGBT population. Moreover, the study reports that the more the university plays an honest role in relation to diversity, with a sensitive and affirmative clinical environment for patients with different sexual orientations, the more students feel prepared for their activities, so that the study indicates the important role of the university in providing a less discriminating panorama.[30]

In this sense, Wallick et al[31] also point out that there are important deficiencies in medical education regarding sexual diversity. Analyzing 126 accredited medical schools in the United States in 1991, 65% of schools reported an average of 3 hours and 26 minutes of classes related to this subject throughout the course, with differences between geographic regions. As a way to increase sensitivity and comfort towards gays and lesbians and counteract stereotyped responses, the authors propose that the topic of homosexuality be fully integrated into the curriculum.

A study interviewed 248 third- and fourth-year undergraduate medical students at medical schools in the United States in 2004 to assess their ability to care for LGBT patients. As a result, it showed that students who had more contact with LGBT patients had more positive attitude scores, indicating greater desire and willingness to offer health services, as a result; the study concludes by supporting a higher clinical exposure of medical students to LGBT patients.[32]

In a study [33] carried out at the University of Cape Town, Faculty of Health Sciences, South Africa, only 10% of teachers reported having addressed any LGBT health-related topics in their classes, even though the topic is not included in the curriculum. The study emphasizes that LGBT-related topics need to be added to the curriculum, emphasizing that it is a type of support for the development of professional and behavioral attitudes towards the LGBT population.

When investigating the existence of practices and procedures to identify competent doctors regarding the LGBT subject in US medical schools [34], only 9% of 138 accredited schools had specific procedures for the subject and only 4% disclosed having specific policies to identify competent doctors in relation to the LGBT community. Sixteen percent answered they had training with comprehensive competency to treat the LGBT population and 52% reported no training; 80% indicated interest for the topic. The study concludes that there is as much need as interest of the medical schools to develop procedures, policies and programs to train doctors who are competent to treat the LGBT population and improve community access to them.

Among gay and lesbian medical students and resident physicians from Canada[35], there was evidence that sexual orientation played a significant role in professional career decisions. Some factors detected by the study that influenced the personal and occupational risk assessment of the assessed individuals were: identifiable presence of support, inclusive medical curriculum, and censorship policies against sexual discrimination. The need for training programs to be proactive in recognizing and supporting diversity was also identified. Regarding the environment and culture experienced by LGBT employees and students at a major medical academic center in the United States[36], it has largely resulted from reports that pressure was placed on individuals to remain undisclosed regarding their sexual orientation to the extent that people reportedly not heterosexuals were harassed, despite the existence of non-discrimination policies in the universities. The study concludes that continuous improvement, inclusive policies and practices, and the development of methods to prevent specific harassment suffered by the LGBT population are necessary mechanisms to improve the institutional environment.

Concerning the hidden curriculum, a study carried out in Taiwan [37] which, through discourse analysis sought to study the association between gender and the hidden curriculum among medical students, indicated 5 characteristics of the hidden curriculum in the topic, namely: (1) gender stereotype in physiological knowledge; (2) biased treatment of women; (3) gender-based stereotyped work divisions; (4) sexual harassment and hostile environment and (5) ridicule of the LGBT population. The study shows that teachers and students assist in the reproduction of a heterosexual male culture and sexism, implying the decrease in learning opportunities and self-esteem of female and LGBT students. The study concludes by stressing that formal classes and extracurricular and informal activities contribute to the consolidation of male heterosexual norms and stereotyped sexism; the study also suggests three strategies for integrating gender into medical education: (1) separating physiological knowledge from gender stereotyping in the teaching mode; (2) emphasizing the importance of gender sensitivity in the language used inside and outside the classroom by teachers and students; and (3) broadening the horizons of teachers and students by exemplifying the experiences of people who are excluded and discriminated against, particularly the LGBT and other minorities.

