# A History of Gender-Affirming Surgery at the University of Michigan: Lessons for Today

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#### Abstract

The University of Michigan has played an important role in advancing gender-affirming surgery programs in the United States. The University of Michigan was home to a littleknown gender identity clinic shortly after the opening of the first such clinic at Johns Hopkins. Since 1995, the University of Michigan Comprehensive Services Program (UMCGSP) has been continually offering surgical services to transgender and gender diverse patients. Here, we present the history of both programs, drawn from program documents and oral history, and explore their implications for the future sustainability of gender-affirming surgery programs. The original gender identity clinic opened in 1968, and operated in a multidisciplinary fashion, similar to other clinics at the time. Eventually, the clinic was closed due to disinvestment and lack of sufficient providers to maintain the program, problems which are being increasingly recognized as barriers for similar programs. The modern program, UMCGSP is perhaps the longest continually running gender-affirming surgical program at an academic center. In spite of challenges, key investments in education, statewide community engagement, and the development of a comprehensive care model have helped UMCGSP avoid the pitfalls of the earlier clinic and remain relevant throughout its nearly 30-year history. In the face of rising challenges to gender-affirming care in the United States, much can be learned from the sustainability of the UMCGSP. Institutions seeking to maintain genderaffirming surgery programs should ensure the availability of comprehensive care and promote the education of the health care workforce.

## Keywords

- ► gender affirming
- University of Michigan Comprehensive Gender Services Program (UMCGSP)
- surgery

## Early History of Gender-Affirming Surgery

The University of Michigan has played a key role in the development and expansion of gender-affirming surgery programs in the United States. Michigan was among the first universities to establish such a program during the "Hopkins Clinic Era" in the 1960s. In addition, the current University of Michigan Comprehensive Gender Services Program (UMCGSP) is the longest continuously running university-

Issue Theme Michigan Special Issue: 60 Years of Michigan Plastic Surgery; Guest Editor, Stephen Kemp, PhD based gender-affirming surgery program in the United States.

The modern history of gender-affirming surgery began in pre-World War II Germany, at the Institute for Sexual Science run by Dr. Magnus Hirshfield.<sup>1,2</sup> Endocrinologist Dr. Harry Benjamin, is widely credited with bringing the practice of gender-affirming care to the United States.<sup>1,3,4</sup> In 1979, an international organization dedicated to gender-affirming care was formed and was named the Harry Benjamin

© 2024. Thieme. All rights reserved. Thieme Medical Publishers, Inc., 333 Seventh Avenue, 18th Floor, New York, NY 10001, USA DOI https://doi.org/ 10.1055/s-0043-1778042. ISSN 1535-2188. International Gender Dysphoria Association (HBIGDA) in his honor; the name of the organization was changed to the World Professional Association for Transgender Health (WPATH) in 2006.<sup>5</sup> In 1952, the high-profile case of Christine Jorgenson, a transgender woman who was one of Dr. Benjamin's patients, raised public awareness for these types of procedures in the United States.<sup>2,3</sup> Although Jorgenson herself underwent surgery in Denmark, the media coverage of her transition allowed transgender people throughout the United States to envision such a future for themselves.

In the decade following Jorgenson's transition, patients primarily sought care overseas.<sup>3</sup> In this era, U.S. hospitals generally avoided the potential for negative publicity associated with performing gender-affirming procedures, although urologist Elmer Belt is thought to have quietly performed some gender-affirming procedures at the University of California, Los Angeles (UCLA) and University of California, San Francisco.<sup>3,4,6,7</sup> Following Jorgenson's transition, patients frequently approached prominent clinics treating intersex children such as Johns Hopkins Hospital and UCLA requesting gender-affirming surgery.<sup>3,4</sup> Eventually, over a decade after Jorgenson's transition, the Johns Hopkins Hospital became the first United States hospital to publicly acknowledge that gender-affirming procedures were performed there.<sup>3,4,6</sup> Shortly after the opening of this clinic, a wave of other gender clinics sprang up at university hospitals throughout the country. The first was in Minnesota, which opened in December 1966, followed by clinics at Northwestern/Cook County Hospital in 1967, and Stanford University, University of Washington, and University of Michigan in 1968.<sup>3,8,9</sup>

Despite these clinics' broad geographic range and multidisciplinary backgrounds, scholarship has often focused almost exclusively on the clinic at Johns Hopkins, due to its status as the original clinic and relatively intact archives. In this article, we describe an untold part of the history of gender-affirming care at the University of Michigan. The history of Michigan's gender-affirming care effort reflects both the changing landscape of transgender care over time and, most importantly, the elements that confer resilience and long-term sustainability to programs providing care for gender-diverse individuals.

