

Agency and autonomy: building knowledge about social differences based on sex and gender^{1 2 3 4}

Agência e autonomia: construção coletiva de conhecimento sobre as diferenças sociais com base em sexo e gênero

Agencia y autonomía: construcción colectiva de conocimientos sobre las diferencias sociales con base en el sexo y género

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Abstract

This essay was developed based on an active perspective of knowledge production adapted from the problem-based learning (PBL) methodology. It sought to collectively and interdisciplinarily analyze the categories of sex and gender. A total of 103 references were consulted, discussed by 24 students in Collective Health. A theoretical synthesis was elaborated about the individual and collective investigations and experiences of the students and professor regarding the topic. This pedagogical experience allowed us to understand the power of language has in maintaining or subverting hegemonic structures. In conclusion, the constructions and fixations of identities based on highly regulated sex/gender practices reduce the possible multiplicities of being in the world.

Keywords: problem-based learning, higher education, health, gender relations

Resumo

Este ensaio foi elaborado dentro de uma perspectiva ativa de produção do conhecimento, a partir de uma metodologia adaptada da Aprendizagem Baseada em Problemas. O objetivo foi analisar coletiva e interdisciplinarmente a noção classificatória em torno do gênero. Foram consultadas 103 bibliografias, discutidas por 24 estudantes em Saúde Coletiva e elaborada uma síntese sobre as investigações e as experiências individuais e coletivas das discentes e do docente sobre a temática. Esta experiência pedagógica permitiu compreender a potência da linguagem na função de manter ou subverter estruturas hegemônicas. Concluiu-se que as construções e as fixações de identidades com base em práticas altamente reguladas com relação ao sexo e ao gênero reduzem as multiplicidades possíveis de ser e estar no mundo.

Palavras-chave: *aprendizagem baseada em problemas, educação superior, saúde, relações de gênero*

Resumen

Este ensayo fue elaborado dentro de una perspectiva activa de producción de conocimiento a partir de la metodología adaptada de Aprendizaje Basado en Problemas (ABP). El objetivo fue analizar colectiva e interdisciplinariamente la noción clasificatoria en torno al sexo/género. Se consultaron 103 bibliografías, discutidas por 24 estudiantes en Salud Colectiva. Se elaboró un análisis sobre las investigaciones y experiencias de los estudiantes y el docente sobre el tema. Esta experiencia pedagógica nos permitió comprender el poder del lenguaje en mantener o subvertir las estructuras hegemónicas. Concluimos que las construcciones y fijaciones de identidades basadas en prácticas altamente reguladas relacionadas con el sexo/género reducen las posibles multiplicidades de ser y estar en el mundo.

Palabras clave: *aprendizaje basado en problemas, educación superior, salud, relaciones de género*

Introduction

We elaborated this essay based on an active perspective of knowledge production adapted from the problem-based learning (PBL) methodology. This method was first proposed and used by the medicine program at McMaster University (Canada) in 1969, when professors at this school found it necessary to break with the traditional medicine curricula (Neville & Norman, 2007). Disrupting the processes of knowledge production introduces important moments of displacement into power structures, especially in works that address gender relations. We are currently experiencing a concrete need to expand and break with the hegemonic pedagogy and concepts about sex and gender found in education, in scientific health literature, and in the collective imaginary (Souza & Dinis, 2010). Concepts which strive to frame sex as a dimension of “human nature” and exclude the students’ experiences when exposed to such frameworks in learning processes.

Based on PBL, the professors suggested a pedagogical change in the training activities of the McMaster University medical curriculum by proposing self-directed learning based on critical and reflective search for knowledge (Neville & Norman, 2007). Such a suggestion was motivated by the need to understand the multiple scenarios to be thought for each person and for each medical conduct, proposing test problems that encompassed real problems faced in everyday health care and assistance (Barrows, 1986; Hmelo-Silver, 2004; Neville & Norman, 2007). Besides, with the constant advancements in clinical technologies over the years, new and unforeseen knowledge and information began to emerge constantly in the subsequent professional performance (Barrows, 1986; Hmelo-Silver, 2004; Neville & Norman, 2007). In this scenario, students and healthcare providers are required to actively seek knowledge.

