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Exploring Barriers, Facilitators, Preferences And Potential Disparities In Virtual Pelvic Physiotherapy - From The Perspective Of Physiotherapists: A Qualitative Descriptive Study.

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Abstract

Virtual pelvic physiotherapy (VPP) has emerged as a valuable adjunct to in-person care. However, there is an inadequate understanding concerning barriers and facilitators associated with the uptake and delivery of VPP. Using qualitative descriptive methodology and semi structured interviews, this study explored the potential barriers, facilitators and preferences from the experiences of pelvic physiotherapists delivering virtual care. An overall positive experience with VPP was reported by providers. Facilitators included improved opportunities for collaboration and patient education, patient-centered care and positive perceptions of clients and providers regarding VPP. Barriers included inaccessibility to a private space and technology, connectivity challenges and clients' inadequate knowledge concerning VPP sessions. The preferences of clients and providers were also found to influence their uptake and implementation of VPP care. Potential disparities in VPP and the need to address them, to enhance the future delivery of VPP care are highlighted referencing the Digital Health Equity Framework (DHEF).

Keywords

Virtual pelvic care, pelvic physiotherapy, telehealth, virtual pelvic physiotherapy, pelvic floor disorders, pelvic care, physiotherapy.

Summary for Lay audience

The uptake of health services delivered via a digital platform, referred to here as virtual care, has recently seen an increase across all health disciplines, including physiotherapy. Literature focused on pelvic physiotherapy suggests that barriers already exist with respect to accessing pelvic physiotherapy in-person, with evidence to suggest that. Virtual options potentially increase access to services. Given that, there are limited studies exploring barriers and facilitators in the delivery of virtual pelvic physiotherapy. Much more needs to be understood about the experiences of those involved. Understanding the structure of these sessions, as well as different aspects of the delivery of virtual pelvic physiotherapy are important and can ultimately contribute to the improvement in the delivery of these services. This study aimed to explore the experiences of pelvic physiotherapists delivering virtual services and identify challenges, facilitators, preferences of providers, as well as any potential disparities in the provision of virtual pelvic physiotherapy. Using one-to-one interviews with pelvic physiotherapists, we discovered important themes pertaining to their overall experience with VPP. Pelvic physiotherapists reported an overall positive experience with VPP and identified several factors contributing toward its success. Moreover, participants also identified key facilitators including increased opportunities for patient education, improved collaboration with other healthcare professionals, VPP enhancing patient centered care and the positive beliefs and perceptions of clients and providers as significant factors facilitating the uptake of VPP care. Barriers to VPP care included clients not having access to a private space or relevant technology to access VPP sessions. Participants also identified that clients' lack of awareness about the format and potential benefits of VPP may pose as a potential barrier to receiving VPP care. The preferences of pelvic physiotherapists and their clients were mostly for in-person care while they acknowledged VPP as a valuable adjunct to in-person care. These preferences also highlighted some potential biases. Furthermore, underlying discrepancies in VPP care were also uncovered. This work is significant in informing future delivery of virtual pelvic physiotherapy care so that necessary steps are taken to overcome the identified barriers and changes are made to further improve the VPP services for clients.

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Chapter 1

1. Introduction

1.1 Introduction

To help readers comprehend the goals of this research, this chapter begins with an introduction to our topic and a discussion of relevant background information. We build on our topic by briefly defining pelvic physiotherapy, its effectiveness as a preferred treatment option for various pelvic floor disorders as well as the evidence of associated disparities. Further, we proceed by discussing the integration of a virtual option in healthcare, the benefits and challenges associated with its use and the inequities in digital care. Next, we identify the scarcity in research related to virtual care in pelvic physiotherapy. Given that, emphasis is placed on the need for a better understanding of the facilitators, barriers and potential disparities associated with virtual pelvic physiotherapy (VPP). Lastly, we discuss the need to view the identified disparities and barriers to VPP care considering the Digital Health Equity Framework (DHEF) and how it can help inform future research.

1.2 Background and Literature Review

Pelvic floor physical therapy (PFPT) is considered a conservative approach to managing and preventing Pelvic Floor Dysfunction (PFD), as it focuses on improving the overall function of the pelvic floor muscles (Wallace et al., 2019). PFD is an umbrella term for a variety of conditions that affect the pelvic floor and its normal functions. This includes lower urinary tract and bowel dysfunction, sexual dysfunction, genito-pelvic discomfort, and prolapse of pelvic organs (Vries & Blanker, 2022). PFD continues to affect millions around the world and is gaining attention and traction as a treatable

condition. By the year 2050, it is predicted that 43.8 million people worldwide will be suffering from PFD (Xu et al., 2022).

PFPT can involve a variety of different modalities and devices alongside manual therapy and is seen as a primary and less invasive option for treating and managing PFD (Wallace et al., 2019). With growing research in this field, numerous studies have reported positive outcomes of PFPT for diverse conditions of the pelvic floor. A systematic review found pelvic floor muscle training for women effective in the management of urinary incontinence and in improving the quality of life of the participants in *all* 24 studies included (Radzimińska et al., 2018). A randomized controlled trial also found pelvic floor rehabilitation as an effective addition to a multidisciplinary program targeted toward treating Dyspareunia (Ghaderi et al, 2019). Another study involving a review of 17 RCTs and three systematic reviews concluded that pelvic floor muscle training as part of the conservative management of pelvic organ prolapse was effective in the initial stages of the condition (Basnet, 2021). These findings suggest that PFPT can play a significant role in improving pelvic floor function, addressing existing dysfunction, and ideally, prevention.

Despite the availability of PFPT as a treatment option for decades and its increasing popularity, studies have highlighted disparities in the provision of care at different levels including that of the system, provider, community and patient (Zoorob et al., 2017). These disparities primarily exist due to unequal distribution of power, resources, and wealth, as well as unfair living and working conditions (Brown and Simon, 2021). When left unaddressed, health disparities often lead to inequities, ultimately contributing to increased healthcare demands and economic strain (Baum et al., 2009). There are some populations that continue to experience barriers to accessing and benefitting from PFPT. Underserved and marginalized groups, based on gender, age, race, ethnicity, socioeconomic status, and disability, have been identified as targets of these inequities in health (Brown and Simon, 2021).

Among the various reasons that contribute to infrequent and limited access to pelvic physiotherapy include a lack of awareness, inadequate support from loved ones

(Fakari et.al., 2021), high healthcare costs, longer wait times, and limited pelvic care services in the region (Xu et.al., 2022). Furthermore, pelvic conditions can be deeply stigmatizing for some people (Hebert-Beirne and Albrecht, 2011), leading to feelings of guilt and embarrassment, which may prevent individuals from seeking necessary and timely help. A systematic review exploring care-seeking behavior in women suffering from PFD reported that only one-third of women seek help, and the lowest rates of participation were from Asian and Black women (Mou et al., 2022). Lower incomes, as well as complexities in insurance policies (Brown and Simon, 2021) and gender insensitivities (Baum et al., 2009) were also identified as some of the causes of existing health inequities in pelvic physiotherapy care. A study investigating barriers experienced by individuals with high-tone PFD in accessing PFPT found that approximately 51.4% of these individuals were unable to access PFPT due to financial constraints, followed by PFPT seen as not being valuable, time and travel constraints, and nearly 10% had fears related to beginning PFPT as treatment (Zoorob, 2017).

To address these health disparities, research in healthcare continues to explore potential solutions. For example, the integration of virtual care delivery within different fields of healthcare was an innovative approach designed to make healthcare more accessible to the masses. Healthcare delivery through virtual platforms has seen rapid advancements over time. The Covid-19 pandemic further saw an increase in the adoption of virtual care, as a supplement to in-person care, by various health professionals including physical therapists. Virtual care is known to increase access to healthcare by reducing transportation challenges, reducing wait times (Ekeland et al., 2010), and providing opportunities for remote health monitoring for individuals who are unable to attend in-person care (Furlepa et al., 2022).

Bernard and colleagues (2023) argue that the provision of pelvic physiotherapy virtually to individuals in remote areas can be considered a more ‘viable option’ to meet the increased demands. While there is limited research on the use of virtual care in pelvic physiotherapy, one systematic review concluded that telehealth contributed to improved urinary symptoms, pelvic floor muscle (PFM) function, and quality of life in individuals who benefitted from telehealth pelvic physiotherapy (Da Mata et al., 2021). A pilot study

that explored the feasibility of group-based telerehab for women with urinary incontinence, from the perspectives of clients and physiotherapists, reported that 71.9% of clients reported complete satisfaction with the program and this was also endorsed by the participating physiotherapists (Le Berre et al., 2023).

It has also been reported in previous literature that hands-on therapy or manual approaches have shown positive outcomes in the rehabilitation of PFD. With the introduction of virtual care, one area of inquiry is whether the same degree of care can be delivered in the virtual context through video-conferencing, in the absence of hands-on care. These questions also emerged from the systematic review conducted by Da Mata et al. (2020), who sought to determine how pelvic floor rehabilitation might be successfully implemented without physical techniques for pelvic floor assessment and demonstration of a PFM contraction. Their review, which included four studies, showed that stress urinary incontinence (SUI) can be efficiently managed without face-to-face interaction, and that this could also lead to better access to care. Moreover, they also found virtually delivered pelvic care was a novel, 'promising' and successful adjunct to providing pelvic physiotherapy (Da Mata et al., 2020).

Despite the advantages of using virtual care in healthcare fields, challenges and disparities with its use have simultaneously surfaced. Among the various challenges that emerged with the use of virtual care, as identified by its users, are limited network infrastructure in remote areas, (Combi, Pozzani, and Pozzi, 2016), and difficulties faced in accessing or using technology by those with poor digital literacy (Abdallah et al., 2022). A qualitative study exploring the perceptions of patients and caregivers on receiving healthcare virtually had similar findings as it identified access to technology and the internet, as well as differences in language and culture as key challenges for these individuals (Chan-Nguyen et al., 2022). Zoorob and colleagues (2023) conducted a cross-sectional survey with 210 individuals exploring barriers and facilitators to seeking pelvic healthcare virtually. The results show that around 76% of the individuals reported 'privacy' as the major barrier preventing them from receiving virtual pelvic care (Zoorob et al., 2023). This finding is supported by Crawford and Serhal (2020) who found that lacking access to a private space within the home was a barrier. The challenges reflected

in these studies suggest that virtual care, despite having the potential to increase access to care, can place some populations at a disadvantage. This includes individuals from low socioeconomic backgrounds, vulnerable groups like older adults (Das and Gonzalez, 2020), individuals residing in remote areas (Combi, Pozzani, and Pozzi, 2016), especially those having limited or no access to internet services, and individuals with physical or mental limitations.

Considering the advancements in telehealth and the rapid adoption of virtual care in health practices, there is a greater need to identify the challenges within these digital health interventions and how virtual care can be made more equitable. To promote the uptake of virtual care and improve access for populations already at a disadvantage in accessing these services, health equity-based frameworks applicable to the digital context should be employed. Although there is emerging research addressing disparities and challenges in virtual care using digital health equity models, however, an in-depth understanding of potential barriers and disparities in the use of virtual pelvic physiotherapy, in light of a health equity lens remains understudied.

The existing literature on pelvic physiotherapy comprises studies that discuss disparities in female pelvic floor disorders (Hartigan and Smith, 2018; Nauheim et al., 2020), postpartum pelvic care (Mou et al., 2023), and disparities in awareness and treatment-seeking behavior for PFD in women from minority groups (Shermoen et al., 2023). Hartigan and Smith (2018) shed light on the various disparities that contribute to the increased prevalence and treatment of PFDs and stress why understanding them is vital to developing better education and outreach programs for clients. Similarly, Nauheim and colleagues (2020) discuss how disparities in the treatment of PFDs are ‘multifactorial and complex’ with age, race and socioeconomic status as the major contributors. Looking at women from minority groups with PFD, Shermoen and colleagues (2023) found that a lack of awareness of treatment and inaccessibility were the most common reasons for the underlying disparities in treatment.

Amongst the limited literature on the use of virtual care in pelvic physiotherapy, a quantitative study by Zoorob and colleagues (2023) explores the receptivity of patients to

the incorporation of virtual care in pelvic physiotherapy. This quantitative study highlights ‘convenience’ as the most common facilitator towards opting for virtual pelvic care, with ‘privacy’ identified as the major barrier (Zoorob et al., 2023). However, with the study being quantitative in nature, gaps remain for a more thorough understanding of these identified barriers through qualitative lens. Similarly, the protocol for an in-progress mixed methods study by Bernard and colleagues (2023) seeks to explore barriers, facilitators, and preferences in relation to virtual pelvic care but the study was limited to a population of only those with gynecological cancers highlighting the importance of exploring these factors in relation to virtual pelvic physiotherapy care, irrespective of the client’s pelvic floor condition. This highlights an overall paucity of research in this area, with a very limited understanding of the potential barriers and facilitators in virtual pelvic physiotherapy from the experiences of those involved in delivering or receiving care.

Moreover, a few studies have also applied a health equity lens to address the existing disparities in pelvic health (Brown and Simon, 2021; Mou et al., 2023). These studies emphasize the application of equity-based frameworks to ensure that multiple levels and factors are considered to improve health equity (Mou et al., 2023). Even with this work, there remains a gap in our understanding relative to the virtual context of pelvic physiotherapy. The current body of literature supports that virtually delivered care is a viable option for the delivery of pelvic physiotherapy services, however, much more needs to be understood about the experiences of those involved to ensure optimal and equitable delivery of services.

Comprehending the different aspects of the uptake and delivery of virtual pelvic physiotherapy sessions is important as it will ultimately contribute to the improvement of these services. Given this, the current study aims to qualitatively explore the experiences of pelvic physiotherapists with a keen interest in understanding the barriers, facilitators, and preferences as well as any potential disparities in the provision of VPP care. The focus of this work is also to understand how the delivery of pelvic physiotherapy care through video conferencing is different or similar to in-person pelvic physiotherapy services. This work aims to identify key themes from interviews with pelvic

physiotherapists which will address our research questions and inform future research. Qualitative research is most appropriate when a detailed understanding is required from the person or group who has directly experienced and interpreted a particular or ongoing situation (Carpenter & Suto, 2008), which in this case corresponds to the health care providers. Moreover, to reflect on the potential barriers and disparities in the field of virtual pelvic physiotherapy, a critical theory lens will be applied and the findings will be mapped on to the DHEF model proposed by Dover and Belon. The next section outlines the research questions that served as the foundation for this study.

1.3 Research Objectives

Although there is increasing research exploring the implementation of virtual care in different healthcare disciplines, the role of virtual care in the field of pelvic physiotherapy remains limited. To gain a comprehensive understanding of different aspects of virtually delivered pelvic physiotherapy care, this study intends to investigate the following objectives:

1. *To explore the similarities and differences in how VPP care via video-conferencing is delivered as compared to in-person care.*
2. *To identify the facilitators and barriers to VPP care for clients and providers, from the perspective of pelvic physiotherapists.*
3. *To describe the preferences of pelvic physiotherapy care providers and their clients.*
4. *To identify potential disparities present in the context of VPP care.*

1.4 Thesis Outline

This research project is divided into four main chapters organized as follows:

Chapter 1 introduces the topic and the foundation of this thesis. Firstly, the role of pelvic physiotherapy and how it benefits individuals with pelvic floor conditions. Additionally, the different ways in which a virtual option has enhanced patient outcomes in the healthcare sector is highlighted. Based on the current literature, gaps in knowledge and understanding about the delivery of virtual pelvic physiotherapy are identified. Finally, the objectives are outlined along with key strategies for addressing each.

Chapter 2 discusses the underlying methodology, alignment with research objectives. Additionally, the positionality of the researcher and the ethical and quality considerations that were considered when conducting this research is detailed.

Chapter 3 presents the results in broad categories and a set of themes. These categories reflect the research objectives of this study, while the themes allow for detailed representation of the information shared by the participants concerning each category.

Chapter 4 is the final chapter, which provides a comprehensive description of results and their relationship to existing literature. It addresses each of the themes generated from the semi-structured interviews and maps the findings to the DHEF . Additionally, it includes the strengths and limitations of this study and potential future directions in light of the findings.

Chapter 2

2.1 Methodology and Methods

This section of the study provides an outline of the research methodology, the underpinning paradigm, sampling and recruitment strategies employed in the study as well as an in-depth explanation of the data collection and analysis procedures undertaken as part of this research. An overview of the researcher's positionality, ethical and quality considerations are also included to add to the rigor of this work.

2.1.1 Methodology and Informing paradigm

To meet the objectives of this study, a qualitative descriptive methodology, underpinning a critical theory lens, was employed to explore facilitators, barriers, preferences, and potential disparities in the provision of virtual pelvic physiotherapy (VPP), from the perspectives of pelvic physiotherapists.