## Methods

The doctoral work of one of the authors (O.K.) provided the bulk of material on the original clinic founded in 1968.<sup>10</sup> This work included searching multiple archives for traces of the Michigan clinic and contacting and interviewing surviving members of the original clinic staff, including social workers, psychiatrists, and the plastic surgeon. After getting in touch with the now-deceased clinic founder's family, his children recovered a briefcase of correspondences, minutes, and other clinic materials from a garage. They have been kind enough to donate this and other materials to the University of Michigan. These interviews and other collected papers are now part of the University of Michigan Bentley Historical Library's Os Keyes Collection on the History of Transgender Medicine.

For UMCGSP, the current gender-affirming care effort, existing archival material from the Sandra N. Cole collection at the Bentley Historical Library was combined with semistructured interviews with current and prior physicians, social workers, and other employees of the program. These have been recorded on video and will be preserved at the Bentley Historical Library as part of an ongoing oral history project.

### **Early Multidisciplinary Care and Research**

The University of Michigan's original gender identity clinic formally launched in 1968, but planning for it began in 1965<sup>11</sup> when a psychiatrist met with Dr. Robert Oneal, a Professor of Plastic Surgery, to discuss providing treatment to (in the language of the time) "transsexuals." An unpublished journal article suggests the first patient was evaluated in 1967.<sup>12</sup> The clinic quickly grew to feature a multidisciplinary team which served to evaluate patients including psychiatry, social work, plastic surgery, endocrinology, and gynecology, along with a university attorney, to provide legal clearance.<sup>13</sup>

Prospective patients were initially interviewed through the Department of Psychiatry and asked to provide "a social history from mother or other close relative," alongside receiving extensive psychological testing. They were then sent for an endocrinological evaluation, and their case was passed onto the entire committee for consideration for surgery. Approval required patients to meet a range of expectations, including being above a certain age and completing the "real-life test," in which patients were expected to live as their desired gender for a particular length of time prior to access to surgery. The actual surgical techniques were reportedly the same as those developed by Dr. Milton Edgerton at Johns Hopkins Hospital.<sup>11</sup> The team likely learned from Dr. Edgerton directly, as he was known to lecture at the University of Michigan.<sup>14</sup> After surgery, patients were expected to follow-up with both surgeons and psychiatrists, for a "to be determined" length of time.

In its earliest forms, the clinic seems to have been primarily focused on treatment: it took several years for faculty to formally meet and decide on initiating a research program to study the patients applying to the clinic.<sup>15</sup> This research was focused on surgical complication rates and other surgical and psychosocial outcomes for the patients. As the clinicians wrote in their research memo, "no study has ever had an adequate follow-up, thus, there is nothing in the literature at this time which provides a careful description of what happens with these patients." Providing such a description became a key research aim of the clinic, albeit not the only one; they were also interested in identifying "criteria for accepting and rejecting patient's[sic] who apply...[and developing] hypotheses about the post-operative behavior of these patients based on their pre-operative behavior." This goes some way to explaining why the psychological tests were so comprehensive: they served as a source of data for such studies. Ultimately, the clinic's research endeavors were not productive, consisting only of a single book chapter and a journal article which was rejected and thus ultimately never

published. Neither work was a follow-up study, likely because such studies, which take 5 to 10 years for data to become available, would have outlasted the clinic itself. Similarly, there are few signs the clinic was particularly engaged in education. Outside of a few medical students who happened to be assigned to outpatient psychiatry or endocrinology clinics, clinicians do not seem to have been particularly engaged in tying the clinic back to the educational programs at Michigan.