From this experience—published in 1974 with the definition of PBL—many adaptations were published worldwide on concepts, experiences, results and iterations regarding this approach, conducted mainly with medical students (Barrows, 1986; Hmelo-Silver, 2004; Lopes et al., 2015, Lopes et al., 2019; Mamede et al. 2006; Neville & Norman, 2007). But despite the importance afforded to personal experiences and interdisciplinary knowledge by PBL, few studies have been conducted outside the medical field or with sociocultural approaches that reflect the population’s health conditions. Hence, building a knowledge on social differences based on sex and gender—based on the individual and collective experiences of students from various backgrounds within a graduate program in Collective Health—is of great value to the

educational and formative process in health and can contribute greatly to the field of Social Sciences in Health.

This essay proposes thus to analyze problematization as a constructivist/dialogical teaching method, in which the concepts of sex and gender, as identified by students in the indexed literature, were related to the visibility and invisibility of social differences in hegemonic relations. This teaching-learning experience was developed in a graduate program in Collective Health.

Methods

Historically, a wide variety of pedagogical methods are referred to as PBL due to their use of themes, topics, or problems in educational activity and the absence of singular answers. Work is structured in learning cycles under teacher supervision. Known as tutors, teachers suggest a class distribution into small groups of students, called tutorial groups, according to the thematic interests and motivations (Lopes et al., 2019). PBL has certain main objectives that are more or less followed depending on the pedagogical proposal, teaching skills and student responsibilities. Briefly: 1 - hypothesis generation, investigation and analysis; 2 - self-directed learning; 3 - motivation in learning; and 4 - information structuring (Barrows, 1986; Hmelo-Silver, 2004; Lopes et al., 2019; Neville & Norman, 2007).

The teaching-learning strategy analyzed in this essay took place in 2018. Social Sciences in Health is a compulsory subject in the course curriculum of a Graduate Program in Collective Health. The process, encompassing the main PBL objectives, unfolded in eight main moments:

1. Distribution of the class into groups of three to four students, according to the topics of interest (tutorial groups).
2. Based on the guiding question “How are social differences based on sex and gender constructed?”, each group discussed their prior knowledge on the subject. At this moment, each group drafted their ideas and identified the information considered important and the missing information that would be necessary to better understand the topic.

3. Individually and autonomously, all students⁵ researched, read, and systematized the concepts and theoretical frameworks found on sex and gender. Subsequently, they summarized the theoretical frameworks found, their problematizations and personal conclusions. This text should explain the research procedures, be between 1000 and 2000 words long, and follow the ABNT guidelines for citation and reference used.
4. After this self-directed research and development of the individual text, all tutorial groups met together in class to share and discuss the new, old and different information/reflections produced in the learning process, always considering the method and topic at hand.
5. The tutorial group, whose topic of interest was “Sex and Gender,” read all 24 individual investigations on this topic and held out-of-class meetings to discuss these texts, the student/tutor experiences, and the sharing/reflections put forth in class.
6. The “Sex and Gender” tutorial group prepared a collective text of approximately 6000 words and a seminar in which they sought to summarize the information contained in the individual texts, the individual/collective experiences, and the reflections brought by PBL.
7. This collective text was sent to all students and the tutor one week before the seminar presentation. Both the collective text and the seminar presentation were again discussed by the class.
8. After the seminar, the “Sex and Gender” tutorial group, composed by the authors of this essay, once again discussed the ensuing reflections, identified the information considered important and the missing information necessary to better understand the topic, and wrote the present text.

⁵Since most students at graduate programs in Collective Health are women, and most authors discussing sex and gender are also women, indeterminate subjects and indefinite references will be treated as female, except in exclusively male references.

Results

For the final structuring of the “Sex and Gender” topic, the tutorial group consisted of three women, each from a concentration area of Collective Health (Social Sciences in Health; Epidemiology; and Health Policy, Planning and Management) and whose motivations in this essay inform their respective research themes, namely: Cultural Study on Professional Activities Related to Sexual Health; Risk Factors for Femicide; and Feminist Experiences in the Street as a Care Territory.

A total of 24 students participated in this research. Most were women (75%), 14 from the master’s (58.3%) and ten from the PhD (41.7%) program in Collective Health, in the concentration areas of “Health Policy, Planning and Management” (45.8%), “Epidemiology” (37.5%) and “Social Sciences in Health” (16.7%). Class students majored in nursing (16.7%), medicine (16.7%), physical therapy (12.5%), psychology (12.5%), nutrition (8.3%), dentistry (8.3%), social work (8.3%), hospital administration (4.2%), social communication (4.2%), pedagogy (4.2%), and occupational therapy (4.2%).

