

PROPOSAL FOR A GENDER, SEX, AND SEXUALITY CURRICULUM IN
UNDERGRADUATE MEDICAL EDUCATION AT THE LEWIS KATZ
SCHOOL OF MEDICINE AT TEMPLE UNIVERSITY

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ABSTRACT

Understanding gender, sex, and sexuality is required in order to be a competent, patient-centered physician, and, therefore, inclusion of these topics in undergraduate medical education is essential. Current medical education is not producing physicians equipped to manage the complaints and issues that face their patients in these areas. LGBTQ populations are most affected by the inadequacy of training related to these topics. LGBTQ patients face unique issues in healthcare in terms of their normal development, pathology, social determinants of health, and healthcare system practices. Additionally, LGBTQ people and those who engage in behaviors that parallel these identities are prevalent in the general population. The addition of a gender, sex, and sexuality curriculum would simultaneously address LGBTQ disparities as well as the need for improved sexual health education that would benefit all patients. Currently, undergraduate medical curricula have limited, non-standardized education on gender, sex, and sexuality. A few American institutions have published both qualitative and quantitative studies that indicate medical students' attitudes are malleable and their clinical skills can be improved in these areas. Further, numerous national medical societies have created curriculum guidelines and recommendations in order to aid medical schools looking to bolster their gender, sex, and sexuality related curricula. This paper will synthesize research and these guidelines to propose a robust gender, sex, and sexuality curriculum that is tailored to the environment found at the Lewis Katz School of Medicine at Temple University.

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CHAPTER 1: INTRODUCTION

Understanding gender, sex, and sexuality is required in order to be a competent, patient-centered physician, and, therefore, inclusion of these topics in undergraduate medical education is essential. Nowhere else in American culture is an idea so blatantly projected onto us, yet as unspoken about as sex and sexuality. The omnipresence of sexuality in American society is evidence to its important role in shaping who we are and what we expect from our sexual self. Yet, all of us experience sexuality in a unique way and, thus, physicians must be equipped to discuss this important area of patients' lives. Only 25% of primary care physicians take a sexual history, while 94% of Americans 25 years or older believe sexual satisfaction adds to quality of life.^{1,2} Undoubtedly, culturally ascribed assumptions about patients' sexuality and sex lives drive part of this disconnect in patient care. Only 50% of medical students self report that they at least occasionally make an effort to elucidate a patient's sexual orientation and 25% of surveyed obstetrician/gynecologists disapprove of their patients' sexual practices.^{3,4,5} Further, physicians have historically lacked the training necessary to continue a meaningful conversation about these topics if initiated. Between 42% and 62% of medical students believe their undergraduate medical training on issues of sexuality are inadequate.^{3,6,7} As healthcare continues to transition to a more customer service-oriented practice, physicians must be able to address patients' top priorities, which include sex and sexuality and their relevant pathologies. Medical school curricula must parallel this in order to prepare physicians to meet the complaints and questions of their patients.

The populations most affected by the inadequacy of training in this arena are Lesbian, Gay, Bisexual, Transgender and Queer (LGBTQ) patients. These groups also

stand to suffer the most from projections of socially ascribed norms about gender, sex, and sexuality. 19% of transgender people report being denied medical care for being gender nonconforming.⁸ Men who have sex with men (MSM) comprise 63% of all new HIV cases each year with black and Latino men being disproportionately affected.⁹ Women who have sex with women are less likely to seek and receive preventative care and health screening while also suffering from higher rates of obesity.¹⁰ The LGBTQ group as a whole experiences a higher prevalence of certain mental health disorders, and transgender people attempt suicide at a rate of 41%.¹¹ Bisexual individuals suffer from rates of physical and sexual abuse higher than both the general population and people who identify as gay or lesbian.¹² As indicated by the statistics above, the separate LGBTQ populations have distinct healthcare needs that do not necessarily parallel their historical and cultural lumping as one umbrella entity. Each of these groups faces unique issues in healthcare in terms of their normal development, pathology, social determinants of health, and healthcare system practices. Despite these differences, published medical education literature generally approaches LGBTQ education as a single overarching topic, and thus I will generally discuss the groups concurrently as LGBTQ since the theoretical principles of and the challenges to medical curricula overlap.

Undeniably, gender and sexuality are deeply ingrained, core pieces of our identities. They are rooted in a reflection and understanding of oneself that begins as an infant and becomes fully woven into our concept of self. Cultural aspirations for our gender and sexuality even begin in utero. Sexuality and gender identity are both non-binary, meaning that a spectrum of possibilities exist, not just two dichotomous poles. Sexuality contains the prongs of romantic attraction, sexual attraction, and, the medically

most important, behavior. The concept of gender includes biological gender, gender identity, and gender expression. Therefore, to understand LGBTQ health, a medical student must possess a well-rounded education on the topics of anatomical development, sexuality, and gender. Any curricular changes to address LGBTQ health disparities warrant the inclusion of a sexual identity and health curriculum as well. Such a curriculum would be able to simultaneously address LGBTQ disparities as well as the need for improved sexual health education for the whole population. Incorporation of each of these topics leads to my overall curriculum proposal, “gender, sex, and sexuality”.

I will first argue the ethics supporting the inclusion of gender, sex, and sexuality into a medical curriculum. Then, I will discuss the current state of undergraduate medical education and the evidence supporting curriculum changes for these topics. Next, I will highlight the recommendations by medical associations and governing bodies. Finally, I will propose an undergraduate medical curriculum on gender, sex, and sexuality for incorporation at the Lewis Katz School of Medicine at Temple University (LKSOM).

CHAPTER 2: IMPERATIVE FOR INCLUSION

The ethical argument for the inclusion of gender, sex, and sexuality in medical curricula is multipronged including utilitarianism, the Belmont principles, and educator duty. Each of these approaches elucidates a different, yet equally impactful reason for the incorporation of these subjects.

Utilitarianism considers the number of people influenced by an action and the importance of the outcome. LGBTQ people are highly prevalent in society and in patient panels of doctors. The Williams Institute of the UCLA School of Law estimates that about 3.5% of the population identifies as lesbian, gay, or bisexual. However, that study also found 7.5-8.5% of the population reports same-sex attractions and behaviors.¹³ The Institute also estimated transgender people constitute 0.3% of the population.¹³ A 2012 Gallup study asked participants if they “personally identify as LGBT” with 3.4% responding yes and 4.4% responding “I don’t know”.¹⁴ Furthermore, according to the US Census, 93% of all counties in the United States have a same-sex household.¹⁵ Given the social stigma of these populations, many of studies likely underestimate the true the prevalence of each of the LGBT subgroups.

Prevalence is paramount to the importance of a topic because it directly determines the number of people who will benefit from provider knowledge. For this reason, cardiovascular disease, hypertension, and diabetes are the foremost topics in current medical education. While the prevalence of LGBTQ individuals or people who engage in behaviors consistent with these identities is lower than the aforementioned topics, an outpatient doctor seeing twenty patients per day can expect to see at least one LGBTQ patient a day. Therefore, the frequency in which practitioners will take care of

these patients warrants its inclusion in medical education. Additionally, the medical issues and disparities that affect LGBTQ populations are consequential. As discussed in the introduction, some of the issues LGBTQ patients face encompass mental health, suicidal behavior, HIV, and preventative medicine. Proven and effective treatments and interventions exist for these issues; therefore, LGBTQ-related education has the ability to significantly influence these populations and minimize adverse health outcomes. From a utilitarian perspective, LGBTQ medical education has the potential to affect a prevalent portion of the population regarding medical issues of significant consequence.