Reflecting on the informing paradigm of this study, I chose to position myself in a critical theory paradigm in order to explore the potential barriers and disparities in VPP care. A paradigm is described as a "set of interrelated assumptions about the social world which provides a philosophical and conceptual framework for the organized study of that world" (Ponterotto, 2005, p. 127-8). It is based on ontological and epistemological assumptions which reflect how we think reality exists and how that reality can be known, respectively. Given the purpose of this study, I seek to gain knowledge with a relativist ontology and a subjectivist epistemology. From this position, a critical theorist believes that while there are multiple realities that exist, they are influenced by 'power relations' and factors like gender, ethnicity, and culture, for example (Ponterotto, 2005). Epistemology reflects how the knowledge or information about these realities can be acquired. From a critical theory perspective, the exchange between the researcher and the

participants is both ‘dialogic’ and ’transformative’, meaning that knowledge acquired from the participants has the potential to bring about transformation in the structure or the system as a whole (Ponterotto, 2005), which aligns well with the aims of this study.

According to Weaver and Olson (2005), the critical theory paradigm primarily emphasizes the acquisition of practical knowledge to comprehend or transform the social world. Inequities in the context of virtual pelvic physiotherapy might render VPP not as advantageous for some individuals, which is why it is necessary to highlight and address these disparities in care. This aligns with the critical theory paradigm as it allows a dialectic exchange between the researcher and the participants focusing on “how the structures might be changed and comprehending the actions required to effect change” (Guba and Lincoln, 1994, p. 110). The objective focused on how the delivery of VPP can be improved for all seeking pelvic physiotherapy services virtually is well supported by the aforementioned concepts of critical theory.

Furthermore, critical theory is known to incorporate naturalistic and interpretive methods which makes it better suited for a qualitative descriptive study design (Doyle et al., 2020). A qualitative descriptive study design ‘seeks to discover and understand a phenomenon, a process, or the perspectives’ of those involved (Bradshaw et al., 2017). Further elaborating on the utility of a qualitative descriptive design, Bradshaw and colleagues (2017) state that this design is especially useful when firsthand information from people experiencing the phenomenon being studied is needed.

The knowledge acquired from qualitative descriptive research has been shown to also help influence interventions (Bradshaw et al., 2017; Sullivan-Bolyai et al., 2005) therefore aligning with a critical theory paradigm. According to Basit “critical research aims to emancipate and empower the disempowered and those who are facing inequality and discrimination” (2010, p.15). Although we were limited to including only the perspectives of the physiotherapy providers, some disparities in VPP care from their perspectives and those perceived of their clients were revealed in this research. The findings of this study are mapped onto the Digital Health Equity Framework (DHEF) to frame some of the existing inequities in the context of VPP care and that they require consideration.

The philosophical underpinning of this research reveals that qualitative description is inductive by nature and requires the researcher to stay close to the participants' exact descriptions as expressed (Bradshaw et al., 2017). It is further described by Bradshaw and colleagues (2017) as being subjective in nature, with each shared perspective having a unique value and contributing to the understanding of the issue under investigation. This was taken well into consideration when analyzing and reporting results in this work. To better represent the participants' viewpoints and provide a deeper comprehension of their experiences with VPP services, rich descriptive statements from the participants were included in the results of this study.

Additionally, an emic stance was maintained throughout the research, which corresponds to starting with the insider's view on participants' perspectives and building from there (Bradshaw et al., 2017). To examine the participants' experiences with VPP, semi-structured interviews were conducted virtually. This format was selected as it allows for participation in what is considered the natural environment in this context. Moreover, a qualitative descriptive methodology was better suited with the aims and objectives of this research as it can be used to explore individuals' emotional experiences towards a given space, inform who is actually using the respective space, and what may be facilitating or hindering their use of this space (Colorafi & Evans, 2016). For these reasons, a qualitative descriptive design was considered a good fit to explore the barriers, facilitators, preferences of the pelvic physiotherapists providing virtual pelvic physiotherapy services.

2.1.2 Researcher's Positionality

To engage in reflexive analysis and be transparent about positionality allows a researcher to reflect on and identify the influence of biases, while also being upfront about the challenges experienced during the research process (Ravenek and Rudman, 2013). This transparency adds to the credibility of the research and demonstrates sincerity on the part of the researcher (Tracy, 2010). Finlay (2002) explains how at the very least, it involves the researcher identifying their place in the study process and admitting any

existing researcher bias. On a more proactive level, it entails a more complete acceptance of subjectivity, using different methods of engaging in self-reflections and being transparent throughout the study process (Finlay, 2002). Owing to the critical theorist lens adopted for this study, I will hereby disclose my position in the research process and how it may have influenced the process.

To better explain my role in this research, I would like to start by giving a little background on my perspectives, what my role in this research is, and how my experiences and observations have shaped me and led me to conduct this research. As an International M.Sc. student enrolled in a health and rehabilitation sciences, graduate program, I hail from a third world country and have closely observed several disparities in healthcare. With an undergraduate degree in physiotherapy and having had the opportunity to work in public and private hospitals, the experiences enlightened me on how the same healthcare service that may benefit one individual could potentially disadvantage another. The privilege, social standing in society, and the role organizations and society play in these disparities were necessary to consider.

I'm neither a pelvic physiotherapist nor have any associations with a pelvic physiotherapy organization. However, I have witnessed a high prevalence of pelvic floor issues in my social groups and in women more broadly in my country, which sparked my interest and inclination towards related issues and research in this field. During my undergraduate training I had the opportunity to conduct a study with post-partum breastfeeding women, which further fueled my interest. Although I admit, my perceptions were generally limited to pelvic floor issues specific to women, along this journey my perceptions have changed and added sufficiently to my knowledge base. There was no selection bias on my part with the fact that only female pelvic physiotherapists were included in this study. In fact, the majority of physiotherapists in this field are female, and these interviews revealed that their motivations behind choosing this field were similar to my choice for conducting this research.

Moreover, besides my general interest in pelvic physiotherapy care, ever since virtual care options were widely adopted in healthcare, it became another topic of interest for me. Having the opportunity to conduct a research project as part of my M.Sc., my

interest in both these topics led me to explore this aspect of pelvic physiotherapy in Canada. My decision to choose qualitative methodology as the preferable approach for this research project was influenced by the considerable knowledge gained about the field of qualitative research during my first year of graduate school. However, due to limited knowledge as a novice researcher taking up a qualitative approach to research, the experiences of my supervisor as a pelvic health physiotherapist and the support from my advisory committee have helped me a lot on this journey. The support and feedback that I received from them helped me go through the challenges associated with qualitative research and ensured that I maintain the quality in my work.

Although, I have made every effort to ensure that my biases as a woman and a student of physiotherapy do not have a significant effect on my research, they may have affected how I perceived participants' experiences and interpreted them. To limit my involvement and to focus on the participants in describing their experiences, I maintained impartiality by adhering to the interview guide and adapting as necessary based on emerging themes only. My personal perceptions and my reasons for pursuing this research were not known to the participants so as not to influence their responses in any way.

2.2 Methods

2.2.1 Sampling and Recruitment

Convenience sampling was used to recruit pelvic physiotherapists in London and Southwestern Ontario, experienced in providing virtual pelvic physiotherapy services. Convenience sampling is a common non-probability sampling method that was adopted by reaching out to existing networks of pelvic physiotherapists. In our case, the aim of this study was to investigate the experiences of pelvic physiotherapy care providers having experience delivering VPP services, therefore participants meeting this criterion were intentionally recruited.

For recruiting pelvic physiotherapists, the principal investigator (PI) had a master list of pelvic physiotherapists from London and surrounding areas extending to Southwestern Ontario. The pelvic health physiotherapists were emailed by the PI, inviting them to participate. These emails **(Appendix I; Email script for Recruitment)** contained a link to the Letter of Information and Consent form (LOIC). Upon signing the LOIC and completing eligibility and screening information via a Qualtrics survey, I contacted participants to set up an interview date as per their availability.

The individuals considered eligible included physiotherapists rostered in pelvic care and with experience providing virtual pelvic physiotherapy (VPP) services. Our study was limited to including only English-speaking participants as the researchers were fluent in the English language only. Therefore, participants who were able to read, comprehend, and speak in the English language were eligible to participate. The eligibility was not restricted by gender, ethnicity or socioeconomic background; however, our sample was limited in terms of geographical location and participants were only recruited from London and Southwestern Ontario.

A total of ten pelvic physiotherapists were recruited. Although there has been a long existing debate on the ideal sample size in qualitative research, the sample size in qualitative research is generally small as qualitative research tends to be more descriptive, focuses on close interaction with participants, and its results are not always broadly applicable (Bradshaw et al., 2017). Fawcett and Garity (2008) further elaborate on what deems an appropriate or ideal sample size in qualitative research - it is one that is sufficient enough to address the research question and meets the objectives of the study in terms of collecting rich descriptions of participants' experiences. Additionally, according to Bradshaw et al. (2017), the concept of "data saturation" refers to the point in the data when new themes stop emerging and repetition in the opinions or experiences of participants is noted. With respect to our sample, as we approached our 10^{th} interview we could see repetitions in the themes which suggested the sample was sufficient to address the research objectives. Observations of similar emerging codes and themes confirmed that further data collection was not necessary. A sample size of ten pelvic

physiotherapists was suitable and sufficient to address our research questions and achieve the stated objectives.

2.2.2 Ethical considerations

This study was approved by Western University's Health Sciences Research Ethics Board (HSREB) **(Appendix II: Ethics board approval)** prior to participant recruitment. Participants were duly informed through a LOIC that participation was voluntary, and they can choose to withdraw from the study at any time during the study up until before publication. The possibility of a privacy breach was mentioned beforehand to participants, and they were assured that measures were taken by the research team to prevent it. Additionally, participating pelvic physiotherapists were informed that their participation would not have any effect on their association with their respective physiotherapy clinics. After acquiring approval from HSREB, recruitment of participants was initiated in April 2024 and continued until May 2024. All pelvic physiotherapists who participated in this study were offered a choice of a grocery gift card to recognize their participation and codes to redeem these gift cards were electronically shared with them via email, upon receiving consent.

2.2.3 Data Collection

For data collection, semi-structured interviews were conducted with the participants. To screen the participants for eligibility, a Qualtrics survey was designed to obtain informed e-consent and collect screening and demographic information. The first survey comprised the LOIC. Upon signing the LOIC **(Appendix III; Letter of Information and Consent form)**, participants were directed to a second survey link, which comprised of screening questions **(Appendix IV; Screening Survey)**. Once eligibility was confirmed, participants provided demographic information and were offered the option to avail a grocery gift card, once the interview took place. This

information was stored on the Microsoft OneDrive assigned to the Principal Investigator and the student researcher, in a password protected file.

Upon confirming eligibility, participants were emailed **(Appendix V; Email Script to schedule interviews)** inquiring about their availability for a semi-structured individual interview, spanning over 30-60 minutes via Zoom. The length of semi-structured interviews generally falls in the range of 30 minutes to several hours as stated in the literature (DiCicco-Bloom & Crabtree, 2006). Permission to video record conversations was given via the LOIC, and again at the beginning of each interview. Zoom's transcription feature was used to produce transcripts of the audio files. Participants were sent a copy of their signed LOIC. The interview guide for the semi-structured interviews **(Appendix VI; Interview Guide)** was prepared with the collaborative effort of the student researcher and the advisory committee. Additionally, the interview guide was pilot tested with individuals who had no affiliation with the study to ensure the questions were clear and easy to answer.

Data collection through semi-structured interviews has long been accepted as a favorable option for collecting qualitative data as it allows versatility and flexibility (Kallio et al., 2016) in its approach by allowing the researcher to maintain the intended focus while also providing the opportunity to alter questions based on information gathered from the participants (Adeoye-Olatunde, & Olenik, N. L. 2021). A semi-structured interview guide was used to guide the flow of the research questions and comprised of open-ended questions that reflected the specific objectives of the study. Open-ended questions are needed when conducting qualitative research as they allow the interviewee to go in depth and add as much information as necessary while also providing an opportunity for the researcher to probe further (Turner, 2010).

Video recordings were deleted once interviews were complete, while the audio recordings were saved on OneDrive, labeled as 'P1, P2' etc. corresponding to each participant while also maintaining anonymity. These audio recordings were retained for reference when needed during the transcription and coding process and for engaging with the results. The process of data analysis began once the first interview was completed. Regular meetings with the PI were scheduled to discuss the ongoing development of

codes, determine next steps and whether the semi-structured interview guide needed to be changed. Additional details about data analysis are provided in the next section.

2.2.4 Data analysis

The researcher, SK, reviewed each interview transcript to check for accuracy and completed the analysis A thematic analysis was performed iteratively during data collection and recruitment to analyze the participants' responses (Beaumont et al., 2022). Following recommendations from Clarke and Braun (2017), who describe the process of thematic analysis as generating codes (i.e. the 'smallest unit of data analysis') (Clarke and Braun, 2017, p. 297), codes were categorized and grouped together under themes based on similarity in content. Themes were used to identify key features from the data using the research objectives as a guide..

Data analysis involved an iterative process (Bradshaw, 2017) where the analysis occurred simultaneously along with data collection to better understand the experiences and inform further questions. This process was based on collected responses from the participants and involved going back and forth and revising the sub-themes and themes to condense them into relevant similar themes. Owing to the nature of this continuous iterative cycle of data analysis, it has been named 'The data analysis spiral' by Creswell (2014).

Coding was initially conducted line by line using NVivo 14 software. Codes were assigned to understand the emerging information and how it related with what we sought to explore. Initially, a large number of codes and categories were developed, but after several iterations and feedback between SK and SD, the data was condensed into 5 major categories. Except for the category related to the preferences of providers and clients, a set of 5 themes were assigned under each category. Following the analysis of these themes, descriptions of the participants' experiences with the virtual care model in pelvic physiotherapy were developed. Detailed descriptions and emerging themes were then interpreted by the study team to enhance understanding. Direct quotes from the participants were added to present the data relating to each theme to stay 'true to

participants' accounts' (Bradshaw et al., 2017). The themes and sub-themes developed are presented and discussed in detail in the chapters that follow.

2.2.5 Quality considerations

The need to demonstrate quality in a researcher's work and in the data collected is considered fundamental in all areas of research (Bradshaw et al., 2017). Although there are no single set criteria to judge the quality of qualitative research, scholars have worked to refine these standards over time, taking into account a wide range of variables. The quality criteria used is outlined in the part that follows, along with how my work aligns accordingly.

Despite there being a number of approaches to considering quality, bridging criteria works towards a more flexible criterion that is both sensitive to variations within and between paradigms and methodological approaches (Ravenek and Laliberte Rudman, 2013). Therefore, owing to the flexibility of bridging criteria, I will be using Ballinger's criteria for demonstrating quality in my work. According to Ballinger, coherence, the evidence of systematic and careful research conduct, convincing and relevant interpretation of the data, and the researcher's role are the four major considerations to judge the quality of a research study (Finlay and Ballinger, 2006).

Ballinger (2006) describes 'coherence' as one of the first considerations when evaluating quality. Coherence in research refers to the alignment of all components of the study, including the study's objectives, research methods, and how the researcher views their role in relation to the specific epistemological methodology chosen (Finlay and Ballinger, 2006). Depending on where one is situated on the qualitative continuum, based on ontology and epistemology, a researcher will have varying opinions about how they demonstrate quality or rigor in their work (Finlay and Ballinger, 2006).

Based on the ontological and epistemological concepts and with the aims to identify potential barriers, facilitators, preferences and disparities in the VPP setup, I was inclined to use a critical theory lens to review my work. According to Lincoln and Guba (1985), critical theorists are placed in the middle of the qualitative continuum and are

referred to as ‘naturalist’ or ‘subtle realist’ as labeled by Mays and Pope (2000). In light of this, this study aimed to explore the experiences of pelvic physiotherapists, with a keen focus on potential facilitators, barriers, preferences and disparities in VPP care. From the lens of a naturalist, I believe that the virtual pelvic physiotherapy option is open and available for anyone to uptake and benefit from, however, the perspectives of individuals, whether a client or provider may vary and would influence how they approach it based on their own distinct interpretations of it. The subjectivist epistemology approach allowed me to focus on understanding the different perspectives of the participants involved in this study. To achieve the study goals, a qualitative descriptive methodology was employed, and semi-structured interviews were conducted with the participants to allow for an in-depth view of their experiences. My role in using open-ended questions which allowed the participant the liberty to elaborate on their experiences without interruption was limited to reporting the experiences of the participants with a lesser degree of interpretation.

