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STUDENT REPORT

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A qualitative study of the role of technology in video-conferencing psychotherapy: exploring the relation between Clients, Psychotherapists, and Technology

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Rendsburggade 14,
9000 Aalborg
Denmark

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Stine W. Adrian
Student:
Camilo Henríquez

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Abstract

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Starting from a post-phenomenological stance to explore video-conference psychotherapy, I reflect on Enactivism to give sense to the phenomena of video-conferencing psychotherapy and promote responsible technological design and innovation for tele-psychotherapy.

The research relies on qualitative methods including autoethnography and interviews to 8 psychotherapists and 8 clients, grasping the subjectives experience of participants doing video-conference psychotherapy (VCP). Results reveal that technology is already shaping psychotherapeutic methods and practices, changing communication dynamics, bringing new privacy concerns, and allowing new tools to deal with mental health problems. A discussion is developed around the risks and opportunities that emerge from the mediating role of technology in psychotherapy, inviting further research to keep exploring the technological mediation of tele-therapeutic alliance and ethical practices.

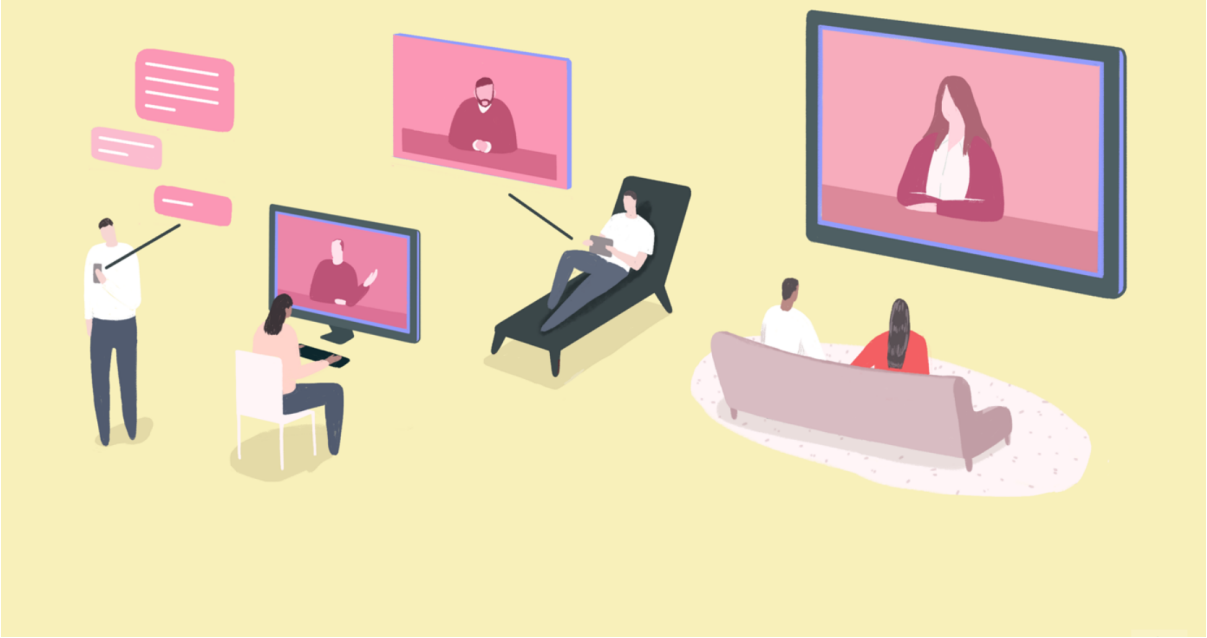
MSc in Techno-Anthropology

A Qualitative Study of the Role of Technology in Video-Conferencing Psychotherapy: exploring the relation between clients, therapists, and Technology

Camilo Ignacio Henríquez Jaña

Supervised by Stine W. Adrian

3th June 2022



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I would like to extend my sincere gratitude to the participants that made this research possible. They shared very intimate experiences with me, choosing to trust and contribute to the practice of video-conferencing psychotherapy completely for free and good will.

I also want to give special thanks to my family and friends, especially to my dear Kristina, who endured my mood during this final sprint of extra work, obsessive talking about the topic, and lack of sleep. Despite this, she manages to inspire me and keep me on track.

Finally, I want to thank my supervisor, Stine W. Adrian, who gave me an important push and boost of confidence to develop this research. Even though we never met in person during this research, I felt very supported and understood, and without her this paper would have not been so inspiring to me.

Project's Motivation

Since I was a teenager I have been very interested in technology, computers, and artificial intelligence. My first dream as a kid was to become some kind of expert in computers, but life had other plans for me.
I grew up in Santiago, Chile. My school didn't have an education program involving Informatics systems or computer engineers, instead, it was full of conflicts and social vulnerabilities that required a lot of empathy, social skills, and problem-solving. In this context, plus a strong challenge of my family dealing with my mother's mental health problems (anxiety, depression, and bipolar disorder), I decided to become a Psychologist and advocate my life to craft mental health solutions.
However, my interest in technology was still there.

During my beginner time doing psychotherapy, I found many instruments that ease the process of evaluation, intervention, and research. Over time, the first online personality inventories started to appear to assist evaluation, and similar processes occurred with computer-generated treatments and online interventions. Sadly, the psychologist community of Chile would not approve of online psychotherapy or tele-psychotherapy (yet), thus education in this field was not an option. Nevertheless, I kept being very familiar with technology at a basic level, and continued looking for ways to enhance the psychotherapy process. Eventually, working in a Regional Public Institution that required me to travel long distances to visit children at their homes, schools and coordinate with other similar institutions, I got the authorization to do "online psychotherapy " if the weather conditions didn't allow me to visit the place. During these sessions, I experienced the power of tele-psychotherapy: it was possible to contain a panic attack through a virtual meeting, and help people that could not receive therapy by traditional ways. It was a refreshing experience that pushed me to look for more opportunities to study, even outside Chile.

At the present, I'm in my 10th Semester of the Master Program of Techno-Anthropology at Aalborg University, and I have been doing tele-psychotherapy to internationals during my entire stay in Denmark. During these two years, I managed to integrate my techno-anthropological lenses to develop awareness regarding the important roles of technologies in society and the relevance of researching how technologies shape healthcare, specifictly, psychotherapy.

My last student project is about the current needs and opportunities of collaboration between psychotherapists, clients and technology in Denmark, where digital solutions are supported by public institutions and tele-medicine is arising as a solution for mental health problems.

Abstract

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1. Introduction

This paper is about video-conference psychotherapy, specifically psychotherapy mediated through audio-visual stream technologies like Zoom, Meet, Skype, and similar. The goal is to explore and describe the experiences of psychotherapists and clients practicing video-conference psychotherapy, hoping to gain insights about current challenges, ethical problems, therapeutic limitations, and the mediation role of technology in Psychotherapy. A strong motivation of this research is the innovation opportunities that tele-Psychotherapy offers, building bridges to bring emergent new technologies (such as artificial intelligence, web 3.0, virtual reality, among others) as solutions to responsible enhance the process of tele-Psychotherapy for therapists and clients.

Before the appearance of the internet, technological solutions were already invading the working labor and creating societal problems: making jobs disappear, demanding workers to acquire technical knowledge, or creating asymmetrical socio-technical configuration that would change the status quo in organizations and families (Grimes and Feenberg, 2013).

In the present, digital technologies can be found in every dimension of human life. We have tools and apps for dating, eating, learning, working, sleeping and to treat our mental health problems, among other private dimensions of our lives; and just like before, these technological solutions are having an impact on society, individuals and perception of problems (Liu et al., 2018; Børsen, 2020).

Through my journey of learning Techno-Anthropology, understood as the discipline effort to study the social impact of the relationship between technology and society (Børsen, 2020), I spotted a knowledge gap worth exploring in the phenomena of psychotherapy mediated by technology, specially in video-conference Psychotherapy or Tele-Psychotherapy (APA, 2013), where therapists and clients engage in psychotherapy assisted by a video streaming technology in a virtual space.

As a Clinical Psychologist, I have been very interested in the benefits and risks that digital technologies can offer to psychotherapy, especially during the last pandemic times, which has given an ideal context for society to rely on psychotherapy mediated by technology. Currently, there are many different ways to use technology to improve mental health: Online Psychotherapy, Digitally mediated psychotherapy, text based psychotherapy, internet-based psychotherapy, just to mention some possibilities (Backhaus et al., 2012; Whitty and Young, 2016) .

However, does psychotherapy mediated through technology follow the same process as traditional presencial psychotherapy? Is It safe and useful to practice psychotherapy with a machine mediating the communication through client and therapist? What is really happening in the relationship between client, therapist and technology?

The discipline of psychology can't really answer these questions without borrowing knowledge from other disciplines, and Techno-Anthropology and its interdisciplinary essence, has very relevant insights to explore technological mediation in tele-psychotherapy and its consequences for individuals and society.

This project will focus mainly on video-conference Psychotherapy, understood as a psychotherapy process between a therapist and clients mediated by video streaming technology and supported by digital technologies. In my own experience, video stream technologies and Information Communication Technologies (ICTs) bring unique opportunities to increase access to mental health solutions to vulnerable sectors, beyond physical space, countries, and even cultural boundaries.

Therefore, my research goal is to contribute to the responsible design and innovation of technology to assist tele-psychotherapy's development.

1.1 Research Relevance and Justification

According to the WHO (2022), mental health problems related to anxiety and depression have been increasing over the last decades. Additionally, There are multiple headlines and academic articles highlighting the negative consequences of the COVID pandemic in society, affecting mental health of young adults mainly (Torales et al., 2020; Piltch-Loeb et al., 2021).

This reality is very present in Denmark, where the current public offer to cover mental health problems is overwhelmed, offering clients between 3 or 4 months of waiting time to access a psychologist for free (Dansk Psykolog Forening, 2022). Despite these efforts, the current situation forces clients to seek help in the private sector, conditioning clients to pay their own psychotherapy fully to get help in proper time, which can be expensive or impossible to vulnerable people (DR, 2022; Clementsen, 2021). In this context, tele-psychotherapy appears as a cheap and comfortable solution, where psychotherapists may charge a lower price saving transportation time and other expenses in office rent, secretaries, printing, etc.

