Physician Perspectives on Gender-Affirming Care for Trans Youth

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Abstract

Background: Many trans people who seek medical transition, particularly youth, struggle to access care in a timely manner. Frequently, specialized clinics tend serve the majority of the trans population and the capacity of these clinics ends up being overburdened by demand. Yet, the provision of gender-affirming medical care is not beyond the skillset of general practitioners and if more took up prescribing it, access could be improved.

Objectives: This study sought to understand physician perspectives on gender-affirming care for trans youth in the hopes that insights into how to encourage more practitioners to take up providing care could be gleaned. The study had two central research questions. 1) What are Canadian physicians' perceptions, education, and knowledge base surrounding gender-affirming care for youth under the age of 18? 2)How does this differ between knowledgeable physicians who have experience with gender-affirming care and inexperienced physicians who do not?

Methodology: An anti-oppressive queer theoretical lens was applied to this study. Individual, semi-structured, in-depth, interviews were conducted with 13 physicians who had a range of experiences providing care for trans patients. The interviews were transcribed and coded for similar themes which constructed the results.

Results: Participants discussed a wide range of topics related to gender-affirming care for trans patients, both specific to youth and more general to trans healthcare broadly. Many participants argued, some with direct firsthand experience, that gender-affirming care does not need to be specialized care and can be prescribed, easily, by primary care providers. Many physicians receive little, or no education related to gender-affirming care in medical school. Despite this lack of education several participants became knowledgeable and willing to provide care to trans patients. Knowledgeable physicians frequently shared similar motivations, and accessed similar resources, in order to become willing and able to provide care.

Discussion: This study proposes recommendations for improving access to gender-affirming care for trans youth, and trans patients broadly. Improving and implementing education regarding gender-affirming care in medical schools and expanding resources for currently practicing physicians who take on trans patients. As well as framing gender-affirming care to exist within primary care practice.

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To my thesis committee, I would like to thank you all for helping to facilitate this project. It is heartening to know that projects like this can happen in academia thanks to supportive individuals like yourselves.

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Author Contributions

Chloe McDonald is the lead author on both manuscripts, having conceptualized the project and led all aspects of the research process. Chloe McDonald wrote the first draft of each manuscript and critically revised the material, approved the final version of each manuscript, and agrees to be accountable for all aspects of the work. Deborah McPhail also meets the authorship criteria for the two manuscripts and will be named as such. Deborah McPhail contributed significantly to the conceptualization of the project, supported all aspects of the research process, and provided critical feedback on each manuscript.

Introduction

Transgender people are, by broad definition, those whose gender identity is incongruent with the gender they were assigned at birth based on their anatomy, (known as trans from here on). This incongruity frequently causes discomfort and psychological distress which is typically called gender dysphoria. Gender-affirming care is the term used to describe the medical means by which trans individuals bring our bodies more in line with our gender identities. Not all trans individuals seek gender-affirming care but for those who do it can be lifesaving (Turban et. al. 2020). Trans youth who seek medical transition options may be prescribed puberty blockers, that pause pubertal development, before hormone replacement therapy which alters anatomical characteristics (Coleman et.al. 2022). Surgical options for youth are generally limited to altering secondary sex characteristics not genitalia, thus gender-affirming care in this context typically refers to puberty blockers and hormone therapy. Accessing gender-affirming care can be difficult due, in large part, to the lack of knowledgeable physicians willing and able to provide care. Frequently, trans patients access care through specialized clinics or programs that are dedicated to providing gender-affirming care, (Heard, et.al. 2018 & Bhatla, et. al. 2023). The physician knowledge gap regarding gender-affirming care begins in medical school where, historically, trans and queer health topics are covered infrequently (Kronk, et al. 2021. & Obedin-Maliver, et al. 2011). This gap leads to a lack of primary care physicians prescribing gender-affirming care in the form of hormone therapy or puberty blockers, even though doing so is within the scope of primary care practice and adds to the bottleneck of specialist services providing care for a number of patients outside their capacity.

The controversy surrounding gender-affirming care, despite the evidence of its benefits, inspired this study. Given the massive gaps existing between the need for gender-affirming care in the community, and the paucity of doctors willing and/or able to provide that care, it is necessary to explore physicians' knowledge base surrounding gender-affirming care for transgender youth specifically to understand how to facilitate the expansion of best practices to general physicians in Canada. This qualitative research project investigated physician knowledge, experience, and attitudes toward gender-affirming healthcare for transgender youth, notably hormone therapy and puberty blockers, as well as the structural barriers to including education and training for gender-affirming care as standard practice. This project will hopefully provide insight into how and why physicians come to a position where they are comfortable and knowledgeable enough to prescribe care to trans patients, particularly hormone therapy and puberty blockers to youth. As well, my intention is to provide ideas on how to improve the ways in which physicians are educated and trained regarding trans patients and gender-affirming care.

The two related research questions that initially guided the development of this study were related to physicians' attitude and experiences surrounding gender-affirming care. Research questions are:

1. What are Canadian physicians' perceptions, education, and knowledge base surrounding gender-affirming care for youth under the age of 18?
2. How does this differ between knowledgeable physicians who have experience with gender-affirming care and inexperienced physicians who do not?

Literature Review

Previous interviews with Canadian physicians indicate that many are not comfortable in their knowledge of trans-related healthcare to prescribe hormone treatments, and in many cases would not even know where to refer patients who are seeking gender-affirming healthcare of any kind (Snelgrove, et al 2012). An important aspect of physicians' reluctance to prescribe gender-affirming healthcare especially in the form of hormone therapy and puberty blockers is evidently the lack of knowledge surrounding the ethics of such treatments. Physicians are not aware of how to approach trans patients, and some may consider psychological therapy to be the primary course of treatment rather than hormone treatments (ibid. & McPhail, et.al. 2016). The conceptualization of gender-affirming care as a speciality has left many general practitioners unaware of available resources, up to date guidelines, and even appropriate referral options. Bigotry and prejudice toward transgender individuals are other factors that have led to physicians mistreating patients and refusing to prescribe, or learn about, gender-affirming medical treatments. Stories collected from transgender patients interacting with the healthcare systems emphasize the impact these bigoted attitudes can have on patients who have, for example experienced misgendering, mockery, and public outing when accessing services to prevent suicide (Sharman, 2016). In Manitoba, specifically, a survey of transgender youth describing their experiences with primary care providers demonstrated that most – 70%, of the sample – reported needing to educate their own providers about their needs as trans patients (Heard, et. al. 2018). Further, 25% of respondents reported being subjected to hurtful or insulting language due to their trans identity (ibid.). Others – 15% of the sample – were discouraged from asking trans-health-related questions. Twenty percent were told they were not trans, and 10% were discouraged from any explorations of gender identity. Some of the more blatant discrimination is

indicated in the fact that 35% of the sample felt belittled for their gender identity, and 15% reported that their primary healthcare providers refused to use their chosen name (ibid.).

Researchers have sought to discover the efficacy of allowing gender-affirming treatments, most notably puberty blockers and hormone therapy, to be prescribed to transgender youth under 18 years old, and whether or not youth under 18 are capable of knowing they are trans. Researchers, academics, authors, and commentators in various fields have raised concerns about the authenticity of children claiming to be transgender or experiencing feelings of gender dysphoria or euphoria. The authenticity of children claiming to be cis has never been questioned. A narrative has, relatively, recently emerged suggesting that the majority of children who are initially considered transgender will eventually return to a cisgender identity and permanently end any transition procedures. This narrative has been bolstered by research conducted examining children who initially present as trans and following them to observe if they return to a cis identity, a process known as desisting or re-transitioning. (Olson, et al 2022 & Temple Newhook et. al. 2018). The notion that a majority of patients will desist with gender-affirming therapies and procedures, along with the perceived harms of going through the process, have led to some advocating for strict controls of access to gender-affirming treatment for those under 18 years of age or outright bans against treating youth (Abreu, R., et. al. 2021). Yet, this research has received criticism related to methods and conclusions (Olson, et al 2022 & Temple Newhook et. al. 2018). For example, one oft-cited study conducted by Drummond and colleagues (Drummond, Bradley, Peterson-Badali, & Zucker, 2008) included children who did not meet the typical requirements for an indication of transgender status even at the time when the study was conducted. Many children in this study exhibited what the authors describe as gender non-

conforming behavior, which is not a reliable measure of trans identity (Drummond, Bradley, Peterson-Badali, & Zucker, 2008 & Olson, et al 2022 & Temple Newhook et. al 2018). In this study such a broad range of participants were included that in this case at least 40% of participants, by the authors' admission, (Drummond, Bradley, Peterson-Badali, & Zucker, 2008), would not be classified as transgender upon initial assessment (Drummond, Bradley, Peterson-Badali, & Zucker, 2008). These children did not express a persistent desire to live as a gender other than the one associated with their sex assigned at birth, which is a more reliable measure of trans identity. Since these children were not genuinely transgender when initially assessed, it would stand to reason they would not be transgender upon follow-up, and thus should not be classified as those who desist transition care (Temple Newhook et.al 2018).

The study by Drummond and colleagues was notable for the fact that 40% of the study sample were not trans at the time of first contact (Drummond, Bradley, Peterson-Badali, & Zucker, 2008) Other studies which found similarly high rates of desistance in trans children all shared a key methodological flaw (Steensma et al., 2011, 2013; Wallien & Cohen-Kettenis, 2008). These studies, which have also significantly contributed to the idea that 80% of children re-transition to a cisgender identity, counted any participant who was lost to follow-up during study as someone who re-transitioned within their samples (Steensma et al., 2011, 2013; Wallien & Cohen-Kettenis, 2008). As other researchers, and basic methodological practice would indicate, there are several reasons why a child might fail to follow-up at a clinic after an initial consultation to discus the possibility of accessing gender-affirming care. These reasons could include, but are not limited to, seeking help elsewhere or being pressured to stop seeking

treatments by friends or family members (Olson, K. et al 2022 & Temple Newhook et.al 2018). Counting those children lost to follow-up as someone who "desisted" is extremely misleading. The social and political climate of the times in which these studies were written may have also influenced the results in certain ways. The children in these studies who exhibited gender-nonconforming behaviour may have been seen by their parents as problematic and may be subject to parental pressure to conform to gender roles associated with their assigned sex at birth (Temple Newhook et.al 2018). Ultimately any number of reasons could explain why participants were lost to follow-up. It is impossible to know definitively if those participants are trans or cis, and using null data to conclude that these unknown outcomes reinforce the authors position is disingenuous.

In addition to critiquing studies which show high re-transition rates, literature exists demonstrating the opposite; that a high percentage of transitioning children continued to transition. For example, Olsen and colleagues observed a cohort of 317 binary trans youth between 3 and 12 years old from 2013 to 2017 who had transitioned socially as indicated by a change in their pronouns (Olson, et al 2022). Of this group only a total of 2.5% (8 participants) were using pronouns associated with their assigned sex at birth and were considered cisgender at the time of final data collection (Olson, et al 2022). Of those 8 participants, only one re-transitioned at an age when reversible puberty blockers might have been prescribed (Olson, et al 2022). Therefore, the vast majority of participants were considered trans at the time of final data collection. Low rates of re-transitioning among trans children have been documented by other researchers, which indicates a growing amount of evidence for the idea that low rates of re-transitioning are a reality for most trans children (Brik, et. al. 2020 & Olson, et al 2022).

Evidence regarding the mental health outcomes of youth who desire medical treatment but do not receive it has mounted in recent years. Those who received puberty blockers had lower lifetime odds of suicidal ideation compared to those who wanted the treatment but did not receive access (Turban, et. al. 2020). Suicidal ideation is a significant concern for transgender populations as rates of suicide and suicidal ideation are generally higher than in the general population. For example, in one large study in the United States, 40% of transgender individuals had attempted suicide (Turban, et al. 2020). In Canada among trans and non-binary youth surveyed in 2019, 2 in 5 considered suicide over the past year and 1 in 10 had made an attempt (Navarro, et.al 2021). Delays in accessing gender-affirming care have been demonstrated to contribute to negative mental health outcomes in trans youth (Heard, et.al. 2018 & Bhatla, et. al. 2023). Further, anxiety and depression in trans youth can be exacerbated due to negative interactions with the healthcare system (Heard, et. al. 2018). These negative interactions commonly are the result of physicians who lack knowledge leading to delays in treatment (Heard, et. al. 2018 & Bhatla, et. al. 2023).

Given the established efficacy of gender-affirming care especially, puberty blockers and hormone therapy, have in improving mental health outcomes for youth, such as lower suicidal ideation (Green et.al & Tordoff et.al 2022 & Turban, et. al 2020) and despite the current protests against it, specific care for youth has been established in Manitoba. In Winnipeg, the GDAAY clinic provides gender-affirming care for transgender youth under the age of 18. The program's staff include members specializing in pediatric and adolescent endocrinology, psychology, and gynecology (Heard, et.al. 2018 & Bhatla, et. al. 2023). This specialized clinic offers access to comprehensive and consistent gender-affirming care to youth. Prior to the establishment of this

program, trans-specific youth care programs were not available (Heard, et.al. 2018 & Bhatla, et. al. 2023). Much like gender-affirming care for adults, this clinic has experienced a growing demand for services, and difficulty managing the increased number of patients without additional support to increase capacity. The literature surrounding gender-affirming care for youth has previously described gaps in physician knowledge bases, leading to a hesitancy to prescribe care in the form of puberty blockers or hormone therapy which exacerbates the delays associated with patients needing to access specialty clinics. These delays are problematic given the potentially life-saving nature of puberty blockers and hormone therapy and the urgency with which trans youth need to access care. Previous literature has not investigated the perspective of physicians knowledgeable and experienced in providing gender-affirming care to investigate how and why they came to become providers of puberty blockers or hormone therapy. Previous literature has also not directly investigated the structural barriers to having gender-affirming care, especially hormone therapy and puberty blocker management, more widely taught to primary care physicians in medical schools. My research, here, addresses the gaps left in the literature by directly engaging experienced physicians who can offer insight into the subject. These lines of inquiry are important to address the structural barriers that make gender-affirming care less accessible for youth and engage physicians to take up prescribing puberty blockers and hormone therapy. Having puberty blockers and hormone therapy be more easily accessed in a timely manner will allow for trans youth to get the care that they need and improve their mental health and overall quality of life (Turban et. al. 2020).

The Cass Review was published in the United Kingdom in 2024. This review was commissioned by the National Health Services of England to review all gender-affirming

medical care for trans youth. This review included some literature, physician responses to various surveys, and analysis of services provided by the NHS. The authors claim in the report that there is no good evidence for the efficacy or validity of any gender-affirming care treatments for youth (Cass, et. al. 2024). The authors of the report make this claim by ignoring the vast majority of the evidence for the efficacy of gender-affirming care for youth. Specifically, the authors of this report only included as 'gold standard evidence' double blind random control trial experimental studies where youth were separated into groups that either received hormone therapy or puberty blockers and a second group which received placebos (Cass, et. al. 2024). These experiments, broadly, have not been conducted. Double blind experimental trials for puberty blockers are unethical and impossible. Those who receive placebo controls will go through unwanted and very noticeable puberties. Further, withholding medical treatments shown to be effective in other studies and by lived experience is deeply unethical. None of the recommendations the authors put forward are based on the same standard of evidence that is applied to puberty blockers and hormone therapy. For example, the authors make a recommendation to put restrictions on or prohibit social transition in schools and yet cite no double-blind experimental studies that measured the outcomes of social transitioning in schools (Cass, et. al. 2024). This double standard of evidence permeates the reviews recommendations which consistently push for a systemic hesitancy in providing gender-affirming medical care to youth and potentially adults under 25 despite providing no conclusive evidence as to the necessity of these restrictions (Cass, et. al. 2024). Other studies that demonstrate the efficacy of gender-affirming care, with improved mental health outcomes for youth who access puberty blockers or hormone therapy, were not considered in this review. The Cass review did include

some hints about how the authors came up with the recommendations presented in the report. The review reported on interview data collected on physicians in the UK regarding how they might handle trans patients. One-third of respondents demonstrated a strong transphobic bias in agreeing with the statement that 'there is no such thing as a trans child' (Cass, et. al. 2024). The authors frame this as a valid professional opinion along with other responses from physicians that indicate trans children should be openly challenged on their gender identity. Taking these transphobic opinions in contrast with other more supportive responses, the authors draw the conclusion that there is significant disagreement among clinicians regarding how to approach gender-affirming care (Cass, et. al. 2024). With this disagreement and a lack of random control trials, the authors make the case for extreme caution in prescribing any gender-affirming medical care for trans youth as well as caution in allowing social transition. With no randomized control trial offering evidence for or against gender-affirming care, and with physicians disagreeing on how to approach treatment, the Cass Review defaults to recommendations that assume children are broadly not trans. These recommendations rest on a cis-normative assumption that trans identity is a pathological outcome to be avoided instead of a normal variation in human existence (Horton, C. 2024).

Methodology

Principles of good qualitative research have been outlined by Tracy (2010) and include concepts for the study to adhere to such as having a worthy topic, sincerity, resonance, significant contribution, rich rigor, and meaningful coherence. It is my firm belief that this topic is worthy of study and that I approach it with sincerity. The current controversy surrounding gender-affirming care for trans youth, as discussed in the literature review, makes research in the

area imperative to counteract harmful and false narratives. I am approaching this topic from a place of sympathy and empathy and being transparent about my positionality in this study (Tracy, 2010). It is my hope that this study will resonate with other literature in the field, and also with community who is seeking care. This study maintains methodological coherence by falling within the principles of queer methodologies used to guide this research project. This study is centered around improving access to gender-affirming care for trans youth and normalizing the idea of gender diversity in medicine and medical school. This approach places this research in line with anti-oppressive queer methodological principles that guide research toward the material improvement of queer lives, informed by the social position of queer researchers (Browne & Nash, 2016 & Nash, 2010). Rigor is achieved through several methods. There is an aspect of face validity to rigor, whether the data collection and analysis procedures reasonably and appropriately address the study aims (Tracy, 2010). Given the aims of the study, the interview process and analysis procedure are appropriate methods to investigate physician perspectives and experiences with gender-affirming care. Interviews lasted approximately an hour, the interview questions were regarding the participants experiences with trans patients, learning to provide gender-affirming care in the form of puberty blockers and hormone therapy, and their perceptions of the systemic barriers around the practice. I further took care to ensure the transcriptions were accurate in reviewing each recording twice (Tracy, 2010). I will be transparent with the process of data collection and analysis which is another important aspect of rigor. Lastly, rigor is influenced by having an appropriate sample size (Tracy, 2010). While qualitative sample sizes are more difficult to determine than quantitative samples, this study does have a sample size that is able to meaningfully address the research questions (Ravitch, & Carl, 2021).

