

The approach to intersexuality in the teaching of embryology in a nursing course

ARTICLE

Viviane Patrícia Pereira Félixⁱ 

Universidade Federal de Alagoas, Maceió, Brasil

Ivanderison Pereira da Silvaⁱⁱ 

Universidade Federal de Alagoas, Maceió, Brasil

Abstract

This article deals with an attempt to re-signify the Biology, Histology and Embryology (BHE) curriculum in the first year of the bachelor's degree in Nursing at a public university in Maceió-AL. Traditional Biology/Embryology teaching commonly discusses the intersexual experience as an abnormality. Given this context, we were faced with the following problem: how can we talk about intersexuality in a non-pathological way and within the traditional themes of the Biology, Histology and Embryology curriculum? Based on this inquiry, we set as our main objective: to reflect on the potentialities of discussing intersexuality through a non-pathological perspective in a nursing course. This is an action Research Project, whose content analysis made it possible to verify that both the approach and the clinic of intersexuality in the health area are not integral, inclusive or guaranteeing of human rights.

Keywords: Intersexuality. Hook Hypothesis. Embryology.

A abordagem da intersexualidade no ensino de embriologia em um curso de enfermagem

Resumo

O presente artigo trata de uma tentativa de ressignificar o currículo de Biologia, Histologia e Embriologia (BHE) no primeiro ano do curso de bacharelado em Enfermagem de uma universidade pública de Maceió-AL. O ensino tradicional de Biologia/Embriologia comumente discute a experiência intersexual como anormalidade. Diante desse contexto, deparamo-nos com a seguinte questão-problema: como falar de intersexualidade de modo não patológico e dentro de temas tradicionais do currículo da disciplina Biologia, Histologia e Embriologia? A partir dessa indagação, traçamos como objetivo maior refletir sobre as potencialidades de discutir intersexualidade por um viés não patológico em um curso de Enfermagem. Trata-se de uma pesquisa-ação, cuja análise de conteúdo realizada possibilitou constatar que tanto a abordagem como a clínica da intersexualidade na área da Saúde não são integrais, inclusivas e nem assecuratórias dos direitos humanos.

Palavras-chave: Intersexualidade. Hipótese do Gancho. Embriologia.

1 Introduction

2

The traditional curriculum of the subject of Biology, as well as its branches, often denies the inconstancy of the body, sexual diversity, and gender identities, since, within a positivist epistemology, it represents the “[...] truth of science, which is marked by the rigidity of the innateness of the genetic apparatus, anatomical constitution, hormonal physiology, immutable biological bodies, genetically differentiated, and the binary and mimetic opposition between sex and gender” (Santos, 2018, p. 207)

However, this “truth,” which appears natural and absolute, corresponds to an invention, given that it emerges from a discursive process; that is, “[...] certain forms of knowledge—invented by a hegemonic social group—naturally become incorporated into a curriculum and, because of this, come to be seen as universal knowledge” (Veiga-Neto, 2004, p. 49).

Therefore, it can be argued that the teaching of Biology and, consequently, its branches, does not correspond to disinterested knowledge, since, as Foucault (1987) explains, as disciplines they produce individuals, being specific techniques of a modest power (disciplinary power¹, biopower²), that, according to Louro (1997), controls the bodies of subjects in a more collective manner.

In this invention, according to Deleuze and Guattari (2012), the human body is defined by the form that determines it, the organs it possesses, or the functions it performs. In other words, it is generally understood as a set of cells that organize and form tissues that structure the organs, which in turn harmonize to give rise to systems. In textbooks, it is usually presented hairless, in a golden ratio proportion, white, thin, and completely healthy (Santos; Silva, 2019).

¹ It is a power that is simultaneously coercive and productive, negative and positive. It shapes docile subjects and bodies, induces behaviors, and regulates conduct. At the same time, it “increases the economic utility” and “reduces the political force” of individuals (Machado, 1993, p. XVI).

² It is “a power that takes individuals as objects and instruments of its exercise” (Foucault, 1987, p. 153). Far from being triumphant, it is modest and suspicious, yet permanent. It manifests in everyday procedures, distinct from the rituals of sovereignty and the large apparatuses of the state.

Sexuality, when it appears in these educational resources, is limited to reproduction and serves to reiterate heterosexuality as its only form of expression, a stance that disrespects and neglects students who do not belong to this normativity (Souza; Santos, 2013).