The original University of Michigan gender identity clinic shut down in 1975. This was not due to the work itself; Dr. Joseph Pearson's children recalled him looking back on his time there positively, while Dr. O'Neal noted that the physicians "became convinced that it was a real thing, and the patients were benefiting." Instead, the closure was due to surgical technique and staffing. The high rate of complications requiring surgical revision, and the anatomic and functional outcomes of the techniques for genital genderaffirming surgeries used at that time frustrated surgical members of the team. By February 1975, the clinic director, Dr. Robert L. Hatcher, reported that the team gynecologist had "no interest at all in playing any direct role in the future of the gender clinic. Furthermore, at this moment there is no one else in urology, plastic surgery, or gynecology who would be interested."<sup>16</sup> Although Dr. Hatcher proposed several routes forward, including coordinating with private surgeons and surgeons at other institutions in Michigan, these efforts failed. There are signs that Dr. Hatcher and his psychiatric colleagues were still willing to provide evaluations and referrals to surgeons elsewhere, but the clinic as an organized entity ceased to exist.

#### Interim Period: Founding of WPATH and the Standards of Care

In the absence of any clinic at the University of Michigan itself, local patients had two options; they could go to another gender identity clinic, the nearest being a small program at Wayne State University, or to a private surgeon. As the 1970s progressed, surgery in the private sector became most prevalent. This was amplified by the closure of other university-based gender clinics, most famously, that of Johns Hopkins Hospital in 1979. Traditionally, scholars have maintained that the closure of the Hopkins clinic was largely a reaction to the negative publicity, both public and professional, to a study published in 1979 that reported mixed successes for genderaffirming surgery and that this triggered the almost-immediate closure of other clinics. More recently, it has become clear that the Johns Hopkins closure was preceded by years of disinvestment and moral opposition, and that the closure of other clinics occurred over a far longer time span, and for a far more diverse range of reasons, than simply being a domino effect from Johns Hopkins.<sup>17</sup> In essence, the same lack of clinical or administrative interest in the program that led to the Michigan closure was also a factor in the dearth of other clinics going forward.

During this time the priority for patients was obviously timely access to surgical care. Because university-based programs were closing or providing limited access, private practice surgeons, most famously Dr. Stanley Biber, became well known and performed the majority of gender-affirming surgeries in the U.S.<sup>4</sup> Access to care was still difficult; by the 1980s, there were only a few domestic providers of genderaffirming surgery in the United States. Around this same time, the predominantly academic and, importantly, international community of researchers and doctors involved in gender-affirming care established a professional organization dedicated to transgender health.<sup>18</sup> The HBIGDA was formalized in 1979; the name was changed to WPATH in 2006.<sup>5</sup> Since its inception, HBIGDA/WPATH has published Standards of Care (SOC) for gender-affirming care by medical providers (current SOC version 8 published September 15, 2022).<sup>19</sup> Despite challenges and changes over time, the WPATH SOC have become widely accepted, both in the United States and internationally, as the means to best ensure appropriate patient selection and patient safety for those undergoing gender-affirming surgery.

#### Founding of the Comprehensive Gender Services Program

Informal discussions about the program, which would become the UMCGSP, began around 1993. Sandra Samons, PhD, LMSW, LMFT, a local mental health provider who had begun to provide care for transgender clients in the early 1990s, recalls that these discussions first began when she approached the Chief of Plastic Surgery, David Smith, MD, about the issue.<sup>20</sup> She contacted him and, rather aggressively in her recollection, inquired why the university was not doing more to care for transgender patients. She was then directed to Sumer Pek, MD, an endocrinologist who agreed to begin offering hormone therapy for patients who had met HBIGDA/WPATH SOC.<sup>20</sup> Dr. Samons also spoke with her colleague and mentor, Sandra Cole, PhD, a professor of Physical Medicine and Rehabilitation, who taught a course in human sexuality to University of Michigan medical students. Dr. Cole was initially quite surprised to hear that Dr. Samons had approached Drs. Smith and Pek, but upon realizing the willingness of some at the University to improve care for this population, she quickly set about recruiting additional collaborators from among her colleagues and former students.

William Kuzon Jr., MD, PhD, is a faculty member in Plastic Surgery who started at the University of Michigan in 1992, shortly before UMCGSP was founded.<sup>21</sup> He had some exposure to phalloplasty and vaginoplasty procedures during his surgical residency at the University of Toronto. After Sandra Samons' call to Dr. Smith, Dr. Smith asked if Dr. Kuzon would be interested in starting to offer gender-affirming genital surgery at the University of Michigan. He agreed and then traveled to visit Dr. Joris Hage, an internationally recognized expert, in Amsterdam to observe and learn about genderaffirming vaginoplasty. Dr. Kuzon then teamed up with urologist Dana Ohl, MD, and in 1995 they performed the first penile inversion vaginoplasty during this era at Michigan.<sup>21</sup> Dr. Kuzon has been the Director of Surgical Services for the UMCGSP from its inception to the present, and Dr. Ohl continues to be active in the program as well.

