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Shifting Language for Shifting Anatomy: Using Inclusive Anatomical Language to Support Transgender and Non-Binary Identities

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Running Title

Shifting Language for Shifting Anatomy

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Abstract

While navigating a medical or surgical gender transition, transgender and non-binary people encounter anatomical language and concepts through their own informal research on the topics and directly through healthcare providers. Use of appropriate and inclusive language is important for affirming identities and can be fostered at any point during professional training through modelling of inclusive language and in the formal curriculum, including during anatomical education. In this article we discuss anatomical language and how it intersects with gender identity, first from the perspective of a transgender patient, then from the perspective of an anatomy educator. The patient shared how she benefited from informative resources, non-gendered language, language tailored to her level of understanding, and providers not making generalizations about her based on her anatomy or sex assigned

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at birth. The educator shared her experience developing a primer on sex and gender that moved beyond a prescriptive binary and exposed students to language and concepts inclusive of diverse sexual and gender identities.

Recommendations were made related to how to implement these lessons and better explore how transgender and non-binary individuals experience anatomical language and the potential impact of language that is inclusive of gender-diverse persons in anatomical education as part of health professions programs. While sound medicine, procedure, science, and experienced professional skill were necessary, an essential positive aspect of the medical and gender transitions discussed was an intentionality around language by providers – including anatomical language.

Keywords: *transgender, non-binary, anatomical language, anatomy education, gender affirming surgery*

Introduction

Working definitions of *transgender* and *non-binary* abound and can vary based on the personal experiences of individuals. Both are grounded in the concept of gender identity, or an internal sense of being male, female, both, neither, or something else altogether (Simmons & White 2014; Matsuno & Budge 2017). Simmons & White's definition of gender identity leads to defining *transgender* as a person whose gender identity is not congruent with the sex they were assigned at birth. Therefore, a transgender man is a man who was assigned female at birth, while a transgender woman is a woman who was assigned male at birth. Also, we refer to someone whose gender identity does align with the sex they were assigned at birth as *cisgender*. One's gender identity does not depend upon bringing one's body or gender expression into alignment with societal norms for what constitutes a man or a woman. When individuals choose to do so, this process of bringing aspects of a transgender person's body, behaviors, legal status, etc. is called a *transition* (Simmons & White 2014).

One experience of gender identity experienced by a portion of population and falls outside of the binary of *man* or *woman* is that of being *non-binary*. Matsuno & Budge (2017) classify non-binary identities into three categories: "(a) an individual whose gender identity falls between or outside male and female identities, (b) an individual who can experience being a man or woman at separate times, or (c) an individual who does not experience having a gender identity or rejects having a gender identity (p. 116-117)." While sometimes transgender has been used as an umbrella term for all gender identities where a person's sex assigned at birth is not congruent with their gender identity, the experiences of those with non-binary gender identities are different from transgender individuals whose identities align more with cultural definitions of being a man or a woman.

Building off of the above conceptualization of non-binary gender, and while neither of the authors represent a non-binary gender identity, we include non-binary identities in this discussion knowing that at times the experiences of those with non-binary gender identities may intersect with those with transgender identities that tend to align more with cultural definitions mentioned above. At the same

time, we emphasize that while we use the phrase "transgender and non-binary" in this discussion, they are not the same thing and we refer to the reader to our previous discussion of definitions. While there is some overlap in the experiences of transgender individuals with the experiences of those with non-binary gender identities, especially around mental health care, there are differences in medical care related to these different types of gender identities that are important to note (Koehler et al. 2018). Notably, a much smaller percentage of non-binary individuals seek and receive gender-affirming treatment compared to transgender persons (James et al. 2016). At the same time, we avoid referring to those with a transgender identity that may align with an identity in the traditional gender binary as "binary" transgender experiences even though some transgender persons identify with a gender binary and literature we cite uses this terminology. We do this to avoid making assumptions about the individual experiences of this group (assuming their gender expression aligns with their cisgender counterparts) because we recognize the role of the individual to determine the term that best fits their gender identity (Thorne et al 2019). Just as in the sections below we ask readers to avoid making generalizations related to sex and gender, we also include both transgender and non-binary experiences knowing that while they are different experiences of gender identity, they are not mutually exclusive and some of the experiences described or discussed below could apply to individuals in either general category.

