
LGBTQIA+ Inclusive Teaching of Anatomy and Physiology

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Abstract

Anatomy and Physiology (A&P) is a foundational sequence of courses required for students to complete as a prerequisite prior to admission to a range of graduate health programs and degrees, some of which include medical schools, nursing, occupational and physical therapy, exercise science, cardiovascular technologist, diagnostic medical sonography, dental hygienist, respiratory care, and radiography. While undergraduate A&P course content is fairly standard, differences in curricula, as well as differences in the student populations within these classes exist. In this paper we examine ways in which a more inclusive teaching environment can be created to support an increased sense of belonging for LGBTQIA+ students within anatomy and physiology courses, potentially leading to higher retention and success rates (Fenaughty et al. 2019; Garvey et al. 2017; National Academy of Sciences 2017; Snapp et al. 2015). Inclusive teaching has largely been absent within STEM disciplines, leading to negative perceived classroom experiences within STEM courses (Snapp et al. 2015; Garvey and Rankin 2015). Faculty can help to reduce barriers to success faced by gender and sexual minority students by growing in cultural competency, using inclusive vocabulary, and infusing their courses with accurate content that allows all students to see themselves in the curriculum. <https://doi.org/10.21692/haps.2023.001>

Key words: DEI, Anatomy and Physiology, LGBTQ, Inclusive Education

Anatomy and Physiology: Who is in the Classroom?

Historically, diversity within higher education has been monitored in terms of male or female sex/gender, age, and race/ethnicity. Until recently, sex/gender data seldom captured representations of gender outside of the binary options of male and female (Garvey et al. 2015). For this reason, there is little data on gender diversity in STEM courses at the college level, and there is even less data on the representation of the spectrum of lesbian, gay, bisexual, transgender, queer, intersex, asexual, and all other gender identities (LGBTQIA+; see Table 1 for a list of definitions) in anatomy & physiology (A&P) courses (Cech and Waidzunus 2011; Cooper and Brownell 2016). Current national data estimates 9.5% of United States youth ages 13-17 are part of the LGBTQIA+ community (Conron 2020). Moreover, while 7.1% of the United States adult population represent the LGBTQIA+ community, the largest portion of adults in the LGBTQIA+ community are Gen Zers (McShane 2022). Since the Gen Z generation represents 66.6% of adult post-secondary students, they comprise the largest proportion of students currently participating in college classes (Hanson and

Checked 2022). Although few data are available, it is likely that similar proportions of students entering college A&P lecture and lab spaces, and conducting biomedical research belong to the LGBTQIA+ community.

Gender and sexual minority students have lower academic achievement, higher reported instances of victimization, and a reduced sense of belonging compared to other students (Fenaughty et al. 2019). The Trevor Project's (2021) annual survey of LGBTQIA+ youth ages 13-24 years old confirmed the low sense of belonging among gender and sexual minority youth. Forty-two percent of youth surveyed reported contemplating suicide over the last year, with higher rates of suicide contemplation among respondents belonging to historically marginalized groups. In addition, 94% of participants surveyed directly linked the current political climate to their poor mental health and 66% percent of respondents indicated that they live in a non-LGBTQIA+ affirming household (The Trevor Project 2021). These data suggest that gender and sexual minority students in our A&P courses not only face the challenges and rigor of demanding content-heavy college courses, but have additional challenges finding a sense of belonging at home

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and in the classroom. This is important, since having a sense of belonging is credited with increased student success and retention rates in higher education (National Academies of Sciences 2017; Martinez and Munsch 2019), and lack of sense of belonging may account for why LGBTQIA+ students in STEM majors are 8% less likely to stay in the major (Hughes 2018).