Furthermore, as an extension of the utilitarian argument beyond LGBTQ people, one hundred percent of patients at every encounter in every clinical setting will possess a gender and sexual identity and expression. These identities and expressions can either overtly or subtly play a role in any of these encounters whether or not the patient or doctor realizes it. A basic understanding these topics can draw practitioners to their potential influence and how they may affect therapeutic approaches. Similar to the creation of a differential diagnosis list, a doctor cannot address something they are not thinking about or aware of. An example is a man presenting for a follow up after initiation of a beta-blocker who is suffering from erectile dysfunction as an adverse effect. First, the physician must know of this potential adverse effect and have the competence to approach the subject. Then, the physician must be cognizant of the sexual identity and expression of this patient. The physician must know how this patient values sexual behavior and how he expresses himself sexually in order to properly treat him. It cannot be assumed this patient values sexual expression enough to alter the medication or that his penis is integral to his expression. Physicians must understand the potential

influences of gender and sexual identity since its can affect the presentation or treatment of any of their patients.

From a differing ethical perspective, physicians are to practice medicine within the four Belmont principles of autonomy, beneficence, nonmaleficence, and justice. In the United States, this is nearly universally accepted and, hence, an argument for this is not necessary. However, there is a need to connect these principles to LGBTQ populations. As outlined before, LGBTQ patients face significant healthcare disparities in numerous areas. The rates of suicidality in transgender people, HIV in MSM (especially those of color), obesity in WSW, and intimate partner violence in all LGBTQ groups (particularly bisexual individuals) are alarming statistics. These outcomes are a reflection of a lack of physician knowledge and provider bias. Transgender patients report that one of their largest barriers to healthcare is a lack of competent, knowledgeable providers and nineteen percent have been turned away from a clinic for gender nonconformity.^{8,16} Therefore, a lack of proper medical education is responsible for some of the harm inflicted on LGBTQ populations. Nonmaleficence warrants improved education for harm reduction. Conversely, improved medical education will allow providers to do right by their patients in accordance with beneficence.

The standard of medical practice is becoming evidence-based. However, there is an overwhelming lack of research focused on LGBTQ peoples leading to minimal evidence-based practices for these populations. Also, what limited evidence-based medicine that exists is not being taught in medical school. Abiding by justice requires that these populations receive medical care to the same standards that the general

population does. Justice asks that the healthcare system address the need for research that translates into medical practice and education for LGBTQ peoples.

All of the previous arguments rooted in the Belmont principles converge on patient autonomy. The final principle outlines that patients govern their care through informed decision-making that is guided by a competent provider. Without competent and unbiased physicians, patients will not receive the medical information they need to be informed decision makers. Patients cannot control their medical care when they are denied access to clinics, subjected to misinformation, faced against insurmountable healthcare barriers, and scrutinized for their behaviors and identities. As presented later in the paper, education has the ability to help correct some of these inequities that face LGBTQ populations.

Finally, both physician and basic science educators have a duty to create ethically grounded curricula in order for physicians to fill their ethical obligations as described above. The goal of medical education is to present factual evidence and theoretical principles in order to develop the clinical reasoning that will guide a future practitioner. Specific topics have been deemed important by educational oversight bodies and institutional administrations. While the breadth of topics chosen may seem innocuous, the curricula of medical schools are not value neutral. What we decide to teach or not teach in medical curricula conveys to learners precisely what is important to be a practitioner. By excluding in depth coverage of gender, sex, and sexuality, especially LGBTQ populations, students passively learn these are not relevant to clinical practice. Historically, medical education was based on a paternalistic model that did not teach patient skills. Patient communication, patient education, empathy, shared decision

making, and autonomy were absent. Now, these ideas have become the pillars of Liaison Committee on Medical Education (LCME) standards creating a workforce equipped to work with patients. This new model of medical education repeatedly instills the value that patients are equals not subordinates. It has changed the dynamics of the entire healthcare system. In a similar manner, a paradigm shift on gender, sex, and sexuality will teach students the importance of these topics to proper medical care. Practitioners will value sexual health as much as patients currently do. They will treat gender and sexual minorities with respect and dignity and will have the knowledge to work with them as partners in care.

Incorporation of gender, sex, and sexuality into a medical curriculum is mandated by the previously outlined ethical arguments. Duty as practitioners and educators demands rectifying the inequities faced by LGBTQ populations. From a practical viewpoint, omission of gender, sex, and sexuality creates practitioners unprepared to provide medical care to a significant portion of the population.

CHAPTER 3: CURRENT STATE OF EDUCATION

Despite nationalized accreditation and standards for medical schools, there remains significant variability in the education of gender, sex, and sexuality. The guidelines released by the LCME are vague with individual institutions determining how to incorporate these subjects. Two survey-based studies comprise the most relevant data on this subject.

In 2003, Solursh et al. conducted a survey of 141 medical schools within the Association of American Medical Colleges (AAMC) in both Canada and the United States that showed high variability and limited coverage of sexuality education.¹⁷ A single page questionnaire inquired what topics within sexuality were being covered and in what educational form they were being taught. Inferred from the limited methodology in the published article, the topics asked on the questionnaire focused predominately on sexual dysfunction and pathology, not theoretical principles. 101 validated responses, or 72%, were returned; later correspondence indicated that non-responders tended to do so because they did not have sexuality training. 6 of the 101 responses either had no training or did not know if they had training on sexuality. 54% of responders reported 3-10 hours of sexuality education and 37% reported greater than 11 hours. The most prevalent topics covered were: 94% - causes of sexual dysfunction, 85% - treatment of sexual dysfunction, 79% - “variant” sexual identities, and 69% - issues of sexuality and sexual function in illness and disability. 83% of respondents required a lecture format with two thirds using a multidisciplinary approach. Only 42% of respondents offered a clinical training opportunity to evaluate and treat sexual problems. Given the self-reported nature of the study and the possible variability of what may constitute sexuality education to

respondents, rigid conclusions about the adequacy of sexuality education cannot be drawn. However, this paper revealed the variability, nonconformity, and occasional absence of sexuality education in North American medical schools.