Gender, when it is not suppressed in textbooks, concerns the set of attitudes and roles expected from someone based on their biological sex (Maronn; Rigo, 2022). Alternatively, gender is perceived “[...] as a property of the gene, inscribed in the chromosomes and reduced to molecular processes, biochemical mechanisms, and even the physicochemical property of an amino acid” (Santos, 2018, p. 207 – 208).

According to Santos and Silva (2019), such concepts of body, gender, and sexuality are distant from lived experience, yet closely aligned with hormonal, reproductive, and systemic configurations, corresponding to the biological primacy: “[...] an inert process that certainly inscribes us within an order of reasons and judgments of our variations, imprisoning us, mutilating us, mortifying life, and locking us in a pathological cage” (Santos, 2018, p. 23).

A direct example of this is intersexuality. Traditional Biology teaching commonly omits discussion of the intersex experience as a healthy and dignified possibility for human life. When the topic arises, the discussion generally ends up reducing non-binary diversity to abnormality, that is, attributing a pathological bias and disorders to abject bodies.

Given this reality, it becomes necessary to break with this logic; otherwise, we will continue, as Santos and Silva (2019, p. 18) aptly put it, endorsing a Biology education “[...] that contributes to the silence of multiplicities in the school environment, consolidating a curriculum that is insensitive and unresponsive to other experiences that (re)exist regarding body, gender, and sexuality”.

In light of the above, we are faced with the following research question: how can intersexuality be addressed in a non-pathological manner within the traditional topics of the BHE (Biology, Histology, and Embryology) curriculum?

From this inquiry, we established the general objective: to reflect on the potential of discussing intersexuality from a non-pathological perspective in a Nursing course. The

specific objectives are: to understand that it is possible to address in the classroom topics silenced by the official curriculum, such as intersexuality; and to analyze the potentialities and limitations of discussing intersexuality in gametogenesis classes.

It can be said that the present study corresponds to qualitative research of the action-research type. It is qualitative because “[...] it involves attention to the interpretive nature of the investigation” (Creswell, 2014, p. 51). It is action-research because it proposes an action aimed at transforming the realities under investigation (Tanajura; Bezerra, 2015). The analysis of the data obtained was based on the assumptions of Bardin’s Content Analysis (2016).

Finally, it is worth mentioning that this research is organized into five additional sections. In the following section, the existing approaches to intersexuality are presented. Subsequently, the strategy used to address a topic silenced by the official curriculum is described. Next, the methodology developed to discuss intersexuality within the traditional topics of the BHE curriculum is outlined. This is followed by the presentation of the results and discussions regarding the proposed class implemented in the Nursing course. Finally, the findings of the research are shared.

2 Approaches to intersexuality in the educational context

According to Bastos (2019), intersexuality is a topic that is rarely addressed in Biology textbooks, and it can be observed that this silence extends to Embryology textbooks as well, including those at the higher education level. However, it can be a topic of great interest in the teaching of Biology and, especially, Embryology, as it is anchored in discussions about the body.

According to Biomedicine (Bastos, 2019), intersexuality corresponds to a pathological condition, as it results from unexpected interactions between genetic and hormonal factors related to sex during the prenatal phase. As a result, it presents various body configurations that are socioculturally identified as abnormal, as they are carriers of

Sexual Differentiation Anomaly (SDA) or Disorders of Sexual Development (DSD) (see Box 1).

Box 1 – Main medical conditions or pathologizing labels related to intersex people

5

Name of Anomaly or Pathologizing Label	Causes or Origin of Stigma	Basic Clinical Features or Pathologizing Descriptions
Congenital Adrenal Hyperplasia	Genetically inherited, which implies the malfunction of one or more of six enzymes involved in the production of steroid hormones.	In children, it can cause masculinization of the genitalia or alterations visible at birth; if untreated, it can lead to masculinization until puberty or early adolescence.
Androgen Insensitivity Syndrome (also known as Morris Syndrome when complete)	Genetically inherited, which modifies the cell's receptor surface in relation to testosterone.	XY children are born with highly feminized genitalia. The body is “blind” to the presence of testosterone; the cells do not use testosterone, which prevents the development of male characteristics. Until adolescence, these children develop breasts and feminine body shapes.
Gonadal Dysgenesis	Various causes, not all genetic.	Refers to individuals (generally XY) whose gonads do not develop properly. Basic clinical features are heterogeneous.
Hypospadias	Various causes, including alterations in testosterone metabolism.	The urethra does not end at the tip of the penis. In mild forms, the opening is “shy” at the tip; in moderate forms, it extends along the shaft; in severe forms, it opens at the base of the penis.
Turner Syndrome	Women lacking an X chromosome.	A form of gonadal dysgenesis in women. The ovaries do not develop; these women have short stature, estrogen deficiency, and growth hormone deficiency.
Klinefelter Syndrome	Men with an extra chromosome.	A form of dysgenesis causing infertility. After puberty, the chest and shoulders often broaden; treatment includes testosterone therapy.