With respect to the second measure of quality proposed by Ballinger (2006), it is concerned with the ‘evidence of systematic and careful research conduct’ and emphasizes how the research was carried out, process of recruitment, and what strategies were employed for data collection and analysis. To demonstrate this, we have been transparent in our description of how each step leading to data collection and analysis was carried out. The student researcher SK and principal investigator carefully planned each step and regularly exchanged correspondence on future steps. Regular meetings were scheduled to oversee the emerging data, and the feedback from SD helped inform each step of the analysis process. A detailed explanation about the steps of recruitment, the process of data collection and analysis have been reported in the preceding methods section of this chapter.

Another quality consideration put forward by Ballinger (2006) is the portrayal of ‘convincing and relevant interpretation’. A thorough analysis was completed of the emerging codes and themes, which were further understood and represented in view of existing literature in the discussion section of this study. The reasons the participants thought of a VPP option as beneficial as well as not advantageous as compared to in-

person care were interpreted, which led us to identify barriers and facilitators to VPP care for clients and providers from the provider perspective. Underlying disparities in VPP care were discovered from participants' responses of how VPP care may put some individuals at a disadvantage or pose a barrier in its adoption. These descriptions and interpretations are presented and findings are also mapped onto the DHEF to better reflect the discrepancies in VPP care.

Lastly, Ballinger (2006) emphasizes the 'role of a researcher' in a qualitative study as one of the ways to gauge its quality and rigor. This denotes the degree of self-reflection and critical appraisal a researcher has undertaken in the process of their research. To demonstrate reflexivity, it is crucial for the researcher to carry out a deep introspection of their own presumptions, positionality and conduct during the research process (Bradshaw et al., 2017). The section pertaining to 'researcher's positionality' as part of this chapter reflects on my positionality, my reasons for conducting this research and how my presumptions might have influenced the research process.

Chapter 3

3. Results

The results of this study are presented in two parts. Part I presents overarching categories based on the questions from the interviews that include pelvic physiotherapists' experiences with virtual pelvic physiotherapy (VPP), barriers and facilitators, preferences of clients and providers and recommendations for future practice. Each category is comprised of multiple themes that emerged from the semi-structured interviews. Part II which will be covered in the discussion section of this study, highlights the potential disparities in VPP identified by the pelvic physiotherapists and also maps the findings onto the Digital Health Equity Framework (DHEF) proposed by Dover and Belon in 2019.

3.1 Participant Details

Ten physiotherapists from across London and Southwestern Ontario completed the semi-structured, one-to-one interview, which was hosted on Zoom. All participants identified as female, were rostered to provide pelvic physiotherapy and, had experience providing virtual pelvic physiotherapy services (Table 1). Majority of the participating pelvic physiotherapists were working in a private practice setup and were presently providing virtual services in their practices, with the exception of one who had previously led virtual sessions. Eight physiotherapists involved in this study had more than five years' experience working as a pelvic physiotherapist, whereas each participant had up to five years of experience offering virtual services. Seven participants belonged to a European/White ethnic background, whereas the other three belonged to Black, South-Asian and Latin ethnic groups. Overall, it was a representative sample of pelvic physiotherapists as most of the physiotherapists in this field are females. Table 1 summarizes participant demographics including gender, ethnicity, years of experience working as a pelvic physiotherapist, and years of providing virtual services.

Table 1- Participants' demographics

Participant	Gender	Ethnicity	Years of experience as a pelvic physiotherapist	Years providing virtual pelvic physiotherapy services
P1	Female	European/white	8	5
P2	Female	African/Black	11	4
P3	Female	European/white	3.5	3
P4	Female	European/white	10	4
P5	Female	European/white	8	4
P6	Female	European/white	4	4
P7	Female	European/white	6	4
P8	Female	South Asian	11	2
P9	Female	Latin/South or Central American	7	4
P10	Female	European/white	8	5-6 sessions

The qualitative thematic analysis approach, that was used resulted in rich and descriptive codes, which were organized into relevant categories and broad themes. A summary of these categories and related themes is provided in Figure 1.

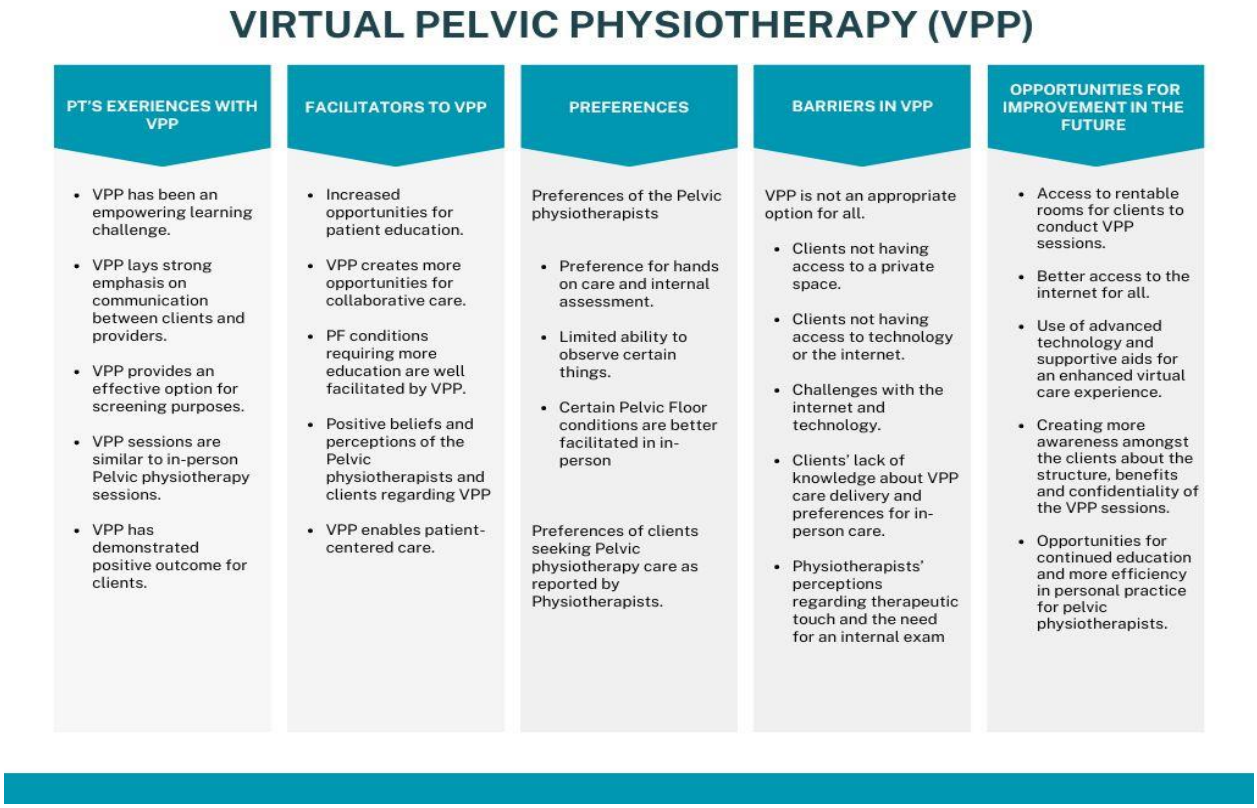

Figure 1. represents all broad categories, the relevant overarching themes and sub-themes.

The following sections introduce the overarching categories and themes, using several examples of direct quotes from the participants to support them.

Categories and Overarching Themes

3.2 Pelvic physiotherapists' experiences with VPP

3.2.1 VPP has been an empowering learning challenge for providers

Pelvic physiotherapists recognized VPP as a powerful and empowering learning challenge that continues to evolve. Many of them acknowledged that it was difficult at first to adjust to providing virtual pelvic physiotherapy care, but over time they improved their ability to do so. Most participants highlighted that VPP required them to be more creative, and that they needed to find alternatives to delivering pelvic physiotherapy care to clients. Without the option of hands-on care, they had to adapt to using different methods and reconsider their strategies for providing care virtually, which was an '*ongoing learning curve*' for them. The thoughts concerning VPP being an empowering learning challenge for the pelvic physiotherapy care providers are reflected in the statements below.

"Virtual care takes more creativity for e.g. getting people to adjust their screens and teaching them how to correctly do diaphragmatic breathing and give cues for that." (P8)

"I had to rethink my approach with patients having difficulty locating their PF, as hands on was what I used to predominantly offer" (P6)

Table 2 presents more quotes from the participants related to each theme concerning experiences of the pelvic physiotherapists as well as their preferences, barriers and facilitators to VPP care.

3.2.2 VPP places a strong emphasis on effective communication between clients and providers

Participants highlighted how communication with the clients became an important piece in the virtual delivery of pelvic physiotherapy, with a strong emphasis on verbal descriptions and elaborate cueing to assist clients for both assessment and treatment

sessions. Participants discussed relying less on their manual skills and more on how they communicate instructions to clients. One participant stated that a *"virtual option has made me better at educating my clients, in giving appropriate recommendations and less reliant on my manual therapy skills." (P7).*

3.2.3 VPP provides an effective option for screening purposes

A few of the participants mentioned how VPP has demonstrated utility in identifying and screening out different pelvic floor conditions and red flags. Going through the subjective portion of the client's session virtually often helps speed up the process and helps the provider and clients come to an agreement whether there is a need to meet in-person or whether a referral is required. One participant in support mentioned "*VPP gives another touch point for screening out red flags" (P6).* In addition, besides being an effective screening option, participants also noted that it provides a feasible option to have a quick follow up with clients.

3.2.4 VPP sessions are similar to in-person pelvic physiotherapy sessions

Another theme was that a VPP session is similar to an in-person session in many ways, although hands-on assessment and/or demonstration is not available. While participants were mostly in agreement that the evaluation and treatment were slightly modified in the virtual context, they reported that a VPP session was fairly similar to an in-person session. Referring to the subjective assessment, a participant stated that *"a thorough subjective assessment is similar to in-person" (P4).*

Further outlining the details on how a VPP session proceeds, one participant mentioned that *"the session starts with consent and informing the clients on what they can expect from the session" (P2).* Another participant stated that *'its interviewing, then assessment and then demonstration or education on something I want clients to do". (P8)*

Concerning evaluation and treatment, one of the participants felt that '*besides the lack of hands-on, not much is different".* Similarly, another pelvic physiotherapist stated

that '*besides abdominal assessment being the biggest challenge, the rest is very similar to what I do in-person". (P5)*

Participants also stated that the duration of the initial session (approximately 60 minutes) is similar to that in of an in-person session. The duration of the majority of the follow up sessions was also similar, except for a few on a case-by-case basis. Further, participants reported that the workload associated with the virtual sessions was found to be comparable, particularly around charting or documentation.

Concerning the pricing of the sessions, participants agreed that the pricing for their in-person and VPP sessions are the same. One participant noted that '*the price for virtual and in-person don't usually vary but may vary in a smaller and bigger town for pelvic physiotherapy in general' (P4).*

Although, some pelvic physiotherapists felt that clients generally showed improved compliance in the VPP sessions, others stated that it was no different from clients' compliance for in-person sessions. Furthermore, when asked if building a therapeutic relationship with clients differed across these contexts, several expressed that it was comparable. These thoughts are reflected in the following quote, where the participant mentioned that *"building a therapeutic relationship with a client is not super different in virtual as compared to in-person, it just feels more personal, client may be more conscious of their surroundings" (P9)*

3.2.5 VPP demonstrates positive outcomes for pelvic physiotherapy clients

A common statement that emerged in most of the interviews was of successful results for patients receiving care through VPP sessions, with some noting equally positive outcomes with in-person as well as the virtual sessions. A few participants expressed that it was unexpected to see positive outcomes through virtual care. The following statements represent what they had to say.

"*A fellow physio received appreciation from a virtual client and the physio was in disbelief that we are making such an impact entirely virtually" (P5)*

"I was amazed at how much of a difference actual care made to the life of my virtual client, just with 3-4 sessions" (P4)

Adding to the discussion of what the outcomes for clients looked like in the virtual delivery of pelvic physiotherapy care, one participant reported "*mostly good outcomes for clients from VPP" (P4)*. Similarly, speaking from the viewpoint of the clients, another participant stated that "*depending on what we're targeting, especially for urinary urgency and frequency, outcome satisfaction is high" (P8).*

While expressing their belief that VPP produces positive outcomes, one participant stated, *"I believe great outcomes and great progress can be made even if there's no hands-on in a VPP session" (P7).* Therefore, it was generally acknowledged by participants that most of their clients receiving services virtually showed promising results and were quite satisfied.

3.3 Facilitators to providing or receiving VPP services

3.3.1 Increased opportunities for patient education

Patient education was acknowledged as a key component in delivering VPP care. Educating the client at every stage on what they are required and expected to do was identified as a significant tool in VPP sessions. The participants discussed in detail how a VPP session is almost '*entirely educational'* with assessment and treatment mostly comprised of education. PTs educated their clients and demonstrated how to conduct various pelvic floor assessments, including but not limited to the assessment for Diastasis Rectus, engaging and contracting their pelvic floor muscles, and diaphragmatic breathing, for example. A practice adopted by all of the participating physiotherapists included the use of client self-reports of symptoms along with the use of key outcome measures to assess and compare the status of their condition. Reflecting on this, a participant stated, *"I cannot manually assess during a virtual session, so I use outcome measures, beside*

their reported symptoms, for example like the ICIQUI or central sensitization measures" (P7)

Additionally, the ability to share resources via screen sharing or providing links to the participants provided additional options for providing effective patient education. Reflecting on the ease of sharing resources during VPP sessions, participants stated that they use different models or display images on their screens to explain something different to how it was demonstrated in-person. One of the pelvic physiotherapists stated that *"I normally pull up images, examples and use models to demonstrate to clients and educate them" (P3)*.

3.3.2 VPP creates more opportunities for collaborative care

Although collaborative care is an integral part of in-person care, participants identified that VPP allowed for more opportunities for collaborative care. By increasing accessibility to other healthcare practitioners, using a virtual platform to deliver care allowed for collaboration with other professionals, which in turn made it easier to share information about patient care.

One participant noted that "*it became very professional, collaborative and multidisciplinary, considering the networks you needed to have as a virtual pelvic physio" (P6).* Additionally, participants also felt that when it came to discussing steps in the clients' care process *"It felt very collaborative, in terms of planning things together*". Participants endorsed that collaborative care holds great significance in ensuring that all healthcare providers are working together and are well-informed about all aspects of patient care. In addition to acknowledging that a VPP option offers more possibilities for collaborative care, pelvic physiotherapists also supported it as a means of improving the provision of pelvic physiotherapy care.

3.3.3 Some PF conditions are better suited for treatment via VPP

Participants noted that some pelvic floor conditions are better suited to treat virtually, particularly conditions that might require more patient education. Chronic pelvic pain and bladder urgency and frequency were the two most identified conditions which were reported to be well suited for treatment via a virtual option. Pain neuroscience education was the most frequent approach adopted by the participants for treating these conditions and education in VPP sessions was recognized as the *'gold standard'* by most participants. A participant shared from her experience that *"education and motivational interviewing is very well facilitated in a virtual setting and one of the most helpful treatment(s) for pelvic pain clients" (P10).*

3.3.4 Pelvic physiotherapy practice, beliefs and perceptions

This overarching theme explores how VPP has positively impacted the practices, beliefs, and perceptions of pelvic physiotherapy clinicians and clients. Upon reflecting on how VPP has differed for them from in-person care, the majority of practitioners mentioned how VPP in general has changed their perceptions and beliefs concerning the provision of pelvic care, especially concerning the need for manual therapy. Adding to this, one participant mentioned *"It was an opportunity to rethink and change how I could actually engage in physiotherapy" (P2).* Another participant said, "*it has brought to light my own biases as a practitioner as I tend to integrate manual therapy in my care." (P7).*

VPP has altered the perceptions of the practitioners who previously believed that manual therapy was mostly what they had to offer. Reflecting these thoughts, a participant stated that "*previously we were very limited in terms of thinking that we're just manual therapists" (P9).* This was also endorsed by another participant who stated that "*I've found it really surprising how we can impact pain and function without using hands" (P6).* With this change in the beliefs of the pelvic physiotherapy care providers, many of them have expressed that they have come to realize that there are other approaches to pelvic care in addition to manual therapy and pelvic PTs have more than one role to play in this aspect. Their thoughts regarding this are shared in Table 2.

Emphasizing how education is an important aspect that dominates VPP sessions, one participant added "*I've been very humbled by it and coming to understand that the*

majority of what we offer to clients is really education" (P4). In addition, as they considered how their experiences offering VPP services have influenced their opinions about delivering care virtually, one of the participants mentioned that "*seeing clients' outcomes from virtual sessions almost makes me wonder how much our physical skills and manipulations actually do and how much do we really need to perform internal exams" (P5).*

Participants highlighted how their experiences have informed their preferences for VPP as a viable adjunct to in-person care**.** Reflecting these thoughts, participants stated: *"VPP is a great tool to have to complement our practice with" (P1).* Furthermore, participants also mentioned that; *"It was a really unique experience and I think we should shift more towards that model" (P5)* and that *"there's an immense amount that can be done virtually and I hope the option never goes away" (P4).*

This theme detailed how the availability and integration of a virtual option in the provision of pelvic physiotherapy care altered the attitudes, behaviors, and preferences of both clients and clinicians.