This article is structured as an academic dialogue from two different perspectives. One of these perspectives is that of a transgender woman, educational researcher, and mid-level administrator in the biomedical sciences, sharing her experiences as a patient navigating anatomical language throughout her medical and surgical transitions. The other is that of an anatomy educator and scholar presenting both her experience teaching the topics of sex, gender, and gender identity in a medical education context. Here she provides a foundation for understanding the experiences of the first voice in science and the literature around teaching about sex, gender, and gender identity in the context of health sciences education. Four goals drive this narrative: 1) We will provide a brief background into the intersection between anatomical language and experiences as a transgender patient prior to beginning surgical gender affirmation; 2) We

will detail the conversations involving anatomical language before, during, and after medical and surgical interventions in support of transgender and non-binary patients, including challenging or affirming uses of medical and scientific terminology; 3) we will present a framework for introducing concepts of sex, gender, and inclusive language into an anatomy program , and 4) we will provide recommendations for anatomical language that is accurate and precise while being able to be adapted by the future and current providers taught by anatomy educators that at a minimum does not harm, and ideally fully affirms transgender and non-binary identities. A limitation of this paper is that only one voice of a transgender person is being shared, and there are no transmasculine or non-binary patient voices represented, nor are transgender or non-binary black, indigenous, or people of color (BIPOC) voices present either. Further, there is not one standardized or accepted way of introducing concepts of gender and sex in the context of health professions education and this perspective is from a single anatomy educator.

A Patient's Perspective – A Transgender Woman's Encounter with Anatomical Language

Background and Medical Transition

I am a forty-five year-old, White, middle-class, highly educated, transgender woman who works with biomedical science graduate students and postdoctoral scholars at a Midwestern medical school, and was privileged to have been able to afford the surgeries I underwent and to have highly trained providers available locally who specialize in working with transgender and non-binary patients. Additionally, my work at a medical school has exposed me to anatomical and scientific language, possibly making the experience easier for me. I began my gender transition in late 2013 when I began to present publicly with a feminine gender expression in select situations, then I began presenting myself as a woman full-time in a work context beginning in May 2014, and legally changed my name and ID documents in June 2014.

My medical transition began in March 2014 when I was prescribed oral estradiol and spironolactone as hormone replacement therapy (HRT), both of which were monitored and steadily

increased over the next three and a half years, and supplemented by other medications as necessary to reduce my testosterone levels to those in an average range for a premenopausal cisgender woman. During this time, most of the specialized language I learned was related to HRT and the effects of an increasing dosage of bioidentical estradiol, including the nature of estradiol itself, and its effects on my body, and the regular presence of antiandrogens. I was fortunate to have an endocrinologist who answered my questions about how the estradiol affected my body, the work of the antiandrogens (spironolactone and finasteride), and why finding the right combination of the two was so challenging in 2015. Also, I would conduct web searches and could easily find multiple sources of information that I could use to answer most other questions that I had.

This course of HRT continued until my gender affirming surgery in August 2017, when all but the estradiol was discontinued, and my estradiol dosage was reduced by half. Beginning in January 2017, I began working with a plastic surgeon who specialized in gender affirming surgeries, with the hope of undergoing vaginoplasty and associated procedures later that year. The surgery took place in August 2017 with a positive outcome, though I had developed two hematomas – one inside each of the two labia majora – which required a follow-up surgery in August 2018. After the August 2017 surgery I worked with my surgeon and a physical therapist to monitor and develop my (neo)vagina and learn how to care for my post-surgery anatomy. As I would learn this would involve not only procedures and surgical care, but also my own informal education both about the surgical procedures themselves and about the after-effects on my own body.

The role of sources for my medical self-education

Prior to beginning HRT or any other component of my transition, I tried – almost completely on my own until January 2014 – to search for resources that would help me understand the effects HRT would have on my body and what gender affirming surgeries were like. As a non-scientist, I still searched for evidence-based and science-driven resources that were written in a way that was accessible to the non-scientist, and finding widely available resources of this type for a general, lay audience was a

challenge for me. I experienced this challenge early in my medical transition and feel as if I was able to find sound resources only due to having been trained in identifying reliable sources in graduate school. Early on, I pieced together fragments of information I found on blogs written by transgender people, television specials about gender affirming care – sometimes with a negative or sensational bias, and online reference websites. It was not until a colleague of mine recommended a book written for the general public about anatomy and physiology for people with traits associated with cisgender women that I found a resource that told me more about what my body and its structures could be like (Angier, 2000). As time passed, I read memoirs and articles written by transgender and non-binary people and used this to fill in gaps in my understanding. The process of meeting with my endocrinologist for my HRT and my surgeon for gender affirming surgery both provided me with print resources and let me ask knowledgeable professionals questions – even if my questions delved into more complex medical questions. The process of navigating my medical transition helped me to both value the resources I had and wish for additional resources accessible to those without scientific training and those with varying degrees of experience with science education and training.