Published in 2011, Obedin-Maliver et al. surveyed the Deans of all allopathic and osteopathic medical schools in the United States and Canada (176 total) using an internet-based questionnaire on LGBT health-related topics.¹⁸ 132 total or 75% responded fully to the questionnaire. Of the complete respondents, the median time spent teaching LGBT health was 5 hours with 4% having no LGBT related education. 33% had no content in their clinical years, whereas only 7% had no preclinical coverage. 97% reported teaching “do you have sex with men, women, or both?”. 72% reported teaching the difference between identity and behavior, and 21% were unsure if this distinction was taught. Sixteen highly relevant topics to LGBTQ health, ranging from sexual orientation to STIs to transitioning, were queried in the questionnaire. 63% reported teaching at least half with only 8% reporting instruction in all sixteen areas. Sexual orientation, gender identity, and HIV were the most likely to be taught at around 60-80% of respondents including these topics in their curriculum. A highly subjective, yet informative, question asked Deans to assess the adequacy of LGBT health coverage at their school: 26% claimed “poor” or “very poor” and 44% claimed “fair”; the final quarter claimed “good” or “very good”. Similar to the Solursh et al. survey, there is the possibility of significant reporter bias. Further, there is no measure of the quality or manner in which the material was being taught. This provides clear evidence that LGBT health education is lacking in consistency, thoroughness, and presence in the clinical years. Given that roughly two

thirds of Deans believe their training is fair or worse signals there may be an overall openness to improve LGBT health education.

CHAPTER 4: SUCCESSFUL IMPLEMENTATION

While the previously outlined papers analyzed content and dedicated education time, several studies have aimed to delineate the effectiveness of sexuality and LGBT-related curriculum changes. In general, there is limited data on this topic with the available studies primarily being qualitative and at a single institution. However, these studies do provide evidence to the effectiveness of curriculum changes on medical students' attitudes and competence.

Dixon-Woods et al, in 2002, proved that students' attitudes about and comfort with sexuality in clinical practice improved following a mandatory preclinical curriculum change.¹⁹ The University of Leicester in the United Kingdom added three hours of sexuality content in both lectures and small groups that covered the basics of human sexuality and functioning, LGBT health, medical legal issues surrounding sexuality, sexual abuse, and STIs. Questionnaires aimed at determining attitude and knowledge shifts were distributed prior to and after the three 1-hour sessions. Approximately 85% of respondents believed the course made them both more sensitive to the duties of a doctor related to sexuality and to the needs of patients in this arena. The session increased the number of students who felt comfortable discussing sexuality concerns with patients by 30%. Also, 35% of respondents felt their attitudes about the subject changed.

A qualitative study, published by Sequira et al in 2012, found that medical students believe LGBT health education is lacking and is important to medical education.²⁰ It also demonstrated that medical students could ask an appropriate sexual history question following an hour lesson. In the study, Tulane University School of Medicine implemented four preclinical educational sessions specifically on LGBT health.

Three 1-hour optional lectures covered an introduction to transgender health, hormone therapy, and taking an inclusive sexual history. After each session, a free-response survey was administered. The fourth session, which was not evaluated, was a mandatory standardized patient workshop that practiced taking a sexual history from a lesbian patient. Approximately 35 students filled out post-session surveys for each of the three lectures. 82% of respondents, following the lecture on taking an inclusive sexual history, were able to create an appropriate, inclusive free-response question. However, there is no pre-session data to determine if the lecture was responsible for this high level of competence. The other questionnaires were used to formulate qualitative themes from student responses. The three major themes were the applicability of LGBT health to clinical practice, the lack of exposure to this subject at the institution, and the importance of creating an LGBT-focused curriculum. Although there is significant selection bias present in the study, Sequira et al. determined that medical students do believe the inclusion of LGBT health is important for clinical training.

Providing the most convincing evidence, a 2013 study by Safer and Pearce at the Boston University School of Medicine showed that a relatively small change to curricula can exert a significant shift in medical students' attitudes towards LGBT-related health.²¹ In the study, the rigidity of gender identity, available treatment options, and monitoring parameters of these treatments were taught to second year students in a 1-hour lecture and follow up small group session during the endocrinology section. Students from all four years were administered pre and post session questionnaires, using the second years as the interventional arm. At baseline, the responses of second year students did not differ from the responses of other years. 38% of all students reported discomfort with the idea

of treating a transgender patient and 5% of all respondents believed therapies for transgender patients are not part of conventional medicine. Roughly 17% of second year students answered that they would not be willing to see a transgender patient in their clinic. Following the sessions, there was a 67% drop in self reported discomfort in treating transgender patients among second year students. Only 3% answered that they would be not being willing to see transgender patients and none of second year student believed that therapies for transgender patients were outside of conventional medicine.

Elucidated by these studies, medical students believe sexuality and LGBT health are topics relevant and critical to their education. Medical students also appear to be malleable to the theories underlying this material and willing to adapt their future clinical practice. Although long-term data is not available, short-term data supports that these curricular interventions do increase knowledge and skills and promote attitude changes surrounding these topics.

CHAPTER 5: CURRICULAR GUIDELINES AND RECOMMENDATIONS

With the growing visibility of LGBTQ populations and the increased recognition of their healthcare disparities, numerous reports from medical associations have been released to aid in guiding curriculum development. In general, these documents recommend overarching themes, institutional practices, and student competencies that should guide curriculum planning. The 2011 Institute of Medicine Report called “The Health of LBGT People” was an initial call to action by the federal government to increase research in order to narrow health inequalities.²² Following that, in 2014, the Association of American Medical Colleges (AAMC) created “Implementing Curricular and Institutional Climate Changes to Improve Health Care for Individuals Who Are LGBT, Gender Nonconforming, or Born with DSD”, which serves as an all-encompassing resource on creating a sustainable LGBTQ curriculum.²³ This nearly 400-page document has curriculum objectives, recommendations on how to achieve them, and case examples for use.²³ The AAMC also released a compliance checklist called “LGBT People and Issues in Medical Schools” as a simple means of institutional self-evaluation.²⁴

A primary function of any budding curriculum must address the institutional climate and policies. The institution must recognize and support the faculty, students, and staff that will develop, implement, and monitor the curriculum. A common recommendation is to hire a full-time staff member who can serve as a point-person for the LGBTQ community, aid in the creation of an inclusive curriculum, and track its effectiveness. This position would hopefully create a longitudinal person responsible for these essential activities. Additionally, the institution must create a safe, welcoming space

for all by having inclusive nondiscrimination policies, shared benefits for LGBTQ families, and include LGBTQ people in diversity efforts. The AAMC Medical School Year Two Questionnaire has demonstrated that LGB medical students experience increased overall stress, social isolation, and financial stress while harboring feelings of decreased social and institutional support²⁵. Therefore, schools should have LGBTQ-specific and inclusive resources for students and faculty. Admission committees should allow for LGBTQ self-identification and follow the well-being and academic success of these students. Another necessary component of enhancing LGBTQ education is faculty development. The institution must have faculty knowledgeable in LGBTQ health topics and be able to present them in a manner to that promotes inclusivity. There are currently no published articles on how to address faculty development related to LGBTQ health.

