

Beyond the Binary: The Influence of Gender and Sex Understandings on Hormone Therapy

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On my honor as a University Student, I have neither given nor received unauthorized aid on this assignment as defined by the Honor Guidelines for Thesis-Related Assignments

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Introduction

Sex hormones, renowned for their pivotal role in both female and male physiology, wield influence over a myriad of essential bodily functions, ranging from reproductive health to cognitive function and beyond (Wakim & Grewal, 2018). These hormones, also referred to as sex steroids, are a group of chemical messengers that are synthesized by the endocrine glands (B.Sc, 2022). They play an essential role in the development of the female reproductive system, including the menstrual cycle, fertility, and secondary sexual characteristics such as breast development and changes in voice. In men, estrogens contribute to various physiological processes, including sperm production, bone density regulation, and cardiovascular health (Nichols, 2023). Androgens are typically associated with masculine traits, while estrogens and progestogens are typically associated with femininity, yet all genders have these hormones, which impact various organs and systems (*Reproductive Hormones*, 2022). Referring to hormones as strictly "male" or "female" oversimplifies the intricate network of steroid actions influencing numerous organs, highlighting the complexity of developmental and biological systems (Hammes & Levin, 2019).

During a surge of discourse on sex hormones in the 1930s, there were debates about labeling them as "sex hormones". Chemist John Freud critiqued this nomenclature, suggesting that the term was misleading. He proposed that these substances were named as such not because they are exclusively vital for sexual development, but rather because the observable changes they induce in an organism can be perceived without sophisticated laboratory equipment (Irni, 2016). For instance, the transformation brought about by these hormones, such as a deepening voice and increased body hair, can be readily noticed. Such visible changes disrupt the context where a binary notion of two sexes is prioritized, often distinguishing men and women based on

superficial characteristics like voice pitch or body hair distribution. This critique underscores the need to move beyond simplistic gender binaries and appreciate the complexity of hormones (Irni, 2016).

Nonbinary people and individuals who identify outside the gender binary often face greater rates of discrimination, and often face significant barriers to accessing gender-affirming care (Melbourne, 2024). This often results in elevated rates of depression and suicide, surpassing the already alarming rates observed among trans women, men, and cisgender individuals. Unless there is a shift in understanding and acknowledging the diversity within the gender binary, these mental health challenges may continue to persist. Moreover, hormone therapy plays a crucial role in significantly reducing gender dysphoria and enhancing overall quality of life by enabling individuals to align with their identities. Gender-affirming care is not merely a choice, but a medical necessity for those grappling with dysphoria. However, the prevailing binary perspective can restrict access to these essential treatments for those who do not conform to traditional gender categories (Cronin, 2021).

Understanding baseline estradiol concentrations is vital for experimental purposes, such as creating predictive models for human and animal studies (Barr et al., 2024). Recognizing the intricate interplay of biological, social, and cultural factors can help address care disparities and contribute to a more nuanced, inclusive health research approach. This is particularly relevant for gender-inclusive health practices, where historical biases have created gaps in our understanding and treatment of conditions related to sex hormones like estradiol (Peters & Woodward, 2023).

Biological essentialists, who argue that inherent biological characteristics determine gender, typically challenge the fluidity of gender and sex, and this belief system would assert that hormone therapy technologies would align with biological sex rather than gender identity

(Morosoli et al., 2022). As traditional frameworks are challenged, the paper delves into how the destabilization of these binary understandings profoundly affects approaches to hormone therapy. In this paper, I argue that the understandings of the traditional binary of gender and sex profoundly influences the adoption, adaptation, and impact of hormone therapy technologies, necessitating more inclusive and equitable approaches to gender-affirming care.

To support this claim, I provide an overview of the Social Construction of Technology framework. This framework utilizes interpretive flexibility, which views how societal attitudes towards gender diversity can shape how these therapies are perceived and used. If society views gender as a strict binary, this may limit the availability and types of hormone therapies to those that align with the binary understanding (Campbell, 2020; Irni, 2016). The framework also emphasizes the importance of identifying all relevant social groups that interact with a technology, which can affect its adoption and adaptation (Linder, n.d.). Lastly, SCOT discusses how the stabilization of a technology's meaning occurs when the relevant social groups reach a consensus. In gender-affirming care, societal attitudes can either facilitate or hinder the process of reaching closure, impacting who has access to hormone therapies and how equitable that access is. Acceptance of gender diversity can lead to a broader understanding and integration of hormone therapies in healthcare systems, while resistance can result in limited access and recognition (Irni, 2016).