Regarding the amount of time the curricula spent on LGBT topics in medical schools, a study involving interviews with heads of medical schools about LGBT-related curriculum content in Canada and the United States between 2009 and 2010 found an average of 5 hours of content in the required

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curriculum. Despite this average value, it is reported that one third of medical schools have no clinical education on LGBT health-related topics and that only 14% of schools offer any specifically clinical activity to teach about LGBT patients.[1]

Another study, published in 2014, interviewed 124 directors of medical emergency residency programs in the United States to learn how much LGBT health was taught in these programs. As a result, one-third of respondents said that LGBT-related topics are included in the curriculum, and the average training time in one year was of 45 minutes. Moreover, the directors' responses suggest that, on average, 2.2 hours should be devoted to it. The study emphasizes that directors reported the presence of at least one medical student and one medical resident (in 64.2% and 56.2% of responses) in their teaching programs, and the study observed that the presence of LGBT topics in the programs were related to more hours of training on the topic.[12]

The literature points to the gap that exists in medical curricula [38] due to the low importance that is given to the topic, despite its relevance, placing on the curricular matter the weight of not only being neutral or indifferent to the subject but also as an important factor of being connivant and perpetuating prejudice, if not as a factor that promotes prejudice by not fighting lack of knowledge and ignorance and acting (or failing to act) with passivity and neglect on the subject.

According to Moretti-Pires[39] on the perception of the medical curriculum contents in the university, there is a reproduction of machismo and patriarchy, as well as the invisibility of the topics related to the health of LGBT people, with complete absence of the subject concerning gender and sexual diversity, corroborating a delay of approximately two decades, compared to the first studies that observed the gap on the subject.

## CONCLUSION

At the end of the data analysis of the present study and the literature review on the topic, it is pointed out that the prejudice against sexual and gender diversity was identified among medical students of the assessed University, and at least 60% of them have a negative attitude towards LGBT people; this percentage could be even higher, due to variables such as veiled prejudice. There is a markedly more negative behavior specifically towards transsexual individuals. The international literature provides the basis for verifying the occurrence of the same phenomenon (prejudice) in medical schools, specialization programs and in medical practice itself in several places around the world, inferring that prejudice goes beyond the economic question of each location or country, but must be based on similar sociocultural aspects in all medical schools.

According to data in the world literature, they demonstrate the lack of experience and training in LGBT health by health professionals, indicating the absence of this content in the formal medical curriculum. It is important to highlight the existence of a hidden curriculum (and the formal curriculum itself) as drivers and supporters of prejudice, in addition to the total absence of curricular content related to LGBT health, hypothesizing the medical curriculum, its shortcomings and gaps, as the core of the prejudice against sexual and gender diversity among medical students; it can be perceived that prejudice finds a field of development in the unknown, lack of information and ignorance; the medical curriculum, as currently inserted, not only does not act against prejudice, exempting and being indifferent to the student on the subject, but also acts as a fostering agent that accentuates prejudice. Therefore, it is understood that the medical curriculum that is documented and practiced in the daily life of students and physicians is a conniving, perpetuating factor that promotes prejudice within the undergraduate medical school.

Henceforth, it is important that after the failures, solutions be sought. Thus, it is essential to promote strategic actions that would guide curriculum changes. Health professionals should be made aware that they should develop their skills to work with the specificities of LGBT people, emphasizing the lack of training opportunities for LGBT-sensitive content, by recommending the mandatory inclusion of LGBT health-related curriculum content, as well as pedagogical topics that include: LGBT-related basic terminology, interview questions that facilitate the opening of the topic of sexual orientation and gender identity, information on the impact of heterosexism and homophobia and the need for specific health care of minority populations on gender and sexual identity.

The data corroborate the reiterated importance of the compulsory inclusion of the LGBT health topic and building support mechanisms for the pedagogical structuring of the content that can help the classes and / or subjects to fulfill their role, in addition to the need to specifically deliver content for the follow-up and treatment of LGBT people, it is reaffirmed that the basic LGBT health education of all faculty and any other integrated teaching professionals is essential to allow future patients of these prospective physicians to not be discriminated against and have access to appropriate treatment, regardless of their sexual orientation or gender identity.

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## AUTHORS' CONTRIBUTION

All authors contributed to the project design, research development, data treatment and analysis, as well as the writing of the article.

## CONFLICTS OF INTEREST

No conflicts of interest

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