

[MUSIC PLAYING]

NATHAN KING: Thanks for being here today. I'm very excited for you to hear my talk on transgender health care for the OB/GYN. These are the learning objectives I have for today. Overall, my goal is for you guys to feel that you are leaving with a greater understanding of the need for transgender health care and feel more comfortable caring for this population or at least motivated to become so.

Unfortunately, we have no financial disclosures. So what are we going to cover a few topics today. First, we're going to go over, what is transgender? We're going to briefly dive into the history of the transgender community. We're going to go over inequalities and disparities within health care, specifically, for this population.

We're going to review some knowledge of transgender health care needs that we have. We're going to review the routine health screening recommendations for transgender patients. And then we're going to go over some OB/GYN-specific care guidelines for transgender patients that you may see in your clinic.

So before we dive in, I wanted to quickly review some of these terms, which can be a little daunting to grasp. Being transgender is specifically talking about the idea that how a person feels about themselves or their identity, in terms of gender, does not match what they were assigned at birth based solely on their physical traits. And therefore, it does also not match what expectations society places on them.

Non-binary is similar and that these individuals also do not identify with the gender they were assigned at birth. But they themselves feel that they fall outside of the binary categories of gender that were historically defined as male or female. Gender nonconforming is a more broad term in which the way someone expresses their gender does not meet the societal expectations based on what is thought to be masculine or feminine. And then cisgender is a word that you will see quite a bit throughout the presentation as a way to identify those individuals whose gender identity does align with the gender they were assigned at birth.

Throughout the talk, for the sake of digestibility, I'll be referencing transgender patients as either assigned female or male as at birth, or transgender male or transgender female patients. But I want everyone in the audience to know that this can include individuals who fall into many of the categories, either on the slide or off of the slide, in different ways that gender can be defined or experienced by patients. So I don't know how many history buffs are in the audience. But I can tell you there's not any here in the auditorium where I am alone. But I recognize how important it is to understand the history of the people and patients you interact with and care for, especially if they are part of a marginalized population.

Therefore, we're going to start by touching on the history, briefly, but focus in on how the community has developed, specifically within health care. The first documentation of a transgender community is thought to be the Hijra community of India, which was mentioned all the way back in the *Kama Sutra*. There are many other communities that have similar histories of being either gender queer and/or homosexual. However, these concepts were not really well-defined or documented until the 19th century.

So it wasn't until the 19th century that the scientific community began to explore variations in sexuality and gender identity. During this time, however, society was prosecuting homosexual behavior and lumped in what we assume are transgender individuals into this as well. Text regarding these phenomena was published in 1877 by a German psychiatrist named Kraft-Ebbing. It was called *Psychopathia Sexualis*.

This is really the first book of its kind and included several cases of what was deemed sexual paraphilias. It did, unfortunately, deem homosexuality as a mental illness and lumped it in with the likes of necrophilia. It was, however, the first time that therapy was proposed as a solution instead of criminalization, which would have been historically offered.

Then, in 1897, these studies progressed and a sexologist named Ellis published *Sexual Inversion*. This was the first more objective text about homosexuality as it did not characterize it as a disease, an immorality, or a crime. Interestingly, it contained a theory that gay men and women were actually just heterosexuals who were trapped in the wrong body. Thus, gay men were just women and a man's body and vice versa.

You can see that this actually more lends itself closely to what we now defined as being transgender. As a side note, this text assumed that bisexuals were just intersex individuals who were trapped in either a man or woman's body and their quote unquote "other gender" was seeking out its own sexual desires. You can see, in this century, we still had a long way to go for understanding.

During the same year, another German sexologist named Magnus Hirschfeld, who happened to be both gay and Jewish, founded the Scientific Humanitarian Committee. This was the first group to be outspoken advocates for LGB rights. And his work will go on to become very important for the transgender community as well.

It took until 1910, until the idea of being transgender was separated from being homosexual. But things quickly progressed from there. The same man, Magnus Hirschfeld, opened the Institute of Sexual Research. This served many purposes you can see listed.