The individual texts written on the social differences based on sex and gender used a total of 103 bibliographic references, averaging six references for each individual text—a minimum of two and a maximum of 17 references. Students included references from 1982 to 2018 (36 years), of which half were published or reprinted in the last ten years. Most bibliographic references used were in the Portuguese (84.5%), but references in English (12.6%) and Spanish (2.9%) were also cited.

Scientific Electronic Library Online – SciELO (26.3%), the Google Scholar search engine (21.1%), and the Virtual Health Library – VHL (15.8%) were the most consulted databases. Other resources included dictionaries (10.5%), libraries (5.3%), the Descriptors in Health Sciences – DeCS (5.3%), Google (5.3%), references used in previous disciplines (5.3%), and national resolutions/policies (5.3%). Gender (25.9%), sex (22.2%), social differences (11.1%), difference (7.4%), and gender relations (7.4%) were among the most frequently used search terms.

Of the 103 texts referenced, the following stood out as the most consulted:

1. “Gender: A Useful Category of Historical Analysis,” by Joan Scott, published in 1986 and later translated into Portuguese (Scott, 1989). Used by nine students – 37.5% of the class.

2. “Gender Trouble: Feminism and the Subversion of Identity,” by Judith Butler, translated and published in Portuguese in 2003 (Butler, 2003). Used by six students – 25.0% of the class.
3. “Diferença e igualdade nas relações de gênero: Revisando o debate” [Difference and equality in gender relations: reviewing the debate], by Maria de Fátima Araújo, published in 2005 (Araújo, 2005). Used by five students – 20.8% of the class.
4. “The History of Sexuality I: The Will to Knowledge,” by Michel Foucault, translated and published in Portuguese in 1988 (Foucault, 1988). Used by four students – 16.7% of the class.
5. “Política Nacional de Saúde Integral de Lésbicas, Gays, Bissexuais, Travestis e Transexuais” [National Policy for the Integral Health of Lesbians, Gays, Bisexuals, Travestis and Transsexuals], published by the Department for Strategic and Participatory Management of the Brazilian Ministry of Health in 2013 (Brasil, 2013). Used by three students – 12.5% of the class.
6. “‘Gender’ for a marxist dictionary: the sexual politics of a word,” by Donna Haraway, translated and published in Portuguese in 2004 (Haraway, 2004). Used by three students – 12.5% of the class.
7. “Making Sex: Body and Gender from the Greeks to Freud,” by Thomas Laqueur, translated and published in Portuguese in 2001 (Laqueur, 2001). Used by three students – 12.5% of the class.
8. “Uma ciência da diferença: sexo e gênero na medicina da mulher” [A science of difference: sex and gender in women’s medicine], by Fabíola Rohden, published in 2009 (Rohden, 2009). Used by three students – 12.5% of the class.
9. “Desigualdade social e o conceito de gênero” [Social inequality and the concept of gender], by Juliana Anacleto dos Santos, published in 2010 (Santos, 2010). Used by three students – 12.5% of the class.

The other 94 bibliographic references consulted to construct the 24 individual texts were used by two or only one student. We discuss these results considering the references used, the individual texts, and the experiences discussed in class when relevant to the topic. Excerpts

from the students' original texts were included in italics throughout the discussion to illustrate the arguments.

Discussion of results

Collective Health is a field of interdisciplinary knowledge, heterogeneous both institutionally and professionally, covering basic subjects such as Social Sciences in Health, Health policy, planning and management, and Epidemiology (Loyola, 2012; Luz, 2009; Nunes, 1994, 1996, 2005; Osmo & Schraiber, 2015; Paim & Almeida Filho, 1998). Collective Health emerged as a field of study in the 1970s, as master's and PhD programs, became fully structured by 1980 and has progressively expanded to the present (Nunes, 1994, 1996, 2005; Osmo & Schraiber, 2015). Its conceptualization involves discussing the centrality of health and its social aspects; discussing the concept as a “living field,” under ongoing construction; interrogative discussions about its collective nature; and the changes in health concepts over the years in Brazil—from the Preventivist Project, Public Health, Social Medicine to the current concept of Collective Health (Loyola, 2012; Luz, 2009; Nunes, 1994, 1996, 2005; Osmo & Schraiber, 2015; Paim & Almeida Filho, 1998). The student profile in our study corroborated the literature on Collective Health, emphasizing the professional interdisciplinarity of the students.