3.3.5 VPP enables patient-centered care

Participants acknowledged that VPP enables patient-centered care. Concerning this, the pelvic physiotherapy care providers emphasized a few aspects of VPP care that supported patient-centered care. The following section presents the findings for each of these contributing elements, which are arranged into distinct sub-themes.

i. VPP improves access for pelvic physiotherapy clients

It was a common theme throughout the interviews that VPP has improved and increased access for clients needing pelvic physiotherapy services in many ways. Participants frequently mentioned how VPP "*allows people who can't come into the clinic" (P1)* for any reason to access services virtually. Additionally, participants agreed that it has "*increased accessibility for out-of-town individuals" (P3),* as it allows participants living in remote areas with limited practitioners to access care without having

to travel long distances. Most of the participants had predominantly female clients, who were receiving prenatal or postpartum care with at-home toddlers, and the option of VPP made receiving care easier. One participant who particularly worked with an underprivileged population and provided VPP services to them during the Covid-19 pandemic shared from her experience that "*we were really missing a whole group of people who didn't have access to pelvic physiotherapy" (P6).* In addition, some physiotherapists also shared examples of increased convenience and access for those with mobility challenges.

ii. VPP increases convenience and efficiency in care

Increased convenience and efficiency in care was emphasized as a significant advantage of VPP care and was recognized as a common theme. Participants emphasized that virtual options enabled earlier appointments, limited delays in access to care, and supported continuity of care for clients. A participant reflecting these thoughts stated:

"Instead of waiting four months to see a pelvic physio, example as in northern ON with just one pelvic physio there, VPP option lets you book anywhere in the province and start care sooner." (P5)

Another instance that reinforces this concept is when clients can easily obtain care in the event of a *'sudden cancellation of a scheduled in-person session' (P3).* Having VPP as a back-up option ensures that clients receive '*the education they need'* despite not being able to make it to the clinic. Increased convenience for clients also means that it allows them *'to touch base without having to take a day off'* or having to deal with *'transportation issues'.* This eventually leads to '*efficiency in care, financially'* (P3) as well as '*timely care' (P2).*

iii. VPP empowers clients' self-awareness and autonomy and independence

Regarding the facilitation of patient-centered care through VPP, it was highlighted that VPP empowered clients to develop greater self-awareness and autonomy. One participant agreed that for clients receiving pelvic care in a virtual setting "[It] *gives*

more position to clients to become more expert and allows them to explore their bodies a little bit more" (P5). Becoming more self-aware led clients to familiarize and be more comfortable with their bodies, and eventually led to "c*lients gaining confidence to do things on their own and realizing they don't need me (the provider) to do things for them." (P3).* Participants noted that VPP sessions were more likely to involve clients reflecting on and reporting their symptoms themselves, rather than the practitioner providing specific prompts and asking questions, in contrast to in-person sessions. Furthermore, the utilization of virtual pelvic physiotherapy services not only enhanced clients' self-awareness and autonomy, but also fostered a greater sense of responsibility in clients towards themselves and their healthcare providers, resulting in improved adherence to treatment. While some participants reported no change in the clients' compliance with treatment relative to in-person care, a few agreed that a '*virtual option makes clients more responsible to follow the recommendations if they expect to see outcomes, whereas in in-person they might think they still have the manual therapy option, even if they lag".* (P4). Additionally, another participant also noted that *"it overcomes the barriers of low compliance rates of tired postpartum moms" (P2).*

iv. VPP allows access to clients' home environment which positively influences care

Participants acknowledged that the ability to directly observe the clients' homes or personal spaces with virtual care is invaluable and greatly influences the clients' care in many ways.

A participant noted that *"a virtual appointment allows us physios to get a look at the clients' environment and better understand the other contributing factors like social components in the person's life and care" (P9)*. Similarly, another participant endorsed this by saying *"the environment the client is in, helps us understand who they are as a person and the way they live, which can be important and helpful sometimes" (P5).* Not only did the participants agree that visual access to a client's space allows them to better understand the context within which the client is receiving care, it also *"allows real time adjustments and implementation when seeing clients replicate certain movements or tasks*

within their space". In contrast to in-person sessions, one participant felt that they can *"only get so much information about how they're moving, in person, as compared to them being in their own space".* Additionally, participants also noted the impact that being in a client's space had on developing the therapeutic alliance and agreed that it helps foster a stronger relationship and rapport in the virtual context.

v. VPP allows for clients' partners to actively engage in the care process

One significant aspect of the VPP is the active involvement of clients' partners in their care process, which contributes to patient-centered care. With the increased adoption of the virtual option in pelvic physiotherapy care, physiotherapists saw themselves *'providing care to couples',* especially in the case of preparing clients for birth. Concerning this, the participants reported *VPP as "facilitating partners to be involved in different contexts with each other" (P6).* Additionally, it gave *"clients from afar the option to receive education with their partners virtually instead of waiting out",* which ultimately supported continuity in care and patient-centered care. Participants noted that virtual options were ideal for including partners, in particular for conditions such as Dyspareunia, where partners of clients are a key part of the rehabilitation process and might feel responsible for contributing to their partner's pain. Pelvic physiotherapists endorsed that including partners in treatment sessions would support and optimize care and enable partners to gain a better understanding of the condition and their role in the care process.

vi. VPP fosters trust and rapport, promoting an equal power dynamic between the client and provider

This sub-theme explores the power dynamics between clients and providers in VPP sessions, emphasizing the benefits of virtual options in establishing trust and rapport. Participants experienced and reported a change in the balance of power between themselves and their clients in the virtual setting. When reflecting further on this, participants mentioned that clients receiving pelvic physiotherapy services typically believe that an internal vaginal assessment is a mandatory component of pelvic

physiotherapy assessment, whereas the physiotherapists states this not to be the case. This misinformation often makes the clients uncomfortable receiving care. In those cases, VPP puts clients at ease. In support of this, participants shared the following thoughts. One of the participants stated: *'In the case where they are reluctant to ask Qs without worrying about having me to insist upon an internal exam, which I don't ever" (P4)*. In addition, it was also observed by the participants how this altered dynamic can affect the development of a therapeutic relationship in a virtual context. Several participants stated that VPP gives clients "*an opportunity to assess the therapist and see if they can trust me enough to continue"* with the care process, even though some participants pointed out that it is not all that different from an in-person setting.

Another participant also added to this theme by recalling different situations in which VPP is essential to enhancing the client's comfort, particularly for individuals who have experienced trauma or abuse in the past. Some of these instances are noted below.

"It became a very important context for women who feel very isolated" and *"for those having trust issues in medical interactions in general" (P3).*

And *"VPP facilitates care for my female born or identifying clients who've had a long narrative of dismissal, disbelief or distrust in pelvic or virtual care in general" (P3)*

A participant, while expressing her satisfaction with this altered dynamic, stated: *"I don't like hierarchies between a client and PT, and that really was a great shift in virtual and the reason I enjoyed physio through virtual lens" (P4).* Pelvic physiotherapists generally enjoyed this change in dynamic as they felt it leveled the power imbalance that exists between clients and providers and enabled clients to advocate for themselves more confidently or comfortably.

3.4 Preferences of providers and clients with respect to pelvic physiotherapy services

3.4.1 Preferences of the pelvic physiotherapists

During the interviews, participants were asked about their preferences regarding the provision of services virtually or in-person. While the majority agreed that VPP is a valuable option for delivering services, most still preferred in-person as their primary choice of providing care. The most common justifications provided for choosing in-person care are broken down further below.

i. Preferences for hands-on care and internal assessment

Having the option of hands-on assessment or treatment while providing pelvic physiotherapy services was the most frequently mentioned reason as to why pelvic physiotherapy care providers prefer in-person care over VPP. Participants described the significance which hands-on care held for them stating that they prefer using their hands for feedback *'in multiple spheres and not just in an internal exam' (P10).*

Many participants emphasized the importance of having the internal assessment option in the evaluation and diagnosis of pelvic floor conditions to feel confident in their assessment skills. For example, one participant mentioned that *"I obviously want to feel confident in my skills and do an internal exam because it's beneficial not that I believe it's necessary" (P4).*

ii. Limited ability for comprehensive observation and physical assessment

Participants reported limitations in their ability to make particular observations or actions, which they believed were better facilitated during an in-person session. Some of these aspects comprised limitations in observing the clients' full clinical picture, their compensatory mechanisms and the inability to expose certain areas for evaluation purposes. A few examples as quoted by the participants are shared below.

"It's hard for me to see the compensatory strategies" (P6)

"There's immense value in observing their mannerisms or building that energetic flow with somebody in the physical space" (P7)

Further, these limitations were sometimes exacerbated by technology, such as how devices were oriented or used during a session. A few participants expressed that *"there are certain areas that I cannot expose over a computer neither the client will be comfortable" (P2)* and *"laptops don't move around so it could change some of what we do" (P1).*

iii. Certain pelvic floor conditions are better facilitated in in-person

Participants identified some conditions that are better treated in person and require more hands-on care. In these situations, according to participants, clients might not find VPP as advantageous or suitable. Some of the pelvic floor conditions indicated that may be challenging to treat in a VPP session or may require hands-on care, were highlighted as the ones with elevated tension, Pelvic Organ Prolapse (POP), people having difficulties engaging with their pelvic floor and other comorbidities that affect the pelvic floor.

Participants' comments further supported the idea that some therapies, which could truly improve the clients' conditions, were best administered in-person. They expressed their opinions in the following ways.

"Clients with dyspareunia may find internal muscle release as helpful, besides education" (P1)

"*Clients who could benefit from acupuncture, and clients who are not comfortable with self-assessing themselves internally or engaging in particular positions" (P3)*

Conditions where a client could benefit from a wand, or dilators were also identified as situations where in-person care would be a better choice. Additionally, pelvic organ prolapse (POP) was the most frequently mentioned condition flagged as being challenging to treat in the virtual context. The following are some quotes from the participants:

"*Pelvic organ prolapse can be a hard thing to deal with virtually too, especially if a client is coming with suspicions and fears and want you to look at it" (P5)*

"You could do a QOL outcome measure for POP clients but there's no objective way of seeing change in POP clients virtually" (P6)

To summarize, pelvic physiotherapists' preferences for in-person care stem from their inclination towards performing hands-on therapies and an internal pelvic exam. Additionally, their concerns stem from their restricted capacity to conduct a physical assessment and from the fact that specific pelvic floor conditions are best treated in person.

3.4.2 Preferences of clients seeking pelvic physiotherapy care as reported by physiotherapists

Participants were also asked what they perceive to be their clients' preference with receiving pelvic physiotherapy services. The majority reported that the general preference of their clients' is to be seen in-person for some of the following reasons:

"When the brain doesn't have an excellent map of the pelvic areas, or there's a long-standing narrative of shame, strangeness or discomfort in that area, In-person grounds them and make it less awkward" (P7)

"Clients who've reported feeling more accountable with in-person sessions want to see me in person" (P3)

"Some clients find it easier to build rapport in-person and that's why prefer it and some clients are not as open to talking about certain issues over a computer" (P5)

Taking these observations into consideration, the participants discussed a few of the reasons why their clients favor in-person over VPP.

3.5 Barriers to providing or receiving VPP services

VPP is not an appropriate option for all clients

This overarching theme particularly captures some of the challenges faced by clients in accessing or receiving VPP services, as reported by the pelvic physiotherapists.

While discussing some common challenges faced by their clients, participants highlighted that VPP may not be suitable for everyone. Some of the most frequently mentioned challenges were clients' inaccessibility to a private space to conduct VPP sessions, challenges with access to technological devices or internet, connectivity issues, or simply clients' beliefs and lack of knowledge regarding VPP care in general. It was also observed that clients with a general preference for in-person care may also not find VPP sessions a suitable choice. Similarly, some of the providers' biases or perceptions related to VPP care were also reflected in their preferences for in-person care. These sub-themes are discussed in the subsequent paragraphs.

3.5.1. Clients not having access to a private space to conduct VPP sessions

Not having access to a safe or private space to participate in a VPP appointment was a challenge repeatedly mentioned during the interviews. One participant noted that *"finding a safe space and environment to take a virtual session is a privilege and not accessible to everyone",* highlighting some of the disparities that may exist in the context of VPP care. Specifically referring to clients living in shared spaces, participants mentioned circumstances when engaging in a VPP session from home was not a safe choice for their clients. The examples included having family members, babysitters, or partners being present around in the house during the sessions. Similarly, it was also inconvenient in some cases where clients *"living in a shared space with their partners did not want them to know their diagnosis" (P3).* Other situations where clients find it challenging to engage in VPP sessions privately were reported as situations where clients have their co-workers intrude on a session during lunch hours or instances where they do not want to disclose that they are seeing a pelvic physio. In addition, participants also noted that sometimes the session would start as private, but the client experienced an intrusion or a distraction that affected the session. One participant stated that sometimes *"clients who are home alone are candid until someone like their partner comes in, then they don't feel as candid in what they're saying" P4).*

This theme touched upon some of the barriers faced by pelvic clients in accessing a private space to conduct VPP sessions as perceived by the pelvic physiotherapists.

3.5.2 Clients not having access to technology or the internet

In addition to not having access to a private space, some clients reported not having access to the internet or the necessary technological devices needed to conduct a VPP session. Clients without the technological devices or internet would *"have to use phone data or library to access internet"*, which would sometimes mean that they were required to *"have enough data or speed to access virtual care".* Additionally, participants also mentioned how difficult it is for some of their elderly clients and those without a suitable camera setup to hold virtual sessions—a necessity that not everyone has access to. A particular drawback noticed in relation to a pelvic floor assessment by one participant was that *"some people need to use public spaces to access free Wi-Fi for an appointment but you cannot do a pelvic assessment in such place, which is a disadvantage".* Some of the observations made by pelvic physiotherapy practitioners regarding their clients' lack of access to basic technology tools for conducting VPP sessions were discussed in this theme.

3.5.3 Challenges with the internet and technology

Participants mentioned that clients, especially those from rural areas, face challenges with internet connectivity, as well as those with weaker internet signals or bandwidth to support a VPP session. In addition, some participants mentioned that although infrequent but sometimes their clients had trouble using the online site. Participants also shared that when their clients experienced these challenges with technology, it also became a challenge for them while navigating the VPP session. For example, participants shared that with weaker connections clients may '*appear blurry'* and at times when the clients are '*not tech savvy'* that could also be an issue.

Furthermore, participants also mentioned that they occasionally faced difficulties with connectivity or the internet themselves. Although it was not described as a frequently occurring challenge, participants felt that it disrupts the flow of the VPP session and makes them more dependable on internet stability to conduct these sessions. Participants reflected on these challenges by stating that *"our system is sometimes a*

struggle, if the admin hasn't set it up correctly or there's a lag" (P5) and it was also noted that *"there are limitations of technology in observing or having people self-report on what's going on in virtual" (P10).*

As part of this theme, pelvic physiotherapy practitioners identified several typical technological and connectivity-related issues that they and their patients encounter in relation to the VPP context.

3.5.4 Clients' lack of knowledge about VPP care delivery and preferences for in-person care

When discussing the reasons as to why some clients may not find a VPP option as appropriate, participants added that it includes clients who are either confused or misinformed about the virtual delivery of pelvic physiotherapy care, or who generally prefer in-person for personal reasons. Participants reported that *"clients have this general perception and concerns how the internal exam piece may be done virtually"* which is not conducted during a virtual session. Participants voiced some concerns that clients have regarding the ability of the pelvic physiotherapist to adequately perform a physical assessment virtually. Additionally, participants believed some clients also opt-out of a VPP option if *"they're not confident in self-assessing themselves"* (P3). Not knowing what to expect from a virtual session was also noted as one of the common reasons why clients prefer in-person over virtual care. Either they don't know what a VPP session would entail or *"because they have this stigma that virtual care may not be as helpful to them" (P8).* Therefore, when asked about the general preference of their clients, participants reported it was in-person citing various reasons to support their choices.