But it also had a special focus on transgender health care. It offered consultation with doctors from specialists like endocrinology as well as gynecology. It also became the first place to attempt gender-affirming surgeries, which, by the way, were performed at the time by gynecologists. One of the first patients had four different procedures, as you can see listed, the last being a uterine transplant. But unfortunately, she died from complications from her surgeries.

Unfortunately, despite all of this progress, tensions against the LGBT community remained high. And this was highly exaggerated during World War II when the Nazis took over Germany. Along with horrific persecutions of the Jewish population, the Nazis also sought to eliminate many other minorities, which included the LGBT community. This unfortunately led to the disbandment of the Sexual Research Institute, and soon after, the burning of its building.

After the war, however, progress continued. And because of the Nazi regime, many of the most prominent leaders in transgender care at the time were forced to scatter to different countries, including the USA, which helped expand this knowledge across the globe. We can see over the next century, one of the first very public transitions of a transgender female who is a former GI. We see civil rights for patients become a priority. And we see Title VII start to work in favor of the transgender community as well.

Additionally, scientifically, hormonal therapy started to become more widely used. And the first text specific to transgender health care is published. The DSM II at the time, finally removed homosexuality as a mental health diagnosis and introduced the idea of gender dysphoria, which, at the time, was called gender identity disorder. However, there was, of course, and still is much discrimination, violence, prejudice, and hate towards the transgender community throughout the 20th century and up until today.

Unfortunately, it would take several grand rounds just to cover this alone. And I want to focus now on how this affects transgender health care, specifically. We get some of this information from a survey study carried out in Washington DC on 263 transgender individuals. It asked about many socioeconomic issues, including access to health care. And it painted, unfortunately, a very dim picture.

We can see here that among transgender individuals, education was low, poverty was high, discrimination at the workplace was common, and violence was the norm. I want to draw your attention over here to the health care data. You can see, almost half of transgender individuals did not have health insurance. And about 40% identified having no primary doctor.

They cited barriers to care being primarily related to ability to pay and being uninsured. However, a significant portion also reported that fear of providers played a large role. This didn't mean that transgender individuals weren't going through with gender affirming treatments. However, it means that they were getting hormones off the street, not being monitored for adverse side effects. It also revealed in the same survey that mental health was a huge issue in the transgender community, with an extremely high rate of depression, anxiety, suicidal ideation, and attempts.

In a more recent and larger study performed nationally, we see similar trends in health care. We see that 30% of transgender patients delayed or did not seek care because of fear of being discriminated. They also found that individuals who had to teach a health care provider about transgender issues during their visit were subsequently four times more likely to delay or avoid health care in the future. They concluded from the study that addressing these issues with formal education was necessary to help close this wide gap in care being received by the transgender community.

So I want to look a little closer at how we are doing as OB/GYN, specifically. A recent survey by Unger tells us, unfortunately, not very well. Only 11% of providers had a place to indicate transgender status on new patient intake forms. And only 34% had a place to indicate sexual orientation outside of heterosexual.

The survey also showed that a vast majority felt comfortable caring for the LGB patients. But a much smaller fraction, at 35%, felt comfortable caring for transgender patients. Interestingly, this rate did not change based on time out of residency.

So what's to blame for this? Well, it's a lack of education. The same survey published by Unger, showed that 80% of respondents were not getting trained in transgender care. And 1/4 of the respondents had graduated residency in the last five years. Again, the rate of education did not change based on time out of residency.

And this reflects that we are not doing a better job now than we were in the past at preparing residents to treat these patients adequately currently. Because of the lack of formal education, many providers were unaware of the requirements transgender patients must meet to undergo gender-affirming therapy. And many were unaware of screening recommendations, which may explain why they felt uncomfortable caring for them.

But there is a silver lining. Almost all respondents in the survey were willing to provide routine health care for transgender patients. And a majority were even willing to perform portions of gender-affirming surgery for the indication of gender dysphoria alone.

Additionally, almost everyone thought that there should be an ACOG Practice Bulletin about transgender health. This tells us that the reason for the lack of education is not for a lack of interest or because of a discrimination in the desire or willingness to treat the population. There's, in fact, interest in learning about transgender health care and caring for transgender patients respectfully and adequately.

So for the remainder of the talk, I would like to help try to fill some of these knowledge gaps for the audience. The goal is not to turn everyone into a leader of transgender multidisciplinary clinic. The goal is to fill in gaps of basic understanding of general transgender health care to increase comfort and caring for these underserved patients.

Some of the things we are going to review are the routine health screening guidelines, basics overview of hormone therapy, gender-affirming surgery and the requirements for each, as well as specific gynecologic issues, fertility, and obstetrical considerations in the transgender population. And lastly, we'll review some basic steps that anyone can take to make their office and visit more gender-affirming and welcoming to gender queer patients.

So from my many readings, I extracted some clinical pearls I felt that were important to fall back on when any of the specific guidelines feel overwhelming or confusing. First, as we heard from Caitlyn Jenner at the beginning of the talk, being transgender is not related to sexual orientation. Thus, it is a disservice to assume anything about a patient's sexual activity based on his, her, or their gender identity. Doing this can cause a clinician to skip important work-ups or exams or misdiagnoses.

Second, the data for transgender patients, specifically, is extremely scarce, even today. There really isn't an entire Williams text out there full of data specific to transgender populations. Most of the guidelines is extrapolated from routine screening for cisgender patients. So reassure yourselves that most of you know all of this information already.

Third, screening and other health care should be based on several different factors. Not every woman needs the same thing. We first have to think about the sex assigned at birth and what that means in terms of anatomy. And then also consider what, if any, changes the individual may have had in terms of gender affirming transition, including medical or surgical treatment, and how this may impact health care needs.

We're going to start by discussing patients who were assigned female at birth. Pelvic exams are important to perform for any patient who still has a vagina. These exams can cause extreme discomfort, both physically due to vaginal atrophy or if the patient does not engage in vaginal penetration. They are also often distressing emotionally, as these exams are not gender-affirming and may force a patient to experience a part of their anatomy that they do not feel connected or associated with.

Thus, we are reminded to use techniques that we already employ for patients that have a history of sexual trauma, pelvic floor dysfunction, vaginismus, and the list goes on. At times, patients may need to develop a trusting relationship with a doctor prior to consenting to this exam. And it is OK to not perform it at the initial visit, but to work together to build an affirming relationship first.

Cervical cancer screening, specifically, is easy. As long as the patient still has a cervix, you can still use your ASCCP app. Some important considerations are that patients using testosterone often have vaginal and cervical atrophy. And studies have shown that these patients are 10 times more likely to have an inadequate pap smear. You should counsel patients about this and be mindful to try and get a good sample.

Vaginal estrogen can help with this if given about one to two weeks prior to the exam. But patients may be hesitant to use it as it is a feminizing hormone. You should also make sure to label the pap smear as cervical as a pathology may assume it is an anal pap if the gender of the patient is male.

Another consideration is to pay close attention to and consider using primary HPV screening, especially as self-administered screenings become more widely accepted and available, as this may be much less traumatic for this patient population. For patients who have not had surgery to remove breast tissue, screening recommendations are the same as for cisgender women. As discussed in many primary care screenings, it is important to recognize that this may be a dysphoric experience for the patient. And establishing good rapport and educating about its importance is necessary.

For patients who have had a mastectomy, data is limited and screening guidelines do not exist. But as for BRCA patients, mastectomy likely drastically reduces the risk of breast cancer. But small amounts of native breast tissue can remain.

And thus, screening can be individualized based on a discussion with the patient and any known risk factors or family history. Physical exam may be enough to screen for lumps or bumps. But if imaging is desired or recommended, mammography is limited and ultrasound or MRI may be required following mastectomy. For osteoporosis screening, it is important to know that as long as patients are on some form of sex hormone or HRT, their bone health will be supported. Thus, regardless of gender identity and gender assigned at birth, the most important consideration is that patients not be without some form of hormone replacement for an extended period of time. As you can see, when on HRT, rates of fracture did not differ between women or men compared to their cisgender cohorts. Thus, guidelines suggest that in low-risk patients, screening can be performed starting at age 65, regardless of gender identity, but should be done earlier with risk factors or for any patients who have been without hormone replacement therapy for five years or greater. Treatment options when osteoporosis is diagnosed remain the same.

Next we're going to review the recommendations for patients who are assigned male at birth. For patients without a cervix, pap smear screening is not appropriate. For patients who have undergone vaginal construction, STI screening is still recommended, but should be performed by urine. Other sexually transmitted infections, such as herpes, warts, et cetera, are feasible and may require direct examination or testing if symptoms arise.

It is important to remember that the anatomy of a neovagina differs from that of a cisgender woman's vagina. Most notably, it is usually oriented more posteriorly with the prostate anterior and is blind-ended. Exams can be performed but may cause discomfort, especially for patients who are not using dilater therapy or having regular, penetrative intercourse.

Other things to consider are anoscopy, which can be used to get better visualization in cases of symptoms that require an exam. There is no data to suggest that routine pelvic exams need to be performed. But physicians should consider that these exams may be gender affirming for patients who have had bottom surgery and thus, a discussion with the patient can be had.

Prostate screening in this patient population is controversial, just as it is in cisgender populations. And there's even less recommendations or guidelines for transgender females. Typically, feminizing hormones will cause the prostate to undergo atrophy and, theoretically, decrease the risk of prostate cancer, though case reports of prostate cancer in transgender women have been reported. For patients who do elect prostate cancer screening, it is important to note that estrogen therapy should decrease the PSA and thus physicians should have a lower threshold as to what they consider abnormal or elevated in these patients, such as greater than 1.0 instead of greater than three in cisgender males.

Next, for patients on estrogen therapy, breast tissue will develop and is often dense. Symptoms such as pain, sensitivity, and modularity are common, especially following the initiation of estrogen therapy, and are not always a cause for concern. Even for patients on HRT, risk of breast cancer is significantly lower for transgender women than cisgender women. But it is higher than cisgender men, once hormone replacement therapy has been initiated.

Risk likely increases with prolonged exposure to estrogen and/or progesterone. The recommendations therefore are to start screening with mammograms no earlier than age 50 and only if the patients have been on HRT for at least five years. They also recommend that screening can be spaced out to every two years in this population. Obviously, individualization can be done for patients with other risk factors or family history or genetic abnormalities.

We already went over osteoporosis screening, which is the same, regardless of gender identity. This is a lot of information to digest. And this table just reviews and summarizes all of the different recommendations that we just discussed. It also shows some basic recommendations for screening for colon and lung cancer and that these are no different in either population.

This next slide, I hope to review some common gynecologic conditions that transgender male patients may present to the gynecologist office with and some baseline knowledge to help provide context for caring for these special patients. For patients on testosterone therapy, you can expect cessation of menses within six months due to uterine atrophy and sometimes ovulatory inhibition.

However, some patients can still ovulate, despite male levels of testosterone. And testosterone alone should not be considered adequate contraception. Time to amenorrhea depends on different factors, such as patient weight and the testosterone dose or the type of delivery that they're receiving. When patients do have continued abnormal uterine bleeding despite 6-12 months of male range testosterone, further investigation is then warranted.

Work up is the same as for cisgender women and should include imaging and biopsy, when indicated. However, providers should be very mindful of the dysphoria that these procedures can cause and be willing to make accommodations to make these more tolerable or comfortable. Pregnancy must also always be considered for patients who are sexually active with any sperm-producing partners.

Treatments for AUB should first address any abnormal pathology that is found in the workup. After this, bleeding can be controlled sometimes with changes in the testosterone dosing or delivery and/or by adding a progesterone. Surgical management can also be considered in the right patients. For patients with vaginal atrophy from their testosterone therapy, many patients may be hesitant to use vaginal estrogen to help treat this. Other first-line options to try in patients who decline estrogen therapy or vaginal moisturizers or DHEA suppositories.

Pelvic pain is just as complex to evaluate and manage in transgender patients as it is for cisgendered women, given the very broad differential. There are a few pearls when approaching pelvic pain in transgender patients. First, providers should approach the work-up based on anatomy. For instance, if the patient still has ovaries, then the ovaries should be imaged. The second tip is to consider the effects of testosterone alone, such as vaginal atrophy, as we mentioned, or testosterone cramping, which is pain associated with cyclic testosterone dosing but of which the etiology is unclear.

Lastly, just as in cisgender patients, transgender patients are at a high risk for sexual trauma, post-traumatic stress disorder, as well as depression and anxiety, which can exacerbate or cause these symptoms. Treatment is just as broad and should target the expected diagnoses and is likely to be multifaceted. In transgender patients who do not desire a future fertility, hysterectomy may be considered earlier in the treatment algorithm given that gender dysphoria may also be addressed with the surgery, as long as the patient has an understanding of all the risk benefits and understands that hysterectomy is not a guarantee for the resolution of pelvic pain alone.

Next we're going to discuss the broad categories of gender affirming treatment that patients may be undergoing that you see in your office. Hormone therapy is the mainstay of medical treatment. And it's comprised of various sex hormones that result in the desired phenotypic outcomes of the patient. The therapy does not require mental health evaluation, though it is still recommended for completeness of care.

HRT can seem daunting to prescribe or manage. However, it is important to remember that we as OB/GYNs already prescribe many of these medications for other indications such as menopause, birth control, low libido, hirsutism, abnormal uterine bleeding, and the list goes on. Of course, specialized training is beneficial to understand the nuances of long-term HRT for transgender patients as well as dosing, but is very obtainable for those providers who are interested in supplying this.

Gender-affirming surgery comprises of various different procedures to achieve a certain physical look that is desired. These decisions are highly personal and individualized and not all transgender patients pursue any or all of the available procedures. Requirements for surgery differ based on the type of procedure as is shown here.

It's important to note that these requirements may be changing and should be checked based on insurance, state or federal laws, et cetera. Additionally, these are only required when the surgery is being done for gender dysphoria alone. For instance, hysterectomy for an indication of pelvic pain or AUB does not have these same prerequisites.

As you can see, for top surgery, only one referral letter is needed. However, as surgeries become more what society has deemed invasive, such as bottom surgery, generally, two referral letters are needed from mental health providers. And more time living the experience of the selected gender is recommended or required.

So we discussed a lot this indication of quote unquote "gender dysphoria." So it's important to know, what exactly does this mean? This diagnosis is established and defined in the DSM 5 as difference between one's experience or expressed gender and one's assigned gender, which causes significant distress or dysfunction. This must last at least six months and comprise of two or more of the following symptoms as listed on the slide.

Of note, a new DSM is expected to be released shortly. So this definition may change over time. Just as we explored an earlier slides, there's a controversial and ever-changing relationship between the DSM and the LGBT communities and having a person's identity and state of being listed as a mental disorder can be dysphoric in itself. However, it's important as providers to understand these diagnoses as they are currently how many patients receive insurance coverage for their gender-affirming care while we can still hope for long-term improvements in how these patients' experiences are recognized.

This is a basic virtual representation of gender dysphoria. But remember that gender identity is very complex and runs a gamut of many different identities and life experiences. On this side, we see again, an overview of the common surgical procedures performed for gender affirmation and some common complications that we should be aware of as OB/GYNs.

For patients with a neovagina, you can see necrosis of the neovagina, fistulas, and stenosis post operatively. More commonly, issues relate to the vagina being shortened or small, which may cause dyspareunia or inability to undergo penetration. For this reason pelvic floor physical therapy and dilation is extremely important for these patients and should be lifelong. UTIs are also quite common in these patients.

Phalloplasty, in general, is more strategically complex and is overall less pursued than bottom surgery for neovagina creation. Complications can include issues with the urinary tract, such as stenosis and fistulas, or necrosis or issues of healing of the neo-phallus. On the next slide, we will review some example photos of bottom surgeries to contextualize these surgeries and post-operative anatomy that providers should be familiar with as they may encounter in their clinic.

This is an example of a creation of a neovagina. While surgery is complex, outcomes can be very affirming for patients. And on this next slide, this is an example of a successful neophallus creation. Next I wanted to review the effects of gender-affirming care on fertility, specifically. First, we should note that it's important to discuss fertility with any transgender patients, especially before beginning hormonal or surgical treatment or affirming care, but also to continue to address this throughout their care and lifetime.

In a small study in 2012, over half of transgender patients were interested in having genetically-related offspring. And almost 40% stated that they would have considered or used fertility preservation if it was made available or had they known about it. For transgender male patients specifically, the majority of patients who use testosterone therapy we're still able to conceive using their own eggs. And 32% even conceived while on testosterone therapy alone.

For transgender female patients, the effects of HRT on sperm quality and fertility outcomes are much less clear. We do know that estrogen can cause testicular atrophy and decrease spermatogenesis and sperm motility. Thus, this is why fertility preservation should be discussed at earlier stages.

On this slide is an overview of some of the fertility preservation options for transgender patients. As you can see, this mimics and mirrors offered the fertility preservation options for cisgender patients as well, and different scenarios such as infertility or patients undergoing chemotherapy or other cancer-related treatments. For those patients assigned female at birth, there's oocyte cryopreservation. But this requires that the patient undergo puberty prior.

There's also data showing that ovarian tissue cryopreservation, which, while more experimental, has very promising data. And this can also be considered for patients who desire BSO as part of their affirming care. Embryo banking, of course, is always an option, but does require a partner.

For patients that are assigned male at birth, sperm banking from ejaculation is probably the most common and easiest. However, this does require that patients undergo puberty and may be a gender dysphoric experience. Sperm extraction is also available, but a slightly more invasive procedure. Tissue preservation in this population is much more experimental. And thus far no successful pregnancies have been documented.

Next I want to review some obstetrical care for patients. For preconception counseling, it should be known that testosterone should ideally be stopped prior to and throughout the duration of pregnancy. There's no data to guide how long stopping testosterone before attempting to conceive. However, this must include a discussion with the patient about the possible exacerbation of their gender dysphoria.

There are some studies that address and report on delivery outcomes for transgender patients. In a small case series, 36% of transgender men who had used testosterone prior to pregnancy delivered by cesarean section, which is compared to only 19% of those who had never used testosterone prior. Among testosterone users who had a c-section, 33% of the patients actually requested an elective primary, compared to none of the patients who were not testosterone users.

While this data is not statistically significant more research is needed to study obstetrical outcomes in these specific patient populations to greater understand the effects of testosterone and hormone replacement therapy on obstetrical outcomes. Of note, patients were also much more likely to seek midwifery care for their delivery. And they expressed a strong desire to stay out of the hospital setting, which reflects back to prior slides where patients have a controversial relationship with the health care system and the negative experiences they may expect to receive.

For postpartum, note that these patients are at high risk for postpartum depression and that chest feeding is an option for those who have or have not had top surgery. It's recommended to stay off of testosterone while chest feeding as testosterone therapy can reduce milk supply. And its effects on the infants remain unknown.

Lastly, I wanted to wrap up with some basic tips that everyone can use to become a more gender-affirming provider. It's important to point out that when you're not a provider who sees transgender patients commonly, mistakes can certainly happen. Pronouns can be a difficult habit to break, especially in a field where we're generally used to seeing one specific gender.

And the language in the transgender community and gender identity spectrum is ever-changing. The most important thing for patients is that you ask them their preferences, that you recognize and apologize and correct any mistakes, and that you strongly express your desire to be a gender-affirming provider. You can also take steps to create a welcoming space such as having gender non-binary bathrooms, instructing or educating staff in gender-affirming language, and having gender-affirming information posted in the office, and to avoid gender-specific decor. My references, and thank you guys so much for listening in.