Other early clinic members learned new skills largely through collaboration and extension of existing expertise. For instance, as Ms. Samons remembers, Dr. Pek, already trained as an endocrinologist, adapted his existing expertise to offer gender-affirming hormone therapy to transgender patients.<sup>20</sup> Additionally, John Randolph, MD, a gynecologist who routinely performed hysterectomies for cisgender women, began to offer these services to transgender men as part of the UMCGSP.<sup>22</sup> Dr. Randolph later learned from Dr. Pek how to prescribe and monitor hormone therapy.<sup>22</sup>

#### A Focus on Comprehensive Care

Interdisciplinary and comprehensive care was, and is, a critical and defining feature of the UMCGSP. Almost organically, team members from endocrinology, plastic surgery, urology, obstetrics and gynecology (OBGYN), and family medicine came together as the program crystalized. In addition, the program included the opportunity for a variety of outside community-based providers to be officially affiliated with the UMCGSP.<sup>23</sup> At the beginning, the team held weekly meetings to discuss the program's development as well as to review individual patient cases. Several physicians who worked with the program in the early years highlight the importance of these interdisciplinary meetings to their early education in this field.<sup>21,22</sup>

As previously stated, it was decided that the program would focus on providing comprehensive care rather than focusing exclusively on providing gender-affirming hormone therapy and gender-affirming surgery. This commitment is evident in early reports of clinical services rendered, in which patient referrals for primary care, physical therapy, and health care maintenance are highlighted.<sup>23,24</sup> At the time, as Ms. Samons recalls, transgender individuals faced significant discrimination when accessing routine medical care. In addition, intake for transition-related health care was multidisciplinary with efforts made to schedule patients with multiple providers over the course of a single day.<sup>23</sup>

Ms. Samons recalls that the attention to comprehensive, locally provided care represented a marked improvement compared to the experiences of some clients who had to travel a substantial distance to receive surgery.<sup>20</sup> Having local surgical providers made follow-up care easier for patients. In addition, the program was able to support patients in receiving access to other care, such as hormone therapy and primary care. Ms. Samons recalls some discussion in the early years about how to interpret the SOC. At the time, the SOC recommended letters from two mental health professionals before the initiation of hormone therapy.<sup>25</sup> The program worked to adapt these criteria in cases where patients were already receiving hormones through other unsafe methods. While surgical services were offered through the program itself, other services, such as hormone therapy and primary care, were not limited to patients receiving surgery through the program. Alfreda Rooks, MPA, Director of Community Health Services at Michigan Medicine and former Administrative Director of the UMCGSP from 1995 to 2016, recalls that they also implemented postoperative check-ins in primary care for patients who received surgery elsewhere.

The program operated as a "virtual" program, not housed within any single department, a feature which would end up being both an asset and a limitation. According to Ms. Rooks, the virtual program was similar to that used successfully in other interdisciplinary fields such as transplant surgery.<sup>26</sup> However, as the program grew, the virtual model presented some challenges. Without an official "home" department, the program had no way to bill for the support services which were needed as the program grew. Dr. Randolph recalls that this format sometimes made the program difficult for patients to navigate, as each specialty had a separate infrastructure for scheduling appointments, gaining insurance authorization, exchange of information, and so on.<sup>22</sup> The absence of an electronic medical record at the time made this even more problematic.

Conversely, the distributed model of care helped to keep it intact during times of personnel turnover. For instance, when the Director of Primary Care Services, Dr. Evan Eyler, left to pursue additional training in psychiatry, Dr. Phil Rogers from family medicine stepped in to ensure that primary care services continued to be available.<sup>22</sup> In addition, when Dr. Pek, the program's original endocrinologist, retired, Dr. Randolph, a gynecologist with a subspecialty in reproductive endocrinology stepped in to provide endocrinology care. Up until this point, Dr. Randolph had been involved with the program as a surgical provider, offering hysterectomies for transmasculine patients.<sup>22</sup> Ironically, the weakness of the Hopkins era clinic, which closed due to a lack of available providers, became a strength of the UMCGSP, which has endured because of provider's willingness to offer gender-affirming care to ensure that it remained available at the University of Michigan.