Source: Adapted from Bastos (2019, p. 43).

From the perspective of a Cordial Biology, so understood because it is based on the concept of the Ethics of Cordial Reason³, proposed by the philosopher Adela Cortina,

³ It is an authentic form of communication, involving shared understanding and feelings, and articulating cognitive structure and values. It develops argumentative technique without losing alignment with life

intersexuality is a healthy and dignified possibility of human life (Bastos, 2019), in which one is born with ambiguous sexual characteristics (genitalia, gonads, and chromosomal patterns).

From this perspective, the intersex person (in Portuguese, “intersexo”), whose prevalence in society is shown in Table 1, is perceived not as abnormal, but as someone who does not fit into the binary notions of male and female bodies. Furthermore, “[...] they can be heterosexual, gay, lesbian, bisexual, or asexual, and may identify as a woman, a man, both, or neither” (Nações..., 2019, p. 1), since the intersex condition does not influence sexual orientation or gender identity.

Table 1 – Frequency of Cases Related to Intersexuality

Cause	Frequency (%)
Not XX or Not XY	0.0639
Turner Syndrome	0.0369
Klinefelter Syndrome	0.0922
Androgen Insensitivity Syndrome	0.0076
Partial Androgen Insensitivity Syndrome	0.00076
Classical Congenital Adrenal Hyperplasia	0.00779
Late-Onset Congenital Adrenal Hyperplasia	1.5
Vaginal Agenesis	0.0169
True Hermaphroditism	0.0012
Idiopathic (unknown cause)	0.0009
Total	1.728

Source: Bastos (2019, p. 47)

This table helps to demystify the existence of non-binary bodies, especially in education that reinforces the existence of only men and women. According to this table, it can be said that approximately 0.00076 to 1.5% of the world population is intersex.

narratives and testimonies. It is based on principles such as responsibility toward the defenseless, non-manipulation, and empowering those affected as valid interlocutors (Teixeira; Oliveira; Queiroz, 2019).

However, the United Nations (UN) updates these data, stating that approximately 0.5 to 1.7% of the global population is intersex, with more than 40 variations of this condition (Ozório; Pimentel, 2022).

The following section will outline the strategy used to address topics silenced by the official curriculum.

7

3 The hypothesis of the curricular hook in teaching topics silenced by the curriculum

As previously mentioned, Biology and its branches often deny the inconstancy of the body, sexual diversity, and gender identities (Santos, 2018). However, according to Bastos (2019), teachers can subvert this logic in the classroom through the Hypothesis of the Curricular Hook.

According to this hypothesis, knowledge can be anchored to other knowledge; knowledge devalued by the official curriculum can emerge linked or associated with authorized knowledge (Bastos, 2019).

For most teachers (Bastos, 2019), the teaching of sexual education topics, such as intersexuality, enters via the hook through discussions about the human body in its anatomical and physiological aspects, predominantly when addressing human reproduction. However, it requires coherent planning to avoid misunderstandings or the reinforcement of normative and exclusionary ideals.

The link between sexuality and reproduction finds support in the history of knowledge construction about sexuality. However, when associated, it can cause confusion: reproduction is presented as synonymous with sex, which is not true. First, because medicine allows other ways to perpetuate the species. Second, because sex for our species does not necessarily aim at reproduction. Associating human reproduction with sexuality can be positive by bringing the latter topic into discussion, but it can also reinforce normative and exclusionary ideals (Bastos, 2019, p. 39).