In the educational activities developed about Social Sciences in Health within the graduate program in Collective Health, in which the authors (three female students and one male professor) of this article were present, the concept of sex—in most of the discussions and texts analyzed—related to genital sex or chromosomal sex, which refer to genital (external and internal sexual or reproductive organs), chromosomal (XY, XX or other combinations) and hormonal (production of more or less progesterone, estrogen and testosterone) differences (Heilborn, 1994; Nogueira, 2001; Olinto, 1998). According to this concept, individuals are said to be “naturally” determined as female, intersex, or male. However, the student-led class discussions were based on many other studies which are critical to any definition that describes sex as something “natural” and biological—after all, biology is a political space. We discuss and understand sex, both as organ and practice, not as a precise biological place or a natural drive, but as a technology that fixes and reduces bodies to their respective erogenous zones (Preciado, 2014).

These classificatory notions around sex, as well discussed by Judith Butler, manifest themselves as a kind of productive power, the power to produce—demarcate, make, circulate, differentiate—the bodies through regulatory practices (Butler, 2000). And thus, throughout history, through discursive strategies, masculinity is described in terms of its relationship with technological devices, and femininity is defined in terms of its sexual and reproductive availability (Preciado, 2014).

Some of the individual texts outlined a historical overview about the construction of a science of sexual difference in health. One such text reported that:

Before the 18th century, the justification for categorizing bodies as different was related to temperatures, which indicated the “degrees of perfection” of this body (Rohden, 2003; 2009). Both genitals would be the same, but with a difference in degrees. Depending on the amount of heat, the genital would be external or internal.

Interestingly, such understanding opposed the external (male) genital—more developed—to the internal (female) genital—less developed, imperfect—in terms of degrees (Rohden, 2003, 2009).

History presents us with all kinds of manipulations exerted upon women’s bodies for purposes of control and fixing identity, all justified by “Education” and “Science.” From the perspective of sex/gender, “Health Science” has contributed greatly to utilitarian and abusive regulations of women’s bodies. Historically, some scientists argued that nature produced an “innate” differentiation between the two sexes and therefore society needed to respect this difference by promoting and maintaining behaviors related to these “facts” (Rohden, 2003). Such “facts” were constructed, equating masculinity to intelligence, skill, strength; and femininity to the sensitive, the sedentary, the melancholic (Rohden, 2003).

One relevant point raised during seminar discussions was that many of the criticisms regarding structures, hierarchies, and normative definitions about sex/gender should also be observed in issues of race and ethnicity, since racialized bodies are appropriated by “Science” through different, often more oppressive and violent, devices and deserve further in-depth studies.

In short, “gender” is a social category imposed on a sexed body (Scott, 1989) and must be understood under perspectives that consider race, class, and the varied geographical and existential territories.

During our discussions on sex and gender, topics of great relevance for the field of Collective Health, such as depression, emerged:

Depression, for example, occurs twice as often in women as in men, a factor associated not only with the social depreciation of female characteristics, but also with the influence of gender stereotypes in diagnosis: even when they present identical symptoms, the physician’s is more likely to diagnose women with depression than men (OMS, 2002). (Ferraz & Kraiczuk, 2010, p. 72)

Throughout the discipline, we worked mainly with the concepts of gender proposed by three authors: Joan Scott, Judith Butler and Paul B. Preciado. For both Joan Scott (1989, 2010) and Mara Viveros Vigoya (2016), gender is a constitutive element of social relations based on historical and cultural definitions of sex. As a historically constructed category, gender involves four interrelated elements, namely: 1 – cultural symbols that evoke symbolic representations, such as the religious figures of Eve and Mary as symbols of women; 2 – normative concepts found in religion, politics, science and education that set forth interpretations of the symbolic meanings, for example the meaning of feminine and masculine; 3 – a notion of politics and reference to social institutions and organizations; and 4 – subjective identity (Scott, 1989). Hence, the concept of gender provides a way to decode symbolic, normative, political, and subjective representations attributed to the feminine and masculine, and to understand the complex relations among various forms of human interaction (Scott, 1989).

Judith Butler (1993, 2000, 2003) conceptualizes gender as a floating artifice; a “multiple and relational category that encompasses institutionalized linguistic codes and political and cultural representations” (Santos, 2013, p. 24). Butler finds no immediate correspondence between sex and gender, since we may have a female gender over a male sex (and vice versa), referencing only biological sexual elements. Gender, therefore, is a multiple interpretation of sex (Butler, 1993). Butler recognizes that this disruption was important for the feminist movement to escape the biological determinism regarding the “natural role” of women and men (Butler, 1993). As discussed in regards to sex, the mark of gender also qualifies bodies as human bodies; thus, those bodily figures who do not fit into any gender would fall outside the human (Butler, 2003).