Interpreting Gender: Cultural Influences and Perceptions

The understanding of gender beyond binary constructs has significant implications for both medical and social contexts. Sex refers to the biological distinctions between males and females, primarily based on anatomical differences. Conversely, gender is a cultural concept, denoting the social classification into masculine and feminine categories. Gender encompasses

roles, attitudes, attributes, and behaviors associated with or assigned to each sex (Pringle, 2007). Therefore, gender is subjective and can manifest in various forms depending on cultural learning (Kambouri-Danos & Evans, 2019). Figure 1 depicts these definitions, as well as the differences between the biological understandings of sex and gender.

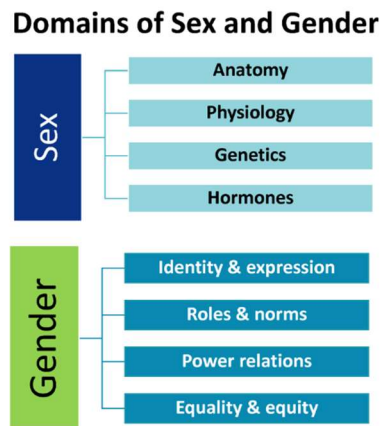


Figure 1: Definitions of Sex and Gender

Sex hormones influence the physical development and behaviors traditionally associated with male and female genders, while culture shapes how these behaviors are perceived and labeled. While hormones play a significant role in the physical development of individuals and influences potential predispositions for certain behaviors, culture provides the lens through which biological aspects are interpreted and labeled (Cartier et al., 2024). Cultural recognition of gender diversity beyond the binary framework allows for a broader understanding of gender identities. This can influence how individuals express themselves and how society accommodates a range of gender experiences (Best & Puzio, 2019).

The focus of the use of sex hormones for therapeutic reasons is often on the use of estrogen for individuals assigned male at birth and testosterone for those assigned female at birth (Thomson, 2018; Warren et al., 2019). However, there has been a significant increase in the

number of transgender, gender diverse, and non-binary (TGDNB) individuals accessing healthcare, and many of these individuals seek gender-affirming hormone therapy (Cundill, 2020). Around 44% of individuals from this community seek hormone therapy and surgery, which requires diverse approaches to medical affirmation (Melbourne, 2024). However, this path is not uniform for all.

In the context of hormonal health technologies and therapies, perceptions can determine who has access to treatment, how treatments are developed, and how they are marketed to different genders. For instance, the typical binary view of gender does not allow for hormone therapies that cater to a spectrum of gender identities, which there is a growing demand for. This shift necessitates the development of personalized treatments that consider individual hormonal needs and goals (Tao, 2011). The traditional binary approach has limited the availability of hormone therapies that acknowledge and cater to the full spectrum of gender identities. Gender-affirming hormone therapy (GAHT), which includes the use of estrogens and other hormones, is a prime example of how changing perceptions of gender are influencing medical practice. GAHT is used to help transgender and non-binary individuals align their physical characteristics with their gender identity (Baker & Wilson, 2021). The therapy is personalized, taking into account the individual's specific goals, such as the degree of feminization or masculinization desired (Barr et al., 2024).

However, the shift towards a more inclusive understanding of gender identities has not been without challenges. Access to GAHT can be limited by societal stigma, lack of healthcare provider knowledge, and insurance coverage issues (Littlejohn, 2013). Cultural messages that dictate these gender roles can facilitate an unsupportive environment for individuals seeking GAHT, because of barriers created by stigmas from cultures with rigid gender norms. For

example, as societal gender norms can influence health-seeking behaviors, this can deter individuals assigned male at birth (AMAB) from seeking GAHT due to stigma (Mirin, 2021). For AMAB individuals, the societal expectations of masculinity can deter them from seeking GAHT, as beliefs associate this treatment with feminization (Santi, 2023). AMAB individuals may also face barriers such as lack of knowledgeable healthcare providers, discriminatory healthcare practices, or financial constraints. Structural gender inequalities can cause these limits to access to health services (Warner & Mehta, 2021).