Partindo dessa ideia, desenvolveu-se uma proposta de aula que possibilitou falar de intersexualidade de modo não patologizante e dentro de temas tradicionais do currículo de Biologia/Embriologia. A proposta de aula, que será melhor apresentada na próxima

seção, versou sobre gametogênese, um tema tradicional do conteúdo de Embriologia. Ao falar sobre esse assunto, desenvolveu-se uma discussão sobre corpo, gênero e sexualidade por meio da intersexualidade, o gancho curricular.

4 Methodology

8

The didactic proposal presented in this section took place in the BHE course, specifically during the Embryology module, that is, between November and December 2023, in the first year of the Nursing bachelor's program at a public university in Maceió, AL. The class consisted of 41 students.

To address intersexuality during the gametogenesis content, the lesson was structured in two stages: the first in the classroom, organized into three moments between November 21 and 28, and the second outside the classroom, scheduled for December 22.

The following subsections describe how intersexuality was discussed in the gametogenesis lessons.

4.1 Breaking the silence (1st classroom moment)

While discussing gametogenesis, the topic of sexual differentiation was introduced, emphasizing the role of genes and chromosomes in sex determination, as well as the embryology of sexual organ development, as outlined in the official curriculum.

During the prenatal phase, while the child is developing in the mother's womb, the gonocytes (primordial germ cells) migrate from the posterior wall of the yolk sac to the genital ridge or gonadal ridge (Moore; Persaud; Tochia, 2012). This ridge remains undifferentiated until the ninth week of development. From that point onward, as embryology textbooks explain (Moore; Persaud; Tochia, 2012), sexual differentiation driven by chromosomal sex and gene expression leads to the formation of either testes or ovaries.

Thus, if the individual is XY, the gonocytes differentiate into spermatogonia and the gonad into a testis; if XX, the gonocytes differentiate into oogonia and the gonad into an ovary.

However, since the objective at this stage was to break the silence and discuss intersexuality, it was addressed that, in some cases, the gonadal ridge does not differentiate as expected, resulting in diverse body configurations, corresponding to what is understood as intersex.

4.2 Biomedical approach vs. Cordial approach (2nd classroom moment)

When introducing the topic of intersexuality, we initially discussed biomedical concepts and subsequently presented the proposal of a Cordial Biology, so that students could perceive the differences in treatment within the educational context. From the biomedical perspective, intersexuality is understood as a pathological condition in which the intersex person exhibits diverse body configurations considered abnormal; Box 1 was presented as an example.

From the perspective of Cordial Biology, intersexuality is conceived as a healthy and dignified possibility of human life (Bastos, 2019), in which birth occurs with ambiguous sexual characteristics that do not fit into the binary notions of male and female bodies.

4.3 Working with the idea of contexts (3rd classroom moment)

To draw Nursing students' attention to the risks of maintaining a Biology/Embryology education focused solely on describing what exists or what is lacking in humans, the case of Adélaïde Herculine Barbin was presented for classroom discussion.

Barbin was born in France in the 19th century with both male and female genitalia and was therefore classified as a hermaphrodite⁴. Due to the underdevelopment of the

⁴ This refers to a reproductive strategy of monoecious living beings, which simultaneously produce sperm and eggs, unlike humans, who are dioecious. The term "hermaphrodite," of Greek origin, was widely used in

penis, experts decided she should be treated as a girl, and she was sent to a convent. Over time, she developed masculine characteristics and formed affectionate and romantic relationships with nuns, who reciprocated this affection. In adulthood, due to her physical traits, experts reclassified her as male. Facing the psychological suffering caused by reassignment and imposed identity division, Barbin eventually committed suicide (Foucault, 2012).

This discussion highlights the harms and traumas caused by the Biology of Characterization (or Linnaean model), subsequent sexual reassignment⁵ and the imposition of an identity disconnected from subjective recognition.

4.4 Outside the classroom (extraclass moment)

To allow students to deepen the knowledge discussed in class, particularly in their area of practice, and to enable us to analyze the potentialities and limitations of the pedagogical proposal implemented in class, we requested via Google Classroom an individual assignment: a critical review of the article *Clinics of Intersexuality and Its Challenges for Health Professionals* (Santos; Araujo, 2003), to be submitted to the BHE professor's email on December 22.

In the following section, we discuss the objectives achieved by addressing intersexuality in the gametogenesis lessons.

5 Results and Discussion

In the first classroom moment, attention was drawn to the fact that students had already encountered situations of intersexuality in basic education, during Genetics

biomedicine between the 19th and 20th centuries, becoming a stigma. More recently, medicine has adopted the acronym DSD (Disorder of Sexual Differentiation/Development) (Bastos, 2019).