I stake this research in queer methodologies (Browne & Nash, 2016) which, as far as these can be defined, are a collection of methods and methodologies oriented towards queer liberation, conducted by queer researchers using critical reflexivity and informed by their own complex identities and experiences (Browne & Nash, 2016). There has been some debate whether it is or is not meaningfully possible for queer methodologies to exist. A queer theoretical lens is inherently subversive and critical of any particular way of generating definable knowledge. Tension exists between the theoretical idea of being critical of definable knowledge and the methodology of research aimed at generating knowledge through qualitative inquiry that, at various times, involves the implementation of terms and processes (such as thematic coding) that on the face seem positivistic. Queer theory would suggest that any knowledge generated through research is contextual, socially constructed, and capable of being subverted through different perspectives and social positions (Browne & Nash, 2016 & Nash, 2010). A queer methodology would have to contend with the understanding that any knowledge created through that understanding cannot be held as inherently true, only contextual and likely critical of other knowledge. This conflict between method and theory in queer methodologies is part of the reason why queer theory has not been as widely embraced outside of the humanities (Browne & Nash, 2016 & Nash, 2010). Utilizing queer theory and the entirety of the epistemological underpinnings inherent in that lens, as it is currently understood, in primary research is to a degree impossible (Browne & Nash, 2016 & Nash, 2010).

Despite these tensions and impossibilities as outlined by the methodological literature, I do find pieces of queer methodologies and queer theory useful and important to my study and employ queer methodologies in a *coherent* way throughout. First, in a more general way, queer

methods and methodologies often, as is the case in this study, allow and encourage researchers to investigate the hard to quantify social aspects of sexuality and gender. For the purposes of this study the methodological inspiration taken from queer theoretical lenses is the notion of an anti-oppressive challenge to taken for granted meanings and subsequent power relations (Nash, 2010).

Further, queer theoretical approaches are critical of the normative construction of binary, distinctly defined, and mutually exclusive categories of concepts like gender and sexuality (Browne & Nash, 2016 & Nash, 2010). The normative construction of gender as biologically essential creates a social paradigm that marginalizes trans identity. The normative binary notion of a biologically essential gender as an organising principle of social reality frames transgender individuals as deviant. The subsequent power relation is one of pathologization and control. Studies in various disciplines have framed trans individuals as objects of study to be defined by cis-normative constructions of gender rather than subjects capable of constructing their own identities (Browne & Nash, 2016 & Nash, 2010). Questioning and critically interrogating the institutional reinforcements of this cis-normative narrative is a central methodology in the use of queer methodologies in this study. In my study, these understandings influenced the development of my research questions, in that the way in which power relations surrounding normative conceptions of gender produces the healthcare experiences of trans youth will be critically examined to understand how transphobic and cis-normative ideas frame healthcare for trans youth (Nash, 2010 & McPhail et.al. 2022).

Additionally, my use of critical reflexivity and related community-based knowledge in the study aligns with the epistemological concepts and methodological approaches typical of

queer-theory-based inquires. Politically informed research endeavours that are aimed at improving the lives of queer people by deconstructing cis-normative narratives (Browne & Nash, 2016 & Nash, 2010). Being politically informed in this context involves the understanding of current narratives surrounding trans healthcare particularly for youth. It also involves critically situating my positionality in relation to the context in which the research study is being conducted. My position as a trans person informs my critical approach to the psycho-pathologizing of trans identity and the resulting regulation from medical institutions for trans youth. The knowledge generated from this study is understood to be co-constructed from the interaction between myself as the researcher with a particular position in context of queer life and the participants of the study (Brown, & Strega. 2015 & Browne & Nash, 2016 & Nash, 2010). In this way, far from harming the study due to "bias," my identity as someone from within community strengthened the project in that it allowed me to construct a knowledgeable and experience-based interview guide, connected me to potential participants, and, in the Knowledge Translation (KT) process, will allow for a legitimacy in presenting findings to which a cis researcher could not have access. Further, this aligns with queer methodologies' understanding of knowledge as embedded, co-constructed, and rooted in the power relations in which the researcher is steeped (Brown, & Strega. 2015 & Browne & Nash, 2016 & Nash, 2010).

Reflexivity

Beyond the more "formal" ethics of the study that will be discussed in turn, it is also important to discuss ethics matters that relate to a study based in queer methodologies – namely, it is important to acknowledge to what degree I held myself responsible to more community-grounded ethical issues relating to ethical responsibilities, such as those about *who* is conducting

the research and *why.* Reflexivity is an important ethical aspect of qualitative research. Acknowledging how the researcher, being the primary influence in data collection, shapes the research process is important. The method of data collection in this study involved one-on-one interviews, as such the process of data collection was impacted by my presence as the researcher. Understanding my position within that relationship in the research process in which data are co-constructed is necessary to fully understand the results of the research, but also describes the degree to which my research adheres to the community-based ethical principle of "nothing about us without us" (Brown, & Strega. 2015).

I am transgender. I began medically, socially, and legally transitioning in adulthood when I was 20 years old, and I am queer. I have an academic background in sociology studying the basic concepts of feminism, postmodernism, Marxism, and other socially critical theoretical lenses that have informed my position. I did not have the personal experience of transitioning or accessing puberty blockers when I was younger than 18. However, I do have the experience of living as a trans woman for several years to inform my position regarding gender-affirming healthcare. Navigating life and medical transition processes has made me aware of the ways in which various social structures fail to meet the needs of the trans community. With the recent increase in legislation in the U.S. aimed at attacking trans children, it is even more apparent to me that there is a need to conduct meaningful research to support trans youth. Within the trans community I have a position of relative privilege in terms of race and class. I am white and thus I have never experienced discrimination based on race. I can understand, on some level, the intersecting discrimination based on both transgender identity and racial minority status, but I cannot speak to the reality of that situation with no lived experience. I do believe that these

diverse experiences should be better understood, and I hope that those with these lived experiences can be supported in conducting meaningful research. My social class is a relative middle-class position, I have never lived in poverty or homelessness, and my family's acceptance and support of my queer identity has helped maintain that social position. Given my experiences and positionality, my approach to this research topic is that transgender youth are valid in their identities and desires to express those identities and should be supported. I think that the current medical structure should be doing more to support trans youth and less to restrict their access to gender-affirming care in any form. I think most physicians are ignorant of the reality of transgender life and that ignorance frequently leads to bigotry and mistreatment. My hope in this project is to contribute, in some way, to trans-positive research endeavours to have a meaningful impact in the lives of trans youth.

Methods

This qualitative study employed in-depth interviews with participants to address the research objectives and questions. A total of 13 Canadian physicians were recruited and interviewed for this study. These interviews were semi-structured, with interview guides for the experienced and inexperienced groups, which allowed the participants to discuss topics related to gender-affirming care and trans patients as they came up organically in conversation. Semi-structured interviews follow an interview guide but also allow for follow-up questions to explore topics that arise in the interview. It was important to allow for some leeway in the interviews to fully address the unique experiences and perspective the participants had regarding gender-affirming care and was in the spirit of queer methodologies in that the format, in its back-and-forth, conversational nature, recognizes the co-construction of interview data. Interviews focused

on participants attitudes and understandings of trans youth and gender-affirming care, as well as their medical background, training, and experience. Semi-structured interviews allowed participants to "tell their own stories" while providing some cohesiveness and structure to the interview (Ravitch, & Carl, 2021). The participants were initially sorted into experienced and inexperienced pools with associated interview guides. It became clear early on in the data collection process that the participant's experience levels existed on more of a spectrum. I began utilizing a mix of questions from the two interview guides appropriate for the participants experiences. The interviews were later transcribed and analysed for similar themes.

Eligibility

To be eligible to for this study, participants had to meet the following selection criteria: 1. In accordance with ethics board requirements, participants must be at least 18 years of age; 2. Participants must be licensed with an MD valid in Canada. Furthermore, the two different participant pools had different eligibility criteria. The knowledgeable participant pool had the following eligibility criteria: Participants must have prescribed gender-affirming healthcare of any kind, to a patient under the age of 18 during their time as a physician. The eligibility for the general physician pool included the additional criterion: The participants must not have prescribed gender-affirming healthcare to any patients. These participants may or may not have done research into the subject of gender-affirming healthcare, so long as they did not have experience administering gender-affirming care of any kind.

While the thesis project initially categorized participants as being either experienced or inexperienced with gender-affirming care, it became apparent that experience among participants

existed on a continuum. As such, I developed different, more nuanced categories for participants: Very Experienced, Somewhat Experienced and Less Experienced. None of the participants in this study had zero exposure to transgender patients, as they had all dealt with trans individuals in a medical context to some degree. Very experienced individuals described a long and continuous history of prescribing gender-affirming care in the form of puberty blockers and hormone therapy. Those who were 'Very Experienced' were also prescribing puberty blockers and hormone therapy on a consistent basis in their current medical practice. 'Very Experienced' participants also tended to describe their own efforts to educate current and future physicians on how to approach prescribing puberty blockers and hormone therapy and transgender patients. Participants grouped into the Somewhat Experienced category describe some exposure to transgender patients and prescribing gender-affirming care. The Somewhat Experienced physicians describe prescribing puberty blockers or hormone therapy to relatively smaller number of transgender individuals. Participants were grouped into the Somewhat Experienced group if there were larger gaps in prescribing to trans patients, if they had prescribed puberty blockers and hormone therapy in the past but less so in their current practice, or if they had prescribed hormone therapy to adults but not youth. The study was focused on gender-affirming care for youth, however physicians who were knowledgeable in prescribing hormone therapy to exclusively adult patients still had familiarity prescribing gender-affirming care and the study analysis reflects that perspective. The Less Experienced group is made up of physicians who had some exposure to trans patients and gender-affirming care. However, these participants described being not confident enough in their current understanding of gender-affirming care to prescribe puberty blockers or hormone therapy to their patients. Participants in the Less Experienced group

were family doctors who took in trans patients and continued prescribing hormone regimens that were started by other specialist physicians, and those who had some training in gender-affirming care during medical residency but were not currently knowledgeable enough to prescribe puberty blockers hormone therapy to current patients.

Recruitment and Participants

This project sought to recruit participants for in-depth semi-structured interviews. The participants were not strictly limited to Manitoba but were sought from only within Canada. A total of 13 participants were successfully recruited and interviewed for this study. The majority of participants were currently practicing in Manitoba with a smaller proportion practicing in Saskatchewan and only one participant was practicing in Ontario at the time of data collection. The majority of participants were currently practicing as general practitioners with a medical school background in family medicine. One participant was specialized in addictions treatment and another participant was a medical resident specializing in pediatric medicine. While this study was open to any physician in any discipline and from anywhere in Canada the perspective most represented in the data is that of family doctors practicing in Prairie provinces.

I sent recruitment advertisements to physician organizations to facilitate recruitment. Organizations such as Nine Circles, Docs Manitoba, and the College of Family Physicians agreed to help promote the study. I also leveraged personal connections to reach out to potential participants. The Queer and Trans Graduate Student Group at the University of Manitoba put the study advertisement on their social media account and a member of the same group helped to promote the study among their physician contacts. My family has a connection to a prominent physician in Saskatchewan who helped promote the study among experienced physicians in that

province. My thesis committee, and especially supervisor, also helped promote the study to physicians.

Over the course of recruitment, a small number of minor changes to the protocol were implemented with the permission of the ethics committee. For example, I clarified that I would reach out directly to certain physicians who had publicly available contact information and who were known to practice gender-affirming care. I developed a shortened version of the study advertisement for social media after realizing that the original ad was too lengthy. I also changed the protocol to include the option of conducting the screening meeting over zoom as opposed to requiring that the meeting be over the phone. It was more convenient for some physicians to conduct the screening meeting over zoom and conducting the meeting over zoom required collecting fewer personal details, in this case phone numbers. During the course of recruitment, I reached out to the Manitoba College of Family Physicians to promote the study on the advice of a study participant. The contact at the College agreed to disseminate the promotional material internally and on their social media. The study was circulated internally first and resulted in a handful of legitimate participants contacting me about participating in the study. The College posted the study ad on their Instagram account a few days after circulating it internally. After the Instagram post went live, I received a flood of new emails ostensibly from interested physicians. Previous successful efforts to garner recruitment typically resulted in a handful - around two or three - potential participants in the week following the recruitment ad being disseminated. The day after the College of Family Physicians posted the study ad on social media, I received over twenty emails. However, the nature of the communication with the supposedly interested physicians led me to be suspicious about the legitimacy of these participants. Their

communication style was at times poorly executed, rude, and unprofessional, while a smaller handful overcorrected that tone and were written in the same cadence as job applications. Further adding to my skepticism was the fact that when I reached out to a few of these would be participants to schedule a screening meeting they claimed to have completely open schedules any day and time that given week. Physicians simply do not have open schedules as my previous experience had demonstrated. I looked into the names of the supposed physicians emailing me to try to confirm that their practice was legitimate and could not find anything that corroborated their identity. Manitoba maintains a registry of practicing physicians and none of the individuals contacting me in the surge after the College of Family Physician's Instagram post could be found in that document. I also attempted to search for their practice online as most clinics and physicians can be found this way, usually complete with reviews on websites like RateMds.com the names of the individuals reaching out at this time in recruitment did not connect with any public information. In fact, a small number of names associated with the accounts attempting to contact me about the study were shared by adult film actresses. Their email addresses also had a string of random numbers following the names which suggested that they were automatically generated.

I do not know why these people reached out with fake accounts or if there was one person with several fake accounts. It is possible given the bigoted outrage surrounding gender-affirming care that someone or some people wanted to waste my time or give fake interview data. It is also possible that whoever was responsible for the fake accounts saw in the study advertisement that there was going to be a gift card given as compensation for participation.

Given the rising cost of groceries, it would be entirely possible that someone might be interested in acquiring a Presidents Choice gift card through whatever means necessary.

Data Collection

A total of 13 interviews were conducted using Zoom with Canadian physicians over the course of the project. The interviews were recorded digitally and saved and later transcribed by me directly into the NVivo software I used for analysis. Transcribing the interviews personally helped familiarize me with the interview recordings and develop an in-depth understanding of the themes the participants discussed. As such, and according to (Ravitch, & Carl, 2021), the trustworthiness of my data interpretation was increased.

It was anticipated that interviews would last approximately an hour and that interviews with more knowledgeable physicians would last longer than those with less knowledgeable and experienced participants. This prediction was largely accurate as the interviews with more experienced physicians lasted between 45 minutes to an hour and interviews with less experienced participants were more likely to be shorter, around 30 minutes and in one case 20 minutes.

Analysis

As mentioned, my initial project design conceived of two groups of physicians with corresponding interview guides. As it became apparent early in the data collection process that some participants who were Somewhat or Less Experienced could still offer insight on the questions, I went through both guides and asked the questions that were appropriate for the participants unique experience. As well, as the research process developed it became clear that

certain topics surrounding gender-affirming care and participants experiences were not being addressed adequately by the interview guide. As such I began consistently asking certain questions in addition to what had been pre-prepared in the interview guides to further understand participant experiences and perspectives. For example, many participants explained a total lack of education in medical school surrounding gender-affirming care and yet some physicians took it upon themselves to learn how to prescribe such care. I began asking what motived these experienced participants to learn how to provide that type of care early in the research process. This approach to research is reflective of the iterative nature of qualitative research wherein the data collection process develops and evolves in response to the learning that occurs through the research (Ravitch, & Carl, 2022).

The interviews were coded for similar themes across the different interviews and later groups of themes were used to develop the two articles. The initial code list was developed by reviewing each full interview transcript chronologically and inductively coding the responses to the interview questions (Al-Eisawi, D. 2022 & Gibbs, G. 2018 & Ravitch, & Carl, 2022). The transcripts were reviewed a second time, and the codes were modified slightly to consolidate codes which were thematically similar, as well as adding and removing portions of the data to make the codes more cohesive. The coding was first conducted openly in order to allow the participants' own words to guide the development of the analysis (Al-Eisawi, D. 2022 & Gibbs, G. 2018 & Ravitch, & Carl, 2022). Axial coding was later employed in order to relate the ideas identified in the codes with broader literature surrounding gender-affirming care and the related topics the participants discussed (Al-Eisawi, D. 2022 & Gibbs, G. 2018 & Ravitch, & Carl, 2022). Frequently the interview which lasted close to or over an hour touched on a wide breadth

of topics related to or associated with gender-affirming care. The first round of coding created a long list of codes featuring a range of interrelated topics. Several more specific codes were organized under more general codes that encapsulated the thematic throughline of the smaller codes (Al-Eisawi, D. 2022 & Gibbs, G. 2018 & Ravitch, & Carl, 2022). For example, many physicians spoke at length about their patients and their experiences going through the process of accessing gender-affirming care. Several stories were shared about patient hardships, patient's feelings about going through medical transition processes, and how important accessing gender-affirming care was for the patients that did receive treatments. All of these types of responses were coded according to the specific content of the data, such as a code for 'Patient Hardships', and then organized under the general code 'Perception of Patient Experiences'.

While the practice of organizing specific codes under broader umbrella codes was useful in organizing the data, not every general code became a main thematic finding of the study. Themes were organized after the second round of coding (Al-Eisawi, D. 2022 & Gibbs, G. 2018 & Ravitch, & Carl, 2022). The second round of coding involved once again going through each interview chronologically and reviewing and recoding the transcript data in the NVivo software (Al-Eisawi, D. 2022 & Gibbs, G. 2018 & Ravitch, & Carl, 2022). The second round of coding led to certain codes being reorganized under general codes and other responses being coded to additional codes. Many of the participants responses covered a range of different topics and many statements were coded to several different codes (Al-Eisawi, D. 2022 & Gibbs, G. 2018 & Ravitch, & Carl, 2022). At times specific codes organized under general codes were added to the findings in the two articles in order to contextualize those other findings. For example, the "Importance of Gender-Affirming Care" code organized under the "Perception of Patient

Experiences" code was included as a finding in the first article due to the contextual relevance to the other findings in that article. After the two rounds of coding were complete, specific and general codes were organized into a code matrix to provide the data for the findings of each article. These code matrices became the main themes of the respective articles (Al-Eisawi, D. 2022 & Gibbs, G. 2018 & Ravitch, & Carl, 2022). The case for trans care as primary care included the trans care as primary care code along with the codes associated with psychological screening, informed consent, and the importance of gender-affirming care. These codes all contributed to the higher order theme that made the case to include trans care in the scope of primary care (Al-Eisawi, D. 2022 & Gibbs, G. 2018 & Ravitch, & Carl, 2022). The thematic idea of trans care being a part of primary care was placed in the context of existing literature on the subject to reinforce the findings in the article (Al-Eisawi, D. 2022 & Gibbs, G. 2018 &Ravitch, & Carl, 2022).

The quotes used in the final article were chosen using factors such as their relevance, representativeness, and vivid description. (Rockmann, et. al. 2023 & Ravitch & Carl, 2020). Several times throughout the initial data collection process, certain participant responses stood out as being particularly impactful and memorable. Many of these responses continued to resonate during the analysis process and were easily chosen to be featured in the finding sections. Other quotes were chosen during the iterative process of analysing and writing the finding sections. Quotes were taken from the codes that informed the relevant section of the findings by selecting the most comprehensive and representative responses (Rockmann, et. al. 2023). Over the course of writing the findings section there were times when it became clear that quotes touching further on certain topics would be necessary and so certain quotes were selected for

relevant impact on specific topics (Rockmann, et. al. 2023 & Ravitch & Carl, 2020). Frequently the participants spoke at length on the subjects they were asked about, especially regarding topics in which they were personally invested. These lengthy responses frequently led to longer quotes being used in the findings. It was important to fully capture the responses given as the participants were clearly knowledgeable and at times passionate about the subject matter and the lengthy responses provided rich data (Rockmann, et. al. 2023 & Ravitch & Carl, 2020).