In the AAMC's 2014 report, the Advisory Committee constructed a set of thirty competencies within eight overarching domains in order to devise an outcome based LGBTQ-related curriculum.²³ The eight domains are: patient care, knowledge for practice, practice-based learning and improvement, interpersonal and communication skills, professionalism, system-based practice, interprofessional collaboration, and personal and professional development.²³ The committee based their domains and umbrella competencies off an article published by Englander et al. in 2013, which reviewed 150 competency guidelines for medical professionals.²⁶ The first six domains are the same as the ones utilized by the Accreditation Council for Graduate Medical Education (ACGME) for certifying residency programs. Englander et al. created the last two. These eight domains encompass and highly parallel the Curriculum Content standards within LCME's Functions and Structure of a Medical School. For example, the

LCME's 7.8 Communication Skills and 7.9 Interprofessional Collaborative Skills would be covered by the Englander's/ACGME's interpersonal and communication skills, professionalism, and system-based practice. Given the similarities and that the AAMC makes LGBTQ curriculum suggestions within the Englander/ACGME framework, I will follow these domains and competencies in this paper. Additionally, I have numerically altered the AAMC's document in order to connect my curriculum proposal to their recommendations (Appendix A). In the AAMC document, each of the eight domains sets the framework for individual competencies developed verbatim by Englander et al.; under each competency, the committee developed LGBTQ specific sub-competencies to address these communities' patient care needs.^{23,26}

These reports also recommend the use of varying modalities to achieve the curricular competencies. Lectures have the benefit of rapid, standardized information dissemination, whereas small groups allow for critical and collaborative thinking as well as personal reflection. Role-playing and standardized patients provide a means to acquire and practice patient care skills. The bulk of education will likely occur in the preclinical years, but revisiting of the subject is necessary in rotations. Suggestions for clinical integration are more vague and are heavily reliant on the physician educators in the clinical setting.

CHAPTER 6: PROPOSED MODEL FOR LEWIS KATZ SCHOOL OF MEDICINE

Several institutions serve as magnets of LGBTQ care and education. While they serve as exemplary models, nation-wide medical schools desiring to bolster gender, sex, and sexuality education may not be able to achieve such robust curricula. As of this writing, the Lewis Katz School of Medicine at Temple University (LKSOM) is dedicated to creating a meaningful and thorough gender, sex, and sexuality curriculum, but lacks significant resources to dedicate exclusively to this endeavor. For this reason, I am proposing an encompassing curriculum that will provide the knowledge, attitude, and skills necessary for graduating physicians, while bearing in mind circumstantial limitations that other institutions may face as well.

My proposed curriculum will include preclinical, interclerkship, and clinical elements. As the preclinical years are the most standardized and malleable, the bulk of my proposal will fall within the first two years. The preclinical education needs to have longitudinal integration and allotted time specific to gender, sex, and sexuality throughout each block and doctoring. Integration is aimed at normalization of these topics and promoting the idea that gender, sex, and sexuality should be part of routine clinical management considerations. Put in another way, gender, sex, and sexuality should not only be focused on when encountering an LGBTQ patient; the opposite of this is true as well. Proper gender, sex, and sexuality healthcare delivery is rooted in biological and psychiatric knowledge, professionalism, patient interaction skills, healthcare system practices, public policy, and bioethics. Whenever these topics are taught links to gender, sex, and sexuality must be incorporated.

Preclinical education should be presented in various formats including lectures, small group activities, and standardized patients. While medical education is trending towards fewer lectures and more independent learning, this mode of education requires more faculty be adept in the subject material. As LKSOM does not have a significant number of highly trained faculty in gender, sex, and sexuality, lecture-based learning allows for better utilization of current resources. Lectures can provide rapid, standardized material to the class that can then be explored in small group activities. However, my proposal is flexible to a changing environment with the key topics able to be repurposed for different teaching modalities. A final important aspect of any curriculum addition is to ensure that the topics are tested regularly.

LKSOM currently has roughly eight hours of distinct educational time in the preclinical years related to gender, sex, and sexuality. My proposal requires about eight dedicated hours as well as extensive integration, which will consume a variable amount of time depending on the subject. The current allotted time needs repurposing and restructuring to better achieve the curriculum competencies.

Interclerkship sessions are dedicated, mandatory educational meetings that are standardized across all third year clinical rotations, whether these take place between or during rotations. These sessions are opportunities to present material that may be lacking in clinical rotations or topics that could use further exploration. Given that the clinical years provide unique learning scenarios for each student and that education is highly dependent on clinical faculty, gender, sex, and sexuality are topics well suited for an interclerkship session. Clerkship changes are more difficult with the two most accessible means for change being lecture series and required clinical experience logs. Optional

electives are additional means to improve education for select students. Also, clinical faculty development is key, but is outside the scope of this writing. My proposal includes 4 hours of dedicated time during an interclerkship session and key topics and lectures to include in clerkships.

Finally, for each of the proposed sessions and components for integration, I will connect it to competencies created by the AAMC Advisory Committee on Sexual Orientation, Gender Identity, and Sex Development.²³ Appendix A is a numerically modified version of their document in order to correlate them to my proposal. Additionally, my proposal covers all 16 topics that were deemed “potentially critical features of LGBT experiences that affect health” by Obedin-Maliver et al.¹⁸

Preclinical Material

Session One: Lecture on Introduction to Gender, Sex, and Sexuality (1 hour)

The goal of this lecture is to introduce medical students early during first year to the concepts behind gender, sex, and sexuality. There are no applicable basic science blocks at the time this must be taught, and therefore Doctoring One would be the best area to add this lecture. Also, it must precede the sexual history lecture as students need these fundamentals prior to learning the equivalent patient skill set.

The lecture should begin by highlighting how this is an uncomfortable topic for some students as well as practitioners and that mistakes are common in newly learned topics. The lecture conveys that a genuine effort and sincere apology to patients while discussing these topics generally mitigates a possible offense. Behavior, expression, and

identity are defined and juxtaposed against each other. The same should happen for sex and gender. Gender role behavior, gender nonconforming, gender discordant, and gender dysphoria should be defined. The concept of being transgender should be discussed. Other terms that require defining and exploration are sexuality, sexual orientation, sexual health, sexual role, lesbian, gay, bisexual, queer, and asexual. The prevalence of gender and sexuality minority groups should be included as well as how culture influences these populations, more specifically on the key terms. Intersectionality, the concept that a person cannot be defined by a single trait and is best understood by the summation of their experiences and distinct parts, should be introduced. The basics of “transitioning” and “coming out” are well placed here too. Finally, students should take away that the role of a clinician is to be a factual provider and nonbiased supporter that conveys the normalcy and unmalleable nature of sexual and gender identities.

Competency: KP 2.1, KP 2.3, ICS 4.1

Session Two: Small Group Follow Up on Introduction Lecture (1 hour)

This small group discussion would be based around the clinical scenario of a gender discordant late-adolescent presenting to clinical for advice. The goal of the case would be to redefine and properly use the relevant terms presented in the introduction lecture. Students would also be encouraged to assess how the patient’s cultural environment may be influencing the current presentation and analyzes provider biases, including overt bias and subtle communication patterns. The goal would also be to incorporate the concept of intersectionality for the patient. The exercise would then segue into an attitude changing exercise based on Fenway Health.²⁷ The activity has students

first acknowledge an attitude that they hold and then explores the reasons why, how that view may be helping or hurting them, and what benefits there might be for changing this view.²⁷ Then, intersectionality can be utilized to draw connections between students and the case's patient.