Power occupies a privileged place within gender and sex, because the differences between sexes/genders continuously construct social differences in access to hegemonic productive, symbolic, and cultural resources (Connell & Pearse, 2015; Scott, 1989, 2010). The categories of sex and gender, therefore, legitimize power relations through social and political appreciation. To vindicate these established power relations between sexes/genders, the discourses must seem sure and fixed, outside social construction, that is, must be part of the natural or divine order (Scott, 1989). A discourse of nature normalizes ways of being in the world and reduces the multiple possibilities regarding sex and gender.

Normative religious, educational, and scientific doctrines produce, grant and interpret the meaning of symbols, fix discourses and, therefore, limit and control all their possibilities (Connell & Pearse, 2015; Foucault, 1999; Quijano, 2005; Scott, 1989). Religious discourse parallels that of nature and employs expressions that emphasize the natural character of women as devout homemakers and sex as part of the essential, biological, and determining nature of people's personal and public lives (Connell & Pearse, 2015). Great social effort is made by legislators and religious institutions to dictate what is considered appropriate behavior (Connell & Pearse, 2015).

Part of society does accept contemporary sexual plurality, but many groups tend to deal with the issue with aggression and intolerance, often using traditional social institutions such as the family to justify radicalism (Louro, 2008).

When analyzing the omnipresence of masculine domination, Bourdieu, as cited in Carvalho (2011), sees that such domination is present in the social world in an objectified state, functioning as a universal worldview ordering of society. It is a symbolic, gendered system, based on opposing dualities that naturalize this domination as a consequence and not as a cause (Bourdieu apud Carvalho, 2011). This symbolic, hegemonic dimension hinders thinking and acting outside it, since they are inscribed in the “*habitus*” (systems of acquired dispositions that internalize social structures) and in the bodies (Bourdieu apud Carvalho, 2011). Society is thus permeated by a symbolic violence exerted between all genders.

“Gender,” in its most recent usage as a category to describe the social organization of sex relations, seems to have first been used among North American feminists who insisted on the fundamentally social quality of distinctions based on sex and claimed that women's research would transform disciplinary paradigms (Scott, 1989). From then on, interest in the concept

functioned as a way to claim women's rights, fight for social change and strengthen academic intellectual and theoretical work (Alonso, 1999).

Contemporary Sociology has made important changes, including the deconstruction of structuralist dichotomies, giving raise, in the Social Sciences, to non-totalizing approaches and to a long paradigm shift process. But most theorizing about gender have remained within traditional social scientific frameworks, introducing a limited character insofar as it contains reductive or overly simple generalizations that undercut analyses that will lead to change (Scott, 1989). Scott (1989) insists on the importance of describing historical facts and going beyond the refusal of the fixed and permanent quality of binary oppositions, reversing and shifting its hierarchical constructions, to genuinely analyze the social differences between sexes/genders. In this regard, her contributions revolve around the conditions and power relations that configure the categories we choose to conduct our analyses. Unraveling the mechanisms and power plays constitutive of these analyses and categories gains prominence in changing hegemonic structures.

Deconstructions and disruptions are perhaps the key words that best fit the reality we face. Deviate from a prescriptive and normative system that continues to impose rules and norms upon our existence and behaviors, to let emerge a scenario where the most varied relations can exist as frank enunciative expressions of subjective truths, that is, the contemporary opening up to accepting a mix of signs that are socially legitimized, equating subjects in an egalitarian context.

Preciado (2014) contributed significantly in this regard by deconstructing the discursive theories examined so far and conceptualizing gender as more than performativity or an effect of linguistic-discursive cultural practices. Both sex and gender are, first and foremost, prosthetic incorporations made to be natural, but which are subject to constant transformation and change (Preciado, 2014). While gender and sex are purely constructed, they are also purely organic and result in sophisticated technologies that produce sexed bodies (Preciado, 2014). Preciado (2014) criticizes both essentialist feminism, which has retreated into conservative stances on motherhood and reproduction, and so-called constructivist feminism, which has fallen into the trap of conceptualizing technology as that which modifies a given nature, rather than as the very production of a nature. The author proposes that bodies should not recognize themselves as different genders, but rather as speaking bodies, susceptible to all practices—what they called

the Countersexual Manifesto (Preciado, 2014). Within this Manifesto, Preciado presents a countersexual deconstruction of a whole series of oppositional binomials: man/woman, homosexuality/heterosexuality, masculine/feminine, primitive/modern.