Bisexual: A person whose primary sexual and affectional orientation is toward people of the same and other genders, or toward people regardless of their gender.
Cisgender: a gender identity, or performance in a gender role, that society deems to match the person's assigned sex at birth.
Gay: A sexual and affectional orientation toward people of the same gender.
Gender: A social construct used to classify a person as a man, woman, or some other identity. Fundamentally different from the sex one is assigned at birth.
Gender Identity: A sense of one's self as trans, genderqueer, woman, man, or some other identity, which may or may not correspond with the sex and gender one is assigned at birth.
Heteronormativity: Attitudes and behaviors that incorrectly assume gender is binary, ignoring genders besides women and men, and that people should and will align with conventional expectations of society for gender identity, gender expression, and sexual and romantic attraction.
Heterosexuality: A sexual orientation in which a person feels physically and emotionally attracted to people of a gender other than their own.
Homosexual/Homosexuality: An outdated term to describe a sexual orientation in which a person feels physically and emotionally attracted to people of the same gender. Historically, it was a term used to pathologize gay and lesbian people.
Intersex: An umbrella term to describe a wide range of natural body variations that do not fit neatly into conventional definitions of male or female. Intersex variations may include, but are not limited to, variations in chromosome compositions, hormone concentrations, and external and internal characteristics.
Lesbian: Usually, a woman whose primary sexual and affectional orientation is toward people of the same gender.
LGBTQIA: Abbreviation for Lesbian, Gay, Bisexual, Transgender, Queer, Intersex and Asexual. An umbrella term that is often used to refer to the community as a whole.
Transgender: An adjective used most often as an umbrella term and frequently abbreviated to "trans." Identifying as transgender, or trans, means that one's internal knowledge of gender is different from conventional or cultural expectations based on the sex that person was assigned at birth.
Two Spirit: An umbrella term encompassing sexuality and gender in Indigenous Native American communities.

The definitions for these terms were taken as presented or slightly adapted from the following resource:
LGBTQIA Resource Center Glossary (<http://lgbtqia.ucdavis.edu/educated/glossary.html>)

Table 1. LGBTQIA+ Terms and Definitions

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Campus Climate

The college campus climate shapes students' academic experiences and achievements by creating a gateway for student interactions and involvement, identity awareness, and overall well-being (Garvey and Flint 2017). Both blatant instances of inequality directed towards a person or group of people, and more subtle "micro-inequities" can negatively impact student learning (Hall 1982). Moreover, when inequities are not adequately addressed, they may impact both learning in the affected classroom and the student's success at an institution (Hirschy and Braxton 2004). While dedicated LGBTQIA+ resource centers and policies can help to create an inclusive campus climate, it is important to avoid promoting segmentation of the campus into safe spaces as a replacement for creating a campus-wide expectation of safe spaces and sense of belonging among students, faculty, and staff (Yost and Gilmore 2011). Moreover, research indicates that there is something more influential in creating an inclusive campus environment than an institution's policies, norms, and values. The college academic experience is defined by the classroom environment and faculty interactions with students correlate with perceptions by LGBTQIA+ students about campus climate and culture (Garvey and Flint 2017). In this way, the college classroom environment serves as an even greater litmus test for a campus's overall climate towards LGBTQIA+ students (Garvey and Rankin 2015). Quantitative data indicate that "the average classroom experience" of LGBTQIA+ students is not supportive (Garvey and Rankin 2015). It is within the classroom experience that sexual and gender minoritized students may feel "silenced or harassed" by their peers or even the faculty (Garvey and Rankin 2015). In one study, only 3% of students reported hearing negative, derogatory comments from faculty aimed at LGBTQIA+ students, but 57% of the students reported negative, harassing, and derogatory comments from their peers (Yost and Gilmore 2011). More recent studies suggest that LGBTQIA+ students experiencing or hearing negative comments about gender expression and sexuality continue to be within the 50 percentiles (Fenaughty et al. 2019).