Competency: KP 2.1, PLI 3.1, ICS 4.1, ICS 4.3, ICS 4.4, PPD 8.1

Session Three: Taking an Inclusive Sexual History (1.5 hours)

While the actual questions required of a sexual history are relatively straightforward, the critical differentiator of an inclusive one is the tact, adeptness, and openness of the interviewer. LKSOM already has an hour lecture on how to take a sexual history. However, this lecture is not inclusive of the various gender and sexual identities and expressions and does not utilize this opportunity to explore these topics. My proposed lecture, also in Doctoring, should cover the clinical utility of the sexual history, when it should be performed, and some basic statistics about its use. For example, only 25% of primary care doctors ask about sexual history.¹ The lecture should review the actual questions required to complete the history, but the majority of the time should be on the approach. Students need to learn how to transition to the subject, how to answer why this is a necessary set of questions, and how to engage in an open, nonjudgmental manner. The lecture would teach the importance of mirroring patient language, clarifying terms, listening to patient concerns without projecting their own, and asking only what is necessary at that clinical encounter. The lecture would also teach how to discuss sex anatomy with patients especially in the context of a patient with DSD or who identifies as transgender. Students must understand gender and sexual minorities may be reluctant to

share in this area of care and that multiple visits may be necessary to build rapport. The lecture should cover how disability may influence sexual history but not assume a lack of sexual activity in this patient population. Sexual health risk assessments should be taught as well. This would include questions about what sexual activities are being engaged in and an understanding of the type of risks to which the patient may be subject. Student should take away that risk is equal to behavior and not identity, but that some patient identities warrant further risk screening questions. Finally, an overview of how to appropriately document the information obtained in a sexual history should be discussed.

While the physical exam maneuvers will not be covered, the concept behind the exam must be emphasized: perform only what is truly necessary, consider the possible traumatic experience that gender and sexual minorities may experience, be astute to clues of possible sexual trauma or abuse, and continue to mirror patient verbal and body language. This portion will also highlight students to consider other maneuvers or alternatives to the physical exam when necessary.

Competency: PC 1.1, PC 1.2, PC 1.4, ICS 4.2, PF 5.2, ICP 7.1

Session Four: Standardized Patient on Inclusive Sexual History Taking (2 hours)

Creation of the cases to be used during this standardized patient session is beyond the intent of my writing. LKSOM already has well-designed standardized patient encounters on taking a sexual history. However, beneficial additions parallel some of the teaching points that should be used to reinforce ideas from the introduction to gender, sex, and sexuality. The presence of at least one LGBTQ patient is compulsory. However, the patient may not need to identify as LGBTQ, but engage in behaviors that may

coincide with our conceived notions of these identities. I believe a case that exemplifies that behavior does not equal identity would be prudent.

Competency: PC 1.1, PC 1.4

Session Five: Genitourinary System Development and DSD (1-1.5 hours)

The goal of this lecture would be to teach students the developmental process that leads to the adult genitourinary system in order for students have a better understanding of function. Another primary goal would be for students to gain knowledge of the origins of DSD within a non-binary framework. The teaching of embryology and developmental stages would be straightforward. However, critical points for inclusion are explaining how DSD may arise during development and the implications of those variants on structure and function. A brief history of DSD and the now considered unethical previous standard of care should be presented. An overview of how to care for newborns with DSD should be outlined within an ethical context. A key point is that patients of any age who are identified to have a DSD, they require referral to a specialist. Additionally, statistics about prevalence and outcome of patients with DSD should be included.

Competency: PC 1.3, KP 2.2, KP 2.5

Session Six: Lecture on Sexual Health and Dysfunction (2 hours)

The sexual health and dysfunction lecture would preferably be within the endocrine and reproductive block in second year with students already having received the physiology of sexual functioning during first year. This lecture also would not cover STIs, which is better placed within microbiology. The beginning of the session would

cover the definition of sexual health, its importance in overall health, and statistics about how patients view sexual health. The definition taught should parallel that sexual health is “the experience of the ongoing process of physical, psychological, and socio-cultural well-being related to sexuality” and “it is not merely the absence of dysfunction, disease, or infirmity”.³ Also, the fact that sexuality is fluid and, therefore, must be revisited regularly is important to highlight. The cultural influences to sexuality should be appreciated here as well. The lecture will also highlight issues of sexual health across the ages: the increased fluidity and experimental behavior without identity solidification during adolescence and the continued expression of sexual being in the elderly who generally have comorbid conditions.

The dysfunction section of the lecture would cover both male and female issues and special topics for transgender and patients with DSD. Topics for all genders are sexual compulsivity and anorectal complaints including fissures, hemorrhoids, and anodysparunia. Male-specific complaints include the umbrella topics of erectile dysfunction and ejaculatory issues. Erectile dysfunction etiologies to discuss are psychogenic, medication, medical, and condom induced constriction.²⁸ Female complaints to be covered fall under the four major categories of pain, anorgasmia, disorders of desire, and disorders of arousal.²⁸ Students should understand that surgical and hormonal treatment options for transgender individuals and patients with DSD have the ability to influence sexual function and desire.

Competency: PF 5.1, however mostly out of the scope of AAMC competencies

Concepts and Cases for Preclinical Integration:

- Anatomy: Include the variants of genital anatomy in the pelvic and genital section of anatomy. The goal is introduce the concept of disorders of sexual development early during medical education especially as this is an anatomical variant. This would be framed within the concept of dismantling binary culture.
 - o Competency: KP 2.2
- Reproductive Physical Examination: At LKSOM, this instruction is outsourced to a traveling group that allows for students to practice these exam maneuvers on real people. Due to this, we would be unable to make changes to this portion of education. However, the sexual history lecture would discuss issues relevant to the physical exam.
 - o Competency: PC 1.2, PC 1.4
- Endocrine pharmacology: During androgen and estrogen pharmacology lectures, transgender care should be highlighted. Discuss how virilization and feminization are not only adverse effects, but can be desired outcomes. Briefly include which drugs are routinely used in transgender care and how they are administered.
 - o Competency: PC 1.3
- Psychiatry: Although gender identity concepts will already have been discussed, another brief discussion should take place when presenting gender dysphoria. The discussion should highlight the definition of gender dysphoria, why the DSM currently needs one, what are is stigmatization of its existence, and what the implications are for healthcare systems. Also, statistics about gender

nonconformity in adolescence and the likelihood of becoming LGBT should be mentioned here as well.