Such oppositional binomials essentialize characteristics and reinforce the groups' stigma, which prevent them from accessing the discursive and bodily technologies they could produce. As such, the women/men and feminine/masculine binomials act to maintain social differences. Discourses of a natural and biological destiny, in turn, legitimizes the material and ideological feats of appropriation to which women's bodies are subjected (Guillaumin, 2005). In this context, we may reflect on women who are economically dependent on their husbands, but who in reality do all the unpaid housework and care⁶ and are still considered as non-working, jobless, and even as their property (Connell & Pearse, 2015). There is no estrangement, no questioning, and no uneasiness about the fact that women materially ensure the maintenance of their "possessor" and his other properties, in both private (marriage) and collective (family, schools, religious life) appropriation (Guillaumin, 2005). Social constructions of men and women authorize the subjection of women, including as a sexual labor force and as bodies available for domestic procreation. Women are harassed into performing everything from physical household chores at an uninterrupted pace to activities that harm their aspirations, their integrity, and their lives (Guillaumin, 2005; Preciado, 2014). One student stated:

In addition to lower wages, more precarious labor conditions, repetitive movements, and other psychological and emotional wear, women's jobs are often subject to psychological or sexual harassment. Minor psychiatric disorders are associated with poor women's double shift and with long working hours.

Drawing on the feminist key foundation that "the personal is political," the class discussed some of women's history and politics, especially in Brazil. These historical facts reveal the oppression to which women are subjected and, at the same time, the importance of combating social injustices. Such issues were also addressed in legal and institutional markers by the students during discussions, reporting that:

In Brazil, it was only about 140 years ago that women achieved the right to attend higher education, which only occurred in 1879.

⁶ Perform an unpaid job means that it is part of your character to be unrelated to any amount, monetary or of subsistence (Guillaumin, 2005).

Before 1932 women could not vote.

In 1945 the “equality between men and women” needed to be recognized in a formal document (Charter of the United Nations).

In 1951, the international labor organization approved equal pay for male and female labor for the same job.

The Married Women’s Statute, which ensured, among other things, that a woman no longer needed her husband’s authorization to work or receive inheritance, and could apply for custody of the children in case of separation, was created only in 1962.

In 1988, the Constitution of the Federative Republic of Brazil was promulgated, ensuring equality in rights and obligations between men and women under the law.

From an electoral perspective, in 1996, the national congress implemented the quota system in the Electoral Legislation, obliging the parties to include at least 20% women in their numbers, given the low representation in the political scenario.

Only in 2006, in face of the alarming data on gender violence, was the Maria da Penha Law sanctioned, which created mechanisms to curb and prevent violence against women.

Currently, social differences produced based on people’s gender and gender are still blatant. Although women’s images are commonly used on the Internet, women have little chance of being content producers on the web. In politics, they do not reach 25% of parliamentary representation worldwide; and in business, men are 95.6% of the world’s most powerful business leaders (Connell & Pearse, 2015). Science and technology are also mostly controlled by men; and most religious temples are run exclusively by men (Connell & Pearse, 2015). Regarding the Lesbian, Gay, Bisexual, Travestis, Transgender, Queer, Asexual, and Other (LGBTQIA+) population, we were surprised by the lack of references in the literature containing specific data about social differences in these groups. From what has been discussed so far, we infer that all ways of living that somehow do not fit into the patriarchal society and religious precepts tend not to have their place in society recognized, thus becoming marginalized. These representations historically maintain the pattern of inequalities between genders.

Students reported that PBL-based knowledge production was challenging, because these activities required using resources and strategies not completely mastered by all, such as searching databases, reading documents that oppose ideas and arguments, and difficulties in following humanities texts with complex argumentative structures, different from the concise style used by health areas. Students agreed on the usefulness of taking a first approach to the topic to later discuss and clarify ideas and concepts with colleagues and the tutor, and finally participating in a seminar and a final text that synthesizes the group's construction.

As a learning experience in the medical sciences, the class understood how individual and collective participation is fundamental to the group and reported on how rewarding the collective construction of knowledge was. Writing an article based on the collective text, was, in fact, suggested by the class. The class and the university were highlighted by students as an institution with the power to deconstruct rigid behavior norms that limit individuals' potentialities and condition them to pre-designed existences that castrate their subjectivity and capacity.