Experiences with anatomical language during my surgical transition

Before and after my 2017 surgery, I found that my experience navigating my own care involved a great amount of self-education – about my body at that time, the procedures, and my body-to-be. My prior experiences provided a foundation for understanding anatomical language and concepts related to that surgery, but my primary source of learning about that surgery – its procedures and outcomes – was my surgeon, others on my care team, and resources that they provided. My experiences with anatomical language and underlying concepts during this process can be described in four categories.

First, my experience as a patient was directly shaped by learning new terms and concepts, both directly from my surgeon and from materials that my surgeon's team recommended to me. During my

first appointment, I watched a slideshow that included photos and illustrations of pre-operative anatomy, stages of the procedure, and post-operative anatomy, and heard explanations of what would be done at each stage. My surgeon adapted terminology used and explanations to my ability to understand, taught me about new terms, introduced the different tissues and structures that would be affected, and did not avoid teaching me about what would change anatomically as a result of that surgery. Additionally, my surgeon provided me with links to web-based resources that I could use to explore more about the procedures. My surgeon also suggested that I explore YouTube for digital animations of the procedure, which I did, and these animations helped me to greatly understand what happens during a penile inversion vaginoplasty with scrotal skin grafts. Finally, as I was healing post-surgery, my pelvic floor physical therapist provided manual and verbal instruction to me about how to care for and build strength in my new structures through explaining about the structure and function of the pelvic floor muscles and how they would interact with my new vagina. These opportunities to learn were, in retrospect, crucial for me to care for myself and to heal well.

Second, my experience felt more positive (affirming) when providers talked about and named tissues, organs, and structures independent of the typical sex assigned at birth in which they are found in a cisgender person. For example, my surgeon referred to vaginas, vulvas, labia, and such without ever associating them with women. My surgeon referred to them as objects unto themselves and not inherently tied to male or female anatomy. Members of my care team during this process would refer to *people with vaginas* instead of *females*, or *people with prostates* instead of males. This distinction was important for me, as a woman who has a vagina (neovagina) and still has a prostate. In follow-up appointments, when discussing long term care, we discussed why I needed to keep my prostate, how it might affect use of my vagina, and my need for continued monitoring of prostate health – all while being regarded as and treated as a woman. Members of the team that cared for me continued this practice during my inpatient stay and during follow-up visits.

Third, when using anatomical language that was unfamiliar to me, I witnessed my surgeon adapt her language and use of terms in a way that met my level of understanding as a layperson. For example, when my surgeon was describing the penile inversion technique with scrotal grafts that would be used and discussed how I would have nearly full sensation via my constructed vagina and clitoris, my surgeon would use language to refer to a specific nerve or specific tissue that she initially thought that I would understand. In some cases I would understand, and if I did not, I would express confusion, so my surgeon simplified the language she used without *dumbing down* the terminology. A provider's willingness to use scientifically appropriate language to explain a procedure or phenomenon but also adjust the terms as necessary was essential for me to use them and leverage the educational tools I mentioned earlier – to be able to continue my own learning about my then and future anatomy. It also prevented me from feeling as if my gender affirming surgery was a mystical process that I had to accept on faith; instead it was a well-documented set of surgical procedures rooted in solid science and medicine.

Fourth, the above use of language avoided generalizing about binary identities (male, female) that could be disconcerting to transgender and non-binary people. This framing of anatomical language was done in a way that also respected my own gender identity. For example, after my surgery, even though my surgeon had constructed a neovagina, those caring for me referred to it as a vagina. My surgeon acknowledged – without prompting – that it is called a neovagina but used language that aligned with my own identity and my desire to bring as much of my body into alignment with my identity within the limits of medicine and science. Also, when referring to the scrotum, testicles, or penis with which I was born during pre-op appointments, I never heard these structures referred to as being mine, but as an object of its own, an *it*. This assisted me with separating from tissues and structures that I did not identify with and did not align with my gender identity of being a woman. Even when my surgeon used terms that were unfamiliar to me, I was given definitions and then my surgeon would continue to use them, using the focus on language as a way to minimize my gender dysphoria and center my focus on understanding the skin, muscles, nerves, and other structures that would be used to construct new structures. The existing

anatomical structures I loathed were reframed in terms of raw materials with which a new set of structures could be constructed.