#### Educating the Next Generation of Providers

As the program developed, education played an important role in its sustainability and ultimate expansion. While the distributed model of care helped to ensure that other providers were available during times of transition within the program, the program's commitment to education differentiated it from the earlier clinic. Early on, the program conducted numerous lectures throughout the medical school, hospital system, university, and surrounding community aimed at educating various stakeholders.<sup>24</sup> Throughout the early history of the program, Ms. Rooks recalls the important role that education played. For instance, Ms. Rooks would frequently travel to workplaces throughout the state of Michigan to offer training on cultural sensitivity.<sup>26</sup> Because of its focus on education, the program has been able to avoid the pitfalls of the original clinic, which closed because it was unable to sustain a sufficient pool of interested providers.

Health care providers' willingness to educate each other on clinical topics has played a prominent role in the clinic's long-term sustainability. As already mentioned, for example, Dr. Randolph was able to take over hormone prescribing following Dr. Pek's retirement not only due to his own dedication to caring for his transgender and gender diverse patients, but also because Dr. Pek taught him how.<sup>22</sup> Subsequently, Dr. Randolph integrated such educational opportunities directly into the OBGYN residency program at the University of Michigan.<sup>22</sup> OBGYN residents now get exposure to both gender-affirming hormone therapy and surgical care, such as gender-affirming minimally invasive hysterectomy. Dr. Randolph notes that many alumni of the program have gone on to offer gender-affirming care throughout the state, expanding the pool of patients who are ultimately referred for surgery at the University of Michigan.

Longtime UMCGSP social worker, Stephen Rassi, PhD, LMSW, MA, similarly observed the importance of education in promoting mental health referrals to the UMCGSP.<sup>27</sup> According to Dr. Rassi, Michigan is unique in having a large network of mental health providers trained to offer care to transgender and gender-diverse communities. This network is a result of concerted training efforts by mental health providers in the state, which often featured speakers from the UMCGSP surgical programs. This community engagement has enhanced the ability of mental health professionals in the state to support patients following surgery and has driven medical and surgical referrals to UMCGSP.<sup>27</sup>

In plastic surgery, training has also played an important role in the program, allowing it to expand to meet growing demand, both locally and nationally. Before fellowships in gender-affirming surgery became available, surgeons often learned to perform these procedures by traveling to observe an expert in the field.<sup>21</sup> The University of Michigan frequently hosted such observers in its early years. Additionally, Dr. Kuzon has been a visiting professor covering topics in gender-affirming surgery at over 25 plastic surgery programs throughout the United States and Canada. Several residents in the University of Michigan plastic surgery program have gone on to provide gender-affirming care upon completion of their training. Jessica Hsu, MD, PhD, now a surgeon at the UMCGSP, recalls the importance of the program in her own education. She notes that the opportunity to work in the field during her plastic surgery residency training at the University of Michigan was what inspired her to incorporate gender-affirming surgery into her career.<sup>28</sup>

More recently, the program started a formal fellowship program in gender-affirming surgery. Currently in its third year, the program aims to formalize the involvement of the University of Michigan in training the next generation of gender-affirming surgical providers.<sup>21</sup> So far, the program has succeeded in training providers to address the growing need for surgeons, both within the UMCGSP and around the country. Previous fellow Shane Morrison, MD, MS, now works as a gender-affirming surgeon at the University of Washington, where he continues to be active in research on gender-affirming surgery. Lauren Marquette, MD, another previous fellow, is now a faculty member at the University of Michigan as a plastic surgeon specializing in gender-affirming surgery.

Daniel Shumer, MD, a pediatric endocrinologist and the current medical director of the UMCGSP, leads an elective for

medical students seeking to gain exposure to the field of gender-affirming medical and surgical care. During this month-long elective, which was the first in the U.S. that focused on multidisciplinary gender-affirming health care, students in their fourth year of medical school have the opportunity to work in clinics and operating rooms with the multidisciplinary team of providers throughout Michigan Medicine. In addition to learning about gender-affirming primary care, hormone therapy, surgery, fertility preservation, and unique considerations for pediatric care of transgender and gender-diverse patients, the students spend time with local LGBTQA+ organizations and complete a community-focused project.<sup>29</sup> This program exposes medical students, including visiting students who have limited exposure at their home institutions, to the opportunities within a number of specialties that care for transgender and genderdiverse patients. Beyond in-person educational experiences, resources produced by the Department of Obstetrics and Gynecology are available online which help advance medical student education across the country.<sup>22</sup> Together, these efforts ensure the continued role of the program in training and inspiring gender-affirming providers to meet the growing needs of the present day.