Means by which faculty negatively influence the classroom environment and perceptions of campus climate include not welcoming lived experiences shared by LGBTQIA+ students, excluding LGBTQIA+-related topics within the course curriculum, singling out LGBTQIA+ students as a voice for the community in a practice known as tokenism, using homophobic and transphobic language, and using a student's possible sexuality or gender identity as a means of (incorrectly) predetermining academic aptitude (Garvey and Flint 2017; Fenaughty et al. 2019). These classroom-level experiences lead to withdrawal of LGBTQIA+ students from active participation within the course, lower academic achievement, and a negative perception of the campus

climate, despite campus initiatives and policies that are aimed at building an inclusive and welcoming campus (Fenaughty et al. 2019; Garvey and Flint 2017).

Faculty can positively influence the classroom environment by taking steps to ensure all students, including LGBTQIA+ students, feel safe, valued, and respected. One way to do this is by creating a class where all students can see themselves within the course content and curriculum (Garvey et al. 2015). Sexual and gender minority students enrolled in courses that include LGBTQIA+ topics within the curriculum obtained higher GPAs, reported feeling safer, experienced fewer instances of victimization, and reported fewer reports of homophobic and discriminatory slurs compared to LGBTQIA+ students that do not experience LGBTQIA+-embed curriculum within college courses (Fenaughty et al. 2019; Snapp et al. 2015). Critically, while intentional inclusion of LGBTQIA+ topics, assignments, and other learning activities that are embedded throughout the curriculum may support a sense of belonging for sexual and gender minority students, how these topics are included is an important consideration, since further isolation of LGBTQIA+ students can occur when topics are presented as an "aside" or separate from the "normal" curriculum, enhancing the notion that being gay, lesbian, intersex, or gender-nonconforming is not "normal" (Snapp et al. 2015).

LGBTQIA+ Inclusive Teaching of Anatomy and Physiology

Inclusive teaching refers to any approach that addresses the needs of all students from diverse backgrounds (Abby et al. 2021). The following section outlines how we can engage in inclusive teaching of anatomy and physiology by recognizing stereotypes, addressing our own biases, creating an inclusive classroom climate through our interactions with students, and teaching course content that includes a variety of examples and perspectives. These inclusive teaching strategies will not only benefit LGBTQIA+ students in higher education but can create an inclusive learning environment in which all students are valued and able to succeed.

Recognizing Stereotypes and Addressing our own Biases

Central to creating an inclusive classroom and building faculty-student relationships that reduce barriers to success is recognizing implicit bias and acting with *cultural humility* (Garvey and Flint 2017). Smith and Foronda (2021) define cultural humility as "a lifelong process of exploration and reflection that fosters trust and relationships". Cultural humility involves the constant, lifelong evaluation of beliefs and how those beliefs, often taught to us and not consciously acknowledged, impact a balance of power and perception of individuals and populations we encounter (Green-Moton and Minkler 2020). Part of this is having an awareness that we live

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in a society in which sexuality is typically assumed straight (heteronormative) and where gender is assumed to align with external genitalia and the sex assigned at birth (gender normative) (Chrobot-Mason et al. 2001; Kitzinger 2005; Bilimoria and Stewart 2009; Braun and Clarke 2009; Cooper and Brownell 2016). It is recognizing that the time when individuals become aware of and accept their LGBTQIA+ is unique to each person. Since the development of these identities often occurs in the period between puberty and young adulthood, this means recognizing that an individual's identity may change during their time in higher education (Kinnish et al. 2005; Morgan 2013; de Monteflores and Schultz 1978; Rust 1993; Calzo et al. 2011; Cooper and Brownell 2016; Vaccaro 2006). In reflecting on, and acknowledging biases it is important that faculty begin to abandon outdated academic belief systems that support a "color-blind" approach, which leads to an invalidation of the student's experiences, language, and culture that can provide valuable insight and deeper understanding of content in the context of societal intersectionality and cross-curricular application (Farrelly and Hernandez 2022). Guiding students through activities, discourse, and lessons to experience the uncomfortable messiness of the content that challenges their own biases and world views, while linking content to their current world, allows the student and faculty to share experiences, validate one another, grow in empathy, and become more culturally and socially aware. This is the essence of higher education, with new experiences and application of content the academic environment supports a growth-mindset classroom experience (Farrelly and Hernandez 2022).