Overall, my experience with multiple providers demonstrated an awareness of gender identities outside of the traditional binary of male and female. They engaged me with resources and language that tried to increase my own understanding of my anatomy before and after any surgical procedure, and did not avoid explaining anatomical terms and concepts while adapting what they had learned from their own training to honor a gender identity that fit outside of the cis-male and cis-female binary. Additionally, creating, maintaining, and providing quality self-guided educational resources for both transgender and non-binary people can increase the number of high-quality and reliable information sources that others can use as they explore and consider their options to bring their bodies into alignment with their gender identity – whether one's gender identity aligns in some way with the traditional binary or does not at all. I acknowledge that it is not the same for others, including both transgender and non-binary people I know, who have shared stories of feeling dismissed, ignored, or corrected when trying to use or advocate for more gender-inclusive language. Also, while my positive experiences with pursing medical and surgical transitions are not what every transgender or non-binary person needs, my positive experience with my providers can be a sign of how healthcare providers can deliberately use, explain, and leverage anatomical and scientific language that includes people beyond a traditional binary. However, it should also be noted that this framing of anatomical language may not be the preference for all patients, but that healthcare providers should be sensitive of language use and respect the language needs and identity of their patients. I recognize that any of these actions can involve a fine balance, both holding true to the science and yet adapting what we know to identities about which we continue to learn.

A focus on appropriate framing of anatomical language can be included in anatomy education at the beginning of professional training to foster an appreciation of concepts of gender and language, and encouragement of continued use of inclusive language in practice. In the subsequent section, an anatomy

educator presents her approach to exposing students to language and concepts inclusive of diverse sexual and gender identities.

An Educator's Perspective – Using of Inclusive Language in Anatomy Education

I am a 35-year-old, White, cisgender, heterosexual woman who teaches gross anatomy, histology, and embryology to undergraduate, graduate, and professional students at a Midwestern medical school. For the past several years, I have been working to formalize an introductory slide and presentation of content on sex and gender for each lecture and small group session that I lead covering the development, histology, and gross anatomy of the genital (i.e., "reproductive," gonadal, or sexual) system. The "Primer on Sex and Gender" that I present below describes the content that I present on this introductory slide as a means to dispel any misconceptions about sex and gender and to set standard for how I will use inclusive language to describe the development and anatomic structures related to the genital system. Further, the goals of this primer are to: 1) reinforce that neither sex, nor gender, are binary, 2) model the use of inclusive language in anatomy, and 3) to impart on pre-professional and health professions students that our discourse on sex and gender has a significant impact on transgender, non-binary, and individuals with intersex variations for whom they may be providing care to in the future. Importantly, language is one of the primary means of constructing gendered identities and is of particular concern to transgender people (Zimman 2017).

A Primer on Sex and Gender

My introduction to the genital system begins with a comparison between sex and gender with an emphasis that neither of these constructs are binary, and both exist on a spectrum (Ainsworth 2015). I describe gender as a *mostly* social construct where some cultures have historically recognized two genders, man and woman, we understand gender to be fluid and exist on a spectrum from man to woman to non-binary. Beyond this, new evidence suggests gender is not purely a social construct, that gender identity may also have a biological basis (Ristori et al 2020). Conversely, sex is described as a *mostly* biological construct where individuals are binarized into male and female groups based on chromosomal

compliments, but also the appearance of external genitalia and levels of sex hormones (e.g., testosterone). Most individuals' gender identity matches their sex assigned at birth (cisgender), but for transgender individuals their gender differs from their assigned sex and non-binary persons do not identify with any gender or may identify with multiple genders. Moreover, recent estimates suggest approximately 1in 100 individuals may have intersex variations or differences of sex development (DSDs) which are variations in sex characteristics including chromosomes, genes, genitalia, hormones, and secondary sex characteristics that can further complicate sex assigned at birth and can create potential discordances with gender identity (Arboleda et al 2014).