Data saturation, as far as it can be attained within the confines of this study, was achieved as it related to many of the main findings in the articles (Saunders, et.al. 2018 & Ravitch & Carl, 2020). In the process of both data collection and analysis, saturation was evident by the time of the final round of coding. Much of the findings in the earliest data was echoed throughout the process of collection including later interviews. New codes were occasionally created while analysing new interviews, however the majority of the code list was created using the first few interview transcripts and the last few interviews did not produce new codes. This satisfies the conception of data saturation consistent with inductive thematic saturation (Saunders, et.al. 2018). For example, there was consistent agreement from all the physicians with different backgrounds and experiences interviewed that gender-affirming care is significantly, life-changingly, important for trans patients seeking care. There was further uniform agreement among participants who had prescribed gender-affirming care in the form of puberty blockers and hormone therapy that it was not difficult, mechanically, to prescribe and that any trained general physician could provide that care. Among primary care physicians who have observed the effects of gender-affirming care there was no disagreement as to the importance of access or that care could be provided by general physicians. This agreement across participants throughout

the data collection process discussing similar topics led to data saturation in the sense that new data repeated what was expressed in earlier data (Saunders, et.al. 2018 & Ravitch & Carl, 2020).

Considerations of Online Interviews

The benefits and drawbacks of Zoom interviews compared to in person interviews has been an emerging academic discussion influenced by the COVID pandemic (Oliffe, et.al.2021). While online interviews are cost-effective, convenient, and offer participants the ability to be in a comfortable and familiar environment, they do add elements of uncontrollable interruptions and distractions. For example, technical difficulties or notifications coming from the device used in the interview can interrupt the flow of conversation. Researchers have also raised concerns about observing and interpreting the body language of participants in an on-line format (Oliffe, et.al.2021). Despite these drawbacks, the use of electronic meeting software made a significant impact on the viability of this project. The individual interviews were offered to participants in both in person and virtual formats. No physician in this study was remotely interested in meeting in person. The logistics of scheduling both screening meetings and the full interviews would have been significantly more complicated. The use of Zoom allowed for greater flexibility in terms of working around the participants' schedules which was helpful in this study as physicians tend to have limited availability. Furthermore, for the sub-set of participants who were located outside of Winnipeg, in rural areas of Manitoba as well as Saskatchewan and Ontario, participation in the study would have been prohibitively challenging logistically without Zoom.

Overall, disruptions during the interviews were manageable and did not cause significant issues to data collection. A handful of participants were interrupted briefly by pets or had to

relocate to a different room in their homes to continue the discussion but did so smoothly and continued to address the interview questions. Technical difficulties were noted in a few cases but did not cause catastrophic issues during interviews. However, in some cases, the audio quality dropped or cut out entirely but only for a single word which did not impede the interview or disrupt the point the participant was making about the topic at hand. In these cases, it did not seem necessary to ask participants to repeat themselves as the audio glitches were minor and repeating the same sentence would delay the interview which might have been frustrating. In one case, the audio quality was noticeably worse and attempts to ask the participant to adjust their setup did not improve the situation. In that case I continued the interview and later transcribed to my best ability. While I ensured that my virtual audio settings were optimized for these interviews, I cannot control how participants chose to set-up their end of the online meetings beyond the recommendations in the consent forms. Most participants were comfortable being recorded visually or at least conducting the meeting with their cameras on. A small number expressed hesitancy and felt that they were not presenting themselves, visually, as well as they might like to be when being recorded. The population in the study, physicians, likely had the means and motive to adapt to the use of software like Zoom over the course of the COVID pandemic. The study population in this case demonstrated that they were accustomed to using virtual meeting software and had a preference to using Zoom over in-person meetings.

Assessing body language and non-verbal cues was challenging during online interviews. Most participants who did conduct the interviews with their cameras on showed themselves from the shoulders up, making most body language unviewable. The tone of voice the participants used was more indicative of their overall demeaner. In general, I found the participants to be

engaged and interested in the subject matter. The selection bias toward physicians who are interested in gender-affirming care contributed to the tone of the interviews. A small number of participants seemed distracted or tired at times in the interview, but even in those cases there was at least one topic that sparked a tone of increased interest.

Ethical Considerations

This project received ethics board approval from the Health Ethics Review Board of the University of Manitoba prior to the collection of data or scheduling of any interviews. The ethics protocol number for this study was HS25994 (H2023:149) and approval was given on June 22nd, 2023.

In accordance with qualitative research ethics the participants were offered an honorarium of $40.00 for their time and contribution to the research project in the form of a President's' Choice gift certificate (Ravitch & Carl, 2020). The honorarium was used to compensate participants for their time. Honorariums might provide an incentive for participation from a wider pool of participants in general terms, however in this study it is unclear if the added incentive provoked interest. The participants recruited for this study had strong opinions about gender-affirming care and related topics. It was my impression that the gift certificates alone were not a strong incentive for participation. I had the gift certificates mailed to participants through the Presidents Choice website. A handful of participants declined accepting the gift certificates or indicated that they would like to send the honorariums to other individuals. Given ethics protocols I had the gift certificates mailed to participants but invited them to share the honorarium with whomever they chose.

A Map of the Thesis Manuscripts

This thesis is comprised of two stand-alone articles I hope to publish in queer and trans health journals as well as primary care journals. The title of these articles are: The Case for Trans Care as Primary Care and Education and Training for Gender-Affirming Care. Following these two articles, I end the thesis with a Conclusion, in which I provide recommendations for policy and practice regarding gender-affirming care for youth as well as directions for future research.

In conducting the analysis, there were certain codes which I found to fit together into a cohesive argument for the first article. Many of the participants discussed an issue I was personally familiar with, which is the fact that many primary care doctors are unfamiliar with prescribing gender-affirming care in the form of puberty blockers and hormone therapy. The experienced physicians early in the process of data collection, frequently early in the interviews themselves, argued consistently for the benefits of including trans care in primary care. Participants spoke to this topic directly, which became the 'Trans care as primary care' code in the code list, which inspired the title of the first article of this thesis. Participants also addressed the topic of trans care existing within primary care when discussing psychology and informed consent. Primary care physicians typically do not prescribe puberty blockers and hormone therapy, although they are capable of doing so, because of the psychological care model which frames gender-affirming care as a speciality needing psychological assessments in addition to informed consent. Each of these topics were discussed or touched on by enough physicians for the connections to be made in the analysis.

The second article was slightly more challenging to conceptualize. The lack of education about gender-affirming care especially puberty blockers and hormone therapy in medical school education was a consistent theme for virtually every participant, but it was challenging at first to build an entire article on that topic alone. I decided to include broader topics surrounding medical school training and education in order to explain how and why physicians learn to prescribe puberty blockers and hormone therapy and how that process could be improved. Initially, I only included medical school education, or lack thereof, the motivation for physicians to learn about gender-affirming care and recommendations for improvement. It became apparent relatively quickly that themes surrounding training outside of medical school, mentorships, practice guidelines, and associated courses were also important to include in the analysis as those topics were closely tied to the participants learning to prescribe care.

There were some themes that could not fit cohesively in the two articles but are worthy of consideration in future publications. For example, the participants' discussions on the political controversy surrounding gender-affirming care added some contextualization to some of the topics discussed in the two articles but did not relate directly to the focus of either one. Understanding how supportive cisgender doctors view the politicalization of trans healthcare is valuable in the current climate.[1]

Contribution to knowledge

[1] I believe that all the participants were cisgender, they did not discuss any personal connection to the interview subject matter. Further, while I did not collect demographic information, a handful of individuals in this study voluntarily told me they were cisgender.

This research adds to the growing body of literature surrounding gender-affirming care for youth, especially related to puberty blockers and hormone therapy, and gender-affirming education in medical schools. Previous literature has explained that physicians often receive little education regarding queer and trans health topics in medical school and the impacts that lack of knowledge has on trans patients trying to access gender-affirming care, usually puberty blockers and hormone therapy (Snelgrove, et al 2012 & McPhail, et.al. 2016). This study, unlike previous literature, directly engages experienced and knowledgeable physicians to offer insight into how to overcome the structural barriers that prevent teaching about puberty blockers and hormone therapy. This study also explores common themes of how and why physicians who receive little or no education or training regarding gender-affirming care learn to prescribe puberty blockers and hormone therapy for trans patients. The results of this study can contribute to efforts to improve medical school education and the training of current physicians to better meet the needs of trans patients. This study is unique in that, unlike previous literature, I have directly addressed the question of why some physicians choose to learn how to prescribe gender-affirming care, typically puberty blockers and hormone therapy, when they were not taught how to do so in medical school. This study also investigated how, as in what resources and mentorship these physicians accessed outside of medical school, these physicians learned to prescribe puberty blockers and hormone therapy. Understanding how and why some physicians choose to go beyond mandatory medical school education to provide care to trans patients has not previously been addressed in literature and represents unique contribution to knowledge generated by this study.

Conclusion

The findings of this research project are intended to identify and address the gaps in physician knowledge bases surrounding gender-affirming care, especially surrounding puberty blockers and hormone therapy. The research project was initially conceived to specifically discuss the needs of trans youth. However, many of the themes identified in these two articles are applicable to trans patients of all ages given the fact that physician knowledge gaps exist for trans healthcare broadly. In discussing the topic of gender-affirming care with physicians both experienced and inexperienced with providing that type of care I hope to provide useful insight into overcoming the structural barriers that prevent physicians from learning how to provide gender-affirming care; as well as demonstrate the need and ability for primary care physicians to take up prescribing puberty blockers and hormone therapy. All of the findings of this study are used to argue for changes to the healthcare system that would make lifesaving gender-affirming care more accessible for youth and trans patients broadly.

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The Case for Trans Care as Primary Care

Introduction

In recent years, there has been a notable increase in the population of transgender individuals seeking clinical treatment for medical transitions (Heard, et. al. 2018 & Bhatla, et. al. 2023). Children and adolescents under the age of 18 represent a growing proportion of the transgender population seeking care. This increasing population of transgender individuals, including youth, desiring treatments emphasizes the need to have reasonable access to appropriate gender-affirming healthcare especially puberty blockers and hormone therapy(Salas-Humara, et. al. 2019). Gender-affirming healthcare supports individual medical transition processes. Formal gender-affirming medical care has existed in some form since the mid-twentieth century, with a history of controversy and physicians imposing severe restrictions on who qualifies for care (Cavanaugh, et. al. 2016). These bans have caused significant harm to transgender youth and their families (Abreu, et. al. 2021), demonstrating the need for increased awareness and advocacy for trans youth in Canada.

Yet, general physician knowledge regarding gender-affirming medical care is lacking in North America broadly and Canada specifically (Kronk, et al. 2021. & Obedin-Maliver, et al. 2011). Canadian general physicians have been previously documented as not confident in their knowledge base or training to appropriately prescribe, administer, or monitor gender-affirming care especially in the form of puberty blockers and hormone therapy to transgender patients (Snelgrove, et. al.2012). A lack of physician knowledge and willingness to provide care has been identified as a significant barrier to accessing gender-affirming care notably puberty blockers and hormone therapy. Few general physicians prescribing care leads to a smaller number of specialist

clinics taking in a higher proportion of the population which can cause delays to access. Having delays to gender-affirming care, especially puberty blockers is of particular concern to trans youth who may be forced to undergo a puberty incongruent with their gender identity (Heard, et. al. 2018 & Bhatla, et. al. 2023).

Framing gender-affirming care as a speciality practice outside of primary care has recently come under scrutiny, and literature has argued for gender-affirming care of all kinds to become more aligned with an informed consent approach that is used across most medical practice (Spanos, et. al. 2021 Cavanaugh, et. al. 2016 & Lichtenstein, Stein, Connolly, Goldstein, Martinson, & Tiersten, et al. 2020), which recognizes a patient's capacity for decision making regarding their own healthcare (Cavanaugh, et. al. 2016). These studies have focused on qualitative patient satisfaction outcomes and the argument that gender-affirming care in the form of puberty blockers and hormone therapy falls within the scope of general practice. What this growing body of literature lacks, however, is a deeper understanding of the issue of gender-affirming care frameworks and informed consent practices, especially regarding youth as these studies have focus on adult populations, from the perspective of physicians who have experience working within the current system that regulates the administration of care for trans patients.

As such, this paper intends to promote a richer understanding of physicians' perspectives on topics related to gender-affirming care for youth. Specifically, I report on qualitative research interviews I conduced with 13 physicians across Canada, outlining physician perspectives on different approaches to care for youth and how that can impact issues related to accessing gender-affirming care generally. Interviewing physicians, especially those with experience prescribing puberty blockers and hormone therapy to youth, allows for a direct observation of the

structural barriers surrounding gender-affirming care and particularly the efficacy of the current model for administering care and the associated delays for trans youth. While the initial research questions that prompted this study focused on the different perspectives of physicians, ultimately the data collection and analysis process provided answers to different and no less valuable questions. The questions this study has addressed are:

1) What are the perspectives and attitudes towards prescribing gender-affirming care among Canadian physicians who have experience with trans patients?
2) How is education and training for gender-affirming care and trans patients handled in medical schools and how can that be improved?

This article addresses the first of those two research questions. The experienced physicians in this study consistently argued against unnecessary delays to care and the importance of re-framing gender-affirming care away from the current conception of care as a specialist practice. Adding this unique and important viewpoint to the issue of gender-affirming care frameworks further emphasize the need to re-conceptualize care for trans youth, especially care related to puberty blockers and hormone therapy, as primary care within the scope of family physicians. Based on data from semi-structured interviews, I argue for the use of an informed consent approach to gender-affirming care notably in the administration of puberty blockers and hormone therapy in order to reduce delays to life-saving care by making it more accessible outside of specialist clinics.

Literature Review

Gender-affirming healthcare is the term used to describe various medical interventions that transgender individuals undergo in the medical transition process. Broadly, this process can include hormone replacement therapy (HRT) and a variety of surgeries to modify aspects of patients' bodies (Coleman et. al. 2022 WPATH Standards of Care Volume 8). Guidelines for gender-affirming healthcare differs for adults and transgender individuals under 18 – i.e., transgender youth (Salas-Humara, et.al. 2019). Transgender youth may be prescribed puberty blockers, which is medication that stops the onset of the bodily changes associated with puberty (Salas-Humara, et.al. 2019). HRT may be prescribed for those under 18 once the patient reaches the age when they would otherwise begin undergoing puberty (Coleman et. al, 2022 & Salas-Humara, et.al. 2019). Surgeries modifying genitals are not recommended for youth and are not part of standard medical practice for those under 18 (Coleman et. al 2022 & Salas-Humara, et.al. 2019), however, some surgeries that deal with other aspects of the body may be available to trans adolescents under the most recent WPATH (World Professional Association for Transgender Health) guidelines[2]. For example, options for surgically removing breast tissue in trans masculine patients, or top surgery (Coleman et. al 2022), has been introduced by WPATH for adolescent youth. WPATH guidelines recommend that patients seeking these surgeries should meet the criteria for gender incongruence[3] and have been on HRT for at least a year.

[2] The World Professional Association for Transgender Health provides Standards of Care (SOC) guidelines that inform policy and practice around gender-affirming care, globally. Having the newest SOC allow for certain surgeries and hormone treatments for those under 18 makes it more likely that those treatments will be accessible.

[3] Gender incongruence is an incompatibility between a person's gender identity and their sex assigned at birth

Evidence suggests that accessing gender-affirming treatment has a significantly positive impact on the mental health of trans youth especially puberty blockers and hormone therapy (Green et.al & Tordoff et.al 2022 & Turban, et. al 2020). Moreover, this positive impact has been observed within a year of initiating treatment. Rates of depression and suicidality in trans populations is significantly higher than those of their cisgender peers (Green et.al & Tordoff et.al 2022 & Turban, et. al 2020). Comparing mental health outcomes among trans youth who want puberty blockers or gender-affirming hormone treatments but do not receive it with those who do receive those medical interventions demonstrates the effectiveness of gender-affirming care for trans patients. Studies that conduct these comparisons have found lower rates of depression and suicidality among trans youth who receive puberty blockers or gender-affirming hormone treatments (Green et.al & Tordoff et.al 2022 & Turban, et. al 2020). For example, Green et al (2022) indicated a 40% decrease in depression and attempting suicide in the previous year. Similarly, Tordoff et al. (2002), found a 60% decrease in odds of depression over the course of the first 12 months receiving gender-affirming care and a 73% decrease in odds of suicidality over the same time period (Tordoff et. al 2022). Lifetime odds of depression and suicidality have been observed to be lower among trans individuals who received puberty blockers at a time when they desired that treatment compared to those who wanted that medical intervention but were unable to achieve access (Green et. al. 2022 & Tordoff et. al. 2022 & Turban, et. al. 2020).

Thus, it is crucial to the very lives of trans youth to improve both the efficacy and time-to- access gender-affirming care especially puberty blockers and hormone therapy. Delays in accessing treatment for trans youth could be alleviated by a greater cadre of physicians willing to prescribe puberty blockers and hormone therapy, instead of having resources focused on

overburden specialty clinics (Heard, et. al. 2018 & Bhatla, et. al. 2023). Previous literature investigating barriers to care from the perspective of physicians has identified, broadly, that Canadian physicians feel ill-equipped to address the needs of trans patients (Snelgrove, et al 2012) and yet how physicians come to feel ill-informed, with specifically regarding trans youth, has been understudied. Further, evidence suggests that physicians are often stymied by the need to provide referrals to psychological assessments for patients to receive various types of gender-affirming care. Literature demonstrates that it has been historically difficult to access various types of gender-affirming care from official medical sources without a prior assessment from a mental health professional (Cavanaugh, et. al. 2016). Accessing surgical referrals and hormone therapy might require multiple assessments depending on jurisdictions (ibid.).

As such, more recent research questions the need for psychological assessments, as accessing a psychologist or psychiatrist prior to prior to receiving gender-affirming care in the form of puberty blockers, hormone therapy, and surgery poses further delays to patients who need this type of care in a timely manner (Cavanaugh, et. al. 2016 & Spanos et. al. 2021 & Lichtenstein, Stein, Connolly, Goldstein, Martinson, & Tiersten, et al. 2020). As an alternative, researchers and community activists have suggested the Informed Consent Model. The Informed Consent Model begins with a recognition of trans and non-binary patients' capacity for decision making and a right to autonomy regarding their own healthcare (Cavanaugh, et. al. 2016). Direct comparisons between the psychological assessment model of treatment and an informed consent approach are becoming increasingly possible as more healthcare providers take steps to apply the alternative model (Spanos, et. & Lichtenstein, Stein, Connolly, Goldstein, Martinson, & Tiersten, L. et al. 2020). These comparisons demonstrate that the informed consent approach, in which

patients work with physicians to develop their own care plan, decreases wait times and maintains similarly high patient satisfaction rates in receiving treatment, including in youth. Little is known, however, about how this approach and the more general issues of delay in trans care are viewed by physicians, especially those in Canada.

As a response to these gaps in the literature, I developed this project to investigate physician perspectives on gender-affirming care for youth to understand the barriers for physicians in providing care. In particular, I focussed on physicians who had in-the-clinic experience providing care to youth, in this case puberty blockers and hormone therapy, which offers a unique perspective on addressing the issue of a lack of physician knowledge and willingness to prescribe care to youth. Physicians who have experience providing puberty blockers and hormone therapy are intimately familiar with not only the structural barriers for physicians providing care but also how to overcome those barriers and the benefits of doing so, both for patients and providers.