3.5.5 Physiotherapists' perceptions regarding therapeutic touch and the need for an internal exam

Participants expressed the significance of 'therapeutic touch' when providing pelvic physiotherapy care to their clients. One participant stated that while *"touch is not*

everything, it is still important and some people really benefit from it" (P4). Additionally, it was noted by a few respondents how having the option to perform an internal exam may be beneficial for some clients. Participants also emphasized the importance of in-person assessments and mentioned *"I've seen people with cervical cancer, and there's a reason we need to see people, and not just talk and interview"* and that *"we miss a lot when its exclusively virtual".* Another participant stated, *"I don't want it to become entirely virtual"* and *"I have serious concerns if someone said they exclusively did pelvic health virtually"(P8).* While stating their preferences for in-person pelvic care, participants highlighted it as being quite effective and despite the benefits of VPP, found it as a superior way of delivering pelvic physiotherapy care. These statements highlight the opinions of physiotherapists, including their preferences for providing direct patient care, using therapeutic touch, and their reservations about solely using VPP to provide care.

3.6 Opportunities for improvement in VPP

At the end of each interview, participants were asked whether they would like to change or improve anything in the delivery of VPP, either in their personal practice or in general. While some of the participants were satisfied with their current practices and how virtual care is offered to clients receiving VPP services, others shared some valuable recommendations highlighting that there is room for improvement in the delivery of VPP. These considerations are further highlighted in the paragraphs that follow.

3.6.1 Access to rentable rooms for clients to participate in VPP sessions

One participant suggested that access to rentable rooms may improve access to VPP for clients without appropriate space in their own environment. The participant mentioned that this option was currently available for only a rather privileged sub-group of people and instead it should be available for all.

"*Maybe more rentable spaces somewhere around like in terms of health care. We have like, you know, accessible rooms that are rentable for people to use virtual appointments.*

But I think it's again only accessible to, a very privileged sub-group of people" (P8)

3.6.2 Better access to the internet for all

In relation to the challenges with the internet that clients experience, participants expressed their desire to have better internet connections and improved access for all individuals, thereby increasing access to VPP care for clients. A few of these opinions are stated below.

"I would say everyone has good internet access" (P5)
"I wish there was better internet connection across Canada" (P2)

3.6.3 Use of advanced technology and supportive aids for an enhanced virtual care experience

Apart from proposing improved internet and technology access for their clients, participants also expressed their interest in utilizing cutting-edge technological tools to augment the delivery of VPP care. One participant inquired about the integration of AI technology in the delivery of VPP care. The participant went into great detail about how AI technology should be used and stated that one such example would be to have AI assist in being able '*to detect the intensity of a client's pelvic floor contractions and adjust or rectify their performance accordingly".*

Moreover, some suggested the use of an advanced camera setup to help with better visualizations and provide wide-angle views, while others recommended *'making sure it's kind of bulletproof" (P9).* About the system's infrastructure, one participant noted that *"it could be a little bit better with lots of different platforms available" (P10).*

This theme highlights some of the suggestions made by the participants concerning the need for technological innovations to further support the effective and seamless provision of virtual pelvic physiotherapy care through the use of modern supportive aids.

3.6.4 Increasing awareness amongst clients about VPP sessions

Although participants agreed that since the Covid-19 pandemic, clients have become quite familiar with virtual care in general, participants expressed that some clients are either misinformed or have false perceptions concerning VPP care delivery which presents as a barrier to accessing care. Participants emphasized the need to overcome this gap by educating clients about the general format, methods of delivery, and advantages of VPP sessions. Furthermore, the participants acknowledged the necessity of enhancing their ability to convey information to clients regarding their responsibility to maintain confidentiality or privacy during a session. The quotes that follow represent participants' opinions.

"I think I would just like more people in the general public to understand that it can be a very helpful service to offer, if anything, perhaps just the public perception of the benefits of it". (P5)

"We can bring in more awareness. We can kind of, shouldn't say enforce, but we can offer that more. And then people can also have the webinars that they can do this" (P2)

It was endorsed by one of the participants that the provider bears the burden of educating clients who might not completely comprehend the importance of maintaining privacy during a VPP session. The direct quote from the participant is added below to better reflect her thoughts.

"I don't know if it's more just a relaying that information, but yeah, I do find that as long as patients know that that this isn't a confidential conversation if their kid or their husband walks through the living room. I feel like maybe and it's just maybe our training but I feel like patients maybe don't fully comprehend that piece or maybe they just don't care" (P8).

Related to this theme, participants emphasized prioritizing the education of pelvic floor clients regarding different aspects of VPP care.

3.6.5 Opportunities for continued education and need for more efficiency in personal practice of pelvic physiotherapists

It was also recommended by participants that pelvic physiotherapists should pursue ongoing education to become effective healthcare professionals, leading to improved patient care. Participants mentioned how they are always looking for opportunities to engage in educational opportunities that support better delivery of pelvic care in the virtual context. Another participant made a comment regarding the significance of continued education for providers and how it can improve client care.

"To continue to educate ourselves in a way that we can engage in good education. Learning that we're not, you know, experts in everything and that the patient is really expert in their experience" (P9)

Participants also highlighted the need for improvement in personal practice and provided several examples of how they want to improve their services. Suggestions to improve the VPP care delivery process included improved use of evaluation and assessment tools and resources more creatively and to have more standardized resources to aid in this process. Additionally, some pelvic physiotherapists also expressed their wish to have their initial sessions entirely virtual to save time.

Raising the question of how assessment could be effectively completed in the absence of hands-on care, a participant stated:

"*I think there's a lot of room for, you know, getting creative in ways, especially when it comes to the pelvic health if we don't have the option to do an internal, what does that look like virtually? Like, do you teach a patient how to do that assessment on themselves and then go away off camera between sessions and record that?" (P8)*.

Another participant responded to the same question by saying;
"just ways to measure. Range of motion for example or functional movements. Yeah, I

think I feel like there's some really amazing ways we could kind of land on that" (P9).

To ensure optimal patient care, one participant recommended an organized beginning point for patients that includes use of consent documents, addressing legal concerns, and opting for methods similar to in-person care standards. Participants also noted group VPP sessions as an option for increased convenience and to provide another cost-reduced option for their clients. This idea is reflected in the quote below:

"If it's a group session, I can teach 5 or 6 people together instead of spending that time separately. That can be very helpful virtually. I guess if there is a funding change and this is what it is, we all will do it, I guess. (P4)

In summary, this section of the study presented the key findings and related themes from the semi-structured interviews with the pelvic physiotherapists. Each category comprised a set of related themes and quotes directly from the participants. The findings are expanded upon and discussed in the next section. The following section also discusses barriers and challenges associated with VPP which are mapped to the Digital Health Equity Framework (DHEF), along with disparities in care. With this mapping, potential areas in the provision of VPP care needing improvement are further acknowledged.

Table 2. Categories, themes and related codes

Categories and Themes	Related quotes
Experiences of pelvic physiotherapists with VPP	
VPP has been an empowering learning challenge	*"VPP is a little bit of a learning curve for sure" (P1)* *"Sometimes virtual care is all about trial and error, sometimes you can't be certain and have to see if something is working out or needs to change" (P9)*
VPP lays strong emphasis on communication between clients and providers	*"I've gotten more skilled at my verbal descriptions of motions" (P4)* *"VPP forces us to use our language more than our touch" (P2).*
VPP provides an effective option for screening purposes	*"I love it for Caesarian pts and find it as a great way to touch base right after surgery" (P4)* *"It helps people screen out and know if they need to see someone quickly" (P7)*
VPP sessions are similar to in-person pelvic physiotherapy sessions	*"Connecting with the clients in both contexts is the same as I'm the same person online and in in-person" (P7)* *"If we already have a rapport with clients, connecting with them virtually is similar to in-person" (P5)*
VPP has demonstrated positive outcome for clients	*"I still have clients from my student days coming back to me for virtual pelvic care, which tells me they gained something from that" and "our team gets feedback all the time on how their clients are doing great just through virtual sessions" (P4).*
Facilitators to VPP	
Increased opportunities for patient education.	*"Depending on what the client needs, it's a mix of education and demonstration" (P3)* *"I guide them on how they can provide feedback for themselves and talk through things" (P5)* *"I might send clients whom I've been working with something they need to read before the next session" (P5)*
VPP creates more opportunities for collaborative care.	*"I really liked being able to collaborate with clients, their doctors at the same time in a virtual session" (P8)* *"The possibility to collaborate with other people has improved the deliverability of pelvic physiotherapy" (P1).*

PF conditions requiring more education are well facilitated by VPP	*"VPP is great for bladder urgency or frequency, because it has to do more with fluid balance and bladder irritants as it doesn't involve the pelvic floor to the same degree" (P6)* *"An issue of hypertonicity or undertone in the pelvic floor can be treated virtually as well, as it doesn't need a lot of hands on" (P4)*
Positive beliefs and perceptions of the pelvic physiotherapists and clients regarding VPP	"*From a professional perspective, it has made us reflect on how we engage in care in a positive way and made us aware of this other role we can play" (P3).* *"It made me appreciate the role we play from beyond the physical or biological sense" (P2).*
VPP enables patient-centered care	*"It allowed me to rethink and reframe my lens, to how I looked at care and found it helpful in reframing things and engage in a type of physio which aligns more with my values as a person" (P4)* "*For certain clients with particular movement disorders or physical disability who cannot come in-person, virtual option opens doors and reduces that extra barrier of getting to physiotherapy for them" (P8).* *"In in-person sessions, clients want us to check everything whereas in virtual, they self-report and are a little more cognizant of change" (P1)* *"I also conceptualized my birth prep model and trained partners on birthing, virtually" (P4)* *"Virtual option puts off the pressure from clients, of having an internal exam done, and with that pressure off I feel we can accomplish so much" (P2)* *"For clients, it's easier to refuse treatment in a virtual session as compared to being in person" (P9)* '*Increases comfort for nervous individuals who want to build a connection before going towards an internal exam'* (P6)
Preferences of providers	
Preference for hands on care and internal assessment.	*"I use a fair mix of hands-on and exercise-based stuff so objective is more of a mental challenge for me" (P7)* *"In in-person I have my hands for feedback mostly" (P2)*
Limited ability to observe certain things.	*"We can see the full picture and their body language better in in-person" (P7)* *"It's much harder to observe the nuances of people virtually, that might tell me that something's important or unsaid" (P4)* *"There's a lot going on above the pelvic floor, and I find it challenging when I can't address that" (P3)* *"It's hard and there's definitely a limitation of hands-on option to be sure, in conditions like POP" (P9)*

Certain pelvic Floor conditions are better facilitated in-person	*"Since we cannot see a pelvic floor muscle contraction, a lot of the clients are not sure if they're doing it correctly, in that case, in-person session is beneficial as it allows us to perform a rational exam and provide biofeedback to clients" (P2)*
Preferences of clients	*"After Covid-19 and going back to clinics, very less percentage of people opt virtual sessions" (P4)* *"I think clients also find it helpful that we are able to monitor them better in person" (P9)*
Barriers to VPP care	
Clients not having access to a private space	*"There are cases, such as of refugees where there's an issue of a family member translating, and you don't know the dynamic of their relationship" (P7)* "*Sometimes clients take their appointments during lunch time at work and are intruded by a co-worker during the session who decides to stay back despite knowing an appointment is going on" (P6)*
Clients not having access to technology or the internet.	*"Sometimes when clients' internet signals are not so strong and they appear blurry and I'm unable to see or assess their posture then" (P4)* *"Clients who aren't really comfortable with navigating technology or do not read the instructions on that, may become a challenge" (P3)*
Clients' lack of knowledge about VPP care delivery and preferences for in-person care	*"if a physio can't see them in person how are they going to fully understand what's happening" (P5)* *"they have this stigma that virtual care may not be as helpful to them" (P8)*
Physiotherapists' perceptions regarding therapeutic touch and the need for an internal exam	*"It's challenging because I cannot touch and physio is all about touch" (P2)* *"Sometimes it adds another session or two to troubleshoot through some stuff, without an option for internal" (P7)*

Chapter 4

4. Discussion

This section will provide comprehensive descriptions of the themes developed under each of the broad categories and include reflections on the experiences of pelvic physiotherapists in providing virtual pelvic physiotherapy (VPP) to clients. The purpose of this work was to explore the facilitators, barriers and preferences of those involved in VPP. In the interviews, participants discussed the challenges experienced by them and their clients in delivering, accessing or receiving VPP respectively. They also emphasized that VPP is a useful supplement to in-person pelvic physiotherapy, and some made recommendations regarding potential future practices in VPP.

Finally, the themes from the interviews are mapped onto the Digital Health Equity Framework (DHEF) to gain an understanding of the participants' perspectives relative to health equity. The following section will address each of these categories in detail through a discussion of all the themes related to each category.

4.1 Discussion of results

The qualitative interviews with pelvic physiotherapists generated several themes which provide in-depth insight into their experiences providing VPP services. The first category captures the overall experiences of the pelvic physiotherapists with VPP. Upon inquiring about their overall experience with delivering pelvic physiotherapy care virtually, participants highlighted several important themes including that the adoption of VPP was an empowering learning experience. Most physiotherapists indicated that they started providing VPP services during the Covid-19 pandemic and later transitioned to a blend of both in-person and virtual care. This trend is also reported in another study that highlighted the increasing acceptance of virtual health services during the Covid-19 pandemic, followed by a subsequent transition to hybrid methods of healthcare (Reynolds, Awan, and Gallagher, 2021). Participants discussed how delivering pelvic physiotherapy remotely meant that they needed to employ more innovative methods of

evaluation and treatment, which enhanced their professional growth as physiotherapists. A cross-sectional survey with physiotherapists, exploring their perspectives on delivering physiotherapy virtually had similar findings, in which over 65% of the physiotherapists endorsed the utility of virtual care for continuous professional development (Reynolds, Awan, and Gallagher, 2021). Pelvic physiotherapists agreed that to ensure that their goals are met, they sometimes need to adjust their techniques and go through a trial-and-error process using VPP. This was also echoed in the study by Paul et al. (2023) which explored different aspects of virtual care in rural populations and clinicians reported employing several skillsets while performing an initial virtual assessment.

Further elaborating on their experience with VPP as an empowering experience, participating pelvic physiotherapists asserted that VPP demands that they use their clinical reasoning abilities more when compared to in-person care. Most participants indicated that they primarily engaged in independent learning to comprehend the process of administering pelvic care in a virtual environment and gradually adjusted to the new setting. This is similar to a study by Roitenberg and Ben Ami (2023), that reported that although physiotherapists might have benefitted from professional training to deliver virtual care, their experiences providing successful care virtually show that they were able to adapt and self-adjust to this change in care delivery. Haines and colleagues (2023) similarly reported that physiotherapists who adopted virtual care employed some common learning strategies, and learning through experience over time was the primary approach.

Strong communication was recognized as a necessary skill to effectively provide virtual care and guide clients through assessment and treatment sessions. Having effective communication skills to deliver pelvic physiotherapy care virtually became an important skill for providers to have. This is comparable with the findings from another study where 66% of physiotherapists reported virtual care as upgrading their communication skills (Reynolds, Awan, and Gallagher, 2021). Communicating and instructing without the use of their hands to deliver care required physiotherapists to adopt a ‘patient navigator role’ in terms of directing clients through each step of the assessment and treatment session. A study by Martin et al. (2022), which featured recent

graduates discussing their first experiences offering physiotherapy virtually, echoes this sentiment. Participants agreed that virtual sessions can potentially improve communication skills because they replace the nonverbal cues that come with face-to-face interactions with verbal instructions (Martin et al., 2022; Paul et al., 2023).

Another overarching theme, related to participants' experiences with VPP, highlighted the usefulness of VPP in assessing the client's clinical status, checking for possible red flags, and following up. Completing the subjective portion of the client's assessment virtually not only expedites the process of delivering care, but also assists physiotherapy practitioners and clients in reaching a decision of whether in-person meetings are necessary. Saad et al. (2021) also found the ease of seeing a provider at home for a quick follow-up session as important in terms of comfort, convenience, and costs, which mirrors the findings in this work. This suggests that VPP is a valuable tool for conducting quick evaluations, identifying any potential red flags, and monitoring a client's progress.

VPP sessions were found to be similar to in-person sessions, with the exception of hands-on assessment. The opinions of our participants were consistent with findings from a study that shared positive reports on the replicability of in-person care provided via telehealth delivery, except for challenges with a few specific interventions (Barrett et al., 2024). Assessment and treatment were modified to suit the virtual context, specifically the structure, duration and content of the VPP sessions. Participants felt that the cost of virtual sessions should be the same as in-person, given that the same efforts are required for both. Another study by Barton et al. (2022) found physiotherapists in support of an equivalent fee for virtual and in-person sessions, citing the same reasons as our participants reported. However, although our participants recognized that cost for care may vary based on geographical location (such as rural versus urban areas), they did not support a difference in remuneration between in-person or virtual sessions. A systematic review examining the effectiveness of telehealth assessments also reported that when various factors were taken into consideration, virtual sessions were found to be a more affordable choice than in-person consultations (Zischke et al., 2021).