The traditional binary view of gender also has significant implications for the diagnosis and treatment of health conditions influenced by hormone levels. For example, Polycystic Ovary Syndrome (PCOS) and endometriosis are conditions typically associated with females, however these conditions can also affect transgender men and non-binary individuals assigned female at birth (Landry, 2021; Vallée et al., 2023). In the case of PCOS, the condition is often linked to excess androgens, often labeled as “male hormones”. Similarly, endometriosis is associated with excess estrogen, which is thought of as a “female hormone” (Nunez, 2021). These labels can lead to assumptions about who can be affected by these conditions, potentially resulting in underdiagnosis or misdiagnosis in transgender men and non-binary individuals (Nunez, 2021). Additionally, transgender men and non-binary individuals may face unique challenges in receiving a diagnosis and treatment for these conditions. For instance, hormone therapy and surgical interventions can alter symptoms, complicating the diagnostic process (Vallée et al., 2023). These issues are due to biases and lack of recognition and can lead to these individuals delaying seeking medical help (Broster, 2021).

The attitudes and behaviors towards gender in society significantly impact the quality of healthcare transgender individuals receive, turning GAHT into more than just a medical

treatment but also a tool for navigating social acceptance with an affirmed gender identity. Recognizing gender as a sociocultural factor underscores the importance of an intersectional approach to healthcare, considering the various layers of discrimination and marginalization individuals may face. Structural inequalities, such as sexism and power imbalances, can hinder access to GAHT, emphasizing the need to address these disparities for equitable healthcare. Understanding gender as a sociocultural aspect is crucial for enhancing the experiences of those seeking GAHT, necessitating a healthcare system that combines biological knowledge with cultural competence (Nielsen et al., 2021).

The evolution of hormone health technologies reflects a broader societal shift towards recognizing and respecting gender diversity. As perceptions continue to change, it is crucial for the medical community to adapt and provide personalized, accessible treatments that meet the needs of all individuals, regardless of their gender identity.

Application of SCOT Framework

As our understanding of gender identity progresses, the traditional binary view of male and female is being questioned due to an increasing awareness of the spectrum of gender identities. This development carries significant consequences for the fields of medicine and society at large. In the past, the concept of sex was strictly categorized by the biological differences between males and females, focusing on physical traits. On the other hand, gender is recognized as a societal creation that includes a variety of roles, perspectives, qualities, and actions that are typically linked to or expected of each sex (Muehlenhard & Peterson, 2011). Focusing specifically on the impact of non-binary gender recognition on the development and access to hormonal therapies, this research employs the Social Construction of Technology (SCOT) framework to analyze the interplay between biological factors and social constructs. By

examining how societal factors shape technological advancements, such as hormonal therapies, the SCOT framework provides a lens through which the cultural interpretations of gender can be understood. This approach is crucial for addressing the gap in knowledge regarding the development and accessibility of hormone therapies that cater to a spectrum of gender identities.

Previous research that inspired this topic was the work done in “Steroid Provocations: On the Materiality of Politics in the History of Sex Hormones”, the author revisits the history of sex hormones and explores their impact on the politics of sex. It discusses how the development of steroid chemistry in the 20th century led to profits for pharmaceutical companies but also created a tension between the technological possibilities of steroids and the understanding of sex. This tension resulted in the boundaries of sexed life being contested in new ways (Irni, 2016). The article suggests that focusing on scientific and societal endeavors, where the formation of sex characteristics was seen as an unwanted side effect or risk, allows for a reinterpretation of steroids as disruptive in the public sphere.

Instead of expanding the sphere of political subjectivity to include nonhumans, as suggested by Bennett and Hird, the article proposes an alternative: viewing a political act as a disruption (Bennett, 2010; Hird, 2013; Irni, 2016). It discusses three cases from the 1960s onward (menopause treatment, anabolic steroids in elite sports, and legislation on sex reassignment) and argues that the history of sex should be explored as a history of recurring challenges to the binary view of the two sexes, in which the specific and visible enactments of the phenomenon called "sex hormones" have been crucial (Irni, 2016).

This approach serves as a model for analyzing the traditional binary view of sex and its influence on the use of hormone therapy. By focusing on the tension between the technological possibilities of steroids and the understanding of sex, and viewing this tension as a disruption, we

can gain new insights into how the binary view of sex influences the use and perception of hormone therapy. This approach also highlights the importance of considering both scientific and societal factors in our analysis. By doing so, we can develop a more nuanced understanding of the issue and work towards more inclusive and equitable healthcare practices.