Methods & Methodology

The methodological perspective informing the analysis of this study is based in a queer, anti-oppressive lens. Queer methodologies inherently resist definition and categorization. However, for the purposes of this study the methodological inspiration taken from queer theoretical lenses is the notion of an anti-oppressive challenge to taken for granted meanings and subsequent power relations (Brown & Nash, 2016). The normative binary notion of a biologically essential gender as an organising principle of social reality frames transgender individuals as deviant. The subsequent power relation shaped by this binary discourse is, in part

and relevant to this study, reinforced through the medical system by the pathologizing and control of trans existence. The way in which this power relation produces the healthcare experiences of trans youth will be critically examined to understand how transphobic and cis-normative ideas frame healthcare for trans youth (Brown & Nash, 2016 & McPhail et.al. 2022).

I recruited a total of 13 physicians from three provinces in Canada for in-depth semi-structured interviews to discuss gender-affirming care. I was interested in interviewing physicians who had experience prescribing gender-affirming care in the form of puberty blockers and hormone therapy and those who did not, to capture a spectrum of doctor experiences in terms of education, post-graduate knowledge, and levels of interest. To recruit for this study, I employed purposive and snowball sampling methods. In terms of purposive sampling (Ravitch, & Carl, 2021), physicians engaged in prescribing gender-affirming healthcare in the form of puberty blockers and hormone therapy were actively sought out specifically due to their experience and knowledge on the research topic. Due to my position in the community, I am aware of some knowledgeable physicians in Winnipeg. Using a snowball sampling method, I accessed these networks of Winnipeg-based physicians. Using personal connections with a physician in Saskatchewan I accessed several Saskatoon-based practitioners experienced in prescribing gender-affirming care. I prepared and posted social media posts to advertise the study via Instagram. I contacted the College of Family Physicians of Manitoba which circulated the study internally and on that organizations' Instagram account. I also contacted Docs Manitoba to advertise the study in that organization's newsletter on two occasions over the course of recruitment.

While I initially cast the recruitment net wide, hoping for participants across Canada, due to word-of-mouth and snowball sampling, participants were from Manitoba, Saskatchewan, and Ontario, with the majority practicing in both urban and rural areas of Manitoba. While this study was open to any physician in any discipline, the perspectives of family physicians make up the bulk of the data I collected.

Semi-structured interviews lasted on average roughly 40 minutes to an hour. Interview guides asked participants about their experience, education, and thoughts on gender-affirming care for adults and youth. Interviews were conducted and recorded over Zoom. Participants in Winnipeg were given the option of having the interviews in person, however none were interested, and so every interview was done remotely. I transcribed the interview recordings personally to establish the trustworthiness developed from knowing and understanding the data intimately (Ravitch, & Carl, 2021). Transcripts were typed directly in NVivo software which was also used to code the qualitative data. The interviews were inductively coded, coded from a ground-up approach where codes were derived from the data directly, to construct thematically similar responses directly from participants. I initially conducted open coding in order to organically construct codes from similarities across different participants' own perspectives. I then undertook axial coding in order to frame the codes within the wider context of research surrounding gender-affirming care (Ravitch, & Carl, 2021). Through this process, several topics and themes related to gender-affirming care emerged, several of which were situated within the context of existing literature and knowledge These themes included: gender-affirming care being a part of primary care, psychological assessments being a part of accessing gender-affirming care, the importance of gender-affirming care especially puberty blockers and hormone therapy

for youth, and using an informed consent approach when providing care for trans youth, which I will discuss, below.

Reflexivity

The analysis was informed by my position as a researcher as well as someone with a personal stake in the administration of gender-affirming care. My experience as a trans woman who has dealt with delays to accessing gender-affirming care informed my approach to the data analysis. The need for gender-affirming care to be a normalized practice that can be accessed in a timely manner is something I am aware of on a personal level. The impact gender-affirming care has had on my life is substantial and has driven me to understand the issues surrounding access so that those barriers can be overcome, and the best possible care be available to everyone who desires medical interventions. Having personal familiarity with the topic of the study has been a great asset in conducting the analysis of the data I have collected. In line with qualitative researcher methodologies, my familiarity with the subject matter further increases the trustworthiness of the data and the analysis of my study (Brown, & Strega, 2015, & Ravitch, & Carl, 2021).

Findings

The participants in this study discussed a range of topics related to gender-affirming care for youth. Many of these topics were related to the need for youth to access to gender-affirming care notably puberty blockers and hormone therapy in a timely manner, and how current approaches to regulating care could be changed. The most experienced physicians argued consistently for the need to include gender-affirming care in the form of puberty blockers and

hormone therapy for both youth and adults as a part of primary care instead of having it administered through specialist clinics. Some participants noted how the mechanics of prescribing puberty blockers and hormone therapy were relatively straightforward from a medical perspective, discounting the need for specialist knowledge. These physicians argued timely access to gender affirmative care especially puberty blockers and hormone therapy, which many noted was life-saving treatment, could be delayed by requirements surrounding prerequisite psychological assessments. Participants further emphasized the importance of providing care under guiding principles consistent with an informed consent approach to administering all kinds of gender-affirming care for trans patients, including younger children.

Gender-Affirming Care as Primary Care

A consistent theme that emerged from the data was that gender-affirming medical care, in terms of puberty blockers and hormone therapy, should exist within the practice of primary care. The experienced physicians in this study argued repeatedly and emphatically for puberty blockers and hormone therapy to be a type of care administered by a patient's primary care provider. Previous literature (Heard, et. al. 2018 & Bhatla, et. al. 2023) reinforces the finding of a lack of general knowledge of gender-affirming healthcare especially in the form of puberty blockers and hormone therapy on the part of primary care doctors which forces transgender patients to go to specialized clinics such as Klinic in Winnipeg. Which has a specialized trans health program for adults and older adolescents, the Gender Diversity and Affirming Action for Youth (GDAAY) clinic in Winnipeg for younger youth, The Center for Addiction and Mental Health (CAMH) in Ontario, and specialized providers in Saskatoon. These specialized clinics frequently manage a disproportionately high number of patients compared to their available

resources which tends to cause significant backlogs of patients trying to access care (Heard, et. al. 2018 & Bhatla, et. al. 2023). Yet, the mechanics of prescribing hormone therapy and puberty blockers, crucial for trans youth, is not outside a general physician's skillset (Salas-Humara, et. al. 2019). Lack of physician knowledge regarding how to prescribe care is particularly true for transgender youth as access to gender-affirming healthcare has historically been more restricted for youth under the age of 18 (Coleman et.al 2022). The lack of knowledge or training and historical restrictions have contributed to the current climate of gender-affirming healthcare for youth in which significant delays in treatment, most commonly puberty blockers, and negative experiences with healthcare professionals are common (Heard, et.al. 2018 & Bhatla, et. al. 2023).

For example, one participant, Chris, was a strong proponent of having gender-affirming care in the form of puberty blockers and hormone therapy being a part of primary care. They emphasized many times that the different aspects of gender-affirming care that could be managed by primary care physicians was not specialty care:

> I feel very, very strongly that gender-affirming services should be in the skillset and live within a person's relationship with their primary care provider. Whether that's a nurse practitioner or a physician or a physician assistant…And yes, I don't think that I should be doing people's surgery. But I do think that I should be able to manage people's access to all other components of gender-affirming care. …That doesn't need specialized expertise unless there's something else that's a complicating factor. In which case then yes of course, we want specialists to be able to access.

Sophia, another very experienced participant who provides care to many trans patients, agreed, and argued that it is necessary to have the prescription of puberty blockers and hormone therapy be a part of primary care to provide timely access to treatment for trans patients. In Sophia's view there is no need for gender-affirming care to be conceptualized as specialty care especially when it presents delays and risks to patients:

> It's fundamental primary care for this .6% of our population and I don't think any of us would go to a doctor who couldn't take care of Grave's Disease. It's a thyroid condition that's about as common as it is to be trans or gender diverse and it feels essential to have people understand that this has to be part of primary care, it has to be part of normal care, or this portion of our population will continue to be less healthy than the rest of the population. And that's not okay.

Another experienced participant, Susan, echoed:

> Why am I the one doing all this when other primary care providers, everybody should be doing this? Why are people waiting a year to see me if they have a family doctor or nurse practitioner who could just be doing this themselves… it needs to be more accessible and that it lives best in primary care. You don't need a gender specialist.

Another participant, Harper, shared their future goal for the systematic provision of gender-affirming care outside of surgical interventions, which includes hormone therapy. They further argued against the need for specialized clinics to provide for trans patients:

> My goal eventually would be that we don't actually have to send people to specialized clinics outside of, maybe for surgical things, but the hormone therapy itself is not

> anything that most family doctors haven't been familiar with in different contexts. So, I think it's something that we could do better as a profession and just make access better for people.

Thus, participants in the study emphasised that the bulk of gender-affirming medical care was within the scope of family practice. Surgical procedures, which are not typically handled by general practitioners, are certainly outside the purview of family doctors. However, experienced physicians explained that the nature of gender-affirming medical treatment as far as puberty blockers and hormone therapy do not require a specialized practitioner. The primary method of gender-affirming medical treatment is the prescription of hormone therapy in the form of puberty blockers for youth at the onset of puberty and cross sex hormones for older adolescents and adults (Coleman et al. 2022). Hormone therapy involves prescribing a new medication to a patient and monitoring the effects and efficacy of the treatment, which is the same process as any new medical treatment administered by a primary care physician, and, as participants notes, the lack of primary care providers prescribing hormones can cause harmful delays.

Sophia explained some of the mental and physical health problems associated with delays to accessing gender-affirming medical treatments. They also explained some issues that can arise when desperate trans youth access hormone treatments from sources other than trained physicians:

> Right now, my experience and that of my colleagues is that very commonly a young person hits Tanner Stage 5[4] well before the age of 16. So delaying hormone therapy until

[4] Tanner Stages refer to a scale of physical development in children and adolescents as they go through puberty. Stage 5 is the final stage.

> 16 can be damaging. Especially if the kid has been on blockers since they were 10. It's, you don't want a kid on blockers for 6 years. Their bone density will be negatively impacted. Having no hormones on board for a really long time just makes anybody feel like hell. And so…it feels like the guidelines have some catching up to do with regard to reality. Because the prospect of delaying is concerning and, I've had kids who got to me at 16 when they were formally eligible because they thought 'well there's no point in going sooner. And I recognize there's a problem of publicity and we should be communicating better but I've had kids who got to me having gotten hormones online or from a gym. And so when we test their levels they are terrifyingly high. And obviously that's not how we want patients to access care. We don't want people to feel forced, and especially children who are at risk from like creepy adults who are selling hormones in gyms.

Overall, then, participants argued against the current model of gender-affirming care that implicitly frames the practice as more complicated than regular primary care given the perceived specialist nature of the treatments. This argument has been echoed in a growing body of literature and is in agreement with professional guidelines (Cavanaugh, et. al. 2016 & Coleman et. al 2022). Physicians in this study pushed against the idea that gender-affirming care especially prescribing puberty blockers and hormone therapy was especially complicated and therefore beyond the scope of regular primary care practice outside of specialty clinics. Further, while speaking to the issue of prescribing puberty blockers and hormone therapy as part of primary care these family doctors who provide care to all ages did not make a distinction that care for youth required specialist knowledge beyond the mechanical understanding of prescribing puberty

blockers. As detailed later in this paper, the most experienced physicians who have been providing care to trans youth, advocated for the inclusion of youth in the administration of gender-affirming care whether that be providing puberty blockers and hormone therapy through primary practice.

Psychological Assessments

The necessity of psychological assessments, which act as bottlenecks to care, was also discussed by the participants in this study. The requirement of psychological assessments varies by province as related to age and the medical intervention the patient is seeking. At this point in all three provinces relevant to participants experiences, trans patients must access a diagnosis of "gender dysphoria" prior to many gender-affirming treatments. Sometimes, this can be provided by a family physician, while at other times, a letter from a qualified psychologist is required. Many participants in my study doubted the need for psychological assessments generally and were skeptical of requiring them to access any gender-affirming care. Chris, for example, discussed a particular patient in their practice to illustrate the point that requiring psychological assessments to access gender-affirming care is not necessary in all cases:

> Because now when I see more and more youth for example there's one 12-year-old in my practice she doesn't have Gender Dysphoria at all. Like none. She was loved and supported and protected and is passing and is accessing the hormone therapy in a timely manner. And she doesn't need a mental health therapist, she doesn't need a psychiatric evaluation, she doesn't need a psychological evaluation. And what she actually needed was just for her and her parents to come to their family doctor and say, 'hey this kid's

gender identity is female, and she was assigned male' at birth.' And then we would just recognize that for what it is and apply the appropriate treatments.

Chris went on further to discuss the potential harms associated with psychological assessments when they delay access to any type of gender-affirming care. As well as the stress on the healthcare system caused by requiring assessments:

> But even 'I need bottom surgery.' 'Oh, sorry you need to wait to see a psychologist who is going to write a letter.' And the psychologists who are able to write that letter are limited… So, the access to the surgery is actually better than the access to the psychologist. And so, then that puts an unnecessary bottleneck into the system in my mind. Because I can tell you the people who I think would need some psychological support prior to surgery and the people who don't. And it is [I] think it's actually a waste of system resources and I think that it is a unnecessary frustration for trans individuals. And I think, frankly, could be argued that it's dangerous, delaying people's access to gender-affirming care by requiring people who don't need it to have a psychological evaluation prior to accessing services.

Susan similarly outlined the issues with psychological assessments for surgical referrals in their province. They described the additional issues that can arise when political entities do not adhere to best practices:

> Yeah, gender-affirming surgical referrals in [province] are still not what they should be. Gender-affirming surgical referrals are not in accordance with WPATH guidelines here. Our ministry of health requires a referral still from a psychiatrist - that's another

> bottleneck for people. And there are a limited number of other [province] providers providing trans-related healthcare specifically. Like a small number of surgeons providing top surgery, for example.

Thus, several participants argued against the necessity of psychological assessments being a requirement for accessing any type of gender-affirming care. Psychological supports are not inherently harmful and can be a benefit for trans youth, however requiring all patients to undergo assessments represents an unnecessary bottleneck to vital care.

Importance of Care for Youth

Physicians in this study described how they perceived the impact accessing gender-affirming care, commonly puberty blockers and hormone therapy, specifically has on their young patients. Many emphasized the lifesaving and lifechanging nature of trans youth being able to access gender-affirming care in a timely manner.

Abigail, for instance, discussed the importance of gender-affirming care in the form of puberty blockers and hormone therapy for youth primarily by contrasting the different medical outcomes and side effects of treatment as opposed to leaving trans youth without medical supports:

> I think it's like lifesaving and I see a lot of the complaints or the things that get raised against it and a lot of the stuff that was brought up when they were opposing it in the states and stuff was there are some risks or harms with some of those medications. For like instance testosterone - you have to monitor people's blood pressure and make sure that if the testosterone goes too high blood pressure could be higher, increases there.

> Cardiovascular risk but you're monitoring those things and I think the counterpoint to that is that not treating people appropriately when they need appropriate gender-affirming care also has risks, right? Increased risk of depression increased risk of suicide and I think that's a super important point that those are somehow not considered as valid medical, collateral damage and outcomes.

Emily highlighted the importance of gender-affirming care, in this context highlighting the importance of puberty blockers, and appropriate supports for youth at younger ages by describing how it can eliminate gender dysphoria. They explained this in the context of arguing against a psychological label and diagnosis that has accompanied the prescription of gender-affirming care in the current model of treatment:

> I think we need to move in, out of DSM probably anyways and forever toward gender incongruence, not gender dysphoria. Because obviously lots of people don't and more and more of the youths that we see earlier and earlier with you know appropriate and earlier mental, or medical care you know dysphoria won't be a thing, amazing.

Nora, emphasized the importance of gender-affirming care, in general as well as emphasizing the importance of puberty blockers and hormone therapy, as a medical treatment in an evocative way by comparing the need for care to more direct lifesaving care that physicians provide:

> Well. It's [gender-affirming care] an essential, it's more essential than many of the other things that we do as physicians. It's like, it's not quite are we keeping their heart beating but it's close. It's, it is. And it's tricky because there's not great research into this, there's

> still a lot of question marks about how we can provide the best medical care and how we can provide the best mental health support. There's lots of question marks so. But it's essential care that I feel like people aren't always able to access in an appropriate timely way. So, there would be an uproar if somebody had a heart condition, and it took us three years to get them in to be seen by a heart specialist. Why does it take us three years to get someone seen who needs gender-affirming care?

Evelyn discussed the importance of gender-affirming care, especially puberty blockers and hormone therapy, by relaying the perspective of a child they interviewed about their experiences on the waiting list to get into GDAAY clinic:

> I think it's important for youth that needs gender-affirming care I think it's important. Yeah, I think it's important from a mental health perspective…There was one child that mentioned…I think this child was having lots of mental health challenges and was able to start transitioning. And I think felt that they really needed to transition to address some of where the mental health challenges were coming from…The child brought up that they felt like sometimes the medical system didn't want them to transition because fear of them regretting that decision in the future. And their feeling was that if they had been prevented from getting the treatment that they needed that they wouldn't have been around in the future to regret the decision.

Many physicians, then, echoed the sentiment that any gender-affirming care is life-changing and often lifesaving for youth. The importance of gender-affirming care especially

puberty blockers and hormone therapy for youth underscores the need to have gender-affirming care more accessible and remove unnecessary delays and barriers.

Informed Consent for Youth

Delays to any kind of gender-affirming care tend to be exacerbated by the requirement to access psychological evaluations prior to accessing treatment when that is required. An alternative to this is the Informed Consent Model. Informed consent as a principle for treating transgender patients was discussed by the participants in this study as well. Many physicians, especially the more experienced, stressed the importance of informed consent in treating all patients, and that trans patients accessing any kind of gender-affirming care should not be approached differently. Importantly, the more experienced physicians argued that an approach to all kinds of gender-affirming care utilizing informed consent as a guiding principle can be applied to youth. Others discussed the benefits the psychological assessment model might provide to physicians.

Sophia, when asked if children could understand the transition process, described their approach to offering transition care to youth which involves offering appropriate supports to patients after discussing that patient's needs and goals:

> I certainly believe they do. I don't take the responsibility of helping a child in that process lightly at all. And it's very scary to think about supporting someone to transition and then having them come back and say, 'I've changed my mind you didn't do enough investigation; I shouldn't have been given those resources.' That hasn't occurred, and I feel fortunate. I talked with a physician recently who was under the impression that

> physicians are recommending that kids bind or tuck or wear packers or use blockers… That was frustrating because as a physician my perspective is that we don't ever suggest or offer things our goal instead would be to have the patient articulate their goals understand their rationale and support them in achieving those goals safely. I have never suggested a patient undertake any kind of change because that doesn't make sense to me.

Emily explained how informed consent focuses on individual patients regardless of age and how the most recent WPATH guidelines have brought gender-affirming care practises in line to normalized medical practices:

> Informed consent means having the information that you need and knowing risks and benefits and being able to understand what things would look like if those risks were to occur and benefits what would happen without treatment. So that isn't a dialogue and that's not age based in any area of medicine. And that includes trans care. So, what WPATH has done somewhat in eliminating age has just meant that we can practice medicine the way that we do in every other area of medicine. Just do what's better for the person and informed consent in the conversation and it's very individual… And that's any of my patients. So what changes is just how many appointments length of time how much more support needs to be brought in versus not. In terms of informed consent and then yeah absolutely kids know their gender.