In modern Western societies, sex has been socially constructed as dichotomous, with chromosomal complements XX and XY as the standard classifications for genetic female and male sex, respectively. Gonadal sex classifications have been based on presence of "reproductive organs," either a complement of testes and sperm transport ducts or ovaries, uterine tubes, and a uterus. Finally, genital sex has been based on presence of a penis and scrotum or clitoris and vagina (White 2020). However, gendered language stems from misconceptions of the binary nature of sex and gender, and therefore, it is important to express to students that sex determination can be far more complicated than the sex classifications imply (Ainsworth 2015). Below, I will detail the examples of genetic and physiologic conditions known to result in variations of chromosomal, gonadal, and genital sex as evidence of the non-binary nature of sex that are presented to students in the primer.

Provided examples of chromosomal conditions which result in sex variations that are discussed in the primer include Turner Syndrome (XO) and Klinefelter Syndrome (XXY). XO individuals often have delayed puberty and ovarian dysgenesis, but have otherwise typical development of gonadal ducts and external genitalia (Pinsker 2012). XXY individuals tend to have insufficient testosterone levels at the onset of puberty which often results in small penis and testis and gynecomastia (Groth et al 2013).

Beyond variations in the "typical" complement of male and female sex chromosomes, genetic mutations can affect gonad development and result in variations in the formation of gonads, genital ducts,

and external genitalia. For example, XY individuals with an extra copy of the *WNT4* gene can develop rudimentary uterus and uterine tubes along with typical male ducts. Translocation of the *SRY* (Sex-determining region of the Y chromosome) gene in XX individuals can alter gonad development to form a testis rather than ovary. Androgen insensitivity syndrome occurs with a mutation in androgen receptor gene that prevents binding of masculinizing sex hormones. Complete loss of androgen receptors results in XY individuals displaying a clitoris and vulva. However, no genital duct structures form since the development of the sperm transport system from the mesonephric ducts requires functional androgen receptors. Further, no uterine tubes, uterus, nor cervix develop since the testes continue to secrete anti-Mullerian hormone which causes regression of the paramesonephric ducts that give rise to those structures (White 2020).

Genital ambiguity in XX individuals most commonly is the result of exposure to excessive androgens in utero. Congenital adrenal hyperplasia results from hyperplastic adrenal cortical cells producing precursor hormones that can be converted to androgens. The excess androgens induce enlargement of the clitoris and promote fusion of the labial folds. Maternal exposure to androgens can have a similar effect on XX fetuses (White 2020).

Following the discussion of the above conditions, I note that while many individuals with intersex variations/DSDs have diagnoses, it is likely that many others have variations in genital structures that may result in ambiguity but do not have a known cause to the variation. The goal is not to pathologize these differences, but to recognize that genital development is the result of a variety of genetic, hormonal, and environmental factors. Rather, I emphasize that we have socially constructed male and female sex around “typical” external genitalia which fall at the ends of a range of normal anatomical variation.

The primer ends with an explicit discussion on inclusive language in anatomy. I tell students that one of the goals of the primer is to impart on them that it is exclusionary of persons with intersex variations, transgender, and non-binary individuals to continue to refer to discuss the genital system anatomy in the context of binarized sexes and genders. I tell them that the terms “male” and “female” will

not be discussed in the lecture or small-group session, and instead, I promote the use of person-first and anatomy-based language which refers to the anatomic structure and its development or function independent of "genetic sex" or gender.

Recommendations Related to Anatomical Language and Transgender and Non-Binary Experiences

We are fully aware that our perspectives and experiences are that one woman of transgender experience and one anatomy educator, and these accounts may not easily transfer to the contexts of others, especially those who do not have the privileges that we have enjoyed. Instead of being prescriptive, we hope that these accounts can be a starting point for anatomists and anatomy educators to consider how the language that is used in anatomy labs and learning contexts may impact any future providers and scientists that are in training. We make three recommendations, or at least starting points for future conversation.

Inclusive Language in Anatomy

Anatomy is an essential discipline in numerous health professions programs and often serves as the foundation upon which medical knowledge is built. Thus, it has been argued that the concepts of sex and gender should be addressed in the anatomy curriculum to prepare students for the complexity of sex- and gender-based clinical practice and to introduce, promote, and empower the use of inclusive language (Štrkalj and Pather 2020). Use of inclusive language when discussing sex and gender provides transgender and non-binary persons with affirmation across psychological, medical, and social arenas and is associated with positive mental health outcomes (Tordoff et al 2020). Zimman (2017) proposed the use of person-first or anatomy-based language when discussing sex and the genital system. Anatomy-based language focuses on the organs, tissues, and structures themselves and in relation to each other, and not as "typical" person of any one sex assigned at birth. For example, transgender women who have had gender affirming surgery may have breasts, a vagina, and a clitoris, but also may still have a prostate gland that