The SCOT framework will be utilized for analyzing technological developments because it emphasizes the role of human agency and social context in shaping technology. SCOT challenges the notion of technological determinism, and instead agrees that social factors influence technological innovation and adoption while emphasizing the importance of understanding social context in which technology is developed and used (Klett, 2018). The SCOT approach offers a perspective that merges the technical and societal components, recognizing that innovation is open to a range of interpretations by different social actors and groups within different social contexts. The framework is also adaptable to different types of technologies and can be extended to consider new dimensions, making it relevant for analysis (van Baalen et al., 2016).

At the heart of SCOT is the principle of interpretive flexibility, which suggests that technologies are not fixed but are subject to various interpretations by different social groups. This is especially pertinent to the study of gender, where cultural and individual variations abound. By recognizing the diverse perspectives and experiences of transgender and non-binary individuals, healthcare providers, and policymakers, SCOT facilitates a more inclusive understanding of how gender-affirming treatments, such as hormone therapies, are perceived and utilized. Moreover, SCOT's focus on closure and stabilization processes provides insights into how certain technologies, including medical treatments, become widely accepted and integrated into society. In the context of gender identity, this aspect of the framework helps to trace the

journey of gender-affirming hormone therapies from niche treatments to recognized medical practices (Klein & Kleinman, 2002).

The framework recognizes that social factors have a significant impact on the design and development of technology. This is especially important to consider when dealing with hormonal health technologies, as societal perceptions of gender play a crucial role in the design and administration of treatments. SCOT allows for a critical examination of how medical technologies are adapted to cater to a diverse population with varying gender identities (Klein & Kleinman, 2002). Finally, the social dynamics that exist in the SCOT framework are crucial for comprehending the broader implications of gender diversity on medical practice. It throws light on the challenges encountered while developing personalized hormone therapies and the societal obstacles that must be surmounted to provide fair healthcare. The SCOT framework plays a significant role in analyzing the complicated relationship between gender identity and medical technology. It provides a structured approach for examining how societal constructs of gender shape and are influenced by the development and use of gender-affirming treatments, ultimately contributing to a more comprehensive and understanding healthcare environment (van Baalen et al., 2016).

The SCOT framework is employed to understand how social factors influence technological development and use. The evidence consists of studies on sex hormones and their influence on physical development and behaviors, as well as cultural perceptions of gender. The development and marketing of hormonal health technologies and therapies is examined and analyzed based on the influence of human action and societal actors. In synthesizing what is known about the biological and cultural aspects of gender, it becomes clear that there is a gap in understanding how these factors influence the availability and development of treatments. The

transition to the next section will discuss the analytical approach used in this research and the evidence analyzed to address the gap in knowledge, thus moving from a broader context to the specific focus of this study.

Synthesis

The interplay between social constructs and medical practices profoundly influences GAHT, challenging traditional binary paradigms. However, deeply ingrained societal norms and medical frameworks rooted in binary ideologies have historically hindered access to GAHT for transgender and non-binary individuals. These norms not only affect the development and availability of GAHT but also shape individuals' willingness to seek and access these treatments, perpetuating health disparities.

GAHT is not just medical treatment; it's a vital tool for individuals to align their physical characteristics with their gender identity, fostering social acceptance and enhancing overall well-being. However, its effectiveness hinges on dismantling societal barriers and addressing structural healthcare inequalities. Transgender and non-binary individuals often face challenges when navigating healthcare systems, including a lack of knowledgeable providers, discriminatory practices, and limited insurance coverage (Raghuram, 2024). These barriers underscore the need for healthcare systems to adopt more inclusive practices that prioritize the diverse needs of gender-diverse populations. Embracing gender diversity in healthcare requires a shift towards inclusivity, where personalized and culturally competent care is the norm rather than the exception. This shift necessitates changes in medical protocols alongside broader societal acceptance and understanding of gender diversity.

Achieving equitable access to GAHT is not just a healthcare policy matter; it's a human rights imperative. The denial of gender-affirming care perpetuates the marginalization and stigmatization of transgender and non-binary individuals, exacerbating existing disparities in healthcare outcomes. By recognizing the interplay between social constructs and medical practices, healthcare providers and policymakers can work towards creating more inclusive and equitable healthcare systems. This entails dismantling barriers to access, fostering cultural competence among providers, and advocating for policies that prioritize the needs of gender-diverse populations.