Avery emphasized that the informed consent process surrounding gender-affirming care is something that can be applied to younger youth who may be at the age where puberty blockers could be prescribed:

> I think the transition process can be explained to them at a level that's appropriate to them. And I think they can understand it at that level. I don't think they can understand the ins-outs and technicalities as many lay people probably couldn't. So, I think the concepts of gender and gender-affirming care are explainable to an 8–10-year-old in a context that I think they can understand. It's just not that complicated at it's base.

Maddison expressed a view that some physicians shared which was to emphasize the individual nature of confirming whether or not a younger patient could give informed consent. Emphasizing the need for longer discussions or the case-by-case basis of prescribing to younger youth, Maddison did not argue for a framework for prescribing gender-affirming care, in the form of puberty blockers and hormone therapy, that was wholly different than that outlined in an Informed Consent Model:

> I would have to sit down with that person and make sure that they were capable if you know what I mean. But I don't think that as a group physicians should just blanket say that no person that age is capable and vice versa. So, I think that it's an individual thing. ... And it's also tricky because of the parents and in [province] we have a mature minor law I can't remember if [province] has it. But it is difficult sometimes for parents to understand that even if their child is 10 and they're capable they can make decisions. So, I think that personally I've never prescribed hormone blockers or anything for anybody younger than a teenager. But for me I would certainly have to have a very very very long discussion maybe multiple with the 8–10-year-old. And with their permission with the parents who, and my idea would be that hopefully everybody would be on the same page

at the end. But yes, I do believe that it is possible, but I would just be, like I would say with anybody at any age it would be, I would have to talk to that person specifically.

Susan also reiterated the mature minor principle in healthcare and outlined their approach to ensuring that younger youth are able to consent to the process of receiving the care provided:

> Well developmentally and in my experience, I think they [youth]have the capacity to understand to make decisions about their own health and bodies. And to make sure I always go through things a few times with people and have them echo back to me in their own words, 'what are your goals for hormone therapy, what are the risks, what effects of hormone therapy for example are not reversible?' And generally, they're able to do that, and I always make sure they're able to do that and I can document it before starting gender-affirming hormone therapy. Because that's how the mature minor principle works.

Susan further explained the issues that arise when requiring psychological assessments prior to administering any type of gender-affirming care, especially puberty blockers and hormone therapy, including delays. They pointed out how requiring psychological assessments has a stigmatizing effect on trans patients:

> I think that the psychiatry requirement both officially by our ministry of health and unofficially by the perception of many healthcare providers is not warranted. Like while somebody has, by WPATH guidelines should be of stable mental health just to make sure things go well for them. It is very very rare that a person who tells you that they're trans is not trans. You just need to believe what people are telling you. And while I think a psychiatrist is an important part of a lot of people's healthcare teams, both trans and cis, I

think that requiring psychiatry is just another way of stigmatizing trans people within the healthcare system a lot of the time. And adds another bottleneck to care.

Susan hinted at the motivation for having psychological assessments prior to initiating gender-affirming care such as puberty blockers and hormone therapy. The fear physicians have at the notion of patients deciding they are not trans and regretting accessing treatment has historically kept the psychological assessment model in practice in order to protect physicians (Cavanaugh, et. al. 2016).

Aria went further in depth weighing the two different approaches toward prescribing gender-affirming care in the form of puberty blockers and hormone therapy from a physician's perspective:

> But we are gatekeepers, and I don't want to mess up you know. I don't want to say yes something is medically necessary and then have somebody later decide that it wasn't. Which I'm also fully aware that, this is why we do so much informed consent. Because it's very unusual of course for people to kind of change their minds. But there are some patients who come here and they're dealing with lots of things, and I see them, this is the thing about being a family doctor, you see them for all of these issues. And if they're really searching and they're, the thing lately is that everybody is looking for autism ADHD diagnoses of course because of TikTok and that's huge and self-diagnosing and sometimes it's absolutely legit and sometimes there's other stuff going on. And so sometimes people are just, it feels like they're casting about for an explanation as to why they feel different. And could it be that all of these things apply? Sure. Could it be that

> some of them apply and not all of them absolutely maybe I don't know. I don't feel 100% confident that I can determine all of that, because I can't all I can do is respond to the person in front of me with the information that they are giving me. So, there is safety in having another provider say yes this is appropriate. But that's, but to what cost. Don't know.

Aria suggests, then, that primary healthcare providers who have not been educated or trained about puberty blockers and hormone therapy may be hesitant to prescribe that type of care even if it is relatively straightforward due to fears surrounding transition regret. Psychological assessments offer an assurance to physicians who view gender-affirming, especially puberty blockers and hormone therapy in the context of youth, care as a new medical practice with many unknown potential outcomes, especially if they are afraid their patients will desist and regret accessing medical interventions. A few participants touched on the issue of providers being scared to provide new treatments especially ones that are under scrutiny.

Emily described the inclination of doctors to avoid prescribing treatments they view as new or uncharted especially treatments that are under more scrutiny. When asked why more physicians don’t take up prescribing puberty blockers and hormone therapy, they explained the convenience of avoiding gender-affirming care:

> Provider anxiety disorder. That's the term that [Name] in [City] uses. Yeah, I just think like when there's an element of unknown in an area the feels highly scrutinized and is you know newish, and I think there's just a million kind of convenience reasons why we wouldn't take it on.

Echoing Emily, Aria described how provider anxiety gets hidden by the social status doctors have as authority figures and how that status comes with a responsibility that can be frightening:

> And I think sometimes people feel, we get scared a lot and I think patients don't necessarily realize that because they see. I guess there's prestige and there's like societal whatever to being a doctor, it's scary because you know if you make mistakes you're going to be in big trouble.

Many participants, then, emphasized the ability of youth to provide informed consent in medical decision making. Even the participants who were comparatively hesitant to confirm youth in general would be able to understand and consent to the treatments, stressed that capacity should be measured on a case-by-case basis, which does not conflict with an Informed Consent Model.

Discussion & Conclusion

Participants in this study discussed the need to incorporate gender-affirming care in the form of puberty blockers and hormone therapy into primary care for trans patients. Physicians experienced with prescribing puberty blockers and hormone therapy emphasized that providing care for trans youth and adults does not need to constitute specialist care outside of a regular primary care practice. Participants discussed how psychological assessments impact trans patients going through the medical transition process. Many of the most experienced physicians argued that in many or most cases psychological assessments are not necessary to evaluate a trans youths, or older trans patients, readiness to undergo gender-affirming care processes. The

psychological assessment model to providing gender-affirming care causes harmful and unnecessary delays to accessing treatment for trans patients. The physicians in this study also emphasized the importance of gender-affirming care for the trans patients who do chose to medically transition. Participants who provide gender-affirming care in the form of puberty blockers and hormone therapy overwhelmingly described it as life-changing and lifesaving. Finally, participants argued heavily in favor of approaching gender-affirming care as a provider from an informed consent approach to reduce wait times and respect patients' capacity for medical decision making. The participants overall argued for a normalization of gender-affirming care across the medical system especially in regards to incorporating the practice of providing puberty blockers and hormone therapy into primary care.

A handful of participants in this study who had experience prescribing hormone therapy to youth and adults made comments regarding their perception of their patient's psychological state. These participants noted that they were capable of determining which of their patients required additional psychological supports or assessments prior to accessing hormones, puberty blockers, or surgery. This highlights the fact that general practitioners are able to make determinations regarding their patient's mental health and can make decisions to refer those patients who need support to appropriate resources, including psychological counseling. Referring patients who require additional mental health supports is a common practice in primary care for other medical concerns as some participants in this study discussed. Requiring psychological assessments for any particular treatment is therefore unnecessary when primary care providers can determine which patients need any additional screening prior to accessing care.

Participants argued that accessing gender-affirming care, most commonly in the form of puberty blockers and hormone therapy, in a timely manner is among the most important factors in ensuring positive health outcomes for trans patients including youth. Anxiety, depression, and suicidality in trans populations is higher than that of cisgender peers, and reducing these negative mental health outcomes can be achieved with timely access to care and familial support (Turban, et.al. 2020). Treatment delays pose a significant threat to the wellbeing of trans patients especially youth as the development of puberty presents a time sensitive concern. Delaying treatment or denying access to puberty blockers and hormone therapy for transgender youth has significant negative consequences. Mental health outcomes for youth who are underserved by the healthcare system have been documented, and increased rates of anxiety and depression have been linked to delaying or restricting access to puberty blockers and hormone therapy (Heard, et.al. 2018 & Bhatla, et. al. 2023). Furthermore, transgender youth have reported higher rates of suicidal thoughts and actions compared to cisgender peers (ibid.). Access to gender-affirming care most often in the form of puberty blockers and hormone therapy mitigates those outcomes especially when combined with family acceptance (Navarro, et.al. 2021 & Turban, et.al. 2020). Many experienced physicians in this study argued that the current model of care which places a heavy burden on specialized clinics to manage all aspects of gender-affirming care, whether that be hormone therapy or access to surgery, causes problems, mostly significant delays in accessing treatment, for trans patients.

Provider anxiety surrounding gender-affirming care, as discussed by this study's participants, stems from the notion that gender-affirming care in any medical form may cause harm to the patients who receive it. The harm physicians are worried about causing stems from

the idea that patients will regret transitioning (Cavanaugh, et. al. 2016). Under the psychological assessment model of providing gender-affirming care, physician fears surrounding hypothetical patient regret help perpetuate a system that delays access to life saving care and restricts trans patients' autonomy and right to make choices about their own healthcare (Cavanaugh, et. al. 2016). Given the previously discussed literature on the reality of low transition regret rates and the importance of timely access to gender-affirming care, especially to puberty blockers and hormone therapy, it is imperative that physicians' fears surrounding prescribing be allayed (Turban, et. al. 2020 & Olson, et. al. 2022). Education and training for primary care providers around gender-affirming care will help normalize the practice of providing puberty blockers and hormone therapy and create a more accessible health system for trans patients. Some of the participants of this study have taken steps to improve medical school education related to gender-affirming care especially surrounding puberty blockers and hormone therapy and build capacity among currently practicing physicians.

Doctors in Manitoba are capable of prescribing hormone therapy and puberty blockers to youth. There are no laws or regulations that prevent them from providing care to trans youth directly, as some participants in this study demonstrate. WPATH guidelines provide recommendations for primary care providers to prescribe hormone therapy for youth and adults (Coleman et. al. 2022). These guidelines do recommend providers include psychological assessments, typically referrals to psychologists or psychiatrists, in the process of providing hormone therapy. However, these guidelines acknowledge that delays to accessing care can be dangerous and pose mental health risks for patients (Coleman et. al, 2022). The authors of the WPATH guidelines recommend psychological assessments while also acknowledging that it is

possible to provide care without doing so, but caution that there is not as much evidence to support the practice of providing care without assessments. Doctors in Canada are also able to publicly declare if they provide gender-affirming care, typically hormone therapy or puberty blockers, some participants discussed community organizations in various provinces at times keep a list of safe providers for various medical needs including providing care. Some of the participants of this study also discussed how these lists are not always up to date given resource constraints. Specialist clinics that provide gender-affirming care of all kinds to youth and adults also often publicly advertise their services, if not the specific names of individual providers.

Based on the findings in this study and previous literature on the subject of gender-affirming care for trans youth, especially regarding to puberty blockers and hormone therapy, certain policy and practice changes should be made. The current model for prescribing puberty blockers and hormone therapies generally, and specifically to youth, causes delays to important life-saving care. Conceptualizing gender-affirming care as a speciality area of medicine which requires psychological assessments prior to access creates bottlenecks to care. Re-framing gender-affirming care in the form of to puberty blockers and hormone therapy under the Informed Consent Model, which is widely practiced in other areas of healthcare, to be within the scope of general practice would improve access to care. Hormone therapy, either puberty blockers or cross-sex hormones, can be administered by general practitioners without requiring psychological assessment in every case. Surgical procedures, which are limited for youth, should continue to be practiced by surgical specialists, however requiring one or more psychological readiness assessments in every case creates unnecessary delays to important care. Normalizing the provision of the bulk of gender-affirming care in the form of to puberty blockers and

hormone therapy within the scope of primary care practice would provide further access to care as it would decrease the pressure on speciality clinics which frequently handle a volume of patients that cannot be addressed in a timely manner. The physicians in this study who have provided care to trans patients consistently argued in favor of principles consistent with an informed consent approach to all aspects of gender-affirming care for youth. The physicians most hesitant to prescribe puberty blockers and hormone therapy to youth still proposed that cases should be examined on a case-by-case basis to assess patients' ability to understand and consent to puberty blockers and hormone treatments. This case-by-case approach would still be consistent with efforts to re-frame gender-affirming care models that would improve access for youth. Re-framing gender-affirming care in this way to improve access will require more general physicians prescribing hormone therapy to trans patients. Education and training around gender-affirming care in the form of to puberty blockers and hormone therapy will need to become a standard practice for general practitioners. Ideas surrounding how to incorporate gender-affirming care, especially the provision of to puberty blockers and hormone therapy for general practitioners, into medical schools and training for current physicians will be a key next step in improving access to care for youth.

One of the participants in this study made a comment regarding one of their young trans patients that deserves further study in future research. This participant made the claim that a trans patient of theirs who received family support and adequate, timely, access to gender-affirming medical care does not have gender dysphoria, as in severe psychological distress regarding gender incongruence. While this claim did not constitute a main thematic finding of this study, future research could investigate the experiences of trans youth who received both family

support and access to desired medical treatments in a timely manner to determine if gender dysphoria is consistently absent in the face of these factors.

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Working Backwards from Clinical Practice: Linking the Manuscripts.

The first manuscript of this thesis provided evidence and theoretical argument for increasing the prescription of gender-affirming care especially in the form of puberty blockers and hormone therapy for trans youth in primary care. It is a topic I have some direct familiarity with, the family doctors I have been a patient of have not had any experience or knowledge with gender-affirming care. The political climate surrounding gender-affirming care of any kind and trans youth further motivated me to conduct research in this area. The themes presented in the first manuscripts are, similarly, ones I am familiar with having researched and experienced gender-affirming care, which made it easy to construct the first manuscript. Ending the first manuscript with the argument that more primary care physicians should begin prescribing puberty blockers and hormone therapy for youth necessarily begs the question of education and training. If more physicians are going to prescribe puberty blockers and hormone therapy they will need to be educated and given training in the field, ideally during their time in medical school. Medical school, as some participants pointed out, provides protected time to dedicate to learning new material versus the more difficult prospect of trying to educate oneself while currently practicing medicine.

The second manuscript was somewhat more difficult to put together as medical education and training is not something I have personally experienced or previously researched extensively. Constructing the second manuscript involved first incorporating any themes brought up in the interview related to education and training then reducing those topics to be more cohesive. The second manuscript is dedicated to investigating how and why some physicians choose to learn

how to provide gender-affirming care in the form of puberty blockers and hormone therapy as well as strategies to improve the way physicians are taught to handle trans patients. Analyzing the strategies and motivations that practicing doctors had in learning about gender-affirming care provides new and unique insight into how providing puberty blockers and hormone therapy might be more widely accepted as a normalized practice in primary care. The participants also contributed valuable insight into how medical school curriculum could be improved based on their own perspectives and in some cases direct experience with efforts to make medical education more inclusive of gender diversity. The findings of the second manuscript are applicable to trans youth despite the focus of the discussion from participants being more generalized to gender-affirming care in broad terms. The participants' perspectives indicated that their level of education on gender-affirming care especially related to puberty blockers and hormone therapy was lacking to the point where the specific topic of care for youth was not addressed in formal medical training. As a result, the manuscript reflects the participants' perspectives and will discuss education for gender-affirming care in medical schools in general terms that encompass but do not necessarily specifically focus on the subject of care for trans children. Further, much of the education physicians might receive on gender-affirming care for adults could be transferable to youth, as hormone therapy treatments for older adolescents are similar or the same as those prescribed for adults. Additionally teaching physicians how to respectfully handle trans patients in a clinical setting should be mandatory education regardless.

It is my hope that these two manuscripts together could serve as a road map in how physicians take up prescribing puberty blockers and hormone therapy, as well as how that process could be improved in order to expand access to, and normalize, gender-affirming care.

With the importance of gender-affirming care in the form of puberty blockers and hormone therapy also described, directly and indirectly, in these manuscripts, I also hope that the necessity of continuing to improve access to gender-affirming care we be impressed upon any readers.

Education and Training for Gender-Affirming Care.

Introduction

Medical schools have historically lacked curriculum dedicated to the unique needs of queer and trans patients (Kronk, et al. 2021 & Obedin-Maliver, et. al. 2011). This lack of education has led to many doctors being unable and unwilling to effectively treat trans patients (McPhail et.al. 2016 & Snelgrove, et al 2012). This knowledge gap is especially apparent with regards to trans patients' medical transition needs but can also extend to regular primary healthcare with physicians being unsure of how to handle a trans patient's basic healthcare needs (McPhail et.al. 2016). Despite the lack of formal training, however, the fact that specialty clinics exist in Canada suggests that several physicians have become knowledgeable and experienced enough in prescribing gender-affirming care in the form of puberty blockers and hormone therapy to provide it to their trans patients. There is a lack of literature, though, describing how and why physicians come to gain such knowledge. While the initial research questions that prompted this study focused on the different perspectives of physicians, ultimately the data collection and analysis process provided answers to different and no less valuable questions. The questions this study has addressed are:

1) What are the perspectives and attitudes towards prescribing gender-affirming care among Canadian physicians who have experience with trans patients?
2) How is education and training for gender-affirming care and trans patients handled in medical schools and how can that be improved?

This article addresses the second of those two research questions. This paper describes a qualitative research study with 13 physician participants I undertook to investigate why and how physicians negotiate providing care to trans patients given their small amount of education in the area. In it, I explore how physicians, with little or no formal education on gender-affirming care, came to learn how to provide care often in the form of puberty blockers and hormone therapy to their trans patients and, citing their experiences, provide recommendations as to how barriers to improving gender-affirming care education and training can be overcome.

Literature Review

Gender-affirming healthcare is the term used to describe various medical interventions that are utilized by transgender individuals in the medical transition process. Broadly, this process can include hormone replacement therapy (HRT) and specific surgeries to modify aspects of the patients' bodies (Coleman et. al. 2022 WPATH Standards of Care Volume 8). Guidelines for gender-affirming healthcare differ for adults and transgender individuals under 18, i.e., transgender youth (Salas-Humara, et.al. 2019). Transgender youth may be prescribed puberty blockers, which are medications that stops the onset of the bodily changes associated with puberty the patient would otherwise experience (Salas-Humara, et.al. 2019). HRT may be prescribed for those under 18 around the time their peers begin undergoing puberty (Coleman et. al, 2022 & Salas-Humara, et.al. 2019). Surgeries modifying genitals, or bottom surgeries, are not recommended for youth under 18 (Coleman et. al 2022 & Salas-Humara, et.al. 2019). Some surgeries that deal with other aspects of the body may be available to trans adolescents under the most recent WPATH (World Professional Association for Transgender Health) guidelines,

however. For example, options for surgically removing breast tissue in trans masculine patients, or top surgery (Coleman et. al 2022), have been introduced by WPATH.