⁵ Therapeutic conduct that prescribes hormonal therapy and surgery, aimed at adjusting the appearance and functionality of the genitalia (Santos; Araújo, 2004).

content. However, instead of openly discussing intersexuality and highlighting its most common types in society, the authors opted for silence and focused on the most common chromosomal alterations, preventing a cordial discussion about the intersex person.

In the second classroom moment, by presenting the existing perspectives on intersexuality in the educational context, we aimed to show that the biomedical approach is pathologizing and both hardens and stratifies bodies, genders, and sexuality, turning them into a foundation and identity prison (Santos; Silva, 2019).

The cordial approach, in turn, contributes to a more just and equal society, recognizing different cultures, diverse identities, and various possibilities for experiencing life (Bastos; Andrade, 2016).

In the third classroom moment, through the case of Barbin, we sought to help students perceive that gender and sexuality identities are always socially constructed and shaped by powerful institutions such as family, school, church, and legal and medical institutions.

As Butler (2016, p. 242) explains, gender “[...] is an identity tenuously constituted over time, instituted in an external space through a stylized repetition of acts [...] gestures, movements, and bodily styles of various kinds.” Sexuality, according to Foucault (1987), is a social invention, since its identity is forged from multiple discourses about sex that tend to regulate, normalize, establish knowledge, and produce truths.

In other words, we sought to demonstrate that the human body, in practice, is not binary; that is, it is not reducible to merely male and female forms. It is plural, especially in expressions of sexuality and gender. Thus, classifying it as abnormal is not only limiting — by preventing the recognition of other biologies, anatomies, physiologies, and genetics — but also inhumane (Santos; Silva, 2019).

During the extraclass moment, through the analysis of the critical reviews using content analysis techniques⁶, it was observed from the excerpts presented that both the

⁶ It consists of a set of techniques for analyzing communications, which can be organized into three chronological stages: pre-analysis, material exploration, and processing of results, inference, and interpretation (Bardin, 2016).

approach and the clinical practice of intersexuality in the Health field are not fully integral, inclusive, or protective of fundamental human rights:

[...] the Neutrality Theory proves to be obsolete, as it neglects crucial factors such as social, cultural, and environmental influences, which play fundamental roles in shaping an individual's gender identity (Student 8, critical review, December 2023).

In short, professional practice for procedures with individuals with ambiguous genitalia requires action from diagnosis and treatment to ongoing follow-up throughout the child's development, especially psychosocially (Student 22, critical review, December 2023).

Initially, it is necessary to discuss the violation of these individuals' human rights immediately after birth, as they are subjected to invasive, non-consensual surgeries to fit societal standards. Furthermore, it became evident that open dialogue and public education are necessary. It is essential to educate health professionals, communities, and society at large about intersexuality, challenging stereotypes and prejudices (Student 29, critical review, December 2023).

The lack of standardized protocols and limited understanding of the psychosocial impact of these conditions can result in inadequate interventions. Therefore, it is crucial for health professionals to seek a holistic understanding, considering not only medical aspects but also individual experiences and human rights, to provide effective and ethical care (Student 33, critical review, December 2023).

According to Santos and Araujo (2003), understanding intersexuality as a possibility of existence rather than as a disease/abnormality allows for the individual's full adaptation and social integration, as well as guiding necessary changes in professional health practice.

However, intersexuality still presents biomedical, legal, and educational challenges. It is a biomedical challenge because the only resolution from the Federal Council of Medicine (CFM) that recognizes non-binary corporeality dates back to 2003. Resolution CFM 1664/2003 still classifies intersexuality as an anomaly, stating that “the birth of children with undetermined sex is a biological and social urgency.”

This document mandates that physicians perform examinations (hormonal assays, cytogenetics, imaging, and anatomopathology) to reach “an appropriate definition of gender and timely treatment,” which includes surgeries, so as not to generate “drama” for

the family and “serious disorders” for the patient. This supports Psychosexual Neutrality at Birth Theory⁷, which disregards human autonomy and dignity.