The Role of the SCOT Framework

The SCOT framework provides a comprehensive approach to understanding the relationship between social constructs and medical practices, particularly in the context of gender-affirming hormone therapy (GAHT). SCOT helps us understand the interpretive flexibility of technologies, which are subject to various interpretations by different social groups. This is relevant in GAHT, where hormone therapy is perceived and utilized differently by transgender and non-binary individuals, healthcare providers, policymakers, and broader society. The traditional binary understanding fails to account for the diverse needs of individuals whose gender identities fall outside this framework. As a result, transgender, non-binary, and gender nonconforming individuals may not receive hormone therapies that align with their identities, leading to suboptimal outcomes and potentially exacerbating dysphoria.

To address these shortcomings, personalized hormone therapies offer a promising solution. By tailoring treatment regimens to the specific needs and identities of everyone, personalized therapies can optimize the effectiveness and satisfaction of hormone treatment. This may involve adjusting hormone dosages, formulations, and delivery methods to better align with

an individual's gender identity and goals for transition. However, developing and implementing personalized hormone therapies presents formidable challenges. Creating customized treatment plans requires a deeper understanding of the physiological effects of hormones across diverse gender identities. Additionally, healthcare providers must navigate legal and ethical considerations to ensure that personalized therapies adhere to established standards of care while respecting patients' autonomy and identities.

Beyond medical advancements, the realization of personalized hormone therapies necessitates a broader shift in societal attitudes towards gender diversity. Overcoming cultural norms and biases regarding gender identity requires advocacy, education, and awareness campaigns to promote acceptance and understanding of diverse gender experiences. SCOT also allows us to understand the social dynamics in the development, adoption, and adaptation of GAHT. By examining how different social actors interpret and interact with hormone therapy, we gain insights into the broader societal implications of gender diversity on medical practice. Additionally, the framework sheds light on how societal factors influence the adoption and adaptation of medical technologies like GAHT.

As attitudes towards gender evolve, SCOT helps us navigate the complexities of societal change surrounding gender diversity and healthcare practices. It provides a structured approach for analyzing how these changes impact the development, accessibility, and utilization of GAHT. Ultimately, SCOT contributes to advancing equitable healthcare by highlighting the importance of understanding the social context in which medical technologies operate. By addressing societal barriers and promoting inclusivity, SCOT informs efforts to ensure that all individuals, regardless of their gender identity, have access to affirming and culturally competent care.

By prioritizing individualized care, healthcare providers can better meet the needs of transgender, non-binary, and gender nonconforming individuals, ultimately improving health outcomes and quality of life. Therefore, the need for personalized hormone therapies in gender-affirming care is clear. As society continues to evolve in its understanding of gender diversity, healthcare practices must adapt to ensure inclusivity and equity for all individuals. By embracing personalized approaches to hormone therapy and addressing the systemic barriers that impede progress, we can advance towards a more affirming and compassionate healthcare system for individuals of all gender identities.

Challenges and Solutions: Closure and Stabilization in Gender-Affirming Hormone Therapy

The process of closure and stabilization in the context of GAHT is a crucial aspect that must be understood. The SCOT framework provides valuable insights into this process, which refers to the evolution of a technology from a contested or niche solution to a widely accepted and standardized practice. In the case of GAHT, closure and stabilization refer to the establishment of hormone therapy as a universally recognized and accessible form of care for gender-diverse individuals.

However, individuals seeking GAHT still face significant challenges in terms of closure and stabilization. Despite growing recognition of gender diversity, there is still a long way to go in terms of societal acceptance of non-binary identities and the corresponding need for more inclusive GAHT. Legal and policy barriers, such as attempts to ban or limit access to GAHT for minors in some states, create additional hurdles that can prevent individuals from accessing necessary care and further complicate the closure and stabilization process. Moreover, knowledge gaps and misunderstandings about GAHT, even within the medical community, can

lead to inconsistent treatment practices and hinder the development of standardized care protocols. Additionally, individuals seeking GAHT often experience high levels of psychological distress, including depression, anxiety, and social isolation, which can impact the individual's overall well-being and treatment outcomes (Nguyen, 2018). Access to GAHT can also be limited due to factors such as geographical location, lack of trained healthcare providers, and insurance coverage issues, further complicating the closure and stabilization process.

Historically, hormone therapy predominantly operated within a binary framework, primarily addressing the needs of individuals undergoing male-to-female or female-to-male transitions. However, this approach fell short of accommodating a significant portion of the gender-diverse population whose identities transcended conventional male or female categorizations. Consequently, GAHT initially faced challenges and controversies, reflecting its contested nature.