- Competency: PC 1.3, PC 1.5, KP 2.3, KP 2.4, ICS 4.4, SBP 6.4
- Psychiatry 2: If LGBTQ is discussed as a risk factor for certain mental health disorders, it should be discussed that this has been found to be a consequence of minority stress. Use the statistic that “rates of generalized anxiety disorder, PTSD, dysthymia, and psychiatric comorbid conditions in LGBT individuals were lower in states with [laws that include protections for sexual orientation and gender identity] as compared to states without them”.²⁹
 - Competency: PC 1.5, KP 2.3, KP 2.4, SBP 6.4
- Evidence-based medicine: EMB discussions should highlight how current evidence is insufficient for many patient populations, specifically LGBTQ ones and patients with DSD. Present the notion that lack of evidence does not equal inaction and how it shifts care plans to be more patient-centric. Areas to use for this discussion would be gender typicality surgeries for patients with DSD and pubertal blockers for transgender youth. Additionally, how evidence is ignored and why that might occur is a necessary discussion; this could be rooted in how reparative therapy for LGB populations continues despite evidence of its ineffectiveness and its subsequent psychiatric damage. A final note on EBM is about what to do when evidence favors against patient preference. An example is continuing estrogenic therapy for transgender women when the stroke or cardiovascular risk is high.
 - Competency: KP 2.4, KP 2.5, SBP 6.6

- Healthcare systems: Discussions of healthcare system practices and how healthcare environments shape patient care must include LGBTQ populations. End of life care and advance directive talks should include how families of choice are not legally recognized, but that legal documents can allow them to serve as healthcare proxies. Another topic is how limited intake forms can lead to provider assumption and patient-directed microaggressions. For example, a same-sex married patient who has checked the married box may lead providers to assume it is a heterosexual one. Listing only two genders can lead to patient and provider confusion as well as deteriorate patient rapport. A final note should be about inclusive spaces with bathrooms, waiting rooms, and literature being LGBTQ friendly.
 - o Competency: KP 2.4, PLI 3.2, PF 5.4, SBP 6.4, SBP 6.5, IPC 7.1
- Implicit bias and minority stress: LGBTQ populations should be included in these topics with the downstream effects of minority stress presented. Include LGBTQ people in the discussion of how to mitigate these biases and improve communication.
 - o Competency: KP 2.4, ICS 4.3, ICS 4.4
- Intimate partner violence: The increased prevalence of intimate partner violence in LGBTQ populations should be discussed as well as stratified by each subgroup. The idea that men can also be victims needs to be highlighted. Bisexual men and women suffer from some of the highest rates. Data is limited for transgender people but what data is available suggest very high rates as well. Patients with HIV also have increased rates of intimate partner violence. Students should take

away LGBTQ populations are equally if not more vulnerable to intimate partner violence and that bisexual patients and patients with HIV should have a lower screening threshold. This lecture also must include how to create an open space to facilitate this difficult discussion and how to mitigate the patient-physician power imbalance inherent to this situation.

- Competency: PC 1.3, PC 1.6, PLI 1.3, ICS 4.3, ICS 4.4

- Microbiology: STI, including HIV, statistics should be stratified by LGBTQ subgroups with particular attention paid to increased prevalence among transgender patients. Statistics should also be stratified by age and ethnicity in order to note that minorities are disproportionately affected by STIs and that elderly populations comprise many STI cases. The concept of “partner pool” is important for understanding why prevalence continues to be high in some groups and allows for destigmatization. The idea of safer sex and risky sexual practices should also be included. During a small group session about STIs, pose a question about what populations might be more at risk for certain diseases.

- Competency: PC 1.3, PC 1.5, PC 1.6

- Cardiology and Pulmonology: Include that LGBTQ patients tend to have increased rates of smoking and, thus, higher cardiopulmonary morbidity and overall mortality. Also highlight lesbian women have high rates of obesity and suffer more from cardiovascular events.³⁰ Discussion how HIV and its chronic inflammatory state increases cardiovascular disease rates and that smoking compounds this to an overall increased risk of four times. Finally, increased rates

of hypertension, venous thromboembolism, and elevated blood glucose are associated with estrogen use in transgender women.³⁰

- Competency: PC 1.3, PC 1.5, PC 1.6
- Patients with Special Needs: Include LGBTQ-related health topics in the Doctoring lecture on patients with special needs.
 - Competency: PC 1.4
- Professionalism: Include LGBTQ and DSD populations in professionalism such as how personal identity may influence care, administrative policies that protect these populations, and discrimination within the field. Add statistics about the prevalence of LGBTQ discrimination in medicine and the additional stress that these students feel.
 - Competency: PF 5.4
- Standardized patient encounters: Cases throughout the preclinical years should have various LGBTQ patients who have a variety of complaints that may or may not be related to their LGBTQ status. An example could be a transgender male complaining of abdominal pain that is unrelated to his transgender status. Another example would be how a differential diagnosis for abdominal pain may change for a transgender male and how might one approach this patient differently. The goal of these inclusive cases would be multifold: to highlight that LGBTQ patient complaints are not always related to their LGBTQ status, to learn how to navigate when anatomy does not equal identity, and to encounter LGBTQ patients outside of LGBTQ lessons. Also, incorporate hypothetical questions into cases that

general reinforce stereotypes. For example, “how would this case be different if a man had presented for this problem?”.

Clinical Material

LGBTQ Interclerkship Session –the next 3 sessions are to be done on one day during or in between clinical rotations for all third year students.

Lecture: LGBTQ Primary Care (2 hours)

The goal of this two-hour lecture would be to teach students the essentials of caring for LGBTQ patients, encompassing medical information as well as relevant social determinants of health. This lecture would comprise the factual information necessary for students to execute primary care functions for these populations. First, it would cover a review of pertinent definitions and the prevalence of LGBTQ people. The lecture would reiterate the permanence of gender identity and sexual orientation and the damage of reparative therapies. Statistics about discrimination and health disparities and why this may occur would be presented to enhance understanding of LGBTQ care inequities. It would highlight that transgender research and statistics are limited and that bisexual men and women face higher levels of discrimination both within and outside the LGBTQ community. Salient federal, state, and local laws should be briefly discussed; this would convey both why LGBTQ persons suffer from health inequities and minority stress and how public policies can improve this.

Then, basic communication and patient skills should be covered including: mirroring patient language, framing questions without assumptions, asking only what is

truly necessary at a given visit, and inquiring about how the patient would like their identities documented in the chart, especially for minors. Special topics for further discussion are concerns for elderly LGBTQ patients, body image issues, reproductive concerns, and family planning. Additionally, students must know to ask if transgender patients have sought gender-affirming care outside of the healthcare setting such as silicone or street drugs. Students should take away that practitioners should have a heightened suspicion for psychosocial stressors and lifestyle behaviors that can influence health.³⁰ This should also include how support groups and community resources are invaluable tools for patient care. Students should get an example list of resources in the Philadelphia area. Screening and vaccination recommendations would be covered as well. All patients should receive the HPV vaccine and anyone partaking in anal sex should receive the Hepatitis A and B vaccines.³⁰ Guidelines for anal pap smears for MSM are being researched and students should be aware of the possibility of this future recommendation. Estrogen therapy does not decrease the risk of prostate cancer in transgender women.³⁰ Transgender men are currently recommended to follow the general pap smear guidelines so long as they have used their vaginal areas for sex.³⁰ The risk of breast cancer is believed to be the same for WSW.³⁰ The risk of breast cancer in transgender males or females is currently unknown.³⁰ Guidelines for the use of pre-exposure prophylaxis for HIV in LGBTQ populations must be discussed.