Despite WPATH recommendations, and the variety of procedures necessary for gender-affirming care especially in the form of puberty blockers and hormone therapy, physician knowledge of 2SLGBTQQIA+ related health topics and concerns is generally limited in North America. This knowledge gap originates in medical school education (Kronk, et al. 2021 & Obedin-Maliver, et. al. 2011). Medical school curricula typically do not train future physicians to support or facilitate medical transition procedures, including puberty blockers and hormone therapy. Obedin-Maliver et al. surveyed the 2SLGBTQQIA+ content of medical school curricula in North America, across Canada and the U.S., and found significant gaps (Obedin-Maliver, et. al. 2011). Overall, a combined total of 5 hours were dedicated to 2SLGBTQQIA+ content in 4-year medical degrees in North American medical schools (Obedin-Maliver, et. al. 2011). Their study further investigated these curricula by specific topics – 16 in total – to explore what, specifically, was discussed in 2SLGBTQQIA+ medical education. Over 60% of the 132 schools surveyed included sexual orientation, HIV, and gender identity in medical education (Obedin-Maliver, et. al. 2011). Less than 40% included topics of SRS (Sexual Reassignment Surgery, also know as Genital Reconstruction Surgery GRS, or Gender Affirmation Surgery GAS, or colloquially known as bottom surgery), body image, and transitioning in medical curricula (Obedin-Maliver, et. al. 2011). Some institutions have taken steps to improve medical school curricula regarding 2SLGBTQQIA+ health topics leading to inconsistent education across the healthcare field (Kronk, et al. 2021 & Obedin-Maliver, et. al. 2011). Especially relevant to this project is that transgender-related topics, such as medical transitioning procedures, represent the

largest knowledge gap in 2SLGBTQQIA+ training in the medical schools surveyed (Kronk, et al. 2021 & Obedin-Maliver, et. al. 2011). This lack of training and education has severe consequences for trans patients. Without formal training, physicians can develop, maintain, or fall back upon discriminatory attitudes to transgender patients leading to negative experiences of harassment or abuse (Kronk, et al. 2021).

The lack of physician knowledge regarding trans specific healthcare has led to gaps in accessing appropriate health services among trans patients. These gaps in service extend to trans-specific healthcare – in other words, medical transition procedures - as well as regular primary care not related to transition needs (McPhail et.al. 2016). Trans patients have described interactions with physicians who have absolutely no understanding of their needs, leading to many patients reporting a need to educate their own physicians on the basics of trans existence and healthcare, and trans patients are referred out to specialist clinics when providing gender-affirming care in the form of puberty blockers and hormone therapy is well within the scope of regular practice (McPhail et.al. 2016).

In previous literature, physicians raised concerns that their lack of knowledge would pose a risk to their patients given that they did not know how different hormone treatments could affect other health issues (McPhail et al., 2016 & Snelgrove, et al 2012). In these studies, the lack of education surrounding trans health also led to a lack of understanding of trans identity (ibid.) and caused major delays in care given that many physicians appear not to know where to refer patients to get appropriate treatments (Snelgrove, et al 2012). These studies point to the need for gender-affirming care especially relating to puberty blockers and hormone therapy to be included

in medical schools to give providers the resources they need to prescribe care, and a basic understanding of trans and queer patients (McPhail et.al. 2016 & Snelgrove, et al 2012).

More recent studies have sought to understand the efficacy of including various topics related to gender-affirming care in medical school curriculum and the effect such training has on medical students. In a meta-analysis of the effect various types of education and training surrounding trans health topics had on medical students (Cooper et.al 2023), Cooper et al (2023) found that, of 36 studies used in the final analysis, a majority found a lack of time dedicated to gender-affirming care and time to complete gender-affirming care modules related to various topics regarding medical transition steps (Cooper et.al 2023). As a result, several studies recommended increasing the amount of protected time dedicated to the delivery of gender-affirming care in medical school education, along with the need for long-term follow-up to measure knowledge retention (Cooper et.al 2023). These studies were further examined in outcome measures for physician comfort levels in prescribing affirming care, especially in the form of puberty blockers and hormone therapy as well as skills and confidence in prescribing. These measures were impacted positively by the various study interventions but were more impacted by interaction with trans patients as well as formal training (ibid.).

Although gender-affirming care in medical education is a growing area of research, studies have not previously examined how and why physicians with no formal education on any kind of gender-affirming care learn to prescribe puberty blockers and hormone therapy for trans patients. Previous studies have also not explored practising physicians' perspectives on the structural barriers to improving all kinds of gender-affirming care education in medical school and how to overcome those barriers. As such, my interviews with physicians experienced with

gender-affirming care especially prescribing puberty blockers and hormone therapy provide insight into the structural barriers to including gender-affirming care in medical schools, as well as the ways physicians with no formal training became knowledgeable and comfortable enough to prescribe puberty blockers and hormone therapy in their own practices.

Method and Methodology

For this project, I sought to recruit physician participants for in-depth semi-structured interviews to discuss several topics related to gender-affirming care, largely focusing on the provision of puberty blockers and hormone therapy. I was interested in interviewing physicians throughout Canada who had experience prescribing puberty blockers and hormone therapy and those who did not. Over the course of the project, I recruited a total of 13 participants, the majority of whom were currently practicing in my home province of Manitoba with a smaller proportion practicing in Saskatchewan and one participant in Ontario. While this study was open to any physician in any discipline and from anywhere in Canada, I managed to recruit participants primarily from family practice, and thus the perspectives of family physicians make up the bulk of the qualitative data I collected.

To be eligible to participate in this study participants had to meet the following selection criteria: 1. The participants must be at least 18 years of age. 2. Participants must be licensed with an MD valid in Canada; and 3. Participants must have prescribed gender-affirming healthcare to a patient under the age of 18 during their time as a physician. While I initially categorized participants as being either experienced or inexperienced with any type of gender-affirming care, it became apparent that experience among participants existed on a continuum. Early in the data

collection process I began to categorize participants into Very Experienced, Somewhat Experienced and Less Experienced groups.

In-depth semi-structured interviews lasted on average roughly 40 minutes to an hour. There were two interview guides for the two different participant pools – less experienced and more experienced. Both interview guides asked participants about their experience, education, and thoughts on gender-affirming care in general and for youth. The interview guide for the experienced pool had more questions regarding participant's training as well as their thoughts and feelings about their trans patients and their approaches to prescribing care. The interview guide for the inexperienced pool contained more questions regarding what resources participants would need to start prescribing care in the form of puberty blockers and hormone therapy and if they would ever be comfortable prescribing to youth. After realizing there was less difference in participants' experience levels, I continued to use the different interview guides at the start of each interview and pulled relevant questions from the opposite guide that were more appropriate for the participants' experience.

Interviews were conducted and recorded over Zoom. I transcribed the interview recordings personally in order to amplify rigour and trustworthiness of my knowledge and interpretation of the data (Ravitch, & Carl, 2021). Transcriptions were typed directly in NVivo software and coded for thematically similar responses from participants. Open coding was initially done to organically construct a code list from similarities across different participants own perspectives. I then performed thematic axial coding in order to frame the codes within the wider context of research and discourse surrounding education in medical schools around

gender-affirming care (Ravitch, & Carl, 2021). Several topics related to gender-affirming care were discussed and analysed within the context of existing literature and knowledge.

Methodologically, I relied on queer methodologies to develop my research questions, undertake data collection, and perform analysis. Queer methodologies are collection of methods and methodologies oriented towards queer liberation, conducted by queer researchers using critical reflexivity and informed by their own complex identities and experiences (Brown & Nash, 2016). Along these lines, this project was informed by my position as a queer researcher with a personal stake in the timely and competent administration of gender-affirming care. My experience as a trans woman who has dealt with delays to accessing several types of gender-affirming care informed my approach to the data analysis. The need for gender-affirming care to be a normalized practice that can be accessed in a timely manner is something I am aware of on a personal level. The impact gender-affirming care has had on my life is substantial and has driven me to understand the issues surrounding access so that those barriers can be overcome, and the best possible care be available to everyone who desires medical interventions.

Findings

This study found several themes among participants related to education and training. Participants in this study described a general lack of education in medical school regarding gender-affirming care of any kind. Participants in this study received education in medical schools across Canada and the U.S. and broadly described a similar lack of formal education regarding gender-affirming care, notably the general practitioners in this study received a lack of education regarding puberty blockers and hormone therapy. Despite the lack of formal training,

many participants prescribed gender-affirming treatments in the form of puberty blockers and hormone therapy in their current practices. These experienced physicians described their motivation for learning how to provide puberty blockers and hormone therapy and the sources they learned from outside of medical school. The participants further explained their perspectives on the obstacles to including gender-affirming care in the form of puberty blockers and hormone therapy in medical school, as well as the barriers for training currently practicing healthcare practitioners. Finally, the physicians in this study offered insights into how to improve education and training for gender-affirming care, especially puberty blockers and hormone therapy management for primary care providers.

Lack of Education

Participants in this study all described a lack of education in medical school surrounding gender-affirming care of any kind to some degree. All the physicians interviewed for this study had been practicing for several years with most having completed their education and training in the mid-2000s to the mid-2010s. As previously noted, medical school curriculum surrounding gender-affirming care around this time was lacking (Obedin-Maliver, et. al. 2011). The physician who had most recently completed both medical school and residency graduated in 2017, and one participant was a resident who finished medical school in 2020. Many participants described a complete lack of training around any kind of gender-affirming care in medical school with several physicians simply responding with ‘none’ when asked how much education they received on the topic in general.

Some physicians described limited exposure to topics surrounding gender-affirming care or trans patients or both during their time in medical school. They were generally more recent graduates or, in one case, a current medical school resident. However, even those who had been exposed to the idea of gender-affirming care, most often in the form of puberty blockers or hormone therapy, or trans patients in medical school described feeling that the education or training they did receive was not sufficient to begin prescribing especially to youth.

Sophia, explained how they were exposed to trans patients in a primary care setting but were still not trained in administering puberty blockers or hormone therapy:

> So, my clinic had limited exposure to transgender patients in medical school. I did a work/study program for a couple of years at a clinic, a community clinic that was based in what, at that time, was sort of the heart of the queer community of [city]. And so, I got exposure there and just a very gracious welcome and lots of education from different members of the community. But I didn't have a lot of, during medical school, I didn't have education about or the opportunity to be involved in the provision of explicitly gender-affirming care. It was more primary care for people who were trans and gender non-conforming. Or, because the clinic had a focus on sexual health it was care around sexual health for people who happened to be trans or gender diverse. But not because they were trans.

Eveyln, a resident specializing in pediatrics at the time of data collection, described the exposure they had to trans patients, which was largely the basics of trans identity. They further described how they did not feel it prepared them to work with young patients:

> I think we had two-hour long sessions by someone, we had one that was by someone who was transgender who had a really good hour where they talked more about their experience and that was really good. But it was one hour. And then we maybe had another hour or two of like what are pronouns, like that gender unicorn picture kind of going through that. It was a very high level, what is gender versus sex or versus sexual orientation. A very, not really enough to be a really useful amount in terms of actually working with youth.

Aria, a relatively recent medical school graduate, finishing school in 2017 and residency in 2019, described their experience seeking out opportunities to learn about gender-affirming care, in this case puberty blockers and hormone therapy, due to their personal connection to the subject. They also explain how relatively little education they received in school on the subject:

> A little bit it's certainly something that I sought out. So just to give you context my partner of, how old we are now, 22 years is trans. And so, we were together through his transition and that's well prior to med school. So that was always something that I was very aware of for him and like for his process…there were a lot more hoops to jump through…So, knowing that by the time I had started med school that things had really changed, that was always going to be something that I was drawn to and was interested in. We certainly had some teaching, so Dr. [Name] was I think kind of the guy for my year, I think that's changed a little bit so and then [Name], she started the same time…They kind of did most of our trans care and gender and queer stuff. But there wasn't much like probably, I don't know, 3 or 4 sessions through med school. And I

definitely paid more attention than probably some other people because there was direct applicability to my life and my interests.

The participants in this study described receiving a lack of education in medical school surrounding any kind of gender-affirming care and queer patients through the required curriculum. Many received no education at all while some received a degree of basic training. Those who sought out further education surrounding gender-affirming care, most often in the form of puberty blockers and hormone therapy, in medical school and beyond often had similar personal motivations for extending their training on the subject.

Motivation for Learning

Having a lack of education and training in medical school begs the question of why many of these participants chose to take up prescribing gender-affirming care in the form of puberty blockers and hormone therapy as primary care physicians. Understanding why these physicians chose to learn how to prescribe puberty blockers and hormone therapy illuminates the importance of training and education in the subject for physicians. Some physicians had personal connections to the subjects related to gender-affirming care that were discussed in the interviews. Having people in their lives who have gone through the process of transitioning or who are queer, as in the case of Aria, in some way raised their awareness of the issue. This finding would suggest that knowing a trans person or having trans friends or partners is a strong motivator for many physicians to take up prescribing gender-affirming care in the form of puberty blockers and hormone therapy. For many of the most experienced physicians who were prescribing to many trans patients at the time of the interviews, the motivation for learning how to prescribe

puberty blockers and hormone therapy came from the firsthand observation of the inability of healthcare systems to meet the needs of trans patients.

For instance, Chris described both a personal connection and a desire to fill the gap in healthcare service for trans patients, a gap that was first pointed out by members of the queer community:

> While I was in [City], a friend of mine who had transitioned introduced me to some of his friends and one of his friends said 'You know there's a big shortage of family doctors who are willing and able to prescribe hormone therapy. Would you ever be willing to do this?...Well, I'm pretty motivated just looking for places in which the healthcare system doesn't meet the needs of particular communities in general. Like that's kind of my broad approach to medicine. It is trying to apply my efforts to places where there's the biggest gaps in service… But the biggest motivator for me in this work was that this friend of mine, and as I watched them trying to access care…And I could see very clearly this work was the responsibility of family doctors to their patients.

Harper further described the responsibility for physicians to meet the needs of trans patients being especially potent in rural practice where referrals to speciality clinics are less viable:

> Having to learn as I went when I discovered these patients just because you know, sometimes when you're rural family medicine and the wait list to see someone for a year or two years you kind of have to just open the books and figure out how to do it yourself.

Sophia discussed their early exposure to trans and queer patients observing how a lack of access to safe and regular care, both primary care and access to puberty blockers and hormone therapy,, has a multitude of negative health implications:

> It's the right thing to do, it's a population that is being, in the model that I was coming into, was effectively being denied access to the most basic of healthcare. And so, seeing the impacts that that was having on people's health. Whether it was their physical health and their horrifying rates of chronic disease that wasn't getting care because they weren't going to the doctor because it wasn't safe. Or their mental health because they weren't able to transition, and they didn't feel like their body was home was just pretty catastrophic. And so, it just felt like it was an important thing to try and figure out. And because I was really well supported by this one other doc and then over time a couple of others, it didn't feel unreasonable.

Susan explained that their philosophy toward prescribing care and the personal connections they had to the queer community helped drive them to prescribe gender-affirming care in the form of puberty blockers and hormone therapy, which they saw as an area of medicine which was underserved:

> I found walking that journey with that one patient to be very rewarding. I also have queer friends, as it goes. Right like we often say that attitudinal and behavior change has to be on an individual person to person level. And I think like, just having queer friends growing up is definitely part of why, and to this day, is definitely part of why I work with the trans and gender diverse community. I think there's a really big social justice aspect to

> my medical practice, just a white cis het lady doing her best, is how I describe it…And I also just saw that it was undeserved. That it was a need and not enough people are doing it.

Nora described how by chance an early patient of theirs was trans and had the opportunity to prescribe care while under the guidance of a preceptor. They further explained that, like other physicians in this study, they continued to prescribe puberty blockers and hormone therapy because referring patients to specialist care was not viable, especially in a rural setting with comparatively even less access:

> The first one who came in through residency that was an easy one. So, he came in, he's like I've been living this, living in these shoes for a year now and I'm looking for someone to help. He knew what he wanted he knew, it was straightforward. I had a preceptor that I could check all my answers with that one no problem. And then when it became my own patients then again, it's like well there's not somebody easy that I can refer people to and the referral to [Specialist Clinic] takes years so then I don't want to abandon my patient for this amount of time so then we do it because it's in front of me and we have no other options. But when you're doing rural medicine like I was doing, lots of things you do that are outside your comfort zone. So, you do things because you're the person there that can do things like this.

Abigale similarly felt that it was their responsibility to care for rural trans patients who did not have regular access to consistent healthcare. They also described being comfortable

prescribing puberty blockers and hormone therapy after having some experience and accessing appropriate resources from a speciality clinic:

> There definitely was not other doctors doing that care and I remember, I had my patients who would come in and they had had very episodic care before this. They didn't have a family physician but had clearly presented numerous times to the clinic and the walk-in trying to get this medication prescribed and had gone long periods where they couldn't because they couldn't get to [City] to get it refilled and then no one would fill it locally etcetera. And so, I just, I accepted them through the walk-in clinic because I just I don't know because I wanted to. And the same with other patients, I think once I had felt more confident and had that manual from [Speciality Clinic] and I had one patient I was like I can do this there are supports I was more open to it.

The participants of this study were rarely required to learn how to provide gender-affirming care in the form of puberty blockers and hormone therapy in medical school. Investigating what motivated these physicians to learn how to provide puberty blockers and hormone therapy was not initially an aspect of this study, however it became clear very early that it was a topic worthy of study. Two main motivating factors, which co-occurred in some individuals, emerged through this line of questioning. Participants frequently mentioned friends, family members, or partners going through the medical transition process or being involved in the queer community gave them perspective and motivation to learn how to provide that care to others. Participants also mentioned experiencing or witnessing how the healthcare system failed to meet the needs of trans patients gave them the motivation to close that gap in service. Many of the participants who were motivated by simply witnessing a service gap discussed their

philosophy in going into family medicine in earlier parts of the interviews. These physicians often discussed their personal desire to treat patients holistically and to focus on populations or areas of medicine that were historically underserved.

Other Sources of Learning

Since many of the participants did not receive any formal training in gender-affirming care of any kind during medical school, and the ones that did receive training did not feel adequately prepared to prescribe that type of care in practice, they learned from other sources. Many participants described taking courses, attending conferences, and studying guidelines from The World Professional Association for Transgender Health (WPATH), The Canadian Professional Association for Transgender Health (CPATH), and other organizations with resources dedicated to transgender health; along with mentorship from physicians who already had significant experience prescribing gender-affirming care in the form of puberty blockers and hormone therapy. Some physicians in this study also described learning about aspects of gender-affirming care related to puberty blockers and hormone therapy directly from their patients.

Sophia described reading up on guidelines put forward by professional organizations and having consistent support from a more experienced physician:

> So, I did foundations course from WPATH and then I did Sherbourne guidelines[5], that's what I had access to and I read the SOC 7 [Standards of Care version 7][6]because that's what was in play when I was starting here. The just with incredibly consistent and

[5] The Sherbourne Health Clinic in Toronto Ontario publishes trans health guidelines similar to WPATH.
[6] The WPATH guidelines are called the Standards of Care.

available support from this physician who had been doing gender care for many years and then a psychiatrist who was also providing gender-affirming mental health supports, was able to begin to provide that care.