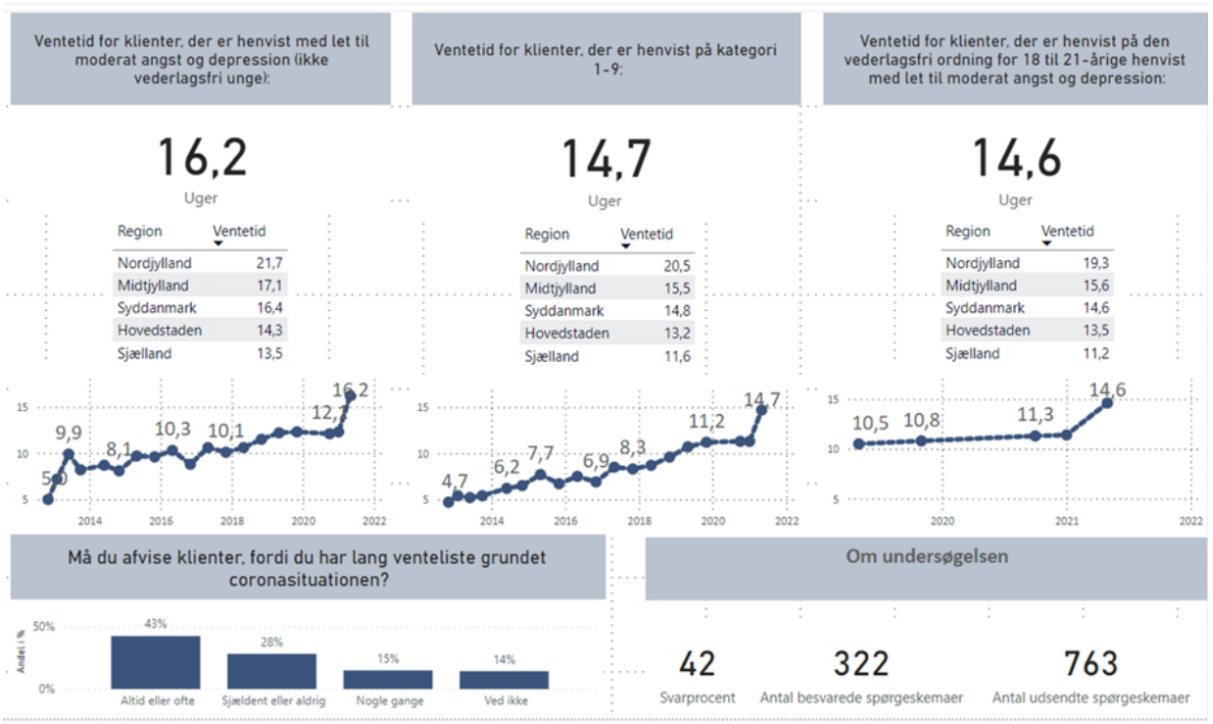

Figure 1. Waiting time list for Psychologists in Denmark (Dansk Psykolog Forening, 2022)

Due to the COVID pandemic, the adoption of tele-health and video-conference Psychotherapy has been accepted by most psychotherapists and clients (Hanley, 2020; Bekes and Aafjes-van Doorn, 2020), significantly increasing its practice. .

In this context, exploring and reflecting about the consequences of the transformation of psychotherapy due to technology seems relevant for the future of psychotherapy and the treatment of mental health disorders. Video-conference Psychotherapy offers benefits regarding commodity, immediate response, environment, and accessibility, but also offers risks regarding privacy, lack of ethical and professional guidance in its practice, loss of non-verbal communication, and slowly changes traditional psychotherapy practice to fit the online modality that technology offers (Hanley, 2020).

Through this research, I'll offer a reflection regarding the role of technology transforming psychotherapy, seeking to share stories from clients and psychotherapists to illustrate these changes and discuss the mediating role of technology to deal with mental health problems.

In a further effort, this report aims to contribute to responsible research innovation in the field of video-conferencing psychotherapy sharing insights about key technological affordances for psychotherapy.

1.2 About Psychotherapy and Technology: a brief introduction.

This section encompass a literature review built querying keywords like: "psychotherapy", "online", "tele-psychotherapy", "e-health", "e-psychotherapy", "online psychotherapy", "technology", "video-conference", and "embodiment". The databases searched include Scopus, Psychs, Google academic, Google, AAU bibliotek and social media like Reddit, Facebook, Quora and Twitter. The results were discriminated against according to my previous knowledge in psychology and my personal-professional experience.

The aim is to give readers a quick understanding of 1) what psychotherapy is and what is important for successful application, and 2) how it has been changing through technological developments, bringing new solutions and problems.

Insight of these contexts assist the exploration of technological mediation of psychotherapy based on current literature on the topic.

1.2.1 What is psychotherapy?

Defining psychotherapy is a challenging task if you want to avoid a controversial discussion. The different theoretical framework to understand human behavior within psychology dictate significant differences on the concept of psychotherapy. However, Wampold and Ime (2015) shared a broad and inclusive definition in their endeavor to understand what makes psychotherapy "therapeutic":

> *"Psychotherapy is a primarily interpersonal treatment that is a) based on psychological principles; b) involves a trained therapist and a client who is seeking help for a mental disorder, problem, or complaint; c) is intended by the*

therapist to be remedial for the client disorder, problem, or complaint; and d) is adapted or individualized for the particular client and his or her disorder, problem, or complaint." p. 37

Following Wampold and Ime (2015), this definition invites to consider as psychotherapy also treatments that don't involve psychotherapists directly, as computer-mediated cognitive therapy, and audio tracks to deal with anxiety, among others. However, for this research I will only focus on the psychotherapy provided through video-call by psychotherapist in order to reflect deeply on this experience.
In the same direction, some alternative interventions to improve mental health like praying, culture rituals, and zodiac or occult based treatments are not included in this definition of psychotherapy, even though these practices may bring psychological health to some clients.

Additionally, psychotherapy usually comes with common practices and terminology that help scholars to organize therapeutic concepts and treatments. According to Grünbaum (1981), the therapeutic theory (ψ), advocates the use of a particular treatment (t), to remedy specific mental disorders (D), demanding the inclusion of constituents (F) that are promoted by the therapeutic theory.

From another view:
ψ = Therapeutic Theory (eg. Psychodynamic theory)
t = treatment (eg. Psychodynamic treatment)
D = disorder (eg. Depression)
F = constituents traditional from ψ (eg. Family relational analysis, free association).

Grünbaum (1981) also included incidental aspects of psychotherapy (C) in order to make room for transversal practices of psychotherapy that are not rooted to a single theoretical framework, such as therapeutic alliance, empathy, active listening, etc. Wampold and Ime (2015) described them as "common factors" in psychotherapy, which help to understand the pseudo-flexible nature of psychotherapy. These common factors can include methods that are not central to the main psychological theory used to understand the disorder, but still are useful to treat the disorders. In other words, this explains why it is common that different psychotherapeutic treatments share some practices and methods, even though they approach mental health disorders from different epistemologies.

The matter of "what" makes psychotherapy useful is a big debate that is relevant to understand what practices, methods or tools are essential to deliver a successful and ethically responsible psychotherapy, especially when the mediation of technology could influence the psychotherapy process.

The reader should know that Psychotherapy has been a controversial concept since its very beginning, and today still appears irreconcilable among mainstream psychological theories. This topic
may create dissatisfaction among psychotherapists with a single theoretical model, which facilitates the emergence of theoretical integration, technical eclecticism (borrowing techniques from different psychological theories), and common factors in psychotherapy treatments (Arkowitz, 1992).

1.2.2 What is the essential of psychotherapy?

Frank and Frank (1991) described the key factors shared by main approaches to psychotherapy. The first factor is that psychotherapy involves a confiding relationship with a helping person (i.e., the therapist). The second factor is that the context of this relationship is based on a healing process, in which the client believes can provide help. The third factor is the clear existence of a rational theory, conceptual scheme, or myth that explains the client's symptoms, which is accepted by therapist and client, even if it is not "true" (scientifically proven). However, the rationale for the treatment must be consistent with the world view of the client or, alternatively, the client should be open to adopting this rationale from the therapist. The final factor is a procedure involving the active participation of both client and therapist, which is consistent with the rationale that was previously accepted by the client.

Following The Great Psychotherapy Debate on Wampold and Imel (2015) analysis, the main common factors that predict psychotherapy outcome are:

- Allegiance, which refers to the degree of trust of the therapist in the treatments she/he offers. Truly believing and promoting the psychological theory and treatments they offer have a positive correlation with psychotherapy benefits.
- Therapeutic alliance, referring to the pan-theoretical construct involving agreement about goals and tasks of therapy (therapeutic relationship), and the bond between the client and the therapist. Early change and less initial distress during the first session are associated with better alliances (DeRubeis et al., 2005). Please note that in this paper I'll refer to the therapeutic relationship as a concept included in the therapeutic alliance.
- Empathy, the process where an individual shares the emotional state of another, interpreting the reasons for another's state, and adopting his or her perspective, as a necessary skill for cooperation, goal sharing, and the regulation of social interaction (Niedenthal & Brauer, 2012).
- The client's expectations, created through an explanation of the client's disorder based on a psychological theory that is familiar or accepted by the client's cultural beliefs (Constantino et al., 2011).
- Cultural adaptation of treatments, which refers to adapting the treatment rationale to the client's cultural beliefs in regard to mental illness (Benish et al., 2011).

Among all these common factors, the therapeutic alliance is the most empirical factor to predict the outcome of a psychotherapy process (Wampold and Imel, 2015), which facilitates symptom reduction (Hoffart et al., 2013).

This brief introduction to psychotherapy inside mechanism is meant to help the reader understand how technology mediation of psychotherapy can influence essential factors of psychotherapy, affecting its outcome.

1.2.3 Digitalization and the transition to Online Psychotherapy.

Technological digitalization and innovation have been transforming our society configuration, leaving a clear impact on modern businesses, organizations and services (Liu et al., 2018). The social shifting that digital technologies causes in our society are also called the 4th Industrial Revolution (Schwab, 2016), pointing to the rapidly evolving value-creation across a broad range of industries, such as healthcare, education, public governance, and others, which changes the meaning and practice of work, relationships, organizations and society (Ross and Maynard, 2021; Liu et al., 2018).

In the case of psychotherapy, the main technologies allowing the transformation of traditional settings have been the information and communication technologies (ICTs), such as the Internet, mobile devices, virtual reality (VR), and similar (Castelnuovo et al., 2003; Riva and Mantovani, 2012). The first iconic outcome of technology and psychotherapy was Eliza (Weizenbaum, 1966), the first bot to use natural language processing to deliver interpersonal psychotherapy based on client-centered psychotherapy. Since then, much has happened, and these ubiquitous technologies have expanded the ways in which treatment can be provided. Therefore, psychologists are expected to include these innovations into their practice and research (Barak, 2008).

From this socio-technical digital transformation process also emerged the discipline of cyberpsychology, which seeks to study the human-technology dynamic from a contextual and phenomenological approach, inspired from Human-Computer Interaction, but focus on the psychological impact of the use of technology (Harley et al., 2018). The interest of the discipline dive into multiple psychological concepts related to the self, identity, belonging, relationships and other human experiences that can be mediated through ICTs, seeking to use technology to improve mental health, wellbeing, and personal development (Whitty and Young, 2016). In this context, E-therapy, understood as the use of technology to provide professional mental health services online (Manhal-Baugus, 2001), was the first practical attempt of cyberpsychology to have an impact on psychological treatments. However, e-therapy as a concept, embraces many types of technologies to deliver psychotherapy, like internet-based therapies, text based treatment in real time (chat) and asynchronous (emails), voice-call therapy, smartphone apps, video-conferencing therapy, virtual reality therapy (Whitty and Young, 2016), and digital enabled therapy (NICE, 2022). Additionally, cutting edge technologies also allow new types of psychotherapy through augmented reality, intelligent wearables, and artificial intelligence (Luxton et al., 2016).