However, according to Ozório and Pimentel (2022), performing surgeries solely for the purpose of aesthetic and binary normalization should not be carried out in children, as recommended by the **Interactionist Trend Theory after Birth**⁸, which states that such interventions should be postponed until adulthood and/or when the variation poses a risk to health or life, as advocated by the Brazilian Association of Intersex People (Abrai) and the UN.

Regarding legislation, it is clear that significant progress is needed to meet the needs of a diverse and plural society such as ours. Only from December 12, 2021, through Provision 122/2021, did the National Council of Justice (CNJ) begin to allow children to be registered with an “ignored sex” status. Until that date, the Live Birth Declaration (DNV) required parents to declare at birth whether the baby was female or male (Ozório; Pimentel, 2022).

Although it represents the first national policy to address civil registration outside the binary norm, including intersex individuals, it still marginalizes this existence by classifying the child as “sex ignored.” This is concerning because, according to Ozório and Pimentel (2022), it does not align with the Brazilian public policy system; for example, social security in Brazil only grants retirement benefits to individuals registered as female or male.

Therefore, it becomes evident that the Civil Code needs to be amended to separate existential issues from patrimonial ones, ensuring that intersex children have autonomy over existential rights, such as identity, body, name, and image, which are rights tied to the personality of the individual.

⁷ The theory of John Money, J. G. Hampson, and J. L. Hampson is based on two postulates: individuals are born psychosexually neutral, and healthy development depends on genital appearance. Thus, gender would be defined primarily by the social environment, with lesser influence from biological and prenatal factors (Santos; Araujo, 2003).

⁸ Milton Diamond’s theory argues that sexuality results from the interaction between innate predispositions and environmental influences. Individuals are not neutral at birth but are predisposed to interact in a masculine or feminine way (Santos; Araujo, 2003).

Finally, regarding education, it is necessary to discuss intersexuality in educational institutions, but in an appropriate, non-pathologizing manner within the curriculum. To break stereotypes and prejudices and to effectively include intersex individuals in society, they must be presented as possible bodies, allowing young people to recognize them and share this understanding with friends, family, and other institutions, thereby ensuring that the existence of intersex persons is respected and valued.

6 Final considerations

The attempt to discuss intersexuality from a non-pathologizing perspective in a Nursing course enabled the BHE professor to gain a deeper understanding of the topic and the Cordial Biology perspective, as well as to discover new strategies, such as the Hook Hypothesis, to address necessary topics that are inadequately presented in the curriculum.

This knowledge allowed the educator to reorient her practice. Instead of addressing the course content under the primacy of biological determinism, focusing only on what exists or is lacking in humans, she seeks to engage with essential aspects of human dignity, aiming to deconstruct stereotypes and prejudices and to promote respect for and recognition of the existence of intersex individuals.

Regarding the students, it can be affirmed that they perceived how the Biology of Characterization can imprison, mutilate, and even end human life, as well as recognize that certain approaches and some practices still present in the clinical care of intersex individuals violate their fundamental personality rights.

Finally, the limiting factors of the lesson proposal were time constraints and the marginalization of these topics in the official curriculum. It is necessary to continuously address diversity, sexual identity, and gender identity in the training of Nursing students to ensure safe and non-discriminatory spaces in society, and, most importantly, to guarantee that the personality rights of intersex individuals are respected.

References

BARDIN, Laurence. **Análise de conteúdo**. São Paulo: Edições 70, 2016.

BASTOS, Felipe. “Eu fico meio sem saber como eu vou falar isso assim, do nada”: currículo, diversidade sexual e ensino de biologia. *In*: Teixeira, Pedro Pinheiro; Oliveira, Roberto Dalmo Varallo Lima de; Queiroz, Glória Regina Pessoa Campello (Organizadores). **Conteúdos cordiais**: biologia humanizada para uma escola sem mordação. 1. ed. – São Paulo: Editora Livraria da Física, 2019.

BASTOS, Felipe; ANDRADE, Marcelo. Cabe discutir gênero e diversidade sexual no ensino de biologia? *In*: LIMA-TAVARES, D.; VILELA, M.; AYRES, A.; MATOS, M. (Org.). **Tecendo laços docentes entre ciência e culturas**. Curitiba: Prismas, 2016a, p. 159-183.

BUTLER, Judith. **Problemas de gênero**: feminismo e subversão da identidade; tradução Renato Aguiar. 10ª edição. Rio de Janeiro: Civilização Brasileira, 2016. 267p.