Chris similarly described how they began studying trans health through CPATH and a mentorship in Montreal after being motivated by a personal connection and philosophical desire to close service gaps:

> So that was my intro to trans health. I went to the CPATH conference, and I took their pre-conference training. And then I started working with Dr. [Name] who is a physician in, a family physician in [City] who does gender-affirming care.

Even though, in previous research, trans people have expressed resentment and anger at being put in the position of educating their doctors (Heard et. al. 2018 & McPhail et. al. 2016 & Bhatla, et. al. 2023), Emily explained the value of having their patients be willing to share and educate them about the nuances of gender-affirming care, especially related to puberty blockers and hormone therapy, and how much they have learned through that process, even as they acknowledge that patients should not be expected to do so:

> It's kind of like that weird dichotomy of like I don't expect my patients and shouldn't be asking them to teach me but like almost everything I've learned I've learned from my patients. I think what makes me good at this care other complex mental healthcare is that I listen really deeply to people's lived experience and their kind of journeys to date, and you know how things impact them even if it doesn't sort of fit with guidelines or my education. So have learned a ton from patients and especially those more willing to share.

Susan also explained how much they learned through the process of their first trans patient seeking gender-affirming care in the form of puberty blockers and hormone therapy, importantly how much they needed to learn in order to prescribe care effectively:

> I had a patient book in with me for med renewal so it turns out it was for estradiol and spironolactone[7]. So she was my first trans patient that I followed through her journey, I was really excited to be part of that journey and to walk it with her. But I also found, as a healthcare provider I had a lot of questions. These were in the days that gender-affirming surgical referrals, because she sought vaginoplasty, did end up getting it, had to be done out of province, I didn't know the process, I had to sort of learn a bit about prescribing gender-affirming hormone therapy because I hadn't previously encountered it in my medical education. Nor in my, the patients I'd seen in clinic. So not in formal didactic learning nor in clinic before that patient. And so I sort of learned the journey with her.

Thus, the physicians in this study consistently noted that the primary resources they used or accessed in learning how to prescribe gender-affirming care in the form of puberty blockers and hormone therapy did not come from mandatory medical school education. Mentorship by experienced physicians and resources published by organizations that specialize in trans health were commonly utilized by the participants in this study. A small handful of participants discussed learning how to prescribe care through the process of providing puberty blockers and hormone therapy to their first trans patient. These physicians also acknowledged a level of discomfort in having a lack of resources going into a new area of medicine and recognized that

[7] Medication commonly prescribed for hormone replacement therapy in trans feminine individuals.

many physicians would not be willing to follow in their path in learning how to provide gender-affirming care.

Barriers to Including Gender-Affirming Care in Medical School.

The participants of this study were asked about their perceptions of the barriers to including gender-affirming care in medical school curriculum, in this context largely referring to puberty blockers and hormone therapy in primary care education. The main themes they discussed consistently were around time, capacity and normalizing gender-affirming care. Many physicians pointed out that the time available in medical school is limited compared to the breadth of knowledge needed to be covered especially for general practitioners. Others also pointed out that there is a necessary number of practitioners required to educate medical students about gender-affirming care in the form of puberty blockers and hormone therapy for those institutions to have the capacity to train future doctors. Some participants added further that it would be helpful to destigmatize or normalize gender-affirming care as a practice in order to have the provision of puberty blockers and hormone therapy more widely taught in medical schools. Susan discussed the difficulty in a lack of providers and clinics for medical students, in that they would not have the capacity to have every student train in a clinic that prescribes gender-affirming care in the form of puberty blockers and hormone therapy:

> There's not enough healthcare providers providing gender-affirming care to be able to mentor everybody or to be able to get every medical student in, you know, a trans consult service clinic for even a day or a half day in medical school as a mandatory rotation. That's one big barrier. And maybe just not enough centers across the province that do it.

Chris echoed Susan's sentiments and further discussed how, from their perspective, the main barrier is amassing a certain number of educators to fulfill capacity. They added, however, that they had not encountered too much active resistance when they tried to improve that situation:

> I think that some of it is just around, I think, a critical mass of people you know willing to do the teaching and advocating to have that teaching incorporated into the training. But to be honest Endocrinology reached out to me to ask if I'd be willing to do some of that teaching there wasn't any resistance to the need to incorporate that. I think in terms of, I don't know if gender-affirming care for youth is incorporated and so that's probably the next place that we need to go in terms of adding some treatment recommendations. But I haven't actually encountered much resistance to incorporating that in the curriculum.

Apart from a lack of educators, there is also a more structural issue in curricula with a lack of time to include the necessary content. Harper, for instance, highlighted the issue of time in medical school and the need to normalize gender-affirming care in the form of puberty blockers and hormone therapy so that it can be a topic that can be better prioritized:

> I think really part of it will be getting into the medical school system and just kind of normalizing it, in that sort of way. There are certain topics that tend to fall by the wayside in medical school. And medical school is such a short time compared to the breadth of family medicine and medical school is not designed to just teach people family medicine it's to teach them all the different specialties and then they get to specialize down.

James, further discussed the issue of time in medical school and how topics are taught and understanding assessed in students:

I also think with medical school because it is only four years it is an incredible amount that you are expecting people to observe and then test and verify that that they understand. And I think when things are chunked into pathology and biochemistry and genetics and all these different things. It becomes very difficult to competently assess does this person identify the role of the human experience the midst of all these other things. I think since I started medical school the general sort of societal approach to individuals and identity is, there's a greater emphasis on that. It's hard for me to know whether that is the environment that I find myself in now versus the broader global and maybe education environment.

Nora touched on the issues of time in detail but also articulated the changing times and a growing need for queer health topics to be discussed as a growing proportion of the population identifies themselves as being on the queer spectrum:

So, the lectures in medical school are basically only the first two years. So, you've got two years' worth of lectures each year is about 10 months. There's just not a lot of time. And then when I was going through it wasn't as common as it is now. So, it's super interesting, down in [Small Town] there's a class of kids and I think they're, by now they're in grade 10 or probably grade 11. There's a class of 15 kids and like 12 of them or some have identified themselves as somewhere on the LGBTQ spectrum. So, whether they happen to be gay or bi or pan. Whether they happen to be non-binary or trans, this is a world that I didn't know anything, the world is changing. And so, it always takes a while for institutions to catch up with the world changing. They have a certain way that lectures go, and they have a certain amount of time they do for all these things. And so

now that the world is changing and people are more flexible about these things, we need to be aware and to change the old guard takes a lot of time. And I don't think people do it because they're willfully doing something bad it just takes a long time for the currents to change. There has to be a lot of self-education for those who want to provide competent care to those somewhere that need gender-affirming care.

Aria added to this topic of prioritization, noting that for medical students, determining what to study for exams influences which topics they perceive as important. They discussed how the mechanical aspect of medicine often takes priority at the expense of subjects perceived as being in the realm of social science:

> Time. Time for sure there's just so much to cover and it's really hard to get through everything. I think it's often also seen as like a softer skill where people are like yeah I get it and so if they're going to try to, like what are they going to study what are they going to put their time on what are they going to make sure to attend it might be trying to deal with how you. The different gradients in the lungs or the kidneys that are really hard. Whereas this is kind of basic and so it's not that complicated and so people probably put the time into the stuff that seems like it needs more time. I know that when I was going through med school that there was a term called punting which would mean like what's the stuff you're going to just let go because it's not as high yield as other things. And so often it was this sort of social science-y stuff that is actually really important, but it seems like oh yeah yeah I get it though. Like it's not something that's going to be on an exam it's not something you're going to get quizzed on afterwards it's the how to be a human that would be those things. But unfortunately, we're not always that great at being humans.

The participants of this study, then, offered insight into why gender-affirming care in the form of puberty blockers and hormone therapy is not more widely taught in medical schools. Many discussed the issue of limited time in medical school and the lack of prioritization for trans health topics. While participants acknowledged these barriers, several also noted how medical school education has improved somewhat in their experience or perspective, demonstrating how the barriers that do exist and have existed are not insurmountable.

Barriers for Physicians Currently Practising.

The physicians in this study discussed, when asked, what their perceptions were surrounding the barriers for currently practising physicians preventing them from taking up prescribing puberty blockers and hormone therapy. There was a range of responses and perspectives on the subject some of which related to issues with primary care in general which affect many types of services including gender-affirming care generally, as well as issues specific to learning how to prescribe puberty blockers and hormone therapy.

Sophia described barriers for physicians currently practicing related to financial pressures. Specifically in one province, though other provinces follow similar financial models, doctors are incentivised to see patients as quickly as possible which can cause issues in prescribing care that requires longer discussions with patients:

> For the docs who are in practice already one of the challenges right now is the fact that most [Province] physicians are still paid in a fee for service model. So, number of visits determines paycheque. And particularly as one is getting to know a patient and doing an assessment at the beginning of offering them gender care, to be done right from my perspective those visits need to be longer. There needs to be time to create safety for a

person to explain their history, their journey, their goals. Very commonly that that person has experienced trauma. And has lots of reasons not to be trusting. And so it's not a conversation that people jump into until it's safe. And so, I've have docs say 'well it's nice that you can spend half an hour with somebody, I'm never going to be able to spend half an hour with somebody.' And so another part of the work that I do is I'm on a committee that's trying to change how we pay primary care doctors in the province. Towards sort of a blended captation model where there's a recognition that some kinds of care and some stages of that kind of care need longer with the patient. And the patient does better if you do that. So, if we can achieve that I think that will get rid of lots of the barriers around time and pressure.

Susan described two main barriers for more currently practicing physicians in taking up gender-affirming care in the form of puberty blockers and hormone therapy. The first issue they noted was a general lack of family doctors in their province, due to both burnout from COVID-19 and a difficulty in recruiting new doctors to the area. They also mentioned a lack of communication or coordination in trans health networks:

> I think barrier two is that the system is not always clear, like, who does trans health, the government doesn't maintain a website, really, besides about surgical, out of province, gender-affirming surgical referrals for who the trans network is. The [Provincial Health Authority] does not maintain one, so it's kind of up to trans providers to like create their own network, get the word out there, do the mentorship, do the education. I think that's a barrier.

Similarly, Elizabeth, described the lack of coordination around providing various aspects of gender-affirming care notably puberty blockers and hormone therapy in their province as a barrier for most physicians who have a perception of gender-affirming care as a specialist medical service:

> A lot of physicians feel scared that they'll do something wrong. That it's something that should be managed by a specialist which is untrue. And that there's nobody that they can reach out to if they have questions. There's no collaboration. Or it's something that they just won't do.

Nora further explained their perception of the barriers they face. Such as how they felt that there was a lack of access to resources and collaboration in the field of gender-affirming care mostly surrounding puberty blockers and hormone therapy. They also described a need for that access to information due to them finding guidelines for the provision of puberty blockers and hormone therapy lacking:

> In terms of trans care in [Province] in general, there's just not a lot for people, there's not a lot of people I can ask about where I should go or what I should do. As a family doctor I'm not really trained in this area. I find that going off guidelines is tricky for me because I don't know the nuances, so I don't know what I don't know. Which is a very dangerous place to be in when I prescribe. And I find that the trans prescribing doctors in [City] is a pretty tight knit community. And because I'm cis and hetero to the rest of the world I find that sometimes it's tricky for me to get information because people make assumptions about who I am. And how safe I am.

The participants discussed the barriers that exist for learning how to prescribe puberty blockers and hormone therapy for currently practising physicians who have already graduated medical school. This demonstrates the challenges that come with a lack of education in medical school given that there are structural barriers that would challenge physicians taking up prescribing gender-affirming care in the form of puberty blockers and hormone therapy later in their medical practice. Several physicians alluded to the idea of protected time in medical school that can be dedicated to learning about gender-affirming care in the form of puberty blockers and hormone therapy and contrasted that with the burden of educating oneself in a new area of medicine while practising.

Improvements for education and training

Many of the participants in this study discussed methods for improving education and training around gender-affirming care for physicians, especially family physicians providing puberty blockers and hormone therapy. Some of the most experienced participants had already engaged in some of these methods, dedicating time to educating students in medical school and making connections with physicians to mentor them and guide them toward resources. The topic of case-based learning came about when some participants discussed methods for improving gender-affirming care in medical schools. Case based learning would incorporate hormone management as part of patient cases used to train medical students.

Sophia discussed their approach to educating medical students through their clinical work as well as their methods for bringing gender-affirming care in the form of puberty blockers and hormone therapy into curriculum lectures in various disciplines across different fields in

medicine:

> There are a few different approaches we have students in their first term of their first year of medical school who rotate through different primary care and specialty care clinics. And when they come to out clinic particularly if they see myself or [Name], there are 18 of us here so we're just a couple, but they're going to see patients getting gender-affirming care just because that's part of everyday. And then we have, there's a committed group involving some other people…Who have been involved in I think what is affectionately known as queering the curriculum, and trying to make sure that it actually represents - as opposed to the majority or the dominant population. And so, it's being incorporated into education about Endocrinology, education about mental health, education about general surgery, GYN surgery, urology. So, it's being incorporated in both the classroom setting and the clinical setting.

Sophia went on to describe how they approach teaching different aspects of gender-affirming care related to primary care as well as the importance of utilizing community organizations to help facilitate medical students' understandings of the needs of trans patients:

> And then when people get to residency, again every resident rotates with every faculty to different degrees and so all our residents are seeing patients getting gender-affirming care. And then we also have Thursday afternoons academic half day each week and…there's a curriculum for that and so every 12-18 months I give a talk about a different sort of take on gender-affirming care. Whether it's primary care for patients who are getting gender-affirming care or whether it's just an intro to gender-affirming care, sometimes we talk specifically about the elements of language that can make it safer.

> And all of our residents get training from folks here in [City] the organization that offers, the community organization that offers training…they provide I think its 90 minute or two hour training on making your clinic a safe space. So, everybody gets that.

Susan described ways that they have engaged with physician organizations through conferences to get topics related to gender-affirming care, especially puberty blockers and hormone therapy in the scope of primary care, brought to the attention of primary care practitioners. These organizations have influence in the medical field and can help improve training for practitioners outside of medical school.

> I'm presenting with a group of people tomorrow at the [Province] College of Family Physicians conference which is a general conference for [Province] primary care providers that happens once a year. They asked me which is great. I brought two other doctors and I'm bringing a trans woman who has worked as a peer navigator and has a masters in public policy she's pretty cool. She's not my patient but she's also pretty cool. So, I think one is like if we get more of this into family medicine conferences people will start attending. And we have like the College of Family Physicians of Canada has also had it at their national conference which occurs every November and is called Family Medicine Forum. They've had trans health optional topics for many years at that conference with national experts which is great.

Aria recommended an expansion of trans healthcare into case-based learning where a more holistic view of trans patients could be considered with hormone management being incorporated into general medical treatment:

> What I think would help would be trying to figure out more case-based learning and have more integrations. So, say McMaster does a lot of this and U of M does a bit of it. But where they do case-based learning where they will come up with a patient with a situation, to incorporate the hormone management stuff as part of the case rather than just looking at here's the gay lecture. You know what I mean? Because it could also help with trying to look at the medicine of it right because sometimes hormones will interact with blood sugar with heart health with all that. So, if there were ways to look at as a puzzles rather than everything in it's own distinct silo.

Additionally, Maddison explained their thoughts on how to improve care in medical school by approaching teaching clinical skills from a more inclusive perspective. Similar to Aria, Maddison argued that specific queer healthcare needs could be taught in the context of a general, holistic approach to healthcare:

> But for example, clinical skills classes. In first year and second year at [Medical School] the students are divided into really small groups and there's like four students per group and then the standardized patient comes in…so, the students have to interview them or examine them or both and one thing that I always felt…didn't sit with me well was that there were never any patients who were outside of being male, female, right. So, women men…So, one of the things I tried to do was just make a case instead of the person, the whole case surrounding that the person wasn't considering themselves as this binary thing it would just so happen to be that way…. So, the times that I've taught those classes or there's been somebody who's non-binary as just part of the case.

Chris discussed their perceptions surrounding how gender-affirming care in the form of puberty blockers and hormone therapy should be set as an expectation for primary care providers as well as the need to support those who show interest in the practice. They further discussed their optimism with the provision of puberty blockers and hormone therapy becoming a normalized practice:

> I think mostly it is about just setting it as an expectation. If it's an expectation that all family doctors do this except for a rare few who got a particular ideological opposition to it, then I think people will just take it up. It's about creating it as a cultural norm amongst primary care providers. I think and that kind of culture shift takes a combination of time and training. And so, I think the new grads who come out with some exposure to it in their basic training is going to be important. I think we're going to need a few champions in centers kind of around the province and we've got those, we've got interests from family doctors here and there dotted along the province and so I think making sure they feel supported and encouraged in doing that work I think will be key. But to be honest, it is so medically sound that it's such a clear thing we should be doing that I don't think we're going to encounter much resistance.

Thus, participants described ideas they had about how to improve gender-affirming care education and training particularly in the area of puberty blockers and hormone therapy being included in primary care training. Some participants emphasized the importance of normalizing the practice in medical education by incorporating gender diversity and hormone management as part of patient cases, and setting the expectation that students will learn how to handle those cases as part of primary care education holistically. Other participants described the ways in

which they have helped to expose medical students to trans patients and gender-affirming care in the form of puberty blockers and hormone therapy directly, demonstrating that despite the barriers it is possible to incorporate this kind of training and education in medical curriculum.

Discussion & Conclusion

Medical schools have historically lacked comprehensive education surrounding any topic related to gender-affirming care in any form. As such, students have been left with little formal training or teaching on the administration of gender-affirming care, especially in the form of puberty blockers and hormone therapy, or in some cases how to treat trans patients generally. In more recent years there have been efforts by some medical institutions to update curriculum to be more inclusive of gender diversity (Cooper et.al 2023). The results of this study echo previous findings on the subject. Participants in this study who graduated recently reported having some education regarding trans patients. However, of these recent graduates many noted that the education they did receive was not necessarily sufficient in and of itself for them to feel comfortable and confident prescribing puberty blockers or hormone therapy. Some of these participants sought out further education and training in gender-affirming care in order to provide puberty blockers and hormone therapy. Many more participants received no formal education at all regarding gender-affirming care of any kind – this applied most notably to participants who graduated in the 2000s and earlier 2010s. Interestingly, there were several participants who received no formal education but were the most experienced in prescribing puberty blockers and hormone therapy in this study sample. These participants were frequently motivated by a personal connection to someone in their life who is trans or by the recognition that there is a large service gap for trans patients, leading to disproportionate negative physical and mental

health outcomes. Previous studies have also described this discrepancy (Green et.al & Tordoff et.al 2022 & Turban, et. al 2020). The fact that trans patients were underserved by the healthcare system seemed to be particularly noticeable for rural physicians. The rural physicians in this study were more likely to describe that including the provision of puberty blockers and hormone therapy in their practice was a necessity for treating patients in a timely manner, as referring to specialist clinics would take too long. The recognition from these participants that delays to care can cause trans patients harm offered motivation to take up prescribing.