Despite the new technological developments, the community of psychotherapists and counselors have traditionally shown resistance to adopt online practices to deliver psychotherapy. There have been concerns about the limits of technology to mediate psychotherapy (Rochlen et al., 2004; Baker and Ray, 2011); doubts regarding the quality of the therapeutic alliance (William et al., 2009), and ethical issues related to risk managing, privacy, and needs of special training, among others (Stoll et al., 2020; Hoffman, 2020). However, quantitative and qualitative research have been pointing out the benefits and efficiency of online therapy, especially for young people who are more familiar with the use of technology and its affordances (Ersahin & Hanley, 2017; Hanley & Wyatt, 2020; Hanley et al., 2019; Cataldo et al., 2021).

In this scenario, with COVID-19 pandemic crisis, psychotherapists around the world were forced to adapt their services to the online realm and overcome their historic resistance to the use of technology in psychotherapy. According to Zielona-Jenek et al. (2021), the number of psychotherapists trying online psychotherapy has increased from 6% to 75% during the COVID Pandemic.
This dramatic turn of events brought attention to the minority of researchers exploring the benefits and risks of e-therapy, and facilitated the acceptance and innovation of psychotherapy through emerging technologies, especially through video-conference (Hanley, 2020; Bekes and Aafjes-van Doorn, 2020).

1.2.4 Focus on Video-Conference Psychotherapy

Reviewing the literature about technologies and healthcare, it is possible to find multiple definitions that encompass similar concepts, like e-health, telehealth, telemedicine, telepsychiatry, online therapy, and more (Grady et al. 2011; Harris and Birnbaum, 2015; Stoll et al., 2020). For this research, I'll advocate for the definitions that make more sense with the literature and my own experience, choosing the concept of Telehealth as the practice of using technologies to mediate a therapeutic session between a healthcare professional and client, with the intention of overcoming geographical limitation, symptoms barriers or other obstacles (Field, 1996; Barak et al., 2008;).

Video-conferencing psychotherapy (VCP), which allows video and audio information to be shared synchronized in real time, is one type of telehealth that can give clients access to mental health professionals with specialized expertise (Mair & Whitten, 2000).

This project focuses only on psychotherapy mediated through video-conference technology. The reasons to research video-conference psychotherapy are justified by my unique access to this data, considering that I have been providing VCP and journaling my experience for more than two years since March 2020. Additionally, psychotherapists and clients have increased the acceptance of video-conference psychotherapy due to COVID restrictions to meet in person (Bekes and Aafjes-van Doorn, 2020; Owen, 2020), and it is expected that VCP adoption keeps increasing based on consistent research outcomes proving its efficiency to develop therapeutic alliance (Simpson and Reid, 2014) and treatment of mental health disorders (Backhaus et al., 2012; Yellowlees, 2016; Cataldo et al., 2021). Additionally, recent research indicates that there are not significantly different outcomes between VCP and traditional psychotherapy (Greenwood et al., 2022). However, it is still early to generalize the outcomes of VCP, especially for individuals with severe mental illness (Markowitz, 2021; Greenwood et al., 2022).

1.2.5 Benefits and Risks of Video-Conference Psychotherapy

According to the literature in regard of ethical issues (Stoll et al., 2020) the top five ethical arguments supporting online psychotherapy are (1) increased access to psychotherapy; (2) therapy benefits and enhanced communication; (3) advantages related to specific client

characteristics (e.g. geographic limitation, expats seeking psychotherapy within their culture); (4) comfort, acceptance, and increased demand; and (5) economic advantages.
On the contrary, the top five ethical arguments against it are: (1) privacy issues; (2) therapists competence and lack of technological knowledge; (3) communication problems due to technology; (4) research gaps in the topic; and (5) emergency risk management.

Exploring more the top arguments against VCP, the problem of privacy is based on the level of security that ICTs software provides to protect client's identity and confidentiality. Regarding therapist's competence to deliver VCP, the main argument is that psychotherapists are commonly trained to deliver therapy in real time and space, which doesn't assure their ability to conduct psychotherapy through technologies. Also, psychotherapists may not have sufficient technical and IT knowledge to assist clients to set the equipment properly. In relation to the issues of communication, Stoll et al. (2020) wonder about the limitations of non-verbal information, which could lead to misunderstandings in the psychotherapist-client relationship. Therapists can't tell as well as in real life what the client is feeling; if he/she is paying attention to the dialogue or is distracted surfing the web. Additionally, therapists can't offer emotional containment to clients with a tissue or a hug if needed, which requires new strategies to simulate "presence" in the virtual world (Markowitz et al., 2021). Additionally, some therapists acknowledge their lack of knowledge about how effective online psychotherapy is compared to direct traditional psychotherapy, which immediately compromises allegiance as an essential factor for successful psychotherapies; psychotherapists are rarely trained on how to perform psychotherapy online or tele-psychotherapy, especially in regards to promoting acceptance of tele-psychotherapy (APA, 2013), addressing privacy concerns, and creating the feeling of presence in the virtual space (Daele et cols, 2020). Finally, there are common worries about how to handle emergency situations like sudden interruptions, suicide management, and similar (Stoll et al., 2020).

Complementary, Rutkowska (2021) reviewed 52 ethical codes based on 5 continents (America, Europe, Australia, Asia, and Oceania), trying to define principles and guidelines to practice psychotherapy online. As a first statement, none of the codes reviewed reported that online therapy could be an unethical form of work. Beside this, all the ethical principles relating to traditional psychotherapy also applied in online psychotherapy.

Following Rutkowska's reflections, it is important that psychotherapists have three types of competence: technical, knowledge about psychological processes specific to online therapy, and knowledge about regulation in the field. The technical skills are related to the use of software and basic IT knowledge in order to conduct online psychotherapy. In terms of knowledge about the specifics of online psychotherapy, it is important for the psychotherapist to be aware that distance therapy is different from traditional psychotherapy in the same physical space and what this difference is about. Complementary, being updated on the current clinical research is also a must, as well as counting with a solid theoretical base to include new technologies in the psychotherapy process.

1.3 Problem analysis: taking the active role of technologies in the psychotherapy process for granted.

The boom and acceptance of Video-Conferencing Psychotherapy (VCP) is happening at a fast pace and there are still research gaps to be filled regarding the role of technology during psychotherapy (Markowitz et al., 2021; Cataldo et al., 2021; Owen, 2020). Initiatives to implement VCP in large organizations keep arising (Muir et al., 2020), although the current state of art is pointing out communication barriers in VCP, which poses a potential risk into the therapeutic alliance when clients and psychotherapists adopt VCP.

Most research exploring e-health and VCP worries about ethical concerns, privacy, effectiveness, and guidelines to ensure good practices, while research exploring the mediation role of technology in psychotherapy have not been usually considered (Cataldo et al, 2021). There are not many studies reflecting on the VC software user interface, the angle of the camera, and the possibility of seeing yourself on the screen (eg. Backhaus et al., 2012; Crowe et al. 2020), which among other software affordances does have an impact on the psychotherapy process. Therefore, it is important to consider that VCP and traditional psychotherapy may be similar, but they are definitely not the same (Markowitz et al., 2021).

Is it relevant for VCP how the video-conference software interface (eg. Zoom, Skype, etc.) was designed? Is it important to consider that these softwares are not intended for psychotherapy and how the software intentions does shape VCP?

Video-conferencing technologies are described in the literature as software that provide synchronous communication for educational purposes by transmitting video, audio and data along a network of participants, facilitating communication among geographical distances (Hsiao, 2012).
Today, different VCTs rule the field of education, including FaceTime, Google Hangouts, MS Teams, Webex, Blackboard Collaborate Ultra and others (Wolfe, 2019). However, Zoom became the VCTs most popular in the education sector after the COVID-19 pandemic outbreak (Mpungose, 2021). And of course, the use of video-conferencing technologies also extended to other fields, like mental health care, and is now normal and accepted (Backhaus et al., 2012; Cataldo et al., 2021).

Only a few articles reflect about the matter of technological features for the psychotherapy process (eg. Mcclellan et al., 2020; Markowitz et al., 2021; García et al., 2022; Cataldo et al., 2021). A recent literature review on the client-psychotherapist relationship in VCP (Cataldo et al. 2021), frames technology as another member inside the psychotherapeutic process from The General System Theory (Bertalanffy, 2010) approach. They stress about the difficulty to establish trust in computer mediated systems in comparison to real person interactions (Wilson et al., 2006), as well as the relevance of other technical features like audio-video quality (Shahid et al., 2018), lack of body language (Nguyen & Canny, 2005), and specific confusions interpreting gazes due to the lack of direct eye contact (Heath & Luff, 1992). The discussion invites the reader to be aware of the technology as much more than a bridge between client and psychotherapist, which does influence in the process of building trust in the client-therapist relationship, but with a fragile base that the technology facilitates.

In this regard, trust, understood as the willingness to be vulnerable based on the positive expectations about others (Mayer et al., 1995), appears to be fundamental to develop therapeutic alliance between client and therapist, which is the most important factor to deliver a successful therapeutic outcome (Lambert et al., 2001; Wampold and Emil, 2015).

On top of this situation, there is literature indicating that the therapeutic alliance (TA) is the same during VCP as in traditional psychotherapy (Simpson & Reid, 2014; Anderson et al., 2018), while other authors claim to be the opposite (Cook & Doyle, 2002; Roesles, 2017). The controversy expands even among clients and therapists, where clients indicate no difference between VCP and traditional psychotherapy in regard to the TA, while psychotherapists indicate the contrary, suggesting that the TA is diminished in VCP (Omodei & McClennan, 2016; Cataldo et al., 2021).

Despite the confusing situation, there is a clear risk in the accelerated transition to VCP because there is no consensus yet on how “presence” occurs in VCP and which technological features facilitate the formation of trust, empathy, and other essential factors for psychotherapy. At the present moment, most psychotherapists don’t have many options but to use popular software to deliver VCP, such as zoom, skype, Meet, etc., understanding the software as a passive bridge to deliver the psychotherapy, which may not be ideal for every client, mental health disorder, or treatment.

How does technology influence the TA formation between client and psychotherapist? What other influences may technology have in VCP?
How can Techno-Anthropology and socio-technical theories bring new insights to explore the technological mediation of VC software to psychotherapy?

It is clear in our current technological era that society is driven by socio-technical factors (Børsen, 2020; Grimes and Feenberg 2013), where healthcare among other practices like psychotherapy are already being shaped by new emergent science and technologies, which could have negative consequences on mental health treatments if they are included without a reflective process.
At the moment, most literature reviewed still seems to focus more on intersubjectivity, communication, and relations between humans through technology, instead of the relation human-technology. The lack of socio-technical theories keep framing the reflection process more into humans than technological affordance and intentions, neglecting the role of technology in the VCP.

Exploring video-conferencing psychotherapy through techno-anthropological lenses, especially upon socio-technical theories that highlight the agency, mediation, and social relevance of technologies (eg.; Børsen, 2020; Rosenberg and Verbeek, 2015), would open possibilities to discover how technology changes the traditional relationship between clients and. psychotherapists, which is needed to facilitate responsible technological design and innovation, and forecast potential consequences of VCP.