Interactions with Students: The Inclusive Syllabus

Faculty influence the class environment through their interactions with students inside and outside the classroom (Ambrose et al. 2010). Since one of the first interactions students have with an instructor is through reading the syllabus, including a statement on your syllabus that affirms your commitment to values of inclusion, diversity, and equity can set the tone for the classroom environment. It explicitly demonstrates to students that you value and respect differences between individuals and articulates to your students your desired classroom climate. To write a diversity statement, we suggest that faculty consider who is in their classroom and should feel included, what they want to convey to students about their expectations of a classroom environment where differences are respected and valued, and how respecting differences may lead to positive learning outcomes (see Box 1 for examples of diversity statements).

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Diversity Statement

I will strive to ensure that all students are treated with respect in this class. I welcome diverse people of different ages, backgrounds, beliefs, ethnicities, social classes, genders, gender identities, gender expressions, national origins, documentation statuses, religious affiliations, sexual orientations and learning styles. I expect everyone in this class to work together to cultivate a respectful and inclusive environment for every other member of the class. If you experience disrespect or discrimination in this class, please report your experiences to me.

Statement on Pronouns and Preferred Names

I believe that everyone has the right to be addressed by the name and personal pronouns that correspond to their gender identity, including non-binary pronouns (they/them/theirs, ze/zir/zirs, etc). Students can update their pronouns in the learning management system user settings. If you have not yet updated your pronouns in the learning management system, you can do so at the beginning of the term so that I can make sure to refer to you by using the correct pronouns. I also recognize that preferred names and pronouns may change during the semester. If at any point during the quarter you would like to be addressed differently, please let me know.

As part of our commitment to inclusion in this course, it is important that all students in this class respect the preferred names and pronouns of their peers. Mistakes in addressing one another may happen. If you make a mistake or are corrected, please briefly apologize, and correct yourself. To learn more about personal pronouns and why they are important I recommend you visit the website: mypronouns.org.

The biology faculty agree to promote a culture of compassion in our classrooms, labs, and in our student organizations. We actively strive to know our students as individuals so that all students can be comfortable and confident to seek help if necessary. We may not share all your experiences, but we will listen and do everything we can to help you be successful.

To accomplish this:

- *If you have a set of pronouns or name(s) that are different from what appears in your official record, please let me know as soon as possible.*
- *If you feel like your performance is being impacted by experiences, whatever they may be, outside of the classroom please talk to me and use me as a resource. I am here to support your development in all aspects.*
- *As many are, I am still learning about diverse perspectives and identities and continue to seek new knowledge and perspectives. If I or anyone else in the class says something that makes you feel uncomfortable, please talk to me about it.*

Your experience in this classroom is extremely important to me. I strive to create a learning environment and classroom where you are treated with respect. I welcome individuals of

all ages, backgrounds, beliefs, ethnicities, genders, gender identities, gender expressions, immigration status, national origins, religious affiliations, sexual orientations, ability – and other visible and nonvisible differences.

At times, we may discuss difficult and complex topics and I welcome and value all perspective. All members of this class are expected to contribute to a respectful, welcoming, and inclusive environment for every other member of the class.

To accomplish this we will all embody the principles below:

- *We believe that all human bodies have value and deserve respect - **NOTHING** internal or external changes this. We speak with respect about the bodies around us and in front of us - **including our own**.*
- *We understand that diversity and representation are vital to learning and our community.*
- *We use language that includes everyone.*
- *We know that sex and gender are not binary.*
- *We acknowledge that race is a social construct.*
- *We address people the way they would like to be addressed, including names and pronouns, and we do not make assumptions based on someone's appearance.*
- *If you have a preferred set of pronouns or name that is different from what appears in your official record, please let me know as soon as possible.*
- *We believe the lived experiences that others share with us.*

I hope to create a learning environment that supports a diverse body of students, diversity of thoughts, perspectives, and experience and that honors your identity. As many are, I am still learning about diverse perspectives and identities and continue to seek new knowledge and perspectives. If I or anyone else in the class says something that makes you feel uncomfortable, please talk to me about it.