Conclusion

In our assessment, the objective proposed by the PBL-based learning process was achieved. During the activities, we observed the importance of sharing individual and collective experiences, especially when intertwined with motivated search, and the theoretical and conceptual synthesis and structuring regarding "Sex and Gender." Firstly, we note that "sex and gender" is an inextinguishable topic. Secondly, we emphasize the various existing and possible paths for researching and structuring information. Thirdly, we point out the different meanings construed by how each student approached the topic. In other words, each participant made their position clear in how they addressed "sex and gender" in the individual and collective discussions. Finally, we highlight the power language has in maintaining or subverting hegemonic structures that control, limit, and legitimize the power relations established among different groups and genders.

Its main contribution was to collectively and interdisciplinarily construct and understand the categories of sex and gender and the demarcation of bodies through highly regulated

practices. In conclusion, social differences based on sex and gender are socially determined constructions normalized by the various institutions that favor white cis heterosexual men and the woman/man binary. These fixed and constructed sex and gender identities reduce the possible multiplicities of being in the world. Existing outside the binary regulatory norms of gender means facing social stigma and discrimination. To be a woman, therefore, means bearing a series of stereotypes associated with the appropriation of our bodies.

References

- Alonso, I. A. (1999). El significado del género en las Ciencias Sociales. *Política Y Sociedad*, 32, 9-21.
- Araújo, M. F. (2005). Diferença e igualdade nas relações de gênero: revisitando o debate. *Psicologia Clínica*, 17(2), 41-52.
- Barrows, H. S. (1986). A taxonomy of problem-based learning methods. *Medical education*, 20(6), 48-486.
- Brasil. Ministério da Saúde, Secretaria, de Gestão Estratégica e Participativa. (2013). *Política nacional de saúde integral de lésbicas, gays, bissexuais, travestis e transexuais*. Ministério da Saúde.
- Butler, J. (1993). Gender as performance: an interview with Judith Butler. Entrevista realizada por Peter Osborne e Lynne Segal. *Radical philosophy*, 67(67), 32-39.
- Butler, J. (2000). Corpos que pesam: sobre os limites discursivos do “sexo”. In G. L. Louro, *O corpo educado: pedagogias da sexualidade* (pp. 151-172). Belo Horizonte: Autêntica.
- Butler, J. (2003). *Problemas de gênero: feminismo e subversão da identidade* (R. Aguiar, Trad.). Civilização Brasileira.
- Carvalho, M. P. (2011). O conceito de gênero: uma leitura com base nos trabalhos do GT Sociologia da Educação da ANPEd (1999-2009). *Revista Brasileira de Educação*, 16(46), 99-117.
- Connell, R., & Pearse, R. (2015). A questão do gênero. In R. Connell, & R. Pearse, *Gênero: uma perspectiva global. Compreendendo o gênero da esfera pessoal à política no mundo contemporâneo*. (M. Moschkovich, Trad. e Rev. Técnica, pp. 29-50). nVersos.

- Ferraz D., & Kraiczky J. (2010) Gênero e políticas públicas de saúde – construindo respostas para o enfrentamento das desigualdades no âmbito do SUS. *Revista de Psicologia da UNESP*. 9(1),70-82.
- Foucault, M. (1988). *História da sexualidade I: A vontade de saber* (13 ed.). Graal.
- Foucault, M. (1999). *A ordem do discurso*. (Aula inaugural no Collège de France, pronunciada em 2 de dezembro de 1970, L. F.de A. Sampaio, Trad.). Loyola.
- Guillaumin, C. (2005) Prática de poder e ideia de natureza: a apropriação das mulheres. In O. Curiel, & J. Falquet, J. (Ed.), *El patriarcado al desnudo: tres feministas materialistas: Colette Guillaumin - Paola Tabet - Nicole Claude Mathieu* (pp. 19-56). Brecha Lésbica.
- Haraway, D. (2004). "Gênero" para um dicionário marxista: a política sexual de uma palavra. *Cadernos pagu*, 22, 201-246.
- Heilborn, M. L. (1994). De que gênero estamos falando. *Sexualidade, gênero e sociedade*, 1(2), 1-6.
- Hmelo-Silver, C. E. (2004). Problem-based learning: What and how do students learn? *Educational psychology review*, 16(3), 235-266.
- Laqueur, T. (2001). *Inventando o sexo*. Relume Dumará.
- Lopes, R. M., Alves, N. G., Pierini, M. F., & Silva-Filho, M. V. (2019). *Características gerais da aprendizagem baseada em problemas*. fundamentos para a aplicação no ensino médio e na formação de professores. In R. M. Lopes, M. V. Silva Filho, & N. G. Alves (Org.), *Aprendizagem Baseada em Problemas: fundamentos para a aplicação no ensino médio e na formação de professores* (pp. 47-74). Publiki.
- Lopes, R. M., Pinho, L. A. de, Silva-Filho, M. V., Alves, N. G., & Alves, L. A. (2015). Aprendizagem Baseada em Problemas: uma proposta para a formação de Técnicos em Laboratórios de Saúde Pública. *Revista Eletrônica de Comunicação, Informação e Inovação em Saúde*, 9(2), 1-10.
- Louro, G.L. (2008) Gênero e Sexualidade: pedagogias contemporâneas. *Pro-posições*, 19(2), 56.
- Loyola, M. A. (2012). O lugar das ciências sociais na saúde coletiva. *Saúde e sociedade*, 21(1), 9-14.
- Luz, M. T. (2009). Complexidade do campo da Saúde Coletiva: multidisciplinaridade, interdisciplinaridade, e transdisciplinaridade de saberes e práticas - análise sócio-histórica de uma trajetória paradigmática. *Saúde e sociedade*, 18(2), 304-311.