Those who received no or little formal education and training had to look for sources beyond medical school for the resources needed to prescribe gender-affirming care in the form of puberty blockers and hormone therapy. Many experienced physicians in this study described accessing similar or the same resources outside of formal medical education, including guidelines by WPATH, CPATH, and Sherbourne health in Ontario. These organizations also, at times, conduct training courses and conferences aimed at promoting physician knowledge surrounding gender-affirming care, especially regarding puberty blockers and hormone therapy. Many participants also described being mentored in prescribing puberty blockers and hormone therapy by physicians in the field who had experience, frequently those who worked in specialist clinics. While these resources provided opportunities for physicians to learn about providing puberty blockers and hormone therapy there were some issues associated with having training opportunities focused in specific clinical settings. Some participants noted that the network of trans health providers can be insular in some cases with some participants not knowing where to go to access resources and others feeling a lack of communication and coordination between themselves and specialist clinics that do have resources.

Participants were asked about their perspectives regarding the barriers surrounding having gender-affirming care in the form of puberty blockers and hormone therapy more widely taught in medical schools and more comprehensively undertaken by physicians currently practicing. Speaking of medical schools, many participants pointed to limited time as a barrier to adding gender-affirming care, especially puberty blockers and hormone therapy, to medical curriculum. Queer health topics broadly have been underrepresented in medical schools historically and in the experiences of the participants of this study (Kronk, et al. 2021 & Obedin-Maliver. al. 2011). Carving out time in medical schools for new topics can be difficult, but as many participants noted, there is an increasing need to be able to serve the queer trans community given the fact that there is an increasing proportion of the population seeking medical transition services (Heard, et. al. 2018 & Bhatla, et. al. 2023). Some participants who have already taken steps to improve gender-affirming care education in medical schools, particularly including puberty blockers and hormone therapy, discussed exposing students to trans patients in clinical settings in various ways. Participants argued for teaching inclusive language and respectful conduct when talking to trans patients as well as incorporating hormone management as part of a holistic view of trans patients. The view from experienced physicians was that incorporating and normalizing gender diversity and trans healthcare was a necessary component of improving medical school education to better prepare physicians to treat trans patients. This view corroborates findings from previous literature emphasizing the improvements in physician capabilities in prescribing care to trans patients when they are given a range of formal education on the subject (Cooper et.al 2023).

Improving training and education for gender-affirming care, especially hormone therapy or puberty blockers in the case of family practice, would be beneficial in expanding physician capacity for this type of care. However, it is worth noting that special education regarding providing this type of care is not necessary to prepare physicians to handle prescribing hormone therapy or puberty blockers. As several participants discussed family medicine often involves practicing aspects of medicine that doctors must learn about as they treat patients. One participants in this study actually discussed how they learned to prescribe hormone treatments themselves after patients presented to them with that medical need.

Participants further described barriers for physicians currently practicing in taking up prescribing gender-affirming care in the form of puberty blockers and hormone therapy. Some of the issues described were affecting primary care providers broadly, financial issues, and retaining and attracting doctors to primary care practice. Issues specific to training current physicians to prescribe puberty blockers and hormone therapy can be addressed by expanding trans health networks to further disseminate resources and mentorship to physicians currently practicing. Expanding trans health networks may be especially important for those physicians who may be practicing rurally as they may be less able to refer patients to specialist clinics in a timely manner. Expanding trans health networks can further provide physicians with clear guidance about where to find the resources they need to provide or refer patients to access life-saving gender-affirming care.

The participants of this study described a general lack of education regarding gender-affirming care in all forms. In retrospect, and after analyzing the interview data, I have been reflecting on how interview questions about education and training could have been more

specific to youth. However, many participants spoke about a total lack of education around queer and trans health topics – to the point that a lack of education about youth specific issues was encapsulated by their responses. The absence of participants' specific viewpoints on youth in this study is indicative of the fact that a base level of education regarding any topic related to gender-affirming care, even for adults, has not historically been included in medical schools. More recent graduates discussed how medical schools have begun to incorporate training regarding trans identity into the curriculum, such as the importance of addressing trans patients with the correct pronouns. These recent graduates indicated that the education that they did receive would not have prepared them to prescribe puberty blockers and hormone therapy without making a distinction between adults and children. It therefore remains true that they did not receive adequate education to prescribe care to youth. Future research should investigate any barriers to including education regarding gender-affirming care specifically for youth.

Based on my conversations with the participants of this study, medical schools could improve how gender-affirming care is implemented in the curriculum, particularly how puberty blockers and hormone therapy is incorporated into primary care training. There have been important improvements made to this subject in recent years which should continue and be implemented in medical schools across Canada. Case-based learning wherein a trans patient is presented and must be treated effectively and respectfully by medical students should be incorporated in medical schools across Canada. This will help normalize the idea of treating trans patients and teach students to consider how hormone therapy interacts with other medical considerations. Clinical skills training that involves developing an understanding of how to treat trans patients respectfully while collecting necessary medical history and information is also

necessary. This can be accomplished, as Maddison explained, through practices such as anatomical inventories as opposed to collecting binary sex and/or gender data to determine what body parts a patient has. Having gender-affirming care in the form of puberty blockers and hormone therapy taught in medical schools, for both youth and adults, should also be incorporated in the standard curriculum for primary care physicians. While time is limited in medical school the administration of puberty blockers and hormone therapy is not especially complicated and falls well within the capacity of family doctors. Additionally, medical students should be better informed of trans health networks, clinics, and resources. If a physician is not knowledgeable enough to prescribe themselves, they should at least be aware of where and how to access resources to better educate themselves or refer patients.

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Discussion and Conclusion

This study sought to explore the attitudes, perspectives, and experiences of Canadian physicians on the subject of gender-affirming care for trans youth. Specifically, this study was initially designed to compare and contrast how physician attitudes and perspectives differ between those with experience providing gender-affirming care in the form of puberty blockers and hormone therapy to youth and those who do not. The research questions initially guiding this study were: 1) What are Canadian physicians' perceptions, education, and knowledge base surrounding gender-affirming care for youth under the age of 18?; and 2) How does this differ between knowledgeable physicians who have experience with gender-affirming care and inexperienced physicians who do not?

While there was a small degree of difference between the perspectives of physicians with more experience than those with less experience, there was a good deal of overlap in the participants' viewpoints. The physicians who responded to this study were all broadly supportive of trans patients and, to some degree, their ability to access gender-affirming care especially puberty blockers and hormone therapy. Thus, rather than addressing the differences between knowledgeable and inexperienced physicians the results of this study represent the convergent agreements found across several participants.

The findings of my research are thematically in line with previous literature on the subject of gender-affirming care generally. A growing body of literature has argued against the psychological assessment model for providing gender-affirming care in any form for trans patients in favor of one in line with informed consent (Spanos, et. al. 2021 Cavanaugh, et. al.

2016 & Lichtenstein, Stein, Connolly, Goldstein, Martinson, & Tiersten, et al. 2020). My research supports that shift in approaching gender-affirming care for youth, especially regarding puberty blockers and hormone therapy, with several physicians arguing for young trans patients' ability to understand and consent to the medical transition process. An informed consent approach is one that respects a patient's ability to make informed decisions about their own healthcare after fully understanding the risks and benefits associated with a medical procedure. Informed consent is a model used throughout the healthcare system. However, informed consent as a model has historically not been extended to trans patients seeking any kind of gender-affirming care due to the psycho-pathologizing of trans identity (Cavanaugh, et. al. 2016). The participants of this study further argued against the idea that puberty blockers or hormone therapy requires specialist expertise to prescribe, an aspect of the current model of providing care that frequently causes harmful delays to accessing care.

Previous studies have examined how much of the education that physicians receive on trans, and more broadly queer, health topics such as gender-affirming care in any form in medical school and have found limited exposure to these subjects (McPhail et.al. 2016 & Obedin-Maliver, J. et. al. 2011). Physicians have historically received limited exposure to trans and queer health topics leaving many graduating doctors unknowledgeable and unwilling to provide gender-affirming care, in the form of puberty blockers and hormone therapy, and ill-equipped to handle trans patients' general healthcare needs. The findings of this study echo these previous findings on the subject. Many of the participants received no training or education around gender-affirming care of any kind or how to approach queer patients appropriately. Other participants, those who had graduated relatively more recently, received some training and

education regarding trans and queer patients and their health needs, however these participants noted that the mandatory education they did receive did not adequately prepare them to prescribe gender-affirming care especially in the form of puberty blockers and hormone therapy. For those who were interested in prescribing puberty blockers and hormone therapy, accessing other sources of education or training was necessary. Participants in this study described the various sources they used to learn how they prescribe puberty blockers and hormone therapy. These alternative sources tended to be guidelines and courses developed by medical organizations and clinics that are in some capacity dedicated to trans healthcare, as well as mentorship from physicians already prescribing care.

This study further investigated why the participants learned to provide gender-affirming care in the form of puberty blockers and hormone therapy when they received minimal or no exposure to it in medical school. The motivations for experienced physicians in learning how to prescribe puberty blockers and hormone therapy was not a subject I was initially planning on investigating; however, it became clear that it was a theme worth exploring over the course of the study. The participants in this study described how personal connections to trans individuals in their lives, friends and loved ones, helped motive them to prescribe gender-affirming care in the form of puberty blockers and hormone therapy in their primary care practice. Further, many participants described observing the service gap that exists for trans patients trying to access care, both puberty blockers and hormone therapy and other primary care concerns generally, and felt compelled to help close that gap. Previous research has described the lack of appropriate care trans patients receive through the healthcare system (McPhail et.al. 2016 & Snelgrove, et al

2012). The participants in this study are representative of physicians who have observed that lack of care and have worked to address the issue in their own practice.

Gender-affirming care, especially hormone therapy, has been constructed as specialist care when in reality it can be done relatively easily by any primary care provider. Certain factors contribute to this perception among general practitioners. While general practitioners are given the skillset to address trans patients' medical needs, prescribing hormone therapy, puberty blockers, and provide referrals to surgeons, they have historically not been taught to apply that skillset to trans patients. If physicians are not taught to apply the skills they have to administering gender-affirming care, notably hormone therapy and puberty blockers, then they may fear making mistakes when treating trans patients as was discussed by some participants in this study. Without being directly taught otherwise, general practitioners may view gender-affirming care based on ideological or preconceived notions that prejudice them against trans patients and gender-affirming care. Some of the participants in this study discussed their perception of the viewpoints of some of their colleagues shaped by personal biases and a lack of training. The stigmatized nature of gender-affirming care led many of the more experienced participants in this study ending up in positions of advocacy. Some of these participants helped educate fellow primary care providers about how to provide gender-affirming care, in the form of hormone therapy. This highlights the fact that general practitioners are fully capable of providing hormone therapy for youth and adults but that many simply need additional resources to be in a position where they feel comfortable and knowledgeable to prescribe medical treatments for trans patients.

Study Contributions

My goal with this study was to better understand the attitudes, experiences, and perspectives of physicians regarding gender-affirming care for youth in order to gain insight into how that kind of care, especially puberty blockers and hormone therapy, could become more accessible. One of the largest barriers for trans patients in accessing gender-affirming care is a lack of physician knowledge and willingness to provide puberty blockers and hormone therapy. Funneling trans patients into specialty clinics frequently causes delays (Heard, et. al. 2018 Bhatla, et. al. 2023), and as such I hoped to gain insight into how knowledge and willingness to provide care could be expanded across the healthcare system and general practice. My study offers some unique and valuable perspectives on various subjects related to gender-affirming care for youth. The study population of physicians experienced with providing gender-affirming care in the form of puberty blockers and hormone therapy provided novel insights into the structural barriers of expanding gender-affirming care in medical schools as well as methods for overcoming and working around those barriers. Many of these physicians were not educated on trans or queer health topics at all and were able to offer insight into effective alternative sources of training. These participants were also able to describe strategies to improving gender-affirming care, particularly the provision of puberty blockers and hormone therapy, in medical school from an insider's perspective. They recommended normalizing the practice of handling gender-affirming care treatments through methods such as holistic education that incorporates hormone therapies in case-based learning scenarios. They also recommended expanding knowledgeable physician networks and learning resources to make it easier for physicians who may be willing to provide care to learn how and access mentorship. The participants of this study offer the perspective of insiders in the prescription of puberty blockers and hormone therapy for

youth which lends greater weight to the arguments these physicians made regarding the provision of care for trans patients. Having general practitioners argue in favor of incorporating gender-affirming care in the form of puberty blockers and hormone therapy is more significant since those practitioners have the personal experience that lends validity to the idea that specialized knowledge is not necessary for this type of care.

The participants described strategies to improve gender-affirming care education and training in medical school, particularly surrounding puberty blockers and hormone therapy in primary care education. Some of these strategies have been implemented to some degree in medical schools already, case-based learning for handling puberty blockers and hormone therapy and trans patients generally has been included in teaching environments, some of which has been implemented by the participants in this study. Expanding physician networks and including trans healthcare topics at conferences to help offer resources and mentorship opportunities to physicians who may be willing to provide care was also discussed.

Many of the participants of this study also argued strongly that gender-affirming care in the form of puberty blockers and hormone therapy should be a normalized practice within the scope of primary care. Many of the participants arguing for this change in clinical practice had direct long-term experience with prescribing care to trans patients of all ages, notably youth. This wealth of experience led these participants to conclude that gender-affirming care in the form of puberty blockers and hormone therapy works best as primary care; and that psychological assessments are not necessary for every trans patient including those under 18. The mature minor principle was brought up by several participants as a doctrine that should, and in their experience does, still hold true in the context of gender-affirming care of any kind. Previous literature has

made similar arguments against the requirement of psychological assessments and the benefits of including puberty blockers and hormone therapy in the practice of primary care. This study offers unique firsthand accounts of experienced physicians directly supporting the argument against the psychological assessment model of gender-affirming care for youth.

Recommendations

The findings in this study and existing literature about gender-affirming care for trans youth inform recommendations for medical policy and practice. The currently dominant approach for prescribing many different aspects of gender-affirming care, the psychological assessment model, causes unnecessary delays to important life-saving care for youth. The psychological assessment model also helps the psycho-pathologizing of trans identity. Requiring psychological assessments prior to the administration of any type of gender-affirming care creates bottlenecks as the access to these psychological professionals is often limited. Based on study findings, I am thus recommending that gender-affirming care, particularly puberty blockers and hormone therapy, should be framed under an informed consent model, which respects a patient's capacity for informed decision making about their healthcare. I am further recommending that gender-affirming care in the form of puberty blockers and hormone therapy to be within the scope of general practice as it would improve access to care. Incorporating the prescription of gender-affirming care in the form of puberty blockers and hormone therapy to be within the scope of primary care would improve access to care as it would decrease the patient volume on speciality clinics. These specialty clinics frequently and increasingly handle a higher patient load than they can manage in a timely fashion.

In order to improve access to gender-affirming care through incorporating it into primary care will require primary care physicians to learn how to prescribe puberty blockers and hormone therapy. Therefore, I am also recommending, based on my thesis data, that education and training for prescribing puberty blockers and hormone therapy should become a standard practice for general practitioners. As discussed previously, I am recommending incorporating gender-affirming care practices, particularly puberty blockers and hormone therapy, in medical school through methods such as case-based learning would help improve physician knowledge bases around treating trans patients. It is important for physicians to understand how to administer puberty blockers and hormone therapy as well as general healthcare for trans patients. I am also recommending that physician networks and resources for prescribing care should be expanded and made more accessible to those physicians who may be interested in prescribing but feel too ill-equipped to start.

Directions for Future Research

This study was intended to be open to physicians of any discipline and from anywhere in Canada. While there was some diversity among the participants in terms of specialty in medicine and location in Canada, it was more homogeneous than I had hoped for at the outset of the study. The study sample is largely made up of general physicians from the prairie provinces of Manitoba and Saskatchewan. Stronger recruitment efforts could have been made to include physicians from other provinces and territories. Time and budgetary restraints limited my ability to recruit elsewhere, however.

The study also did not collect any participants with openly negative views towards trans patients or gender-affirming care as a principle. Every participant was supportive of trans patients having access to gender-affirming care, hormones, surgery, and the ability to socially transition, on some level. Having a contrasting viewpoint would have been an interesting and useful theme to analyze, especially in the context of physician's experience levels. Additionally, the perspective of specialists in the field of gender-affirming care, endocrinologists and pediatric endocrinologists, would have also been valuable especially as it would have related to the findings from general practitioners regarding the incorporation of gender-affirming care in the form of puberty blockers and hormone therapy into primary care. The perspective of specialists should be compared to that of general practitioners in the discussion of including puberty blockers and hormone therapy in general practice to find agreement or disagreement in order to inform policy and practice. While this study was initially designed to investigate physicians' perspectives in the context of youth, many of the participants spoke in general terms about gender-affirming care mostly regarding puberty blockers and hormone therapy for trans patients of any age. Future research investigating similar themes should expand to include the perspectives of different physicians from a wider range of specialties.

Therefore, future research should also further investigate issues surrounding topics regarding gender-affirming care specifically for youth. Pediatric endocrinologists who prescribe care to trans youth are a population that should be invited to participate in similar research to offer perspective on the topics explored in this study. If these specialists broadly agree with the idea that primary care physicians can prescribe gender-affirming care in the form of puberty blockers and hormone therapy to youth, then adding their perspective would lend additional

weight to the argument of shifting medical training and practice for general physicians. If these specialists disagree with the ideas presented by the participants in this study, then those points of contention should be addressed. Engaging physicians from a different range of medical specialties may require different recruitment strategies than the methods employed in this study. Purposive sampling to directly target specialists may be necessary. Specialist clinics that provide care to trans patients across the country could be approached in order to access the very narrow population of pediatric endocrinologists providing care for youth.

Physicians who are unsupportive of gender-affirming care of any kind as a principle should be sought out for future inquiry. Investigating the reasons these physicians have for refusing to provide or learn about gender-affirming care of any kind would provide insight into how to more effectively incorporate gender-affirming care into education and training, especially puberty blockers and hormone therapy. It may be difficult to engage physicians who are not experienced and not supportive of any kind of gender-affirming care. Those who are not interested in prescribing that type of care may be equally uninterested in discussing the subject in-depth for a research study. However, there may be lessons to take from this study in accessing the population of unsupportive physicians. The advertising material for this study made it clear that I was looking for physicians who had experience prescribing care to trans youth for one of the participant pools, with inexperienced but not necessarily supportive or unsupportive physicians in the other pool. Unsupportive physicians may be hesitant to join a study where they are aware their perspectives are being directly compared to those who have experience providing care to trans youth. Recruitment methods may be more effective in accessing unsupportive

physicians if the study is presented in a way that does not indicate their views are being compared to other physicians with contrasting perspectives.

Despite the gaps I have identified in my findings this thesis offers new insights into topics surrounding gender-affirming care. The findings of my study show the ways in which physicians work to fill the gaps in the medical education they received and the motivations they have for seeking additional training. How and why physicians learn about gender-affirming care especially in the form of puberty blockers and hormone therapy outside of medical school is not a discussion I have previously observed in the literature and will be an important addition in understanding the state of gender-affirming care on the whole in the provinces under study. Additionally, my findings contribute an important insider perspective, primary care physicians, to the growing body of literature making the case for an informed consent approach to gender-affirming care in the form of puberty blockers and hormone therapy in primary care. It is my hope that this study will improve the provision of all kinds of gender-affirming care for youth particularly in accessing by describing the process by which physicians become ready and willing to prescribe care to youth, and the reasons why more physicians should provide that care. In doing so I hope to help improve access to gender-affirming care, in the form of puberty blockers and hormone therapy for youth by helping expand the capacity for gender-affirming care across the health system.

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