The final portion of the lecture would cover the various therapeutic options available for transgender patients. This includes non-endocrine, endocrine, and surgical options and how each of these may affect fertility. Non-endocrine options to cover include legal documentation changes, psychiatric care, patient and family support groups,

hair electrolysis, and voice coaching.³¹ Endocrine options to cover are pubertal suppression and cross sex hormone therapy as well as their basic implementation and adverse effects. Pubertal suppression can take place during Tanner stages 2 and 3 with GnRH blockers, delaying adolescents from making definitive decisions and undergoing what may be a traumatic puberty. This therapy began in the 2000s, so long-term data about outcomes is limited. However, short-term studies show an improvement in mental health outcomes for these adolescents.³¹ The basic drugs and regimens of cross-sex hormone therapy would be covered. Important to include is that current research shows no increased risk of hormone-based cancers in transgender patients on hormone therapy.³⁰ Finally, a brief overview of the surgical care for transgender patients would be presented so students would know generally what options exist.

Competency: PC 1.3, PC 1.4, PC 1.5, PC 1.6, KP 2.3, KP 2.4, KP 2.5, PLI 3.1, PLI 3.2, ICS 4.2, ICS 4.4, PF 5.3, PF 5.4, SBP 6.1, SPB 6.2, SBP 6.4, SBP 6.5, ICP 7.1

LGBTQ Patient Panel (1 hour)

The goal of an LGBTQ patient panel would be for students to learn about LGBTQ patient care issues from real people in the community. It would allow students to hear first hand the issues that are important to LGBTQ patients with a community engagement approach. Students would also have to opportunity to ask questions and begin interacting and familiarizing themselves with LGBTQ populations. The panel would also elucidate many of the relevant social determinants of health and healthcare system structuring that influences these populations. Many of the magnet LGBTQ institutions have LGBTQ

patient panels in either the clinical or preclinical years for the reasons described above. I have included this as my plan as a hopeful addition while recognizing this would be one of the more difficult elements to incorporate into a curriculum.

Competency: would depend on topics discussed but in general – PLI 3.1, PLI 3.2, ICS 4.1, ICS 4.2, ICS 4.3, ICS 4.4, PF 5.1, PF 5.2, PF 5.4, SBP 6.3, SBP 6.4, SBP 6.5, IPC 7.1, PPD 8.1

Small Group Session: Case Based LGBTQ Learning (1 hour):

The goal of this small group activity would be to think about evidence-based medicine for LGBTQ populations. Each case would highlight a different aspect of EMB as it relates to LGBTQ patients while teaching them about the subject material. One case would require students to find the appropriate clinical guidelines for managing hormonal medical care of a transgender patient. Students would learn where to locate transgender patient care guidelines, learn the available treatment options, and practice applying them to a case. Another case would present an outpatient scenario that highlights healthcare system barriers to proper LGBTQ care. The scenario would also include a physician uncomfortable prescribing estrogen to a transgender female due to evidence showing increased cardiovascular morbidity. Students would analyze how healthcare system structures and evidence-based medicine influenced the patient's experience and care.

Competency: PC 1.3, PC 1.4, PC 1.6, KP 2.4, KP 2.5, PLI 3.3, ICS 4.3, ICS 4.4, PF 5.1, PF 5.3, PF 5.4, SBP, 6.5, SBP 6.6, PPD 8.1

Concepts for Clerkship Incorporation:

- Family Medicine: As family medicine is the clinical rotation with the most outpatient health maintenance visits, sexual history competency should be evaluated within this block. Add sexual history into the patient encounter log under the skills section. Also, require sexual history be part of the observed history in this block. Attending physicians should be taught to look for sexual history within student presentations for maintenance visits. Another possible activity is to make students take a new patient intake form and find where there are social determinant of health issues.
 - o Competency: PC 1.1, PC 1.2, PC 1.4, PC 1.6, PLI 3.2 (intake form activity), ICS 4.2
- Internal Medicine: As OB/GYN covers women's health, male sexual functioning issues should be discussed in a lunchtime lecture. The lecture would preferentially be case based to build upon the material covered in the second year sexual health lecture.
 - o Competency: out of the scope of AAMC competencies
- Pediatrics: Include a lecture on adolescent sexual health. This would cover the basics of sexual and gender identity formation, the rates of gender discordant youth to becoming LGBTQ, and how to address parent concerns about gender discordant youth. It would also include safer sex practices and confidentiality issues related to gender and sex. It would also discuss the normalcy of sexual exploration and LGBTQ identities, and outlets and coping mechanisms for youth. Include sexual history and sexual risk assessments in the patient encounter and

skills log and ensure that attendings include these in student feedback. Address the issue that breaking confidentiality for safety reasons does not mean that the underlying reason such as gender and sexual identity must be released as well.

- Competency: PC 1.6, KP 2.3, KP 2.5, ICS 4.1, ICS 4.2, ICS 4.4, PF 5.1, PF 5.2
- Obstetrics/gynecology: Continue to teach women's sexual health and functioning. However, points to include are Pap smear guidelines for WSW and transgender men. Additionally, reproductive planning and issues for WSW should be discussed. Discuss the sensitivity of genital and breast exams especially for transgender patients and patients with DSD.
 - Competency: PC 1.2, PC 1.3, PC 1.4, PC 1.5, PC 1.6, KP 2.5
- Surgery: Include a presentation for the various surgical procedures that exist for gender alignment.
 - Competency: PC 1.3
- Elective: Offer a clerkship elective in LGBTQ healthcare at our home institution or at another local practice or institution.
 - Competency: would fulfill numerous competencies depending on the experience
- Longitudinal integration: Ensure faculty members facilitate discussions about confidentiality and respect for LGBTQ and DSD populations including documentation, presentations, and patient encounters. Encourage faculty to discuss how LGBTQ status might be influencing the disease or social state of a patient. Have students to seek out literature on LGBTQ populations and patients

with DSD when encountered. Promote the use of LGBTQ community resources when a patient could benefit such interventions. Give students an LGBTQ and DSD specific card that lists some of the available community resources.

- Competency: PLI 3.3, ICS 4.2, PF 5.1, PF 5.2, SBP 6.2, SBP 6.3, ICP 7.1

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APPENDIX: CURRICULUM COMPETENCIES

Adapted from “AAMC LGBT & DSD-affected Curriculum Integration Objectives”²³

Patient Care:

Gather essential and accurate information about patients and their conditions through history taking, physical examination, and the use of laboratory data, imaging, and other tests by:

PC 1.1: Sensitively and effectively eliciting relevant information about sex anatomy, sex development, sexual behavior, sexual history, sexual orientation, sexual identity, and gender identity from all patients in a developmentally appropriate manner.

PC 1.2: Performing a complete and accurate physical exam with sensitivity to issues specific to the individuals described above at stages across the lifespan. This includes knowing when particulars of the exam are essential and when they may be unnecessarily traumatizing (as may be the case, for example, with repeated genital exams by multiple providers).

Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment by:

PC 1.3: Describing the special health care needs and available options for quality care for transgender patients and for patients born with DSD (e.g., specialist counseling, pubertal suppression, elective and nonelective hormone therapies, elective and nonelective surgeries, etc.).

Counsel and educate patients and their families to empower them to participate in their care and enable shared decision-making by:

PC 1.4: Assessing unique needs and tailoring the physical exam and counseling and treatment recommendations to any of the individuals described above, taking into account any special needs, impairments, or disabilities.

PC 1.5: Recognizing the unique health risks and challenges often encountered by the individuals described above, as well as their resources, and tailoring health messages and counseling efforts to boost resilience and reduce high-risk behaviors.