BRASIL. **Resolução do Conselho Federal de Medicina nº 1.664/2003**. Dispõe sobre as normas técnicas necessárias para o tratamento de pacientes portadoras de anomalias de diferenciação sexual. Disponível em: https://sistemas.cfm.org.br/normas/arquivos/resolucoes/BR/2003/1664_2003.pdf Acesso em: 25 fev. 2025.

BRASIL. **Provimento Conselho Nacional de Justiça nº 122/2021**. Dispõe sobre o assento de nascimento no Registro Civil das Pessoas Naturais nos casos em que o campo sexo da Declaração de Nascido Vivo (DNV) ou na Declaração de Óbito (DO) fetal tenha sido preenchido “ignorado”. Disponível em: <https://atos.cnj.jus.br/files/original1928372021082061200265ce7e7.pdf> Acesso em: 25 fev. 2025.

CRESWELL, John W. **Investigação qualitativa e projeto de pesquisa**: escolhendo entre cinco abordagens. Porto Alegre, RS: Penso, 2014.

DELEUZE, Gilles; GUATTARI, Félix. **Mil Platôs**, v. 3. Tradução de Aurélio Guerra Neto, Ana Lúcia de Oliveira, Lúcia Cláudia Leão e Suely Rolnik. São Paulo: Editora 34, 2012.

FOUCAULT, Michel. **Vigiar e punir**. 7a ed. Petrópolis: Vozes, 1987.

FOUCAULT, Michel. **Ditos e escritos**: ética, sexualidade, política. Vol. V. 3 ed. Trad. Elisa Monteiro, Inês Autran Dourado Barbosa. Rio de Janeiro: Forense Universitária, 2012.

LOURO, Guacira Lopes. **Gênero, sexualidade e educação**. Uma perspectiva pós-estruturalista. Petrópolis: Vozes, 1997.

MACHADO, Roberto. Por uma genealogia do poder. Introdução. In: Foucault, M. **Microfísica do poder**. 11a ed. Rio de Janeiro: Graal, 1993.

MARONN, Tainá Griep; RIGO, Neusete Machado. O corpo humano nos livros didáticos de ciências: uma análise discursiva. **RIEcm**. UFT, Araguaína, vol. 02, n. 02, p. 274–293, 2022. Disponível em: <https://sistemas.uft.edu.br/periodicos/index.php/RIEcm/article/view/14716/20829>. Acesso em: 20 mai. 2024.

MOORE, Keith L.; PERSAUD, T.V.N.; TORCHIA, Mark G. **Embriologia básica**. Tradução Karina Penedo Carvalho et al. Rio de Janeiro: Elsevier, 2012.

NAÇÕES UNIDAS BRASIL. **ONU e ativistas brasileiras lembram importância da visibilidade intersexo**. [2019]. Disponível em: <https://brasil.un.org/pt-br/84469-onu-e-ativistas-brasileiras-lembram-import%C3%A2ncia-da-visibilidade-intersexo>. Acesso em: 30 abr. 2024.

OZÓRIO, Júlia.; PIMENTEL, Felipe. Intersexualidade: da tentativa da normatização à invisibilidade. **Humanista**, Porto Alegre, 19 de julho de 2022. <https://www.ufrgs.br/humanista/2022/07/19/intersexualidade-da-tentativa-da-normatizacao-a-invisibilidade/> Acesso em: 25 fev. 2025.

SANTOS, Moara de Medeiros Rocha; ARAUJO, Tereza Cristina Cavalcanti Ferreira de. Intersexo: o desafio da construção da identidade de gênero. **Revista da Sociedade Brasileira de Psiquiatria**. Belo Horizonte, v. 7, n. 1, pp. 17 – 28, 2004. Disponível em: <https://revistasbph.emnuvens.com.br/revista/article/view/3> Acesso em: 30 de abr. 2024.

SANTOS, Jamille Bernardes da Silveira Oliveira dos; CARDIN, Valéria da Silva Galdino. Da intersexualidade e da abordagem médica atual à luz dos direitos da personalidade. **Revista Direito e Sexualidade**, Salvador, v. 2, n. 1, p. 66-90, jan./jun. 2021. Disponível em: Acesso em: 25 fev. 2025.

SANTOS, Sandro Prado. **Experiências de pessoas trans - ensino de Biologia**. Tese (Doutorado em Educação) – Universidade Federal de Uberlândia, Programa de Pós-graduação em Educação, Uberlândia, 2018.