- Mamede, S., Schmidt, H. G., & Norman, G. R. (2006). Innovations in problem-based learning: what can we learn from recent studies? *Advances in Health Sciences Education*, 11(4), 403-422.
- Neville, A. J., & Norman G. R. (2007). PBL in the undergraduate MD program at McMaster University: three iterations in three decades. *Academic Medicine*, 82(4), 370-374.
- Nogueira, C. (2001). *Um novo olhar sobre as relações sociais de gênero*. Fundação Calouste Gulbenkian.
- Nunes, E. D. (1994). Saúde coletiva: história de uma ideia e de um conceito. *Saúde e Sociedade*, 3(2), 5-21.
- Nunes, E. D. (1996). Saúde Coletiva: revisitando a sua história e os cursos de pós-graduação. *Ciência & Saúde Coletiva*, 1(1), 55-69.
- Nunes, E. D. (2005). Pós-graduação em saúde coletiva no Brasil: histórico e perspectivas. *PHYSIS: Revista Saúde Coletiva*, 15(1), 13-38.
- Olinto, M. T. A. (1998). Reflexões sobre o uso do conceito de gênero e/ou sexo na epidemiologia: um exemplo nos modelos hierarquizados de análise. *Revista Brasileira de Epidemiologia*, 1(2), 161-169.
- Osmo, A., & Schraiber, L.B. (2015). O campo da Saúde Coletiva no Brasil: definições e debates em sua constituição. *Saúde e sociedade*, 24(Suppl. 1), 205-218.
- Paim, J. S., & Almeida-Filho, N. (1998). Saúde coletiva: uma “nova saúde pública” ou campo aberto a novos paradigmas? *Revista de Saúde Pública*, 32(4), 299-316.
- Preciado, B. (2014). *Manifesto contrassexual* (M. P. G. Ribeiro, Trad.). n-1 edições.
- Quijano, A. (2005). *A colonialidade do saber: eurocentrismo e ciências sociais. Perspectivas latino-americanas*. CLACSO, Consejo Latinoamericano de Ciencias Sociales.
- Rohden, F. (2003). A construção da diferença sexual na medicina. *Cadernos de Saúde Pública*, 19(Suppl. 2), S201-S212.
- Rohden, F. (2009). *Uma ciência da diferença: sexo e gênero na medicina da mulher* (2. ed.). Fiocruz.
- Santos, J. A. (2010). *Desigualdade social e o conceito de gênero*. Editora UFJF.

Santos, H. M. (2013). A importância de discutir gênero na psicologia. In D. S. V. Andrade & H. M. Santos (Orgs.), *Gênero na psicologia: articulações e discussões* (pp. 19-33). Salvador: CRP-03

Scott, J. W. (1989). Gênero: uma categoria útil para análise histórica (C. R. Dabat, & M. B. Ávila, Trad, Texto original: *Gender: a useful category of historical analyses. Gender and the politics of history*). Columbia University Press.

Scott, J. W. (2010). Gender: still a useful category of analysis? *Diogenes*, 57(1), 7-14.

Souza, L. C., & Dinis, N. F. (2010). Discursos sobre homossexualidade e gênero na formação docente em biologia. *Pro-Posições*, 21(3), 119-134.

Vigoya, M. V. (2016). Sex/Gender. In L. Dish, & M. Hawkesworth, *The Oxford Handbook of Feminist Theory* (pp. 852-873). Oxford University Press.

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