Compliance was found to be similar for virtual sessions compared to in-person sessions. However, participants felt that their VPP clients were more compliant than in-person clients as they had to rely more on themselves than on the physiotherapist. This is similar to the findings by Xu et al. (2022), who discovered virtual pelvic care was a potentially effective way to lower barriers for women who choose not to seek medical attention, as well as to help women who are at risk of pelvic floor disorders better regulate their pelvic floor and comply with treatment. The key reasons identified in this work relate to VPP offering greater flexibility, anonymity, and increased accessibility (Xu et al., 2022).

Participants had mixed opinions about their therapeutic relationship with clients in the VPP setting. Although a few stated that building a therapeutic relationship with their pelvic clients is different in the virtual context, most participants felt that relationships were similar and that they were able to engage with their clients in the same manner as in person. In comparison to our results, the study by McCoyd et al. (2022) with psychotherapists revealed that care providers were genuinely surprised that their bond with their clients in a virtual session remained remarkably strong and was unchanged in the virtual context. However, it was also noted that physiotherapists felt that maintenance of a pre-existing relationship was easier than starting in the virtual setting with a new client (McCoyd et al., 2022). Similar observations were reported by allied health clinicians in the study by Paul and colleagues (2023).

In relation to client outcomes in the virtual context for pelvic physiotherapy, participants reported favorable outcomes and overall satisfaction among their VPP clients. The potential benefits of virtual care have been documented and include improved pelvic floor symptoms, urinary incontinence and enhanced quality of life (Da Mata et al., 2020). The positive outcomes in VPP were found to be comparable with those reported for in-person care. Additionally, pelvic physiotherapists noted that individuals with pelvic floor disorders, such as persistent pelvic pain, urinary frequency and urgency, and a history of trauma, experienced more benefits from VPP and achieved positive results. A systematic review by Hao et al. (2024) also reported the use of pelvic

floor muscle training virtually was a practical and successful route that has been shown to benefit individuals experiencing urinary incontinence.

Facilitators to VPP care

Participants in this study identified key facilitators to VPP care including increased opportunities for client education and collaborative care, better treatment for certain pelvic floor conditions, altered pelvic physiotherapy practices, beliefs and perceptions and increased support for patient-centered care.

Participants acknowledged that VPP sessions are almost entirely educational in nature. Similar to our findings, Roitenberg and Ben-Ami (2023) reported that a physiotherapists' role as a client educator 'beyond the biological or physical sense' became an important aspect in the delivery of VPP. With respect to having their clients self-assess pelvic floor function, the response was mixed with the majority feeling like they could ask their clients to self-assess and provide feedback about their symptoms to gain a better understanding of their condition. A few felt that while they might ask for self-assessment, they would not include an internal vaginal examination as part of that assessment. Educating patients on self-management in a virtual session was recognized as the 'gold standard' in other studies as well (Roitenberg & Ben Ami, 2023). This particular theme highlights that client education is a key component of VPP sessions and pelvic physiotherapists rely more on verbal instructions for their clients.

In addition, participants acknowledged VPP's role in fostering collaborative care with other healthcare professionals involved in a client's care process. A study by Jordan (2024) exploring physiotherapists' opinions on ways to successfully implement patient-centered care found that physiotherapists feel that challenges with getting access to other health care professionals poses a barrier to implementing patient centered care. Our participants affirmed the importance of collaborative care by pointing out that virtual care promotes inter-professional collaboration and facilitates the involvement of other healthcare professionals in patient care. Increased collaborative care through VPP may

lead to enhanced patient care and improved outcomes for pelvic physiotherapy clients, improving the overall provision of pelvic physiotherapy.

The idea that certain pelvic floor conditions are well treated and managed in the virtual setting was endorsed by the participants in our study. Physiotherapists in other fields have also reported a virtual care option as more beneficial for some conditions over others (Roitenberg & Ben Ami, 2023). Regarding pelvic floor conditions, pelvic pain and urinary frequency and urgency were the two most frequently highlighted conditions well suited to be treated in the virtual context as they mostly comprise educating clients. As reported by our participants, these conditions generally require less hands-on treatment and less pelvic floor engagement and are therefore easier to manage virtually and have shown positive outcomes in clients. A randomized controlled trial by Santiago and colleagues (2022) found that, in comparison to a conventional in-person treatment program for females suffering from stress urinary incontinence, a hybrid tele-rehabilitation program was more effective in producing favorable outcomes. This suggests that a virtual option could be substantially more beneficial for treating particular pelvic floor conditions.

VPP has significantly transformed the views and perceptions of pelvic physiotherapy care providers, albeit beneficially. Hands-on care is a foundational element of practice in pelvic physiotherapy and providers are generally inclined to use it in their practice. However, with the increased adoption of virtual care and limited ability to use manual therapy approaches in the virtual sitting, participants noted a change in how they approached care in this context. Reflecting further on their changed perceptions, participants agreed that they previously believed their role to be limited to just being a manual therapist and were not quite aware of how much more they could offer. Similar opinions are captured in the study by Roitenberg and Ben-Ami (2023) who described the emphasis on using more words for assessment rather than other tools or their own hands. They felt that the shift from hands-on care to enhanced verbal descriptions was "pronounced." Providing pelvic physiotherapy care virtually allowed participants to rethink their approaches and shift their lens on how they approached pelvic physiotherapy care.

Participants in our study agreed that VPP enables patient-centered care and facilitates its increased uptake. Patient-centered care involves prioritizing and placing the patient in the center, adopting a holistic approach to health and to use patient centered communication strategies (Jordan, 2024). This is consistent with research conducted in 2022 by Thomas and colleagues, who created a framework for sustaining telehealth in allied health settings. According to the findings, telehealth was deemed desirable and the authors encouraged its uptake by clinicians primarily because of its potential to enhance patient's access, lower transportation costs, and provide greater convenience, especially for patients who live far from the medical facility (Thomas et al., 2022). The benefits noted by the participants in our study are similar.

Further elaborating on the aspects of VPP contributing to patient-centered care, participants noted improved access for clients seeking pelvic physiotherapy care as one of the contributing factors. A virtual option improves access for patients, especially those residing in rural areas or those geographically limited in their access to pelvic physiotherapy care. This has been identified as a prominent facilitator in past literature (Davies, Lawford and Chan, 2024; Haines et al., 2023). Pelvic physiotherapists who had the opportunity to exclusively deliver virtual services to a rural population during the Covid-19 pandemic endorsed this sentiment by stating that those without access to pelvic physiotherapy represented a significant socioeconomic gap that we were failing to account for. While exploring the benefits and perceptions of the postnatal population with virtual care, Saad and colleagues (2021) found that telehealth can improve accessibility for this population by overcoming certain barriers. This was also echoed in the comments made by our participants who concurred that VPP has increased accessibility, particularly for their group of pre- and post-partum mothers.

According to our participants, VPP also led to increased convenience and efficiency in care. This was noted in relation to improved access to pelvic physiotherapy via a virtual option, which is similar to the findings from Hawley-Hague et al. (2022). Participants reported that setting up appointments was convenient and flexible, sometimes resulting in earlier consultations for clients which guaranteed continuity in care. This is also reflected in another study which found a virtual option useful in

increasing regularity and adherence to necessary physiotherapy care for people with varied lifestyle commitments, such as those looking after children or with flexible work schedules (Saad et al., 2021). Pelvic physiotherapists specifically reported their female clients with young toddlers at home to benefit from increased convenience through VPP.

Another key finding with respect to VPP enabling patient-centered care was that participants perceived their clients to be more self-aware and autonomous in a VPP setting. Participants emphasized that VPP empowers clients to become more aware of body changes, overcoming the long-standing shame associated with pelvic floor conditions. Further, the opinions expressed by physiotherapists, occupational therapists, and speech and language therapists in a study by Rettinger et al. (2023) demonstrate how telemedicine services improve patient empowerment and autonomy while also holding clients more accountable. Healthcare delivered through virtual means has the ability to increase patient's self-efficacy, engagement in care and empowerment (Starzec-Proserpio and Vandyken, 2023; Ceprnja et al., 2023). This was also reflected in the opinions of our participants and the perceived benefits of VPP to their clients.

A clinician's enhanced knowledge of the patient's home environment may also help in developing the clients' treatment program. This finding was similar to that of Thomas and colleagues (2022). Pelvic physiotherapists in our study acknowledged that being in a clients' personal space allows them to examine the client's surroundings and develop a deeper understanding of additional contributing elements in the individual's life and care, such as social components. In addition, our participants' views were consistent with those of other physiotherapists in the field who believe that a virtual option is beneficial in improving patient-specific home exercise regimens—in terms of modifying and making real-time adjustments to an exercise plan (Ceprnja et al., 2022; Bramble et al., 2024).

In addition to the benefits of VPP, participants mentioned a less common, but still significant, advantage with respect to the inclusion of spouses or partners of clients in the care process. A quasi-experimental study by Doaltabadi et al. (2023) explored the effects of face-to-face and virtual prenatal care training of spouses on the pregnancy and

childbirth experience and reported similar findings. According to the authors, offering prenatal education to women in front of their partners was found to be a significant way to boost their social support system and strengthen their bonds as a couple (Doaltabadi et al., 2023). Specific pelvic floor conditions, like dyspareunia or prenatal or postpartum individuals that are preparing for or have recently undergone childbirth, were reported to benefit from the inclusion of their partners in the VPP sessions. Participants acknowledged that the accessibility and convenience that comes with a VPP option makes it possible for pelvic physiotherapists to educate couples and encourage their participation in the client's care process.

Furthermore, an important theme that emerged was the discussion around the power dynamics in a VPP setup. Participants in our study felt there was a relatively equal power dynamic between the provider and the client, suggesting that clients feel less pressured to undergo an internal pelvic exam. Pelvic physiotherapists in our study noted the patient-provider power dynamic as more prominent when in person, especially for those who feel hesitant and anxious around healthcare professionals. Another study exploring preferences for telehealth consultations for sexual and reproductive healthcare in primary care also reported female clients feeling more comfortable and open to communicating about their conditions in a virtual session. This was reported as likely related to the equal power dynamics (Srinivasulu, Manze, & Jones, 2023).

VPP provides clients with an opportunity to build trust and rapport with their therapists. Participants thought that clients who had experienced trauma or abuse in the past, those having difficulty understanding or managing their pelvic floor symptoms, as well as those who had a general mistrust of pelvic physiotherapy care, might feel more comfortable using VPP to build trust before choosing to continue in-person. Saad and colleagues (2021) explored the perceptions of postnatal women receiving obstetric care virtually and reported similar findings where participants agreed that they found it helpful to develop a relationship and trust with their doctor in the virtual setting before continuing with them.

Barriers to VPP care

In addition to the positive experiences with VPP and facilitators in its uptake, participants also identified some challenges and barriers to VPP care from their own and clients' perspectives. A key point from this theme was that every service model has limitations that may disadvantage specific individuals, such as limitations in terms of time or accessibility. This resonates well with this theme and demonstrates how VPP might not be the best option for everyone. Not having access to a private space, technology or the internet, and connectivity issues faced by providers and clients were identified as common barriers fin accessing, delivering, or receiving pelvic physiotherapy care virtually. These challenges are similar to what has been reported in previous studies with respect to barriers to telehealth (Bennell et al., 2021; Barton et al., 2021; Tenforde et al., 2020). Challenges specific to delivering VPP were mostly related to participant's views and preferences for hands on care or an internal pelvic exam and clients' perceptions or lack of knowledge regarding pelvic physiotherapy in the virtual context.

The inability of clients to access a safe and private space to conduct VPP sessions was a frequent theme across all interviews and highlights some of the disparities in VPP care. Participants discussed how clients living in shared spaces with a partner or family member have expressed feeling uneasy and less willing to talk about their symptoms than if they were living alone. This is supported by the findings in the study by Zoorob and colleagues (2023) which demonstrated that 76% of the respondents in their quantitative survey reported 'privacy' as the major barrier in accessing virtual pelvic care. Another study exploring patients' acceptance of telemedicine in rehabilitation also found limited access to a quiet or private space (Jansen-Kosterink, Dekker-van Weering, & van Velsen, 2019).

In addition to a lack of privacy to conduct VPP sessions, common barriers also related to accessing necessary technological devices and the internet. Paul and colleagues (2023) also report that many individuals would not be able to benefit from virtual physiotherapy if they did not have access to the necessary technology. While the

participants in our study identified that VPP helps some people overcome barriers to accessing pelvic physiotherapy, they also emphasized that not having technology or internet access is a significant problem that keeps some people from bridging this care gap. Not being tech-savvy or having the necessary knowledge to navigate the virtual platforms is also an identified barrier to VPP care, as noted in existing literature (Jansen-Kosterink, Dekker-van Weering, & van Velsen, 2019; Bramble et al., 2024).

Moreover, patients in remote locations with inadequate connectivity or those without the financial means to purchase a fast internet connection may also find their access challenging (Saad et al., 2021). Issues related to poor connectivity have been well documented across studies exploring challenges and experiences faced by clients and providers with virtually delivered healthcare (Zischke et al., 2021) which is also reflected in our study results. Participants noted this challenge frequently among their clients residing in rural areas and mentioned how having a seamless assessment would get negatively impacted by weaker internet signals and blurred visuals. Additionally, providers also noted occasional connectivity issues on their own computer, although this was infrequent.

Based on the observations of the participants, the most prevalent reasons that may hinder clients' adoption of VPP is their lack of awareness about what to anticipate from a VPP session, having misconceptions about virtual care in general, general inclination towards receiving hands-on care, and lacking the necessary confidence to assess themselves. Clients' preferences for hands-on care over being virtually assessed by their therapist has been mentioned in other studies as well. One such study reported that some individuals find online feedback insufficient and want correction when performing activities and feel that this could only be provided at an in-person appointment (Jansen-Kosterink, Dekker-van Weering, & van Velsen, 2019).

Participants also acknowledged their own preferences for in-person pelvic care, revealing potential biases. Although they acknowledged several benefits of VPP, they also recognized that missing the hands-on component can sometimes pose as a barrier to VPP care. A large portion of physiotherapy expertise focuses on the hands-on approaches

which is used to assess patients as well as to communicate empathy and build rapport (Roitenberg & Ben-Ami, 2023). This has been well documented in other studies as well, which have reported the limited ability to perform assessments and the lack of hands-on care as barriers to telehealth (Ceprnja et al., 2022). Research investigating the views of physiotherapists providing virtual care during the pandemic noted the lack of manual therapy approaches that were reported as potentially being helpful for their patients (Roitenberg & Ben-Ami, 2023).

Specific to pelvic physiotherapy, participants acknowledged the importance of hands-on care and suggested that internal exams may be necessary for certain pelvic floor conditions to confirm clinical reasoning and provide reassurance. With reference to specific pelvic floor conditions, pelvic organ prolapse (POP) was frequently mentioned as one of the predominant conditions requiring an internal exam to confirm the grade and presentation. The need for hands-on care is also endorsed in another study that found an inadequate physical examination in the virtual setting as a concern voiced by many clinicians that forces them to rely more on the client's input rather than their own assessment (Reynolds et al., 2021).

Preferences of pelvic physiotherapy clients and providers

Concerning the general preferences of pelvic physiotherapy providers and clients, participants stated that they prefer in-person care but considering VPP's potential, they enjoyed having it as an adjunct to in-person care. A survey conducted during the pandemic reported that only 2.5 % of the participants expressed their wish to continue virtual care exclusively while 8.3 % planned to use it as an adjunct to in-person care (Rettinger et al., 2023). Thomas et al. (2024) reported that one of the most frequent reasons why clients are resistant to virtual care options is because clinicians believe that in-person care is the "gold standard". Even though research during the pandemic showed a shift in the mode of care delivery, post pandemic patients prefer in-person therapy and

are not in favor of receiving treatment only virtually (Paul et al., 2021). A similar view was expressed by physiotherapy practitioners in the study by Reynolds et al. (2021).

The three sub-themes that emerged from participants' preferences for in-person pelvic care include preferences to perform an internal exam and hands-on pelvic care, limited ability to observe certain signs virtually, and certain pelvic floor conditions being better managed in-person. With respect to pelvic floor clients, participants noted that clients' lack of knowledge regarding the delivery of pelvic care in the virtual setting informs their preferences. Participants stated that some clients believe it is easier to build rapport in-person which correlates with findings in other studies that have reported virtual care to be 'impersonal' compared to hands-on care (Barton et al., 2022). Additionally, owing to the nature of the pelvic floor conditions, clients are sometimes not open to communicating about their symptoms in a digital space and feel more confident and comfortable being seen in-person.