Provide health care services to patients, families, and communities aimed at preventing health problems or maintaining health by:

PC 1.6: Providing effective primary care and anticipatory guidance by utilizing screening tests, preventive interventions, and health care maintenance for the populations described above (e.g., screening all individuals for inter-partner violence and abuse; assessing suicide risk in all youth who are gender nonconforming and/or identify as gay, lesbian, bisexual and/or transgender; and conducting screenings for transgender patients as appropriate to each patient's anatomical, physiological, and behavioral histories).

Knowledge for Practice:

Apply established and emerging biophysical scientific principles fundamental to health care for patients and populations by:

KP 2.1: Defining and describing the differences among: sex and gender; gender expression and gender identity; gender discordance, gender nonconformity, and gender dysphoria; and sexual orientation, sexual identity, and sexual behavior.

KP 2.2: Understanding typical (male and female) sex development and knowing the main etiologies of atypical sex development.

KP 2.3: Understanding and explaining how stages of physical and identity development across the lifespan affect the above-described populations and how health care needs and clinical practice are affected by these processes.

Apply principles of social-behavioral sciences to the provision of patient care, including assessment of the impact of psychosocial and cultural influences on health, disease, care seeking, care compliance, and barriers to and attitudes toward care by:

KP 2.4: Understanding and describing historical, political, institutional, and sociocultural factors that may underlie health care disparities experienced by the populations described above.

Demonstrate an investigatory and analytic approach to clinical situations by:

KP 2.5: Recognizing the gaps in scientific knowledge (e.g., efficacy of various interventions for DSD in childhood; efficacy of various interventions for gender dysphoria in childhood) and identifying various harmful practices (e.g., historical practice of using “reparative” therapy to attempt to change sexual orientation; withholding hormone therapy from transgender individuals) that perpetuate the health disparities for patients in the populations described above.

Practice-based Learning and Improvement:

Identify strengths, deficiencies, and limits in one's knowledge and expertise by:

PLI 3.1: Critically recognizing, assessing, and developing strategies to mitigate the inherent power imbalance between physician and patient or between physician and parent/guardian, and recognizing how this imbalance may negatively affect the clinical encounter and health care outcomes for the individuals described above.

PLI 3.2: Demonstrating the ability to elicit feedback from the individuals described above about their experience in health care systems and with practitioners, and identifying opportunities to incorporate this feedback as a means to improve care (e.g., modification of intake forms, providing access to single-stall, gender-neutral bathrooms, etc.).

Locate, appraise, and assimilate evidence from scientific studies related to patients' health problems by:

PLI 3.3: Identifying important clinical questions as they emerge in the context of caring for the individuals described above, and using technology to find evidence from scientific studies in the literature and/or existing clinical guidelines to inform clinical decision making and improve health outcomes.

Interpersonal and Communication Skills:

Communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds by:

ICS 4.1: Developing rapport with all individuals (patient, families, and/or members of the health care team) regardless of others' gender identities, gender expressions, body types, sexual identities, or sexual orientations, to promote respectful and affirming interpersonal exchanges, including by staying current with evolving terminology.

ICS 4.2: Recognizing and respecting the sensitivity of certain clinical information pertaining to the care of the patient populations described above, and involving the patient (or the guardian of a pediatric patient) in the decision of when and how to communicate such information to others.

Demonstrate insight and understanding about emotions and human responses to emotions that allow one to develop and manage interpersonal interactions by:

ICS 4.3: Understanding that implicit (i.e., automatic or unconscious) bias and assumptions about sexuality, gender, and sex anatomy may adversely affect verbal, nonverbal, and/or written communication strategies involved in patient care, and engaging in effective corrective selfreflection processes to mitigate those effects.

ICS 4.4: Identifying communication patterns in the health care setting that may adversely affect care of the described populations, and learning to effectively address those situations in order to protect patients from the harmful effects of implicit bias or acts of discrimination.

Professionalism:

Demonstrate sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation by:

PF 5.1: Recognizing and sensitively addressing all patients' and families' healing traditions and beliefs, including health-related beliefs, and understanding how these might shape reactions to diverse forms of sexuality, sexual behavior, sexual orientation, gender identity, gender expression, and sex development.

Demonstrate respect for patient privacy and autonomy by:

PF 5.2: Recognizing the unique aspects of confidentiality regarding gender, sex, and sexuality issues, especially for the patients described above, across the developmental spectrum, and by employing appropriate consent and assent practices.

Demonstrate accountability to patients, society, and the profession by:

PF 5.3: Accepting shared responsibility for eliminating disparities, overt bias (e.g., discrimination), and developing policies and procedures that respect all patients' rights to self-determination.

PF 5.4: Understanding and addressing the special challenges faced by health professionals who identify with one or more of the populations described above in order to advance a health care environment that promotes the use of policies that eliminate disparities (e.g., employee nondiscrimination policies, comprehensive domestic partner benefits, etc.).

System-Based Practice:

Advocate for quality patient care and optimal patient care systems by:

SBP 6.1: Explaining and demonstrating how to navigate the special legal and policy issues (e.g., insurance limitations, lack of partner benefits, visitation and nondiscrimination policies, discrimination against children of same-sex parents, school bullying policies) encountered by the populations described above.

Coordinate patient care within the health care system relevant to one's clinical specialty by:

SBP 6.2: Identifying and appropriately using special resources available to support the health of the individuals described above (e.g., targeted smoking cessation programs, substance abuse treatment, and psychological support).

SBP 6.3: Identifying and partnering with community resources that provide support to the individuals described above (e.g., treatment centers, care providers, community activists, support groups, legal advocates) to help eliminate bias from health care and address community needs.

Participate in identifying system errors and implementing potential systems solutions by:

SBP 6.4: Explaining how homophobia, transphobia, heterosexism, and sexism affect health care inequalities, costs, and outcomes.

SBP 6.5: Describing strategies that can be used to enact reform within existing health care institutions to improve care to the populations described above, such as forming an LGBT support network, revising outdated nondiscrimination and employee benefits

policies, developing dedicated care teams to work with patients who were born with DSD, etc.

Incorporate considerations of cost awareness and risk-benefit analysis in patient and/or population-based care by:

SBP 6.6: Demonstrating the ability to perform an appropriate risk/benefit analysis for interventions where evidence-based practice is lacking, such as when assisting families with children born with some forms of DSD, families with prepubertal gender nonconforming children, or families with pubertal gender nonconforming adolescents.

Interprofessional Collaboration:

Work with other health professionals to establish and maintain a climate of mutual respect, dignity, diversity, ethical integrity, and trust by:

IPC 7.1: Valuing the importance of interprofessional communication and collaboration in providing culturally competent, patient-centered care to the individuals described above and participating effectively as a member of an interdisciplinary health care team.

Personal and Professional Development:

Practice flexibility and maturity in adjusting to change with the capacity to alter one's behavior by:

PPD 8.1: Critically recognizing, assessing, and developing strategies to mitigate one's own implicit (i.e., automatic or unconscious) biases in providing care to the individuals described above and recognizing the contribution of bias to increased iatrogenic risk and health disparities.