remains in situ and are still at risk of prostate cancer (Zurada et al 2018). Therefore, instead of specifying "*Men* who are 55 to 69 years old should make individual decisions about being screened for prostate cancer with a prostate specific antigen (PSA) test" (CDC 2020), medical providers should state, "*Persons with a prostate gland* who are 55 to 69 years old…" The use of language that minimizes references to binaries and instead focuses on the components that combine to form individuals helps to promote a holistic view of the body.

Inclusive Anatomical Language and Transgender and Non-Binary Individuals

Second, and building off our first recommendation, we encourage that anatomy educators specifically to teach with and model language that is inclusive of and respectful of transgender and non-binary persons' senses of themselves, especially when educating future healthcare providers, who then must use, translate, and/or modify the language they learn during their coursework during their work with patients. It is important to use language that is respectful, deliberate, and scaled to one's needs and situation. Though not an anatomical concept, we urge educators to model the use of the name and pronouns, whether modeling practices for patient care (Goldhammer et al 2018; von Vogelsang et al 2016) or completing reports – like anatomical pathology reports – that a patient might see in an EMR/EHR system (Ahmad et al 2019). Heng et al (2018) found that a common theme in the literature related to the experiences of gender-diverse patients was that they would need to educate their providers about transgender identities. While some appreciated their providers' willingness to learn more about transgender people, others felt used for teaching material. We hope that by encouraging anatomy educators and all health professions educators to employ a more inclusive approach like what we have shared, we can minimize patients' feelings of exhaustion at being educators of their providers (Guss et all 2017), distress, or feeling misunderstood or harassed by providers (Van Vogelsand et al 2016). We do this with the hope that these practices will influence how future providers adapt to each person's needs and identities appropriately.

Development of Free, Accessible, and Inclusive Resources

Third, we recommend an increase in resources grounded in solid medical and scientific research for transgender and non-binary individuals, healthcare professionals, and the general public, or modifications of existing resources, that provide information about the different ways that HRT and surgical transition modify a person's anatomy. Some have long called for anatomists to communicate with the general public on topics of anatomy to improve their knowledge of health and science (Evans 2007; 2013) as evidence suggests a greater need for education as public knowledge in anatomy is lacking (Taylor et al. 2018). The limited resources that author L.E. had access to were found with help from people L.E. knew through her academic and professional networks and not everyone may be able to access these resources. These resources included an animation demonstrating a vaginoplasty (Daily Mail UK 2015), Wikipedia articles on gender affirming surgeries, the materials made available by the National LGBTQIA+ Health Education Center, part of the Fenway Health Transgender Health Program (e.g. Thompson 2021), and resources for healthcare professionals that she had to find through additional reading and self-education (e.g.UCSF 2017). L.E. also referenced a text that she had used in both her advocacy work on transgender and non-binary issues and for her own reference (Erickson-Schroth 2014) though this did have a cost although it was already in her library at that point. It is our hope that having resources that different audiences can access can inform both transgender and non-binary individuals who are interested in learning more about these potential steps in their gender journeys. We hope that anatomy educators can assist in the development of more freely available and evidence-based information about gender-related medical and surgical procedures for all people so that these procedures become more known and less the subject of rumor or ignorance.

Additional Research into Impact of Gendered Language in Patient Experiences

Finally, we recommend more research into how anatomical language has played a role in the medical and surgical care of transgender and non-binary people. While some research is circulating through journals and other scholarly avenues, the number of research articles related to integrating an

approach that we have described so far is minimal (Heng et al. 2018). Examples of work that has been done includes but is not limited to the work of Tordoff and colleagues (2021) and Haley and colleagues (2019) who explored experiences of transgender and non-binary youth and young adults' experiences with inclusive language in sex education. Specifically, we hope that research will be done on both how to integrate approaches that we have shared into health science education and to explore how transgender and non-binary people use and learn about anatomical language, as part of an effort to improve the former. While this article is a combination of personal accounts and reference to the literature, it is not original research, and we hope that it can be a call for more work in this area – to listen to transgender and non-binary voices within the discipline of anatomy and consider how a broad, inclusive view of gender and sex beyond the traditional binary can and should affect how we research, teach about, and heal the human body.

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