#### A Dynamic Health Insurance Landscape

At the time UMCGSP began, it was quite uncommon for health insurance companies to provide coverage for genderaffirming care of any kind, and for gender-affirming surgery in particular. This limited the number of patients who could access care. Surprisingly though, the program did have some success getting insurance coverage for certain procedures even as early as the late 1990s.<sup>23,26</sup> At that time, Ms. Rooks recalls, they would talk patients through the process of speaking with their insurance companies about coverage. If the insurance companies did not specifically exclude the procedure, patients could often obtain coverage for their care.

The program was also involved very early on in defining what insurance companies would or would not officially cover. UMCGSP and their providers have worked directly with Blue Cross Blue Shield of Michigan to develop the standards they use to approve surgeries.<sup>26,27</sup> They also structured the program so that they could get coverage from Medicare and Medicaid for social work support for patients, becoming one of the first such options for patients. Private practice therapists were frequently unable to serve populations on public insurance, so this played a crucial role in supporting community members. Early efforts to secure financial accessibility for patients have helped to ensure the sustainability of the UMCGSP.

As time progressed, the program has continued to advocate for the expansion of insurance coverage for genderaffirming care. Dr. Rassi recalls working with patients and therapists to ensure that letters to insurance companies met clear standards.<sup>27</sup> At the time, insurance companies often expected to see documented evidence from a patient's childhood, proving their gender dysphoria. Working with therapists in the community, the UMCGSP was able to help insurance companies understand that this requirement was unnecessary, in part by demonstrating a consistent standard for letters of support. In 2014, Medicare began to cover gender-affirming surgeries nationally and in 2018 Michigan Medicaid removed blanket exclusions for these procedures.<sup>30</sup> Dr. Kuzon recalls that the volume of surgery increased dramatically at this time, which demonstrated the extent to which insurance coverage impacted access to surgical care.<sup>21</sup> The UMCGSP and Section of Plastic Surgery were able to adapt to the increased demand for gender-affirming surgery by increasing the proportion of time Dr. Kuzon dedicated to these operations. In addition, other members of the Section of Plastic Surgery began to perform some of these procedures, such as gender-affirming chest reconstruction.

#### The Evolving Role of Mental Healthcare

The interplay between insurance and mental health care has always been a challenge in American health care, and this was particularly true for patients trying to access genderaffirming services. In the early years of the UMCGSP, the HBIGDA/WPATH SOC required two independent mental health assessments, but also a recommended, and essentially required, timeline of psychotherapy. The UMCGSP also required one assessment to be done by a University of Michigan-affiliated mental health care provider.<sup>26</sup> Ms. Rooks recalls an important evolution in the program after the departure of Dr. Cole, where the process of patient assessment was modified so patients could continue working with outside mental health providers. These patients were assigned an internal therapist as well, whose primary role was to collaborate with the outside provider to ensure that documentation met requirements for insurance approval.

The program found innovative ways to secure access to mental health care support for patients who may not have otherwise had access. Because of low reimbursement and the complexity of the billing process, most private mental health care providers were unable to accept public insurance.<sup>26</sup> In response, the UMCGSP hired its own mental health care provider who was able to offer both assessment and therapy to patients free of charge, eliminating a key barrier to care.<sup>26</sup> Later on, they were able to restructure the UMCGSP so that the program could bill through Medicare and Medicaid for some mental health services, thus further increasing program sustainability.<sup>26</sup>

Mental health evaluation within the UMCGSP has continued to evolve into the present day. More recently, providers have sought to address ongoing tensions surrounding access to care. The provision of some services, such as hormone therapy, has moved away from requiring mental health assessment, with the onus of assessment being transferred to the prescribing physician.<sup>29</sup> Even still, mental health care remains an important component of surgical preparation, although the goal is to evaluate surgical readiness in addition to confirming a diagnosis of gender dysphoria that surgeons do not have the expertise to make. Evaluations focus on identifying the social supports necessary for safe surgical outcomes. Dr. Hsu shared the importance of mental health letters in her own interactions with patients.<sup>28</sup> As a plastic surgeon, she often does not have the opportunity to build longitudinal relationships with patients prior to surgery. Presurgical letters allow her to understand each patient's unique journey and their goals. Program social workers are available for immediate social support of surgical patients and visit patients in the hospital following surgery.