If you feel like your performance is being impacted by experiences, whatever they may be, outside of the classroom please talk to me and use me as a resource. I am here to support your development in all aspects.

**Note: This statement represents contributions of multiple HAPS members and many listserv discussions.*

Box 1. Examples of Diversity Statements for inclusion in course syllabi

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Inclusive Language and Curriculum

Some topics covered within biology courses, including A&P, are unique to the discipline. In an attempt to not silo these topics, we acknowledge that topics surrounding inclusive language and curriculum also are important and relevant within a wide variety of courses and programs such as social science, public health and policy programs, art, history, and sex and gender studies courses. Ultimately, the ability to create an inclusive classroom hinges more on developing a classroom culture and environment, where all members feel comfortable to be themselves regardless of sex, gender, age, weight, race, or any other real or perceived difference. The setting of this culture depends on the instructors' ability to set the appropriate tone and create ground rules for acceptable interactions. This begins in the syllabus, as mentioned above, and must be carried throughout the course by consistently using accurate language to refer to all people, structures, and concepts.

Especially within the sciences, inclusion is the biologically accurate way to present diversity and variation throughout all levels of organizations. For example, the idea that variability in form and structure is inherent to the entire field of biology and is represented within a myriad of biological traits in most species (such as variation in pigmentation, weight, height, body shape, and form), and similarly, this diversity is present within all organs, including those used for reproduction. Incorporating gender inclusive language creates an environment where LGBTQIA+ students feel seen, safe, and included, and normalizes and raises the standards for using a language that acknowledges gender and sex as a gradient or continuum trait of humans.

We recognize that developing lectures and teaching materials that are engaging, relevant, and reflect our most current understanding in the field is time consuming and often feels like a tradeoff between teaching the essentials *versus* teaching the new. This task becomes more daunting as the semester progresses, grading piles increase, and available time for innovation becomes scarcer. Incorporating inclusive terminology, in an area that is quickly changing, with the fear of saying the wrong thing and possibly offending the students whom we are trying to include is no less daunting. However, it is possible to make your classroom more inclusive without overhauling your entire curriculum, switching textbooks, or even being fully proficient in our fast-changing understanding of LGBTQIA+ terminology. Small, consistent changes add up and can convey a sense of inclusion. Box 2 lists small changes one can make, from least time-consuming to most, that can create subtle, but noticeable modifications in your class culture. Work by Zemenick et al. (2022) and Cooper et al. (2020) provide more extensive explanations and examples to incorporate LGBTQIA+ students in the classroom.

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<p>Least effort</p>  <p>More effort</p>	<p>1. Incorporate DEI inclusive language in your syllabus. This does not need to be specific for LGBTQIA+ students only. In fact, recognizing all students, regardless of their external appearance, ethnic, sex or gender identification is important, so as not to inadvertently exclude students that are not LGBTQIA+.</p> <p>Example: Provide your pronouns next to your name in your syllabus. Include a Diversity Statement within your syllabus (See Box 1 of samples)</p> <p>2. Acknowledge that you are learning the terminology and might make mistakes. It is a great example for our students, who are forced to learn and use A&P terminology all the time, that their professors are also learning and can make mistakes. As long as you are willing to take risks and make mistakes, you represent the qualities that we try our students to develop; willingness for growth and courage to learn.</p> <p>Example: In this classroom, I will do my best to reflect our current understanding of this field and use terminology that reflects inclusion and respect for all people. However, I am still learning and might make mistakes. It is never my intent to offend, please let me know if I use a wrong term or say something that offends you.</p> <p>3. Remove gendered color coding and symbols from PowerPoints and handouts.</p> <p>Example: Don't use pink/red to refer to females and blue for males. Choose colors and symbols that are not culturally associated with a particular gender like green and purple.</p> <p>4. Do not conflate sex with gender. When referring to biological differences between the sexes, do not use terms women and men which refer to gender. Instead, use male and female which refer to sex.</p> <p>Example: Instead of saying "<u>Women</u> have smaller bone density and a greater risk of developing osteoporosis," say "<u>Females</u> have smaller bone density and a greater risk of developing osteoporosis."</p> <p>5. Focus on the mechanism that causes the purported sex difference. The suggested modification in #3 above is a great start, but it does not include intersex individuals, or possibly individuals undergoing gender-affirming treatments. To make the above statement more inclusive, and more accurate, we can reframe the statement to reflect the causes of the described sex-difference. Typically, etiology of the difference is the hormone producing organ or the target tissue responding to the hormone. By rephrasing our statement to the organ, the focus switches from the individual sex to the biological/physiological mechanism driving the difference that may or may not be seen in all individuals and not isolated to one portion of the species.</p> <p>Example: Individuals with decreased estrogen levels or on androgen suppressing medication, have reduced bone density, putting them at an increased risk for osteoporosis.</p>
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Box 2. Examples of changes that can be made to courses to increase inclusivity, arranged from least effort to more effort for implementation.