The societal perceptions of gender have evolved to encompass a broader spectrum beyond the binary, and this has led to a shift in the approach to GAHT. Medical professionals and researchers have increasingly recognized the need for personalized and inclusive hormone therapies. This paradigm shift, fueled by evolving societal norms and heightened advocacy from the transgender and gender-diverse community, represents a pivotal step towards closure and stabilization.

Regulatory changes also play a crucial role in this transformative journey. For instance, the World Professional Association for Transgender Health (WPATH) has revised its Standards of Care to acknowledge a spectrum of gender identities and advocate for individualized treatment plans (Deutsch & Feldman, 2013). Such regulatory adaptations have not only validated but also further legitimized the utilization of GAHT for a wider range of gender identities,

contributing substantially to the closure and stabilization process. There is a need to replicate these practices throughout the medical community to ensure that individuals seeking GAHT receive the care they need and deserve.

Human Rights and Equitable Access to GAHT

The evolution of hormonal health technologies reflects a broader societal shift towards recognizing and respecting gender diversity. As perceptions continue to change, it is crucial for the medical community to adapt and provide personalized, accessible treatments that meet the needs of all individuals, regardless of their gender identity (Emery, 2023).

The assertion that equitable access to GAHT is a human rights imperative is grounded in internationally recognized human rights principles. The United Nations Universal Declaration of Human Rights (UDHR) and subsequent international human rights treaties affirm the right to health as a fundamental human right. Article 25 of the UDHR states that “everyone has the right to a standard of living adequate for the health and well-being of oneself,” which encompasses access to healthcare services, including gender-affirming care (Nations, 1948).

Moreover, several international human rights bodies and experts have recognized gender-affirming care, including hormone therapy, as essential for the realization of human rights for transgender and non-binary individuals. For example, the World Health Organization (WHO) has emphasized the importance of providing gender-affirming healthcare, including hormone therapy, to ensure the physical and mental health of transgender individuals. Research studies, legal analyses, and human rights reports have documented the adverse health outcomes and

human rights violations resulting from the denial of gender-affirming care (World Health Organization, 2023).

Addressing Societal Barriers to Equitable Access

Addressing societal barriers to equitable access to GAHT requires multifaceted approaches aimed at dismantling systemic inequalities and fostering cultural competence within healthcare systems. This involves provider education and training, community engagement, and legal and regulatory reforms. Implementing educational programs and training initiatives for healthcare providers to enhance their understanding of gender diversity, cultural competence, and best practices in providing gender-affirming care. This can help mitigate biases and discriminatory practices within healthcare settings and improve the quality of care for transgender and non-binary patients. Engaging with transgender and non-binary communities to understand their healthcare needs, preferences, and experiences. This involves fostering partnerships with community organizations, conducting outreach programs, and involving transgender and non-binary individuals in the development and evaluation of healthcare policies and programs. Lastly, advocating for legal and regulatory reforms that protect the rights of transgender and non-binary individuals in accessing healthcare services, including GAHT. This may involve challenging discriminatory laws and regulations, advocating for legal recognition of gender identity, and ensuring that healthcare standards and guidelines are inclusive of gender-diverse populations.

Conclusion

In conclusion, the evolution of hormone health technologies reflects a broader societal shift towards recognizing and respecting gender diversity. As perceptions continue to change, it

is crucial for the medical community to adapt and provide personalized, accessible treatments that meet the needs of all individuals, regardless of their gender identity. Achieving equitable access to gender-affirming hormone therapy (GAHT) is not just a healthcare policy matter; it's a human rights imperative. The denial of gender-affirming care perpetuates the marginalization and stigmatization of transgender and non-binary individuals, exacerbating existing disparities in healthcare outcomes. By recognizing the interplay between social constructs and medical practices, healthcare providers and policymakers can work towards creating more inclusive and equitable healthcare systems.

The SCOT framework provides a comprehensive approach to understanding the relationship between social constructs and medical practices, particularly in the context of GAHT. SCOT helps us understand the interpretive flexibility of technologies, which are subject to various interpretations by different social groups. The process of closure and stabilization in the context of GAHT is a crucial aspect that must be understood. Despite significant progress, individuals seeking GAHT still face challenges in terms of closure and stabilization. However, recognizing the evolving societal perceptions of gender and advocating for personalized and inclusive hormone therapies represent crucial steps towards achieving closure and stabilization. By addressing these challenges and implementing regulatory changes that validate and legitimize GAHT for a diverse range of gender identities, we can ensure equitable access to affirming and culturally competent care for all individuals seeking GAHT.

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