Pelvic physiotherapists agreed that post-pandemic, they have seen a decline in virtual visits and clients are generally attending more in-person visits. A similar downward trend has been reported in telehealth visits (Thomas et al., 2024). However, a small minority still prefer VPP as a supplement to in-person care. Therefore, although pelvic physiotherapists and clients prefer in-person care for their own personal reasons, they acknowledge VPP as a valuable adjunct to in-person pelvic care. This suggests that by utilizing the strengths of VPP, a hybrid approach of pelvic physiotherapy care can be advantageous to both physiotherapists and clients. Addressing some of VPP's limitations, participants also suggested several recommendations for personal and general practices of VPP care delivery.

Improvements in virtual pelvic physiotherapy care

While most of the participants were satisfied with the virtual delivery of pelvic care and did not believe that any major changes were required, they did report that there is always room for improvement and offered some suggestions. Increasing access to

technology and the internet (Chan-Nguyen, 2022), giving their clients access to rental spaces to conduct VPP sessions, and educating their clients about VPP in general were suggested as potential areas to improve in. These recommendations are also captured in existing literature. According to a study examining patient, provider, and organizational needs for the successful implementation of a telehealth program, the researchers revealed that organizations providing virtual care must improve internet connections, digital platforms, and provide ongoing education for effective virtual care engagement (Bramble et al., 2024). The emphasis on proactive education and promotion of virtual services amongst the clients, especially in populations with limited access to in-person care, is also documented in past studies exploring barriers to telehealth (Barton et al., 2022). Participants also emphasized that providers should educate clients about session confidentiality and provide instructions on maintaining it on their end.

Additionally, utilizing cutting-edge technology and providing ongoing educational opportunities for VPP care providers to improve uptake and the quality of care were some of the suggestions made by participants. The study by Rettinger et al. (2023), exploring barriers to virtual care in allied health professions, also reported that promoting the creation and application of digital assessment tools customized for telehealth sessions may help medical practitioners in making more accurate observations. These ideas are also reflected by our participants who stated that they wish to see better camera setups, more standardized resources, and the integration of AI technologies to help with effective pelvic floor assessment in the future. Consistent with other studies, participants acknowledged the need for continued education and training for pelvic physiotherapy providers to enhance patient care and add to their professional skills. The study by Barton et al. (2022) also emphasized the need for ongoing training and education of physiotherapists providing virtual care.

A few participants also shared their plans with respect to starting group pelvic rehab sessions, to save time and overhead costs. Group sessions in other fields of physiotherapy have been demonstrably effective and clients have shown a willingness to pursue them. In a study by Bennell et al. (2021), 68% of patients were moderately or extremely willing to participate in group virtual physiotherapy classes. Although our

participants believe clients would find VPP group sessions beneficial and interesting, particularly when it comes to preparing for birth, there is a need for further research on clients' attitudes and willingness to participate in VPP group sessions to support these claims.

Participants put forward valuable recommendations to improve VPP care in the future, which not only included improvements in personal practices, but broadly applied to pelvic physiotherapy practices. These suggestions reflect the need for pelvic care providers and organizations to come together and develop strategies to enhance the delivery of pelvic physiotherapy care through virtual platforms. Additionally, these suggestions also address some of the barriers associated with VPP care and emphasize the need to overcome these challenges to maximize opportunities afforded by VPP. The next section focuses on mapping the findings onto the Digital Health Equity Framework and applies a critical theory lens to highlight some of the disparities in VPP care.

4.2 Mapping findings onto the Digital Health Equity Framework (DHEF)

To further discuss the barriers and disparities reflected in the experiences of pelvic physiotherapy care providers and their clients' perceived experiences, the following section maps the findings onto the Digital Health Equity Framework (DHEF) and applies a health equity lens in the context of VPP care. Using the critical theory paradigm to frame our understanding, we will now focus on the identified barriers and the underlying disparities in VPP care.

The Digital Health Equity Framework (DHEF) is a model proposed by Dover and Belon in 2019 which integrates various health equity factors with digital determinants of health and concepts of digital health equity. Although there are a few other models which address health equity in the digital context, this framework was specifically chosen as it

addresses digital health equity at different levels and provides a comprehensive overview of different factors influencing equity in digital health. It represents overlapping factors that go beyond the social determinants of health and provides a framework for measuring health equity at the organizational and health system levels (Crawford and Serhal, 2020). The DHEF demonstrates an interplay between socio-economic and cultural factors, with intermediate factors shaped by an individual's social environment and the digital determinants of health (Crawford and Serhal, 2020). Figure 2 presents a visual representation of the DHEF.

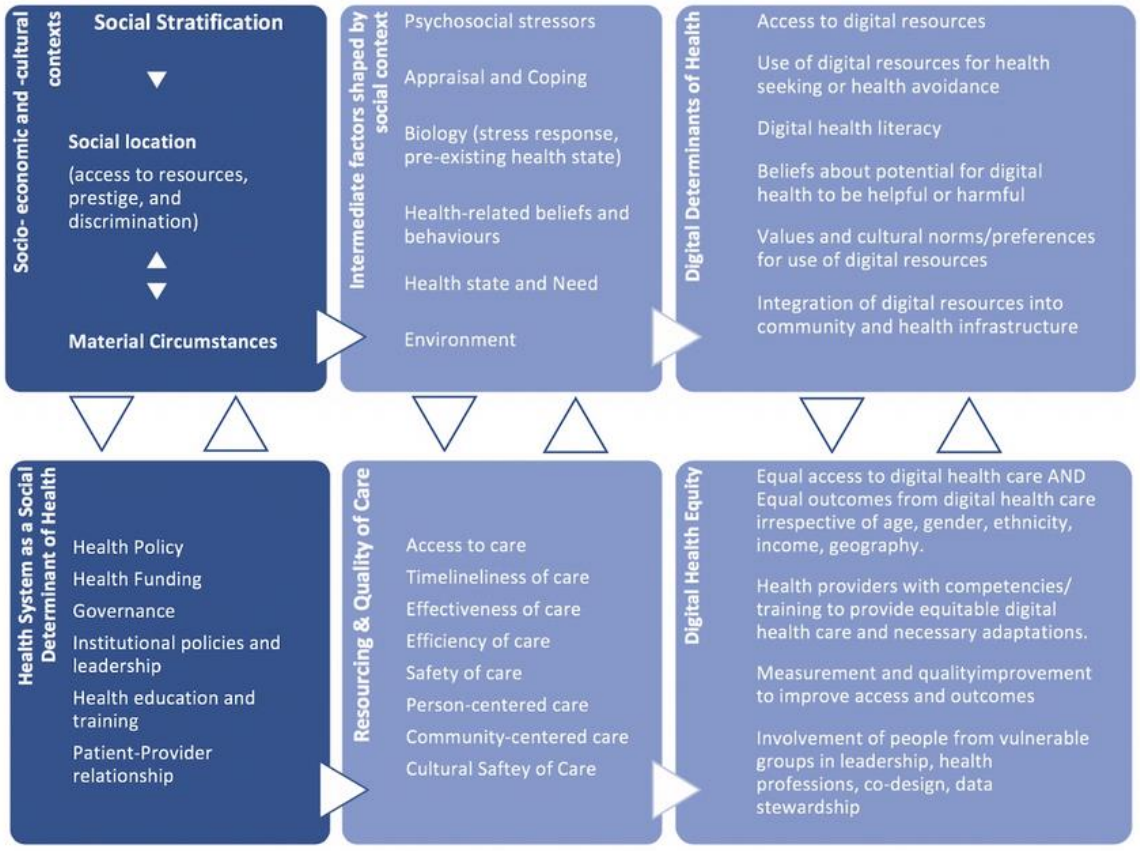

Figure 2. *Digital Health Equity Framework (Crawford and Serhal 2020)*

Crawford and Serhal (2020) further explain the DHEF, highlight its focus on reducing disparities in digital health, review the healthcare system as a social determinant of health, and call for improvement in the resources and quality of care offered to all social

groups. Even though our study was limited to VPP providers, which restricts our ability to fully understand the perspectives of patients receiving virtual care, we have used this framework to interpret the experiences of pelvic physiotherapy professionals and their clients' perceptions concerning VPP care.

A patient's ability to effectively manage their health is contingent upon a multitude of social and physical factors, such as social support, literacy, and access to transportation (Tenforde et al. 2020). The DHEF also discusses the role social stratification plays in terms of an individual's social location and material circumstances, which are found to reinforce one another (Crawford and Serhal, 2020). "Rurality and geography" are two of the many intersectional aspects linked to a person's social location (Crawford and Serhal, 2020) and have a huge impact on an individual's access to care and pertinent resources. As stated by our participants, while virtual pelvic physiotherapy bridges the gap and makes pelvic care more available, some clients, especially those in rural areas or belonging to low socioeconomic backgrounds, may find access to the internet or relevant technology more challenging. Thus, their social standing in the community and their lack of resources mean that it may be difficult for them to participate in VPP. Ensuring that patients with restricted access to technology don't lose out on care is a prerequisite for the successful and equitable large-scale implementation of telehealth-delivered interventions (Barrett et al, 2024).

These socio-economic factors overlap with intermediate factors such as those of an individual's environment and health-related beliefs (Crawford and Serhal, 2020). Not having access to a private space for clients to conduct a VPP session was noted as a significant barrier to VPP by participants. The nature of a pelvic physiotherapy session could involve a client discussing issues or symptoms that they would not be comfortable discussing in front of others, thereby necessitating the need for privacy in VPP sessions. Additionally, concerning the health-related beliefs of the VPP providers and clients, it is evident that negative beliefs or misconceptions regarding VPP care may restrict the uptake of VPP. Our findings reinforce what has been stated in the DHEF about health-related beliefs influencing attitudes and actions related to seeking digital health

(Crawford and Serhal, 2020). Therefore, it is significant to note that the beliefs and perceptions that someone holds play a vital role in how they engage in care. Holding onto negative beliefs with respect to providing or receiving healthcare services may potentially affect an individual's ability to benefit from a service. More research concerning the negative beliefs and perceptions of pelvic physiotherapy care providers and clients regarding VPP care is needed to overcome such barriers.

The framework further discusses that for healthcare to be equitable it should be patient centered, effective, safe, timely and efficient (Crawford and Serhal, 2020). While participants in our study indicated that VPP enables patient-centered care in similar ways, it is important to take into account the impact of digital health determinants on clients who seek VPP services. Digital determinants of health include, but are not limited to, access to and use of digital resources to seek healthcare, perceptions concerning digital health's potential benefits, and drawbacks as well as preferences regarding its use (Crawford and Serhal, 2020). Considering this, participants in our study also discussed their own and their client's perceived preferences for in-person care. The general lack of awareness in clients about how a VPP session is structured, delivered, and its potential advantages and disadvantages impact their preferences. Additionally, participants' biases towards hands-on care also informs their decision to uptake VPP care in their practice. Additional training and demonstration of virtual technology as well as dissemination of research results to easily communicate barriers, facilitators and preferences may positively affect uptake. Additionally, it may be beneficial for physiotherapy clinics to produce their own material to educate potential clients about the structure or virtual care and diagnoses that can be appropriately managed virtually. This would ensure that clients are in a better position to decide what's best for them and are actively involved in their care process.

The framework also suggests that for digital healthcare to be equitable, adjustments must be made at the organizational and systemic levels. All parties participating in the system should cooperate to guarantee that discrepancies in access to care are eliminated and that equitable access to digital health is developed for all populations (Crawford and Serhal, 2020). From a critical theory lens, the concept of

'critical emancipation' refers to the goal of empowering people to advance the autonomy of individuals. The recommendations made by participants in our study also speak in favor of overcoming the disparities in the context of VPP care. Emphasis was placed on better access to the internet for all, accessible rooms for clients to participate in VPP sessions, as well as advanced use of technology and supportive aids for an enhanced virtual care experience. Moreover, creating more awareness amongst the clients about the structure, benefits and confidentiality of the VPP sessions, opportunities for continued education, and need for more efficiency in personal practice of pelvic physiotherapists were some other suggestions made by the participants. Although these recommendations are valuable in the context of VPP care, however, much more needs to be understood. Discussions around addressing these disparities in VPP care and future steps in the delivery of VPP care should be held at all levels of the healthcare system.

By using a digital health equity lens and interpreting our results in the context of the DHEF, it highlights that when all pertinent factors are considered, equity in the delivery of virtual pelvic physiotherapy can be improved. Future studies utilizing a diverse client sample can examine the experiences of patients receiving virtual pelvic care in more detail. The findings can then be interpreted in the context of the DHEF or similar frameworks to gain a deeper understanding of the various facets of virtual pelvic physiotherapy care and recognize what is required to improve accessibility for physiotherapists and clients.

4.3 Strengths of the study

To the best of our knowledge, this study is the first of its kind to explore the experiences of pelvic physiotherapists engaged in providing virtual services to clients seeking pelvic care. Using a qualitative descriptive approach this study has used multiple quotes from the participants and comprehensively presented the findings related to participants' experiences with VPP care. In addition, the perceived experiences of pelvic physiotherapy clients have been considered and discussed, valuably adding to the existing

literature in pelvic health. The use of semi-structured interviews allowed for in-depth exploration of the participants experiences, which adds to the strength of this study.

Our study has discussed the barriers, facilitators and preferences in the context of VPP care in detail, from the perspectives of pelvic physiotherapists and perceived experiences of their clients. Although the results align with those of earlier studies of a similar nature, the examination of the experiences of the pelvic physiotherapists offers a more in-depth understanding of the structure and delivery of a virtual pelvic physiotherapy session. It also illuminates the barriers and facilitators to VPP care that may impact its widespread use. Moreover, viewing the findings in the context of the DHEF allows us to reflect on the disparities in VPP care and also informs what needs to be done to address them and ensure digital health equity in the context of VPP care in the future.

4.4 Limitations of the study

Along with its strengths, this study also has some limitations. We were limited in our ability to purposefully recruit clients that belonged to different genders and ethnic backgrounds as we employed a convenience sampling strategy. All of the participating pelvic physiotherapists were females, which although informs a representative sample as pelvic physiotherapists in the field are mostly females, however it would have been interesting to include another gender's perspective as well. Although we tried our best to recruit a diverse sample, from various ethnic backgrounds, the participants were mostly white/Caucasians, with a minor representation from Latin, African and South-Asian ethnicities. The clientele of participants was largely female, which also limits our ability to apply these findings to all genders and populations. Had there been a diverse clientele of the participants involved, the positive and negative perceptions of their virtual clients as reported by the participants might have been different.

A further limitation is that the study did not directly recruit clients to learn about their experiences and obtain firsthand perspectives on the facilitators, barriers, and

preferences. Although it was originally intended for this study to include both clients and providers involved in VPP care, we were unable to recruit clients through care collaborators, despite our best efforts and months of recruitment. As a result, we had to change our recruitment strategy and restrict the research sample to only pelvic care providers. Research on virtual pelvic physiotherapy might have benefitted greatly from the inclusion of patients with first-hand experiences. We were also limited in our ability to view disparities in VPP care at different levels of the health system as our focus was mostly on the individual level. However, viewing the provision of VPP care at the systemic, community, provider and patient level would significantly add to the understanding of these services.

4.5 Areas for future research

The experiences of the pelvic physiotherapists involved in providing VPP services were descriptively shared in this study, and their perspectives identified some potential barriers, facilitators, and disparities in care. While our participants shared some interesting insights into their clients' perceptions and beliefs about VPP care, exploring it from the viewpoint of clients would be beneficial and would add to the growing literature in this field. Including clients' voices in future research may highlight additional issues that the physiotherapists might have overlooked and would ensure that VPP clients are fairly represented based on their firsthand experiences.

In addition, expanding this work to recruit a diverse sample, with varying gender identities, ethnic backgrounds and from a larger geographical location would allow for more diverse perspectives. Furthermore, the results of this study were only briefly discussed in relation to the DHEF. A thorough examination of the various components included in this model and its application to the provision of VPP care at the systemic, community, provider and patient level of the health care system can contribute to the development of more digitally equitable pelvic physiotherapy services.

4.6 Conclusion

VPP has the potential to enhance the delivery of pelvic physiotherapy as a valuable adjunct to in-person care and for some individuals it may be their preferred option. This study found overall positive experiences of care providers who recognized VPP as an empowering learning experience with communication identified as a key component of success. VPP was felt to be an effective screening and follow up tool for most pelvic conditions although some conditions were felt to be more appropriate for in-person care. VPP was reported to enhance collaborative care and increase opportunities for patient education.

Identified barriers include clients without access to a private space, limited access to necessary technology and high-speed internet, with rural populations facing greater challenges than urban populations, highlighting potential inequities in pelvic physiotherapy care. In addition, the preferences of pelvic physiotherapists and clients influenced their engagement and uptake of VPP, where education about and exposure to virtual care may improve its uptake. The direct inclusion of client's voices would provide an important perspective on VPP and can assist in informing a more enhanced and equitable pelvic rehabilitation system.