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Creating an inclusive environment, while teaching scientifically accurate information, is essential for future healthcare workers, an important competence that has been recognized by the Liaison Committee on Medical Education and has been emphasized just recently by the Association of the American Medical Colleges (AAMC 2022). One such example of the need to present scientifically accurate information and its potential impact within the healthcare field is the role of sex hormones. Careful consideration to not portray sex hormones as gender-specific hormones that determine “masculine” or feminine” biased qualities but instead as non-gender specific, each having function and influence on the anatomy and physiology in all individuals (Hayssen 2020). In presenting sex hormone action in this manner, we accurately teach the function of these hormones, while correcting misconceptions leading to heteronormative falsehoods.

Table 2 lists topics taught in Anatomy and Physiology courses that can serve as gateway topics for the use of LGBTQIA+ inclusive terminology and topics. Many of these topics can also be taught in varying depth in other science courses. For example, topics that focus on sex differences can be addressed in almost any physiological system taught in A&P, and they can also be addressed in neuroscience and pathophysiology courses where sex hormones play important role in establishing and maintaining sex differences in the nervous system, and consequently modulate sex differences in behavior and neurodegenerative disease. Similarly, the topic of sexual differentiation can be addressed broadly in A&P. However, sexual differentiation can also be addressed in much more depth in courses such as genetics where it would be appropriate to discuss the effects of gene regulation on sex differentiation of the bipotential gonad and also in embryology where it is appropriate to focus on the many factors that regulate development of the reproductive system. Beyond the incorporation and use of inclusive terminology within A&P, Long et al. (2021) suggests that a gender-inclusive classroom environment includes five foundational practices: authenticity, continuity, affirmation, anti-oppression, and student agency. These five gender-inclusive practices are focused on scientific accuracy and depth over simplification, intentionality in creating a classroom expectation of inclusion, the acceptance of sexuality and gender diversity as normal and not something to be stigmatized, and the ability to speak to experiences while being encouraged to question and to make societal connections (Long et al. 2021).

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Topics appropriate to incorporate sex and gender inclusive language.	Unit in A&P	Other potential courses/teaching opportunities (Intersectionality/integration between courses)
Sexual differentiation	Reproductive systems	Embryology Genetics Developmental biology Endocrinology
Reproductive systems	Reproductive systems	Endocrinology Physiology
Sex differences and effects of sex hormones on physiological systems	Every system where sex steroids are involved: Skeletal systems Nervous systems Endocrine system and interspersed throughout skeletal and nervous systems Cardiovascular system Respiratory system Muscular system	Physiology Pathophysiology Exercise science Biology of aging Immunology
Sex differences in non-human animals	Not directly appropriate	Animal behavior/Ethology Behavioral endocrinology Comparative physiology/anatomy