SANTOS, Sandro Prado; SILVA, Elenita Pinheiro de Queiroz. Experiências de pessoas trans: Corpo, gênero, sexualidade e o Ensino de biologia. *In*: Teixeira, Pedro Pinheiro; Oliveira, Roberto Dalmo Varallo Lima de; Queiroz, Glória Regina Pessoa Campello

(Organizadores). **Conteúdos cordiais:** biologia humanizada para uma escola sem mordação. 1. ed. – São Paulo: Editora Livraria da Física, 2019.

SANTOS, Moara de Medeiros Rocha; ARAUJO, Tereza Cristina Cavalcanti Ferreira de. A clínica da intersexualidade e seus desafios para os profissionais de saúde.

Psicologia: Ciência e Profissão, Brasília, v. 23, n. 3, p. 26-33, set. 2003. DOI:

<https://doi.org/10.1590/S1414-98932003000300005>

SOUZA, Marcos Lopes de; SANTOS, Beatriz Rodrigues Lino dos. As discussões sobre gênero e diversidade sexual em livros didáticos de Ciências do Ensino Fundamental II. In: CONGRESSO INTERNACIONAL SOBRE INVESTIGACIÓN EN DIDÁCTICA DE LAS CIENCIAS, 9., 2013, Girona. **Anais** [...]. Girona, Setembro de 2013. p. 1949-1953.

TANAJURA, Laudelino Luiz Castro; BEZERRA, Ada Augusta Celestino. Pesquisa-ação sob a ótica de René Barbier e Michel Thiollent: aproximações e especificidades metodológicas. Revista Eletrônica **Pesquisaeduca**. Santos, SP, vol. 07, n. 13, p. 10-23, jan./jun., 2015. Disponível em:

<https://periodicos.unisantos.br/pesquiseduca/article/view/408>

Acesso em: 30 abr 2024.

TEIXEIRA, Pedro Pinheiro; OLIVEIRA, Roberto Dalmo Varallo Lima de; QUEIROZ, Glória Regina Pessoa Campello (Organizadores). **Conteúdos cordiais:** biologia humanizada para uma escola sem mordação. 1. ed. – São Paulo: Editora Livraria da Física, 2019.

VEIGA-NETO, Alfredo. Michel Foucault e os Estudos Culturais. In: COSTA, Marisa Vorraber (Org.); VEIGA-NETO, Alfredo *et al.* **Estudos culturais em educação:** mídia, arquitetura, brinquedo, biologia, literatura, cinema... 2.ed. - Porto Alegre; Editora da UFRGS, 2004.

ⁱ Viviane Patrícia Pereira Félix, ORCID: <https://orcid.org/0000-0002-0118-373X>

Doutoranda em Ensino pela Rede Nordeste de Ensino (RENOEN/UFAL). Bolsista pela Fundação de Amparo à Pesquisa do Estado de Alagoas. Professora-assistente de Biologia, Histologia e Embriologia da Universidade Estadual de Ciências da Saúde de Alagoas.

Author contribution: Pesquisa. Escrita.

Lattes: <http://lattes.cnpq.br/1676948925860917>

E-mail: viviane.felix@uncisal.com.br

ⁱⁱ Ivanderson Pereira da Silva, ORCID: <https://orcid.org/0000-0001-9565-8785>

Doutor em Educação pela Universidade Federal de Alagoas. Pós-Doutor em Sociologia da Educação pela Universidade Federal de Sergipe. Professor-adjunto da UFAL campus Arapiraca.

Author contribution: Escrita. Revisão.
Lattes: <http://lattes.cnpq.br/3106780553307514>
E-mail: ivanderson.silva@arapiraca.ufal.br

Responsible publisher: Genifer Andrade

18

Ad hoc specialist: Jéssica Louise Benelli and Adelcio Machado dos Santos.

How to cite this article (ABNT):

FÉLIX, Viviane Patrícia Pereira; SILVA, Ivanderson Pereira da. A abordagem da intersexualidade no ensino de embriologia em um curso de enfermagem. **Rev. Pemo**, Fortaleza, v. 7, e15344, 2025. Available in: <https://revistas.uece.br/index.php/revpemo/article/view/15344>

Received on March 31, 2025.

Accepted on May 9, 2025.

Published on October 1, 2025.