1.4 Problem statement

Video-conference psychotherapy adoption is increasing as a common practice to deliver mental health treatments, while video-conference technology is usually perceived as a passive transmitter-communication tool.
Ignoring the role of technology in the client-therapist relationship poses a risk for the practice, especially in the development of the therapeutic alliance, which is a common factor in psychotherapy to predict outcomes.
The lack of relevance given to technology and the early research state in the topic, poses a risk to future telehealth technological innovations and its design, which may not arise from a reflective and grounded analysis of technological mediation of psychotherapy.

From a consequentialist approach, VCP could transform telehealth treatments and practices.Therefore, exploring the role of technology in VCP would bring access to responsible innovation in e-therapy, tele-health, and video-conferencing psychotherapy to enhance therapeutic outcomes.

1.5 Research Questions

Main general question:
What is the role and impact of technology mediation in video-conferencing psychotherapy? How do psychotherapists and clients experience psychotherapy mediated by video-conference technology?

Sub questions:
What are the main practices of psychotherapists and clients in video-conferencing psychotherapy?
What practices of psychotherapy have changed in video-conferencing psychotherapy?
What technological affordances of video-conferencing shapes the psychotherapy experience?
What are the main problems and concerns of psychotherapists and clients regarding online psychotherapy?
What technological affordances are involved in therapeutic alliance formation?

2. Theoretical Framework

This section covers the theoretical framework for the reflection and interpretation of the empirical data. The effort seeks to frame psychotherapy as a social-relational practice, to introduce two complementary theoretical frameworks (Post-Phenomenology and Enactivism) to explore the role and influence of technology in video-conference psychotherapy

2.1 Psychotherapy as a social practice of healing.

Humans can be understood, from an evolutionary perspective, as a social species (Wilson, 2012), whose main advantage over other species arises from the ability to think socially and seek group cooperation to deal with common problems (Lieberman, 2013).

When it comes to “healing”, there is vast evidence suggesting that human civilizations deliver healing through social means, translated into designated healers to elaborate explanations for illness and rituals/procedures to cure people (Wilson, 1978; Shapiro & Shapiro, 1997).

Mental health and wellbeing are not simple conditions of an individual. They are rooted in complex social dynamics, thus psychotherapy could also be understood as a social healing practice that relies on the context of the individual (Wampold and Imel, 2015).

The contextual Model of Psychotherapy described by Wampold and Imel (2015) incorporates a social view of psychotherapy, where the relationship with the psychotherapist is the most important aspect of the process. The model relies on three fundamental pathways that begin to develop right after the initial therapeutic bonding, in which the first impressions and judgments of clients are made when meeting their therapist. The process allows clients to discriminate if the therapist is trustworthy based on the therapist’s verbal and non-verbal communication, dressing style, and office background, among other details (Willis and Todorov, 2006). This assessment process is easier for clients when they are already familiar with psychotherapy and seek the service with expectations based in their own culture and social network.

The three pathways are:

1. The real relationship. Refers to a genuine encounter between client and therapist in which both feel understood and safe to be authentically themselves, facilitating an open and honest conversation. Being able to understand each other is supported by synchrony in vocal tone (Imel et al, 2014) and non-verbal movements (Ramseyer and Tschacher, 2011), where the achievement of human connection with an empathic and caring individual becomes a factor that enhances mental health. Empathy is the fundamental skill to achieve the real relationship, which is also the most consistent predictor of psychotherapy outcome (Elliot et al., 2011; Moyers and Miller, 2013).

2. The expectations. Client’s expectations can work as placebo for positive outcomes and most clients reach out to psychotherapy hoping to find a way to feel better. The ability of the therapist to provide a coherent narrative which explains the client’s

problem, along with a therapeutic goal and tasks, is a strong predictor of outcome across treatments (Horvath et al., 2011).

3. The special ingredients. After an intervention plan is defined, specific therapeutic actions are required to induce clients to change their perceptions, behaviors and practices in regard to a particular disorder. In most cases, the specific techniques change client's cognitions about the world through different approaches (analyzing thoughts or analyzing family dynamics) and facilitate the process of overcoming symptoms through exposure to the avoided topic, emotions or object.

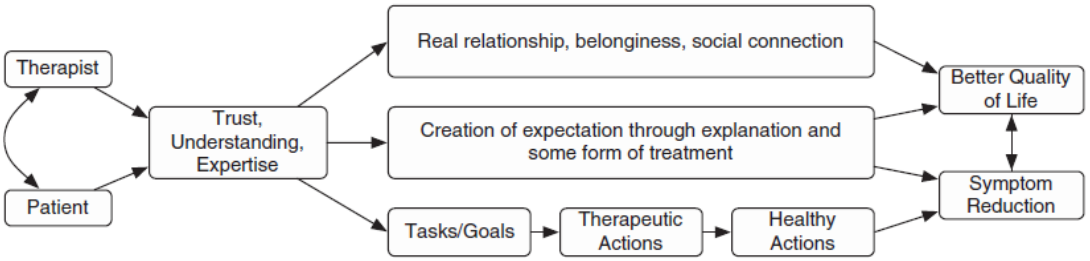

Figure 2: Diagram explaining the contextual model of psychotherapy (Wampold and Imel, 2015. pp, 54).

2.2 Post-Phenomenology and technological mediation

Understanding psychotherapy from a contextual model allows highlighting the relevance of the client-therapist relation and its environment. In the case of traditional psychotherapy, the phenomenon is situated in a common shared space and time zone, where client and therapist interact through their biological bodies, trying to understand each other to fulfill mutual expectations of solving a given psychological problem. For the case of video-conferencing psychotherapy (VCP), the phenomenon is situated in a digital connection, in which a device facilitates the audio-visual communication between client and therapist, while they are both in different spaces, sometimes also different time zones, trying to understand each other to fulfill mutual expectations of solving a given psychological problem.. The devices act as embodied personification of each other, talking, hearing and seeing for the client-therapist.

Can technology have an impact on the psychotherapy process?

According to Rosenberg and Verbeek (2015), Post-Phenomenology, inspired by traditional phenomenology, focuses on how humans experience the world mediated by the relation between human and technology. This philosophical stance poses technologies as more than instrumental objects, claiming that technologies mediate human experience and practices. The theory gives material objects and technologies a key role in how humans develop their subjective perceptions of the world.

The mediation theory of technology was founded by Don Ihde (1990), and has been further developed by researchers interested in the role of technology in human interactions and practices (Rosenberg & Verbeek, 2015). The core idea states that human interactions with technology mediate a unique experience of the world as a result of the relation of human and technology. A traditional example is the use of optic eyeglasses, which allows humans to perceive the world in an intended improved way. Additionally, this mediating effect also facilitates action and practices in the world, which is also mediated by the relation of human and technology, thus changing human subjectivity (Idhe, 1990). Continuing with the last example of the optic eyeglasses, we can reflect on how humans are shaped by the world, through technology (the eyeglasses), when they are able to perceive things that would be invisible/blurry without the eyeglasses, and interact with them. This continuous relation between human and technology creates new human technologies configuration and shapes socio-technical relations in individuals and societies (Ide, 1990; Rosenber and Verbeek, 2015).

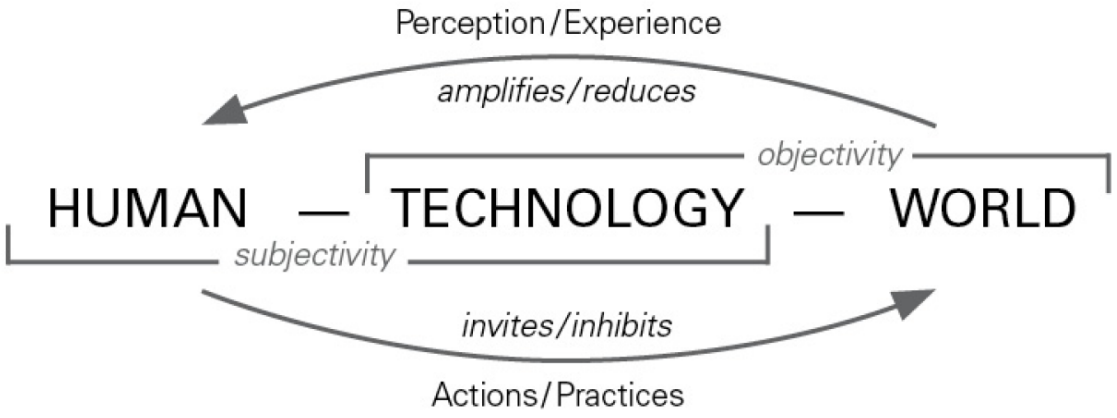

Figure 3: Technological mediation (Hauser et al., 2018)

The theory of technological mediation allows us to analyze the type of relation between technology and human in order to deeply explore the mediation role of a given technology in practice. Ihde (1990) identifies four main human-technology relations, where two seems relevant to frame VCP: the Embodiment and the hermeneutic relation with technology.

The embodiment relation can be described as the technology that transformed the user's action and perception of the world. The user's experience is reshaped by the technology, which is now "embodied" to magnify, reduce or remove the desired part of the world, while sacrificing other perceptions of the world. Therefore, the technology becomes part of the user's body perception in his engagement with the world (Rosenberg, 2012). The eyeglasses are an example of an embodiment relation, also a telescope, which allows us to see the moon with details, but removes the context of the surrounding sky and stars (Ihde, 1990).

The hermeneutic relation arises when technologies dictate how to interpret the world around us, shaping our perception of the world in a fixed way. A traditional example is a thermostat, which tells us exactly what the temperature is in the environment.

Approaching VCP as an embodied relation can help us consider what is being sacrificed to allow the digital interaction, and which new values, practices, perceptions, etc., emerge from technological mediation. The hermeneutic relation invites us to consider how technology indicates the time in another time zone, when the next session is, and what clients and therapists are saying when they activate automatic subtitles during the video call.

The concept of transparency (Ihde, 1990), which refers to the degree in which the relation with the technology makes the user forget the presence of the technology or part of it (like forgetting that one has the eyeglasses on), indicates a strong relation between human-technology. This feature is not unique to embodied relations, and develops according to the context and degree of involvement in a practice that the embodied relation allows. For example, the writer who is not constantly aware of the keyboard; or the musician playing guitar without awareness of the instrument or the need to look at it to use it.
Further on, Rosenberg (2012), reflects on the concept of transparency as a consequence of the technological relation in order to make room for other relevant mediation consequences of technology: the field of awareness. In few words, Rosenberg defines “field composition” to highlight the change in the structure of awareness of the world that embodied relations afford, in which some features of the world remain and others disappear. Along with this definition, Rosenberg introduces the variable “sedimentation” to grasp the degree of habituation of an individual with a given technology, which would develop through accumulated experience of the individual using a technology and would increase the degree of transparency and field composition in a technological-human relationship.

Post-phenomenology suggests a relational ontology to understand the world, which allows us to explain the emergence of the experience from the intentionality of the relation human-technology-world. In other words, it provides a framework to consider how material objects invite humans to act and think in a direction suggested by the design of the object/technology (Verbeek, 2006). This doesn’t mean that humans are limited to what technologies awaken in them, but the intentional relation between the human subjectivity and the technology’s affordance is highlighted, which is the source of how the world is perceived and experienced by humans (Verbeek, 2006).

Following this logic, VC software (Zoom, Skype or Microsoft Teams, etc.) carries with the intentions of its designers. It comes with affordances to facilitate audio-visual communication in online meetings and lectures: it captures voice sound and visual data, it shows the faces of the participants, it forces participants to take careful pauses when speaking, and invites them to chat if necessary to interact with other participants and facilitate expressions.
However, in the relation of client and therapist, it could be a lot more than that because new intentions are included in therapeutic contexts, allowing new experiences of the phenomena. For example, in the case of Zoom’s user interface, in a psychotherapeutic context the reaction buttons may not be used or are used in different ways; the little window in the corner showing the client’s face could be distracting to follow the level of reflection that the encounter requires; the record button could raise worried thoughts in clients about the possibility of his/her session could be recorded, etc.

As consequence, it is clear that technology plays an important role in human interaction and perception of the world, where the design of technology carries an intentionality that is

distributed in the relation between human and technology. Moral and ethical practices emerging from this relation can be traced to technologies's design, which is usually framed as moral mediation of technology (Bats et al., 2013), and aim to responsibly address this matters by reflection and awareness of human-technology association (Verbeek, 2011).

2.3 About embodied cognition, enactivism and participatory sense-making

Embodied cognition and the enactive approach point out the relevance of the environment, the body, and context in the process of cognition (Di Paolo et al., 2017; Thompson, 2007; Varela et al., 1991).
Posing that cognition is embodied and not just in the brain, open discussions to reflect on how our body posture, the details in the room, and interaction with the environment, are also part of the equation to understand human cognition and the mind. As an example, we can't have the same cognitive function in an organized and clean room in comparison to a messy and dirty one. Additionally, the theory of the extended mind (Clark & Chalmers, 1998), which argues that objects/technologies act as part of our cognition resources shaping our behavior and perception of the world, also complements the principles of post-phenomenology. A typical example is the smartphone, a device that allows you to have the phone number of your close ones without memorizing it, which forms part of the cognitive steps of giving a phone call to someone close to us.
The concept that cognition is embodied and extended through artifacts, suggests that interaction with and through communication technologies constitutes cognition (Clark & Chalmers, 1998; Wheeler, 2019).

Additionally, the literature in the topic of interaction reveals a high degree of agreement regarding embodied aspects of intersubjectivity and its important role in psychotherapy (Hauke, 2016; Tschacher & Pfammatter, 2016). Intersubjectivity can be understood as the co-creation of meaning between two or more individuals (Gallagher & Zahavi, 2012), and it is developed through embodied interaction between individuals, such as gestures, gazes, body posture, rhythms, and other non-verbal communication. These interactions facilitate tuning and resonance between individuals, which mutually influence each other's affective and cognitive responses, also called participatory sense-making (De Jaegher & Di Paolo, 2007).
During social encounters, a co-regulation process arises through the coupling between individuals, which allows a relational dynamic with its own autonomy that dictates individuals' interactions. As an example of this interactional autonomy, consider how two individuals talking over the phone may say "goodbye" to end the conversation, but keep talking afterwards, re-starting the conversation. This example exposes how an individual may have an individual intention that is sometimes overwritten by the intention of the interaction between two individuals.
A key dynamic of participatory sense-making is the dialectical tension between two forms of autonomy, the individual and the interactional (Di Paolo et al., 2018). The individual autonomy comes from the own subjectivity of the individual, but the interactive autonomy is the outcome of relational patterns formed through the interactional relation between two individuals. These interactive processes emerge from intercorporeality between participants, shared as rhythms, synchrony, context, and affective resonance, which is the foundation of intersubjectivity and social cognition (Fuchs & De Jaegher, 2009). The relevance of these

topics for VCP relies on the fundamental role that embodied intersubjectivity plays in the therapeutic alliance formation (Bizzari, 2020; Tschacher & Pfammatter, 2016). In other words, the body is an important tool to communicate and shape the intersubjectivity, cognition and practices between clients and therapists, but without the full body in video-conference psychotherapy, how do they achieve trust and enough mutual understanding to develop the therapeutic alliance?

The constant tension between the individual and relational autonomy leads to a process of sense-making of what is happening in the context and dictating their practices in the moment. Following this theory, meaning is continually co-constructed in every interaction, especially in therapeutic encounters (Garcıa, 2021), where the therapeutic alliance allows a series of “healing” practices that therapists and clients must resolve through interaction. This complex dynamic also happens in video-conference psychotherapy (synchronous interaction), but technology removes some traditional channels of communication related to the body, while allowing new ways of interactions that shape the psychotherapeutic context from its traditional presencial settings (Garcia et al., 2022).

2.4 Bringing the theories together

So far, I framed psychotherapy as a contextual practice where the relationship between client and therapist is the most relevant predictor of its positive outcome. Additionally, Post-phenomenology and technological mediation theory pose technology as an important actor that influences the perception and practices of individuals using them. Further, post-phenomenology doesn’t tell us “how” exactly the technology mediates the experience of the world. Instead, it encourages researchers to discover the technological mediation observing and reflecting upon the practical and contextual relationship of client-technology-therapist within an empirical framework.
To assist this exploration, embodied cognition, enactivism and participatory sense-making, offers a theoretical framework that also highlights the role of technology, including the relevance of the body, environment and context, in the meaning-making interaction of client-technology-therapist.
The aforementioned theories facilitate a qualitative approach to VCP as a phenomena in which the most relevant feature is the relation between client, therapist, and technology in a therapeutic context.

3. Methodology

The endeavor of exploring video-conferencing psychotherapy in the current times, requires an interdisciplinary approach that can be framed in the field of Human Computer Interaction, cyberpsychology, psychology, computer mediated communication and more. Recently, qualitative methods have become a common way to explore human-technology relations, allowing us to understand practices in context in order to facilitate technological design, development and implementation of systems (Adams et al., 2008; Blandford et al., 2016).

To this end, I followed traditional methods of qualitative research and ethnography (Neylan, 2008; Blandford et al., 2016) to grasp clients and therapist subjectives experiences of VCP, including my own experiences as a psychotherapist.
The main methods for data collection were Interviews and autoethnography, where 8 psychotherapists and 8 clients were interviewed between March and April 2022. The autoethnography started officially from March 2022 until the present, but the research includes fieldnotes and reflections from September 2020, when I officially started practicing VCP.

The data has been analyzed through thematic network analysis (Attride-Stirling, 2001) during May 2022, where the full writing of this thesis was conducted.

In the next sections, I'll describe the methods introduced above.

3.1 Data Collection

3.1.1 Sample and Access to the field

Choosing this topic as part of my research was a tricky challenge for me due to my own experience working as a clinical psychologist for the last 10 years, where the last 2 have been mainly delivering psychotherapy treatments through video-conference. This gives me an unique and very personal entrance to the field, which biases my reflections, but also brings my experience adopting online services, especially psychotherapy. The pandemic situation practically forced me to do research about online therapy and the world of telehealth, in order to try it and adapt myself to collaborate with the world crisis in need of mental health support. This is also why I choose to focus mainly in video-conferencing psychotherapy (VCP), instead of website based treatments, virtual reality or other interesting innovative topics to treat mental health.

Seeking to take most of my own experience, I started journaling my impressions of video-conference psychotherapy for this project, referring to myself as P0 in the results..

Additionally, I reach out to psychotherapists and clients that could share their experience practicing VCP. The sampling process is a mixture of convenience and a snowball sampling (Blandford et al., 2016), where participants are found due to easy accessibility and the same participants invite others to join and share their experience.

I also looked for participants in social media like facebook groups of psychotherapists and psychologists in Denmark, internationals in Denmark, and psychotherapists websites portals like Healped.dk and Psychologytoday.com.

The criterias to select psychotherapists were:

- at least 1 year practicing VCP.
- relevant psychology or psychotherapy education.

The criterias to select clients were:
- participate at least in 3 sessions of VCP.
- preference over clients that have experienced traditional psychotherapy (offline).

All participants were sent a confidential agreement, explaining their rights regarding data and the compelling GDPR in this research project.

All psychotherapists started doing video-conferencing psychotherapy because of COVID pandemic, except one therapist who has been delivering online psychotherapy since 2013. The description of the psychotherapist comes as follows:

ID	**psychotherapeutic orientation**	**years of experience doing VCP**	**Total years of experience practicing Psychotherapy**	**Nationality**
P1	ACT	2	4	Argentinian
P2	CBT	1	8	Mexican
P3	Therapy Focused on Solutions	1	4	Polish
P4	Holistic psychotherapy	9	36	Indian
P5	Holistic psychotherapy	2	10	Hungarian
P6	Eclectic	3	8	Rumania
P7	Holistic psychotherapy		8	Polish
P8	existentialism and psychodynamic	3	20	Danish

Most clients were found through my close network and ex-clients. In this case, all of them tried VCP because of COVID.

The description of clients comes as follow:

ID	Problem	time doing VCP	Nationality
C1	depression	3 months	spanish
C2	PTSD	1 year	Israel
C3	depression	3 months	danish
C4	depression	2 years	spanish
C5	depression	2 years	argentinian
C6	anxiety	3 months	chilean
C7	interpersonal conflicts, PTSD	3 months	danish
C8	interpersonal conflicts	2 months	argentinian

3.1.2 Interviews

Inspired by the ethnographic guidelines of Spradly (1979) and Neylan (2008), the interviews started very informal and explorative to create rapport with the participants, while slowly it took courses to most complex and challenging questions. Informal interviews are known as unguided conversations, without a clear limit of time in a relaxed setting, which are particularly good to explore the field from a participant's point of view.

The first interview was with a close colleague that has been doing VCP since the beginning of COVID. The interview was semi-structured, and was focused on exploring common practices and situated knowledge about the actions that involve doing VCP, like scheduling, performing specific treatments, building therapeutic alliance, taking notes, and other activities she could find relevant. This first interview enlightenme to add more questions regarding cultural differences, ethical concerns, and new risks that appear through VCP, like the hidden identity of some clients.

Most interviews with psychotherapists last around 60 minutes. The 8 interviews were online, through Meet, which I complemented with a software to transcribe our talks in real time, while I took notes about our conversations and insights.

The interviews with clients were more challenging due to the difficulty of finding them. I didn’t want to interview my own clients to avoid bias, but giving the missing access to clients, I interviewed a couple that took individual sessions with me, in real presence interaction and online when distance was a problem.
Two client participants didn’t want to do a talking interview, but accepted to collaborate only through chat, so I accepted the offer and included this information in my data analysis.

From the 8 clients participants, 2 were in real presence, recording the audio with my smartphone, and 4 were through video call, using Meet for the video call and transcription. The last 2 were only through chat in messenger.

The semi-structured interview guidelines are attached in the appendix and are different for psychotherapists and clients. The aim was to capture their practices, opinions, and uses of technology while doing VCP.

3.1.3 Authoethnography - journaling

Autoethnography is a method used occasionally to understand a user's experience in personal devices (Ellis et al., 2011; O'Kane et al., 2014). The method consists in journaling the researcher's experience of his living using a particular technology, going through a reflexive process on his personal experience and providing detailed information on the dimensions to explore.

I officially began writing a diary on 28th March 2022, writing my reflections as they arose from my practice of VCP. I have been working with 7 to 12 clients per week since March 2020, using an eclectic psychotherapy approach of third generation cognitive therapy and logotherapy.
Despite my journaling beginning this semester, I do have notes of my working sessions over the last 2 years, which I also used as data to complement my reflections.

3.2 Data Analysis

The data collected was analyzed through thematic network analysis, which is an analytic tool for qualitative research (Attride-Stirling, 2001). The method seeks to create different levels of themes from the data, through a hermeneutic process, which are visualized into networks to facilitate their representation (Attride-Stirling, 2001).

The procedure can be divided into 3 steps:
1) infer lower-order premises from the data to create basic themes.
2) group up categories of basic themes, resuming their main statements to create an organizing theme.
3) create global themes gathering the main idea of Organizing themes aiming to represent the data as a whole (Attride-Stirling, 2001).

In this process, I coded the transcribed data, created basic themes, arranged them into organizing themes and finally created global themes. These steps were reviewed 3 times from scratch, reflecting post-phenomenology and enactivism to frame technological affordance mediating VCP. Afterwards, I mixed different organizations until I chose a final structure to organize the themes. The process was an iterative and integrative review of the data until saturation.

4. Results

4.1 Organizing the empirical data:Thematic Analysis Network

The coming analysis contemplates all the data gathered through interviews and autoethnography. The topics are disclosed in relation to the main research question:

What is the role and impact of technology mediation in VCP?

The first challenge to develop an argument about technological mediation of VCP is to identify key practices and subjectivities emerging from this client-therapist-VC relation. From a post-phenomenology analysis, most technological relations in the context of VCP seem to be embodied in the first instance, with hermeneutic relationships in a few opportunities.

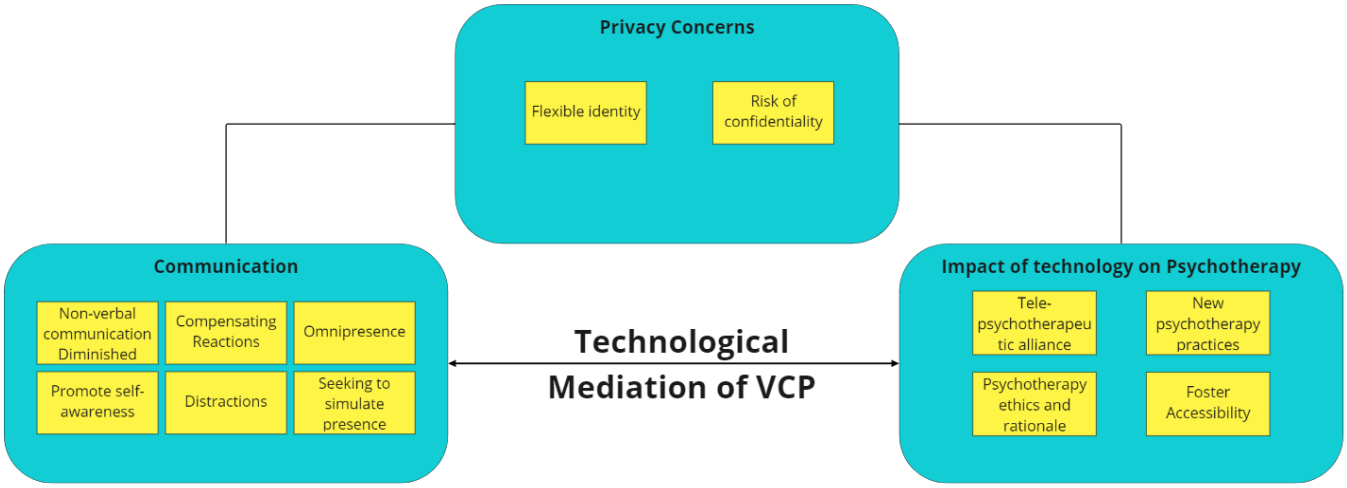

Figure 4. Thematic Network Analysis

4.1.1 Communication.

As a global theme, communication emcopassess all the changes that technology affords in the communication interaction between client and therapist. The topics organized under communication are deeply involved in other dynamics of VCP, like the therapeutic alliance, privacy concerns, and new therapeutic practices.

I. Non-verbal language and paralanguage is diminished.

An evident statement is that camera and audio in smartphones and laptops can't really make justice to our own eyes and ears to perceive another person and its contexts. Clients and therapists confirm how gaze and eye contact becomes confusing, and hands, legs, and other body movements are not perceived in the embodied relation of client-therapist-technology.

From this organizing theme, two basic themes are identified: confusing communication and missing body language. To illustrate the first one, I'll share a comment of P8:

"I'm not sure if the client is looking at me or distracted [...] I wonder sometimes if they are holding their breath [for the lack of movement]. I have to ask more often how they are feeling to be sure that I'm reading properly [...] It is more exhausting to do online therapy… My colleagues also confirmed that… I need to pay more attention to the face and the upper part of the body… I feel I'm getting better at that" P8

Other therapists share a similar experience and I also do. Sometimes you may confuse what clients are feeling, and clients can also tell:

"Sometimes my therapist doesn't understand what I'm trying to say, to I explain further on" C5

"My therapist can't read my emotions if I'm avoiding them…" C3

II. Compensating reactions

It seems like therapists and clients spontaneously, in an enactive process, compensate for the missing communication channels that video-conferencing technology can't cover. It is common in embodied relations that human consciousness has access to new features and loses others, like non-verbal communication and contextual information in video-conferences. However, as enactivism suggests, new actions emerge from the environment affordances, which mediated by video-conference software, laptops, and smartphones involved in the psychotherapy, facilitate new ways of communicating. The next basic themes described this compensating practices:

a) Compensating through hyperfocus in audio and upper body expressions. The first clear practice is to use a more descriptive and careful speech, which uses the most stable communication channel in video-conference technologies, the audio. Audio transmission is the cheaper communication channel in terms of data consumption, and if the internet connection turns unstable, the last survivor is the audio channel. Video transmission lost quality immediately, creating more confusion in the interaction, therefore, audio and speech get special relevance for more therapists and clients.

Clients and therapists adopt their speech speed and descriptions to help each other communicate. The last quotes of C5 and P8 also illustrate their efforts to exploit audio and visual channels that technology offers.

b) Compensate through shared screen and interactive softwares.

Clients and therapists may use digital means to express emotions, problems and other topics. Technology plays a fundamental role here, where technological features facilitate new ways to express their minds.
For example, psychotherapists can share their screen to illustrate with a diagram or presentation a complex psychological interpretation of a client problem in relation to family dynamics. Also, the softwares Meet and Zooms, have an option to activate interactive interfaces that client and therapist can move, write, erase and save.
Some clients like to see their problems illustrated visually, but others don't really care and prefer to focus more on the interaction dialogue with the therapist.
However, for the practice of psychotherapy, it can help clients and therapists to revisit past perception of the problems and participate actively in the problem definition, which can bring more coherence to treatment over time and promote the therapeutic alliance.

"I like zoom because it has a whiteboard that I can use to illustrate and work with my clients" P1.

However, the emergence of these practices seems to come from the subjectivity of clients and therapists familiar with ICTs. A few therapists don't use these features, and seek to use technology only a transmitter to simulate a "real" traditional psychotherapy.

Additionally, some VC technologies enabled automatic subtitles of the dialogue in a video call, which may help some psychotherapists and clients to understand each other more clearly. As an example, in a session I usually have subtitles on, which helps me to understand some cities names that I don't know from before the client mentioned it. It also helps in moments of distractions, allowing me to catch back the topic in the moment.
From a post-phenomenological analysis, the human-technological relation in this case is hermeneutic, defining and communicating what is my client actually saying and how should I write the name of that "new city" in my subjectivity.

<u>c) Compensate through images and memes.</u>
Most clients and psychotherapists may use digital means to express emotions, moods, and other topics. These are usually shared as hyperlinks, gifts, or image files, expressing inner states that are usually expressed through digital means.
As an example, during a session after building a good therapeutic alliance, a client told me that he is colorblind, which causes him problems in his new job. At the same time, he attached a 30 second video showing how the world looks like for him, which helped me realize all the troubles communicating that he could encounter due to this condition.
Clients and psychotherapists with more experience working with ICTs usually are more intuitive using technological affordances to express themselves. Less familiarity with ICTs and current softwares interfaces with chat services that are not visible (like Meet), may limit the emergence of this practice.

"I encountered technical problems during the video-call and I could not help my client… we cancel the session at the end" P3

III. Omnipresence: connected beyond sessions

From the immediate and flexible communication that ICTs offer, most psychotherapists (P1, P2, P4, P7, P8) prefer to allow their clients to reach them at any moment, clarifying that they will answer on their own working time.

“I tell them to write to me at any time; I don’t mind it and they never do it anyway. Only in a few emergency moments” P4.

From my own experience, I can tell that clients are more inclined to reach out in non-invasive ways, like emails, text messages through apps, or voice messages, which become richfull information to explore the client’s subjectivity and problems.
Usually, answering back to the client gives them a feeling of comfort and connection to the therapist, which facilitates trust and fosters the therapeutic alliance.

“I feel like I can reach out at any moment… she [the therapist] contains me” C5

“I was having a panic attack in the street and I really tried not calling my therapist… but I remembered she said I could do it, so I did. It helped me a lot” C6

Omnipresence of therapists and clients emerges from an embodied relationship between ICTs-therapist-clients. Our current socio-technical setting entails as a common knowledge that everyone, including therapists and clients, use smartphones, laptops and other ICTs, that allow instant communication. In psychotherapy mediated by ICTs, the technology’s intentions to facilitate instant communication is adopted by clients seeking for a supportive figure in their therapist, which psychotherapists can allow and use to achieve psychotherapeutic goals. The settings about how and when to call are usually reviewed during the first meetings of the psychotherapy.

IV. Seeking to simulate presence.

Frequently the participants' tales reveal their intentions to simulate presence in VCP. Most of them say it assuming that VCP is just like traditional psychotherapy, but through a device.
Awareness of technology mediation is not part of their narratives, and they all have their own strategies to seek virtual presence, mainly based on their past experience with video-conference software. However, these strategies are very different among therapists and clients.

a) customize software interaction to their own communication preferences.
Participants choose practices that for them allows them to simulate better the connection with their clients and psychotherapist. They contradict each other, exposing their subjective preferences and understandings of interpersonal connection.

Some of them indicate the size of the screen as a facilitator to simulate presence with the other, prioritizing visual channels of each other's faces. The bigger the screen, the more real the simulation.

“I don’t like slides because they remove connection with the client; I want it to be as close to a real session as possible” P5

“I need a video, even if it's pixelated, otherwise I don’t feel it is real… it is uncomfortable” C4

“I always ask for laptops. No smartphones, because the size of the screen” P2

On the contrary, half of therapists and clients prioritize the sound quality over video, even stating that video can be a distractor sometimes and prefer to remove it.

“I feel through voice, not through text or video… [...]” C3.

“I like to use headphones to feel closer to my clients” P6

b) customize the background and context to simulate ideal connection.
A few clients and therapists care more about the background and their appearance to simulate a presencial therapeutic context.

“I prepare the space, bring a plant, light some candles. Remove all kinds of headphones or wires, and do my best to make it closer to a real session as possible. Like if I was there with him [the client]”

The measure makes sense as a strategy to build a coherent identity for therapists, facilitating allegiance for the therapeutic alliance, but it can also facilitate users to disguise their identity, as we discuss further on.

c) embodied therapist-client.
There are few situations that reveal how participants achieve a high degree of embodiment with their ICTs (laptop or smartphone), and engage with the devices literally like if it was a client or therapist. In these situations, the degree of transparency and field of awareness increase significantly, especially after many online sessions with the same person (sedimentation, Rosenberg and Verbeek, 2015).

“when the quality of audio and video is good it feels like the talking [the psychotherapy session] is real” C4.

A personal event illustrates the idea clearly:

“During the video call with my client, his cat dropped the smartphone while we were talking and my client urgently reacted to pick the phone back up, saying “I’m sorry!! are you ok?”. I answered spontaneously, [...] exclaiming “ouch! don’t worry I’ll be fine haha… actually, there is no real pain…” P0

In general, participants try to engage as they do in presencial interaction and feel like they do when the conversations goes smoothly and without interruptions, forgetting that they are talking to a screen. The concept of transparency (Ihde, 1990) helps to understand this phenomena, which usually denotes a good therapeutic alliance.

“I felt so good and connected with my client in this session that I even feel myself revitalized. Being my last session of the day, I was feeling very tired, but now I feel like after having a very meaningful session, satisfied and happy [...] In some moments, even though I know we are not looking at each other at the same time, I forget about it, and the glitches, the time, and all other distractions disappear. I’m just there to focus on the talk as if we were in real time and space”. P0

These almost magical moments disclose the constant seeking for coming back to real synchronized interaction, that technology simulates if the connection is stable, the laptop is configured for no interruption, and the context of therapists and clients remain private to allow it. Therefore, moments like this can be difficult to achieve and transparency becomes a lucky moment instead of a therapeutic goal.

V. Distractions

VC software, laptops and cellphones are not made for therapy, and carry with them other intentions of designers that usually keep individuals checking notifications, emails, and updates in social media (The Social Dilemma, 2021). Additionally, technological failures and the context of participants also tend to interrupt the communication flow in VCP.

a) Technology’s agency.
Laptops and smartphones are usually trying to keep us updated and connected to social media, work, and personal relationships. It is common that during VCP clients may get distracted by a message, email, phone call from work, and even if they resist the urge, they still lose a bit of attention to these stimuli.

“My client told me how proud he was about his last product, and started looking for it to share with me. He could not find it, and I told him to move on [...] He pretended to move on, but kept looking for it for the entire session, looking a bit distracted…” P0

“Sometimes I forget to turn off slack notifications and they appear during therapy… I try to stay focused, but sometimes I fail…” C4

b) Technical trouble-shooting and failures.
Latency is the big enemy of VCP, bringing frustration to most participants. Additionally, microphone and audio doesn’t work sometimes, the computer freezes, or the video doesn’t work. All these technical failures challenge clients and psychotherapists to learn more about technicalities and skills trouble-shotting technology settings.
Many times the solution is to go on the smartphone for a video or phone call, which also may diminish the bonding through client and therapist.

c) Environment interruptions.
Some clients don’t have a private space to do psychotherapy, thus they do sessions from their houses with family members in the background or in other public contexts. Even though some psychotherapists are very strict about securing a private space, some clients can’t really afford it and privacy may become a issue without solution, facilitating interruptions of other members of the family that don’t respect the client’s desire for privacy or don’t have another choice more than invade the space to carry on their duties.

A short example is the case of a client, who lost his house due to the war, and is being hosted with his family by friends, without the space to do therapy in private or the money to afford presencial therapy.

“I’m there trying to understand each other, and I can see his wife coming to the room looking for diapers to change their baby. My client try to ignore her presence and keep talking about his concerns, but I do feel how she stay longer that is need it to grab the diaper” P0

VI. Promote self awareness

Most VC software comes with the option of seeing yourself in a little corner of the screen. This feedback seems to help participants to check how they look to others, and in therapy context, it influences how participants express, regulate and bring awareness about their emotions and body language. This technological feature has consequences in the emotional communication of clients and psychotherapists, which for some participants is a distraction that they would like to remove, and for others is a nice tool to work emotional awareness.

Softwares like Meet and Zoom come with options to remove your image, but not every client and psychotherapist knows it, disclosing the needs to design VC technology for psychotherapy from a user friendly perspective.

“Can you remove yourself from the video call?! I didn't know! It is so distracting for me…” P3

“I like to see myself in the screen to regulate better my emotional expression” P8

“I avoid looking at myself in the video call… especially when I’m crying…” C8

4.1.2 Privacy Concerns.

As the second global theme refers to technological mediation of identity, confidentiality, and intimacy, which may be over disclosed during VCP. Technology plays a role facilitating these concerns through its features of mobility, ubiquity, reduced field of awareness and context manipulation, which are rooted in the devices camera and audio options and wireless possibility, allowing to bring VCP to any possible context.

Most of these concerns are related to communication features of VCP and can be seen in former quotes, so they will not be as descriptive as the last global theme.

I. Flexible Identity

The technological mediation through technology opens many possibilities to disguise some features about our identity through the screen. Participants shared with me how they lie, hide, or disguise part of themselves in VCP. This is only possible due to the limited angle captured by the camera and the control that participants have over visual and audio information shared through the devices; they can remove audio and video if they want, choose the background, make it blurry, keep the room in the dark to not be seen or to disclose a particular desired identity to each other.

These possibilities to control how client and therapist perceive each other is boosted by technological affordances, so therapists need to be especially careful to spot symptoms and defense mechanisms that may be intentionally hidden through technological features.

a) Disguise identity.
The option of revealing exactly what you want in therapy is a tool with benefits and risks. Clients may easily access VC psychotherapy because of the safety it offers to keep their desired identity. For example, if a client doesn't want to reveal their full name, street address or being seen by other clients in the therapist's clinic, VCP opens a possibility to talk about your problems in private.

"What I liked about doing online therapy was that I could hide all my mess [in his room]. Just show that part of my house that is tied up and nice, helps me to disclose part of me that I like" C3

In my personal experience, I have encountered a few clients that don't want to share their real name, email or anything that can relate back to them, which usually suggest a high degree of mistrust, that keeps them from going to presencial psychotherapy before.

On the other hand, it may pose a big risk for an accurate problem definition and treatment, since clients' desires for privacy may hide important symptoms or personality traits that originate the psychological problem.

"I was working with a teenager for around 6 months. She didn't want to turn on the light so much, so I could just see her face [...] She had a social anxiety problem that we could not overcome… Eventually, I traveled to her city and went to visit her at home. Then I finally discovered that she had a significant overweight condition that was important to address" P4

The last quote entails the risks of VCP to collect key information from clients, which finally requires building a solid therapeutic alliance to facilitate the client disclosure.

b) Software's User interface.
Some clients report that the user interface also plays a role in the identity of the therapist, which should be considered by the designer to facilitate the therapist to project their desired identity and comfort.

"betterhelp user interface looks very business wise… I really don't like it" C3

"I don't like whatsapp calls… it feels like I'm talking to friend… it doesn't seems professional" C5

c) Idealization and projection.
The communication holes that technological mediation creates in psychotherapy makes room for projection and idealization mechanisms of participants. Projection involves attributing my feelings or expectations to an object or situation; the more ambiguous the object is, the more we project to give sense to the object (Machunsky et al., 2014).

This phenomena also entails benefits and risks: if clients have a good start with their therapists and like the therapist's background, voice, clothes and face expressions, it is easier to project similar positive attributes to the therapist's life. However, the opposite also can happen, and clients or therapist may project judgements or their own problems into the therapists after a few impressions:

"I can tell my therapist is more depressed than me by the way he speaks [after one session]" C3

These problems also occur in presencial psychotherapy, but seems to be increased in VCP for the lack of information in the interaction.

II. Risk of confidentiality.

A few participants have concerns about the confidentiality of their problems that also emerge from the technological mediation.

a) Technology risks.
A few participants are afraid of being hacked or recorded during therapy, therefore prefer to avoid VCP. To cope with this, psychotherapists prefer software that encrypts video calls as a measure to promote trust and privacy on clients, but nothing can really prevent the therapist or client from recording the video without consent. These risks pose a tough barrier for people with privacy and confidentiality concerns.

b) Lack of private context/environment.
As mentioned before, some clients don't have a private space and try to do VCP from umcortables places, like a car, the toilet, a park, coffee places, etc. Even though clients prefer to have the sessions in this context, most psychotherapists don't approve of these practices, since the context is not safe and free of distractions to do a proper psychotherapy process.
For therapists, this is also a concern, since they don't always know if clients are really alone in the room.

"I don't like when clients are trying to do therapy, and someone enters their room and starts asking them things… it is so disrespectful with their safe space" P1

"I travel a lot and online therapy is ideal for me, but sometimes I must rent places with lack of rooms or doors to talk privately… I usually talk about it with my boyfriend, so he gives me the space, but it is not ideal…" C5

c) Unique access to intimate data.
Even though VCP gives participants a high level of control of what they want to disclose through the camera and sound, sometimes they still share very sensitive information from private contexts. This usually happens as a mistake, lack of awareness, or by intention.
A few examples are pets jumping into the session; clients doing sessions from the bed with pijama or underwear; clients moving around the house showing their lifestyle.

Some psychotherapists may find this very innapropied and ask clients to avoid disclosing sensitive information, while others find this information very significant to connect with their clients and give deeply elaborated analysis of their problems.

"I saw that my client likes music and has a guitar in his room… this information is useful to make more interesting activities to facilitate emotional expression involving activities he already likes and feel comfortable doing" P0

4.1.3 ICTs impact in Psychotherapy - VCP

This last global theme addresses the impact of technology in the practice of psychotherapy. Most descriptions are in function of technology features and affordances mediating new methods in psychotherapy.

I. Tele-psychotherapeutic Alliance.

The therapeutic alliance has been identified as the key element of a successful psychotherapy (Wampold and Imel, 2015), which we could assume also applies for VCP. However, the nature of the relationship client-therapy is different from the one emerging from presencial settings.

"I feel connected with my therapist, but it is not the same as in real person" C4

"I feel it is different when I see my therapist in person than when I see him online… but not in a bad way… it is just different, but I still trust and take more sessions if need it" C7

"I don't really care that much… I know it is different, but it seems to work anyway for me. I would prefer in presence if we can, but when I'm away I rather to continue online" C8

For psychotherapists, the therapeutic alliance is definitely not the same as in presencial psychotherapy, but they seem surprised when they realized that VCP works just the same as presential in terms of outcomes.

How is psychotherapeutic alliance developed through ICTs in VCP?

Reflecting upon the empirical material, I argue that the key element to achieve a successful tele-therapeutic alliance is the ability to communicate through ICTs, which allows: a degree of resolution to client's concerns, a degree of acceptance and mutual understanding between clients-therapists, and a degree of coherence in the therapeutic rationale and the client's metaphysics (subjectivity).
Just like in presencial psychotherapy, it seems like fulfilling these attributes in the first encounters facilitate the tele-therapeutic alliance, which seems easier for individuals with more experience with ICTs.

The process also requires skills to understand how devices mediate the visual field, audio quality, and internet connection, to help clients navigate potential technical problems during the session.

"I aim to keep the camera in a horizontal angle to facilitate the perception of each other…[...] I use headphones to improve the quality of sound [...] I have a supporter for my laptop that help me to be comfortable during the session" P8

"I prepare clients in case the internet is unstable or guide them to fix audio settings" P1

If technology is failing in the transmission of messages (due to latency, or technical failures), the tele-therapeutic alliance seems to be challenged by the frustration of not being able to communicate. However, if any of the therapist's interactions helps the client to achieve a degree of resolution, the tele-therapeutic alliance can survive. To illustrate, I share this brief experience doing VCP with a very unstable internet connection:

"The connection was terrible and we could not keep talking for more than 5 minutes without disconnecting…[...] I understood that the [client's] problem was related to anxiety. So I rescheduled the meeting and sent a video about mindfulness practice to deal with anxiety. My client like it so much, that she asked for more, so I gave more [...] the connection keep being bad with this client over the next sessions, but I kind accepted that she has a unstable internet connection and we can still talk with delay, chat, and pixelated video calls" P0

Once the therapeutic alliance is formed, it seems to remain very stable even though disconnection and distractions interrupt the communication. However, the characteristics of Tele-Therapeutic Alliance are not exactly the same to presencial Therapeutic Alliance (TA). Some different are:

a) Therapist authority diminished: horizontal relationship between client-therapist.
Communication through ICTs in psychotherapy seems to foster a horizontal relationship between clients and therapists. In this relationship they talk freely to each other, and none-of them can physically intervene in each other's context.

"I lack control in online therapy… I don't know if my client is being forced to talk by an abusive husband [...] can't prevent or react if someone enters to the room" P6

"Once I tried couple therapy. The clients began to argue and I could not really do anything to stop them…" P3

The therapist's control and influence is not enough to contain emotions as effectively as in presidential sessions, this poses a risk to work with impulsive clients with risky behaviors or contexts, such as domestic violence or family dynamics with abusive patterns.

b) Trust formation.
In presencial psychotherapy, the body plays a big role in trust and TA formation (Hauke, 2016), but in VCP trust seems to emerge from other factors used to compensate for the lack

of non-verbal language (Garcia et al., 2022). These factors are usually the degree of resonance between the theoretical approach of the therapist with the subjective values and rationale of the clients; the quality of the internet connection, which allows video and audio; and the participant's past experience and knowledge of ICTs, which helps them tolerate better the typical latency and technical problems. The context of therapists and clients also plays a role to facilitate trust, doing therapy from a safe and familiar context helps clients to express their fears and problems.

c) The relevant role of projection.
Multiple codes indicate that the missing body language facilitates projection and idealization between therapists and clients. This means that clients may see what they want to see in a therapist and vice versa, starting through any stimuli they can perceive through the video-call.
In some cases, these projections are very accurate and facilitate the bonding, but sometimes it may be confusing and disappointing for clients.

"I was walking through the city and saw my client walking from behind… I never saw her before in person, but I was sure it was her, I felt it. I reached out and we had a coffee because I was leaving the city and it was the only opportunity to meet. I felt like the connection with her was as good as online!" P1

"I have a good start with my second therapist, but over the sessions I noticed that she can't really read my emotions [...] I was hiding them and she was not seeing it" C3

"I started talking over the phone, I don't like video so It was ok for me, but the connection with the therapist was nothing like presencial… I didn't like it" C1

Considering that most therapists don't have formal education on tele-psychotherapy and VCP, the therapeutic rationale may not be solid, and still aim to have more presencial sessions than online. However, therapists and clients with more experience in ICTs, seem to be ok with both of them, and don't have major resistance to keep doing VCP.
The projection mechanisms of the mind are very subjective and difficult to handle, thus, just like in real life, some clients-therapists will easily bond between each other, while others will struggle to build this bond.

d) curating mixing online and offline.
The mixture between online and offline denote no big differences in the therapeutic alliance for some people, but this seems to vary according to every individual's subjectivity and past experiences with ICTs and presencial psychotherapy.

"It does help to meet them [clients] in person to understand better some problems, but not in every cases, where I feel that it is just the same" P2

e) past experience and time shared together.
As I stated above, past experiences with video call and IT knowledge facilitate people engaging through ICTs. Once they get more familiar with it, the communication may become even more comfortable that presencial interactions for professional means.

“COVID was over and I wanted to try a presencial session with one of my clients, but he told me after the session that he didn’t like it. That he felt more comfortable online after so many sessions online with me” P2

“I prefer online than in presence… it is easier for me to talk” P6

This works both ways, as shown before in C1 quotes, she had a very good experience with presencial psychotherapy before, and can’t relive such experience through VCP.

II. New psychotherapeutic practices

The technological affordance of ICTs allows the emergence of new practices, exposing clearly the intentionality of technology in VCP facilitating spontaneous communication beyond context limitations.

a) walking therapy.
At least half of psychotherapists shared experience trying walking therapy, which consists of taking a walk and practicing mindfulness, intentionally relaxing, connecting with the environment, or visiting places that may trigger anxiety reactions.

“*we agree on visiting again those places where I had panic attacks before, and we did it together online [therapist was in Denmark, client was in Spain]”* C6

These practices have been done before in presencial mode too, but not that often and simple as they can be online, which allows to be perceived as talking on the phone, more than doing therapy.

The practice also happens at clients' homes, where clients walk around the home while doing the video call, or just changing to audio if they prefer too.

“Sometimes I start walking around my house… it helps me to think… other times I draw… It is relaxing” C5

Technology allows participants to move between contexts because of the mobility features that technology affords. This practice is more common with participants that connect better through sound and prefer to do therapy through the smartphone.

b) technological preferences denote mental health problems.
Participants shared how some psychological problems like a negative self esteem, paranoid thinking, or anxious behavior may appear through technological preferences in VCP.
Clients with negative self esteem have the tendency to avoid the camera, setting a dark context, or just showing partially their faces. However, these are just interpretations to be considered with the diagnosis and problem analysis, not real predictors of mental health problems.

Technology can also communicate and even increase psychological symptoms, and they start being more visible through experience and practice of VCP. To illustrate, once I worked with a teenager that would only meet me online (before COVID), and he was strongly

avoidant of human contact. Thanks to technology, he could do everything without seeing anyone, and spend 1 year isolated after a traumatic experience at school and family. However, the same technology facilitating isolation, allowed me entrance to help him to restore trust in human relationships.

The use of technology reveals the user's intentions, and it can also be used to complement the problem analysis of a given mental health disorder.

c) Therapeutic Methods adapted.
A few therapists mentioned how they adapted some methods to fit technological affordance. For example, trauma exposure therapy, usually made in presence, was adapted by P8 to be performed online.

"I adapted the technique considering my own experience. Since I have tried myself as a client and studied as a psychologist… I think this knowledge made it easier for me" P8

Other therapists have similar experiences, modifying methods, adjusting the camera, or inviting a family member into the therapy if necessary, taking advantage of the client's context. Also methods to improve self esteem and increase emotional intelligence can be done easily through the video call taking advantage that clients can see themselves during the session.

For therapists working with cognitive therapy, where psychoeducation is part of the intervention, the psychoeducative intentionality of technology is very useful, allowing slide presentations, screen sharing, sending videos and activating interactive whiteboards.

III. Foster Accessibility

ICTs in general offer commodities in terms of overcoming geographical distance, flexible communication, and administration.
This organizational theme emcopasses all these features that shape the experience of VCP.

a) Distance geographic solutions and interculturality.
Isolated clients in rural sectors or with immobilizing conditions accept, as well as travelers, expats, clients living in different cities than their therapists feel more attracted to try VCP. Therefore, all participants have intercultural and international backgrounds. Most of them speak two or three languages, and are familiar with different time zones as a consequence of geographic distance.

b) Physical safety.
VCP also offers safety from physical harassment between clients and therapists. Even though physical harm is not expected in psychotherapy, it does open the possibility for female therapists to work with intimidant clients, especially men with an aggressive background against women.

"I do feel more safe when I'm working with abusive men. They can't not hurt me through the screen" P1

c) Social Inclusive.
VCP is very symptom friendly. Some clients can easily access VCP despite their psychological problems interacting with people (such as social anxiety or fear of leaving home). This facilitates a first contact between client and therapist that in presencial psychotherapy demands big efforts from clients.

d) ecological integration to the ecosystem of administrative technologies.
The administration and organization of logistics is more simple than presencial psychotherapy. Most therapists agree on how technology makes their life easier to book clients, reschedule sessions, and charge clients.

"I like Zoom because I can create a link [virtual room] for every client, so they don't get confused looking for new links in every session. It is always the same [...] I can schedule them easier too" P7

"It doesn't hurt that much when they don't show up to sessions [...] I don't have to drive to the office, so I just continue with my life at home" P3.

"before I always forget my sessions, but now they remain written in the chat or google calendar" C6

Finally, it is also significantly more economic, which increases accessibility. Participants save time and money in commuting, and psychotherapists also save expenses in office, secretary, cleaning services of the office, etc., which allow them to offer their services at lower cost than presencial psychotherapy.

IV. Psychotherapy ethics and rationale.

The integration of ICTs in psychotherapy is facilitating changes in the metaphysics of therapists and clients, especially in regards to the relevance of the body for psychotherapy, intercultural practices, and risk management concerns.

a) Risk management
The reduced field of awareness that technology mediates in psychotherapy set limits to the authority and control that therapists usually have in presencial psychotherapy, posing a risk for self harm and impulsive clients. This risk could be mitigated by including very clear guidelines and setting about risk behaviors; VCP is not suitable for everybody, and new procedures are needed to address these potential situations.

"[while doing VCP] I usually draw, take notes, sometimes self harm…" C2

Sometimes clients can assist in sessions under the effects of drugs and lie about risk behaviors for different reasons. Clients with challenging and risky behaviors require more guidelines and education about VCP risks to address these problems with responsibility to client's health.

b) Psychotherapy rationale and body relevance.
Most psychotherapists seem to have developed their own theories about VCP's rationale, comparing their experience practicing presencial psychotherapy. These explanations are

very influenced by their own subjectivities, but in general does question how relevant may be the role of the body in psychotherapy, and how technology can replace that role. From enactive theories and embodied cognition, the body is very relevant to cognition, but in audiovisual interactions, other technological features like chat, facial expressions, and speech, seems to carry most responsibility to