Table 2. Courses conducive to adoption of gender-inclusive language and topics

Barriers to Inclusive Teaching

Factors that influence the inclusion of LGBTQIA+-related content into collegiate curriculum include, but not limited to, faculty being empowered and motivated to deliver curriculum inclusive of the student population (Garvey and Rankin 2015), faculty finding value in inclusive teaching practice and content incorporation, faculty status, and adjunct status, pay, and time commitment (Garvey and Rankin 2015). Geographical region can also influence the degree to which faculty are willing to include LGBTQIA+ topics and discussions within the curriculum. Areas that show a tendency toward more progressive ideologies exhibit a welcoming and more inclusive environment towards LGBTQIA+ students, leading students to indicate a more positive campus climate towards LGBTQIA+ students. In more rural areas or ideologically conservative regions of the country, LGBTQIA+ students report less tolerable learning environments and social climates that lead to fears of retaliation, hate crimes, isolation, and silence (Garvey and Flint 2017). Students

within these regions rank campus climate towards LGBTQIA+ students lower. Adopting inclusive language in class content, especially in rural areas, can significantly improve student experience on a campus that might not be accepting of diverse student populations.

Conclusion and Future Considerations

The college classroom is not the only public sector that is changing. In a recent article, it has been reported that 27% of Americans know someone who is transgender and 45% of Americans understand human sexuality as a spectrum trait rather than a historical binary perspective (Long et al. 2021). As educators, understanding who our students are as members of a community and society and the experiences they bring into our classrooms can create a learning experience that will not only support sexual and gender minority students, but increase awareness and perception

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within all students about the LGBTQIA+ community. Developing and modifying A&P curriculum to emphasize the anatomy and the physiology outside of a heteronormative vocabulary is a small step in accurately depicting human function. Removing the stigmatizing and isolating language that reinforces a binary view of human biology as the normal condition can support LGBTQIA+ students feeling a greater sense of belonging, academic success, retention in STEM and allied health fields, and persistence within A&P courses. The biological story told in A&P will have lasting influence on our student's understanding of the human body as they transition into their academic and professional careers. It is a fascinating story, and one that deserves to be told accurately and inclusively.

Employing Long's (2021) recommendations of gender-inclusive practices for creating and sustaining an inclusive classroom, how we communicate the biological story of anatomy and physiology through our classroom teaching and engagement as well the educating and training of medical and health care professionals in patient care will be areas of interest for future publication.

About the Authors

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Juanita Jellyman is an associate professor of biology at California State Polytechnic University, Pomona. She teaches Human Physiology, Systems Physiology, Physiology of Human Reproduction, Fetal Physiology, and Endocrinology. Juanita is an LGBTQ "Safe Zone" ally, a "Dreamers" ally, she is familiar with veterans' issues, and she is committed to supporting students with disabilities. She strives to cultivate a respectful and inclusive environment for all students in her classes. Juanita is a member of the HAPS Diversity, Equity, and Inclusion (DEI) Committee.

Lawrence (Larry) Young is an instructor of biology and anatomy and physiology at Florida Southern College in Lakeland, Florida. He teaches Anatomy & Physiology and has developed and taught courses in the biology of sexuality and gender. Within his courses, he is intentional about creating an inclusive classroom experience centered around the intersectionality of the course content and societal implications. He strives to enhance student-teacher relationships that reduce barriers for student success. Larry serves as Communication Committee chairperson for the Human Anatomy & Physiology Society (HAPS) and a member of the HAPS Diversity, Equity, and Inclusion (DEI) Committee.

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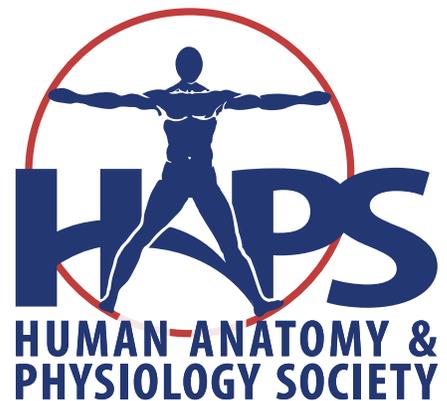
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