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Appendices

Appendix I- Email script for Recruitment

Fellow pelvic Health Physiotherapists,

I am inviting you to participate in a study exploring the experiences of physiotherapists with virtual pelvic health physiotherapy. This study, entitled ***'Exploring barriers, facilitators, preferences and potential disparities in Virtual Pelvic Physiotherapy - from the perspective of Physiotherapists: A qualitative descriptive study.'*** is an M.Sc. research project by graduate student Sania Khalid.

This study focuses on understanding barriers, facilitators, and preferences in the provision of virtual pelvic physiotherapy services from the perspective of pelvic physiotherapists. In addition, this study also aims to identify key strategies to address key challenges in the delivery of virtual pelvic physiotherapy.

Eligibility; You are being invited to participate in this study because you are rostered to provide pelvic health physiotherapy in London and Southwestern Ontario, have experience providing pelvic physiotherapy services virtually, and can speak and comprehend English.

Part A of this study is comprised of individual semi-structured interviews, lasting approximately 30-60 minutes. In the semi-structured interview, you will be asked to answer questions about your personal experiences with providing pelvic physiotherapy virtually and what it looks like for your clients.

P**art B** involves a focus group session lasting approximately 90 minutes conducted via Western University's Corporate Zoom platform. The discussion in the focus group will revolve around the themes identified during the interviews, focusing on the different aspects of virtual pelvic physiotherapy and discussing strategies to address key challenges. You can choose to participate in either or both part A and B of this study.

If you are interested in participating in this study, please follow this link https://uwo.eu.qualtrics.com/jfe/form/SV_ddr4DiHprZgIsLQ and review the Letter of Information and consent form. Upon signing the informed consent, you will be redirected to a short survey screening you for eligibility and collecting some demographic information (only if eligible). The graduate student, SK will reach out to you directly if you are considered eligible and will further discuss your availability for an interview and/or a focus group session.

*Please note that your participation in this study is voluntary. You may decline to participate and have the right to refuse to answer individual questions or to withdraw from this study at any time during its duration. You will be compensated for your time and participation in the individual interviews (only). If you have any questions about this study, please contact Dr. Samantha Doralp (the principal investigator of the study) at (*contact redacted*), or by email at (*email redacted*) or graduate student, Sania Khalid by email at (*email redacted).*

Best regards,
Samantha Doralp, PT, PhD
Assistant Professor, School of Physical Therapy
Faculty of Health Sciences, Western University
Phone: *redacted*
Western HealthSciences
email redacted

Appendix II- Ethics board approval

Western Research

Date: 3 April 2024

To: Dr Samantha Doralp

Project ID: 122840

Review Reference: 2024-122840-91321

Study Title: Exploring barriers, facilitators, preferences and potential disparities in Virtual Pelvic Physiotherapy - from the perspective of Physical therapists: A qualitative descriptive study.

Application Type: HSREB Amendment Form

Review Type: Delegated

Meeting Date / Full Board Reporting Date: 23/Apr/2024

Date Approval Issued: 03/Apr/2024 18:30

REB Approval Expiry Date: 11/Aug/2024

Dear Dr Samantha Doralp ,

The Western University Health Sciences Research Ethics Board (HSREB) has reviewed and approved the WREM application form for the amendment, as of the date noted above.

Documents Approved:

Document Name	Document Type	Document Date	Document Version
Recruitment Email PTs- Version 4, 31-03-24	Recruitment Materials	31/Mar/2024	4
Focus Group Guide, V3, 31-03-24	Focus Group(s) Guide	31/Mar/2024	3
Interview Guide for Research Participants, V3, 31-03-24	Interview Guide	31/Mar/2024	3
Screening_Questionnaire_PTs , Version3, 31-03-24.docx	Online Survey	31/Mar/2024	3
Research protocol, Version 5, 03-04-24	Protocol	03/Apr/2024	5
Letter of Information and Consent- PTs, Version 5, 03-04-24	Consent Form	03/Apr/2024	5

REB members involved in the research project do not participate in the review, discussion or decision.

The Western University HSREB operates in compliance with, and is constituted in accordance with, the requirements of the TriCouncil Policy Statement: Ethical Conduct for Research Involving Humans (TCPS 2); the International Conference on Harmonisation Good Clinical Practice Consolidated Guideline (ICH GCP); Part C, Division 5 of the Food and Drug Regulations; Part 4 of the Natural Health Products Regulations; Part 3 of the Medical Devices Regulations and the provisions of the Ontario Personal Health Information Protection Act (PHIPA 2004) and its applicable regulations. The HSREB is registered with the U.S. Department of Health & Human Services under the IRB registration number IRB 00000940.

Please do not hesitate to contact us if you have any questions.

Electronically signed by:

Patricia Sargeant, Ethics Officer (email redacted) on behalf of Dr. Roberta Berard, HSREB Vice-Chair, 03/Apr/2024 18:30

Reason: I am approving this document.

Note: This correspondence includes an electronic signature (validation and approval via an online system that is compliant with all regulations).

Appendix III- Letter of Information and Consent form (LOIC)

Title of Study: Exploring barriers, facilitators, preferences and potential disparities in Virtual pelvic physiotherapy - from the perspective of physiotherapists: *A qualitative descriptive study.*

Principal Investigator:
Samantha Doralp, PhD, MPT
Assistant Professor, School of Physical Therapy, Western University
email redacted

Co-Investigator:
Sania Khalid, DPT
MSc. Candidate Health and Rehabilitation Sciences, Western University
email redacted

INTRODUCTION

You are being invited to participate in this research study because you are a Physical therapist who has/had experience with providing virtual pelvic physiotherapy services. The purpose of this letter is to provide you with the detailed information required for you to make an informed decision to participate or not in this research. Once you understand the study, you will be asked to indicate this on the consent form if you wish to participate. Please take your time to make your decision and feel free to ask questions via email.

PURPOSE

The purpose of this study is to explore barriers and facilitators, preferences, and potential disparities in the provision of virtual pelvic physiotherapy services from the perspective of pelvic physiotherapists. In addition, this study also aims to identify key strategies to address challenges in the delivery of virtual pelvic physiotherapy care. The use of virtual

platforms in healthcare delivery has made pelvic physiotherapy more accessible for certain clients; however, much more research is required to understand how it could be better tailored to each client's specific needs. This study will provide us with an opportunity to gain a better understanding of the experiences of those who are involved in providing pelvic physiotherapy services virtually, as well as use information from their clients' experiences to devise strategies for a more equitable and enhanced virtual care system in the field of pelvic physiotherapy.

ELIGIBILITY

To participate in this study;

- You must be a rostered pelvic physiotherapist and have experience providing virtual pelvic physiotherapy services.
- Due to the nature of the study, you must also speak/understand English, and have a valid email address for contact purposes.

STUDY PROCEDURES

After signing this informed consent form you will be redirected to another link, and will be prompted to answer a few simple questions confirming your eligibility and a few demographic questions, within the same survey. This survey is estimated to take no more than 5 minutes during a single sitting using a computer or mobile device with an internet connection. You may complete the survey in multiple sittings by saving your progress and returning at a later time using the same direct link. You will have one week from starting the survey to complete it before it is automatically submitted. You will be able to navigate backward in the survey to change responses. The survey will be automatically submitted upon completion and you will know that the survey has been submitted when a confirmation screen appears. The survey should only be completed one time per person.

There are two parts to this study. **Part A** consists of individual semi-structured interviews, lasting between 30 to 60 minutes, and **part B** comprises a focus group session

with a few other pelvic physiotherapists. Both the interviews and the focus group session will be held via Western University's corporate Zoom platform.

You can consent to participate in both parts or either of them, by checking the relevant option and then electronically signing the consent form. After signing the consent form and filling out the survey, if considered eligible, student researcher Sania Khalid will reach out to you to further discuss availability.

In the semi-structured interview, you will be asked to answer questions about your personal experiences with providing pelvic care virtually and what it looks like for your clients. The discussion to be held in the focus group will revolve around the themes identified during the interviews with the pelvic physiotherapists, focusing on the different aspects of the virtual delivery of pelvic physiotherapy.

Risks and Harms of Participating

When information is stored electronically, there is a small chance of a privacy breach; however, the researchers will be taking all necessary precautions to reduce this risk. Please be advised that although the researchers will take every precaution to maintain confidentiality of the data, the nature of the focus groups prevents the researchers from guaranteeing confidentiality. The researchers would like to remind participants to respect the privacy of your fellow participants and not repeat what is said in the focus group to others.

Benefits to Participating

Participating in this study will not provide you with any direct benefits. However, the data derived from this study could enrich the process of developing and implementing a more accessible pelvic rehabilitation system for all. This study will also inform relevant stakeholders on what strategies are needed to be put in place to ensure an equitable pelvic healthcare system for all and also lead to the enhancement of virtual platforms.

Cost/ Compensation

There is no cost associated with your participation in this study. However, you will be compensated for your time and participation in the individual interviews. Please note that

you will not be compensated for your participation in the focus groups. However, we value your time and participation with the greatest regard and will respect your decision to participate, whatever it may be.

Confidentiality

All information will be kept confidential to the best of our ability. Personal identifiers (First Name and email address) will only be collected for contact purposes. Data from the screening questionnaire will be exported from Qualtrics into Excel as .csv files. All data will be encrypted and stored on Western One Drive on the study coordinator's password protected computer. Data from this screening survey will only be accessible to selected members of the research team. All responses to the survey will be de-identified for analysis and results will be presented as grouped data. Your individual survey data will not be shared in any way with, or be identifiable to, your institution or workplace. Study data will be kept for seven years, as per Western policy, and will then be destroyed. Representatives of the Western University Health Sciences Research Ethics Board may require access to your study-related records or follow-up with you to monitor the conduct of this research.

Voluntary participation

Participating in this study is completely voluntary and does not prevent you from participating in any other research studies at the present time or future. No legal rights are waived by signing the consent form. You have the right to exit from this survey at any time without explanation by closing your internet browser prior to completing all questions. You may refuse to answer questions or withdraw your participation as well as any data collected from you up to that point, anytime during the study up until before publication. Once the study is published, you can no longer do that. Withdrawal of consent at any time will have no effect on your association with your respective pelvic health clinic.

Contacts for questions

If you have any questions or would like more information about the study or your

participation in it, you may contact the Principal Investigator, Dr. Samantha Doralp at *(email redacted)*,(*contact redacted*) , or the graduate student/study coordinator, Sania Khalid at (*email redacted*)If you have any questions about your rights as a research participant or the conduct of this study, you may contact The Office of Human Research Ethics (*redacted)*, email: *redacted*). The REB is a group of people who oversee the ethical conduct of research studies. The HSREB is not part of the study team. Everything that you discuss will be kept confidential. You do not waive any legal rights by signing this consent form.

Thank you for considering participation in this study. We appreciate your time and interest.

Please sign the informed consent below if you're interested in participating in this study. If you do not wish to participate, you can close this form and not continue.

Consent Form (Research Participant)

CONSENT

I (participant) have read the Letter of Information, have had the nature of the study explained to me and any questions I had, have been answered. I agree to take part in this study. By electronically signing my name below and completing the following survey, I (participant), acknowledge the statement above to be true and understand I am providing informed consent to participate in this survey and the following study, if considered eligible.

Please write your full name: _____

Date (mm/dd/yyyy): _____

Signature: _____

- o I agree to participate in the individual interview only.

- I agree to participate in the focus group session only.
- I agree to participate in both the interview and the focus group session.

***This portion is to be filled by the researcher obtaining informed consent.**

I (researcher) have explained to the person named above the nature of the study, answered all questions they had and obtained their consent for participation in this study. They will be provided with a copy of this signed and dated informed consent form.

Full name: _____

Date (mm/dd/yyyy): _____

Signature: _____

Appendix IV- Screening Survey

Screening Questionnaire (PTs)

The following information will be used to confirm eligibility to participate in a semi-structured interview and/or a focus group session. All information will be kept confidential.

1. Are you able to read, comprehend and speak in English?

○ Yes, I am able to read, comprehend and speak in the English language.

○ No, I'm am not able to read, comprehend and speak the English language.

2. Are you a rostered pelvic health physiotherapist?

○ Yes, I am a rostered pelvic health physiotherapist.

○ No, I am not a rostered pelvic health physiotherapist.

3. Do you currently provide or have you previously provided virtual pelvic health physiotherapy services?

○ Yes, I have provided virtual pelvic physiotherapy sessions in the past.

○ Yes, I'm currently providing pelvic physiotherapy services.

○ No, I have no current or prior experience with providing pelvic care virtually.

4. How many years have you practiced as a physiotherapist?

_____

5. How many years have you practiced as a pelvic health physiotherapist?

_____

6. Since how long have you been providing virtual pelvic physiotherapy services? (Years/months/days)

_____

DEMOGRAPHIC QUESTIONS

7. Name (First Name and Initial of Last Name; Example Suki T.)
8. Please provide your valid Email ID (required for contact purposes).
9. How do you self-identify in terms of gender?
10. How do you identify your 'race'/ethnicity? Check all that apply.
    - African/Black (including African-American, African-Canadian, Caribbean)
    - East Asian (e.g., Chinese, Taiwanese, Japanese, Korean, etc.)
    - European/White
    - Indo-Caribbean, Indo-African, Indo-Fijian, West-Indian
    - Latin, South or Central American
    - Polynesian (e.g., Samoans, Tongan, Niuean, Cook Island Māori, Tahitian Mā'ohi, Hawaiian Mā'oli, Marquesan, New Zealand Māori)
    - South Asian (e.g., Afghan, Nepali, Tamil, Bangladeshi, Pakistani, Indian, Sri Lankan, Punjabi)
    - Southeast Asian (e.g., Vietnamese, Thai, Cambodian, Malaysian, Filipino/a, Laotian, Singaporean, Indonesian)

- West Asian (e.g., Iraqi, Jordanian, Palestinian, Saudi, Syrian, Yemeni, Armenian, Iranian, Israeli, Turkish)
- Indigenous within Canada (e.g., First Nation, Métis, Inuit)
- Prefer not to answer.
- Prefer to self-identify:

  _____

Consent for Compensation

Do you wish to receive a grocery store gift card to compensate you for your participation in the individual interview and give your consent to receive an electronic code via email to avail of it?

○ Yes, I wish to be compensated for my participation in the individual interview and consent to receive a code via email.

○ No, I do not wish to be compensated for my participation in the individual interview nor consent to receive a code via email.

https://uwo.eu.qualtrics.com/jfe/form/SV_0UPnBCPdXCUJ7zo

Appendix V- Email Script to schedule interviews

Hello,

Thank you for agreeing to participate in this study titled '***Exploring barriers, facilitators, preferences and potential disparities in virtual pelvic physiotherapy'***. You have met the eligibility criteria, and we look forward to scheduling you for the interview session.

Please provide a few options for your preferred days and time in the coming week, for the individual interview, to be held on Zoom and I'll let you know too which day or time works best for me.

The focus group session with physiotherapists will be scheduled following the completion of all individual interviews and will depend on the availability of all participating pelvic physiotherapists. We are planning for the focus group session to be scheduled in early May 2024.

I will be sharing a copy of the signed informed consent with you, before the interview. Looking forward to hearing from you soon.

Thank you once again for your cooperation in this regard.

Best regards,

Sania Khalid
DPT, MSc. Candidate
Health and Rehabilitation Science
Western University

Appendix VI; Interview Guide

Interview Guide for Research Participants (Pelvic Physiotherapists)

Thank you for meeting me today and for participating in this study.

Preamble:

We are meeting today to discuss your experience with offering virtual pelvic physiotherapy services. This interview will take approximately 30-60 minutes and will be audio-recorded.

Please note that at any time during this interview, you may pause to reply to or skip any questions. Once you feel comfortable and ready to start the interview, I will begin the audio recording. Are you ready to begin?

QUESTIONS:

1. Can you tell me about your experience with virtual pelvic physiotherapy?
2. Can you describe how you structure a virtual pelvic physiotherapy session?
3. Is a virtual pelvic physiotherapy option offered to everyone? If not, how is it offered to clients and what factors do you consider when offering it to clients?
4. How has virtual pelvic physiotherapy been different for you compared to in-person care?
5. Can you describe any challenges in offering virtual pelvic physiotherapy sessions?
6. What are some challenges you feel your clients have experienced in accessing or receiving virtual pelvic physiotherapy?
7. Do you think virtual pelvic physiotherapy disadvantages particular individuals?
8. What do you perceive are the advantages of virtual pelvic physiotherapy for your clients?
9. In general, has a virtual option improved the delivery of pelvic physiotherapy care?
10. What would you change about the provision of virtual pelvic physiotherapy care?

Additional prompts:

Can you please elaborate on that?

How so?

CURRICULUM VITAE

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