#### Improvement of Care through Gender-Affirming Research

Research has been a central mission of the program since its inception. The UMCGSP submitted what is thought to be the first ever nationally funded grant proposal related to transgender health in 1996.<sup>24</sup> Although it was not ultimately funded, it did set a precedent for future proposals. Multiple academic presentations were made by program clinicians in its early years.<sup>24</sup> According to early program reports, UMCGSP has always sought to conduct long-term outcome studies<sup>24</sup>; however, limitations in funding<sup>21</sup> and personnel availability,<sup>27</sup> often thwarted these efforts. While the UMCGSP itself did not come to conduct and sponsor research as had been initially imagined, it played a key role in promoting gender-affirming research throughout the University of Michigan.

Within the Section of Plastic Surgery, physicians affiliated with the UMCGSP have published extensively on key topics in gender-affirming surgery, including gender-affirming vaginoplasty,<sup>31–34</sup> facial gender-affirming surgery,<sup>35</sup> genderaffirming chest surgery,<sup>36–38</sup> gender-affirming phalloplasty and metoidioplasty,<sup>39,40</sup> and care models in gender-affirming surgery.<sup>41</sup> In the Department of Obstetrics and Gynecology, research projects on the impacts of hormone therapy on fertility<sup>42</sup> and on care models for gender-affirming care provision<sup>43,44</sup> have been conducted. In addition, although the Department of Pediatrics is a newer addition to the UMCGSP, beginning in 2016 the Department of Pediatrics has conducted research on adolescent development and sexual health in transgender youth.<sup>45–47</sup>

Today, surgeons at UMCGSP have realized many of the early research goals of the CGSP, publishing long-term studies which take advantage of the program's extensive experience providing gender-affirming surgeries.<sup>48</sup> Additionally, the program has dedicated itself to conducting high-quality, prospective studies of patient-reported outcomes in gender-affirming surgery.<sup>38</sup> Beyond surgical outcomes themselves, new work by surgeons at the UMCGSP focuses on accessibility and patient experiences of gender-affirming care.<sup>49</sup> The program has also begun a systematic effort to involve medical students in gender-affirming surgery research in order to develop the next generation of researchers in gender-affirming care.

### Lessons for Today and the Future

Universities across the country are again opening genderaffirming care programs. Given the current political climate surrounding gender-affirming care, understanding the history of gender-affirming care in the United States is of utmost importance.<sup>50</sup> The history of gender-affirming care at the University of Michigan lends important insight into how we can ensure future access to this care. In addressing many of the barriers to sustainability faced by the Hopkins-era clinic, the UMCGSP serves as a model for programs aiming to build similarly sustainable gender-affirming care programs in the United States.

Investment in structural factors, education, and community engagement underpin the UMCGSP's sustainability. With respect to structural factors, work done by the UMCGSP to facilitate increased insurance coverage of gender-affirming care has led to increased accessibility to and affordability of care. Additionally, investment in key administrative roles and mental health personnel has helped to maintain the program's continuity. Engagement and investment in education and training have been important to the program's success, ensuring the development of a large network of providers throughout the university, surrounding community, and even nationwide. This integration of services within the broader community has provided a consistent referral network and has allowed the program to address the holistic health care needs of the transgender and gender-diverse population in the state of Michigan.

For gender-diverse individuals, surgical care alone is not sufficient. Academic institutions and other large health care systems seeking to maintain gender-affirming surgical programs should ensure that their health care systems are structured to provide comprehensive care, including appropriate endocrinology services, primary care, and psychosocial support. Programs must consider not only the immediate viability of the programs, but also how to train future providers to ensure long-term sustainability and delivery of safe, responsible, and accessible care. Adaptability and dedication to future growth is imperative. Both Dr. Sandra Sammons, a founding team member, and Dr. Daniel Shumer, the current medical director, shared the importance of learning from patients and community members on how to best improve care, highlighting that adaptability may be the only constant in maintaining consistently high-quality care in a changing world.<sup>19,29</sup> As the cultural and political landscape surrounding gender-affirming care continues to evolve, programs offering this care must adapt in order to ensure ongoing success.

**Conflict of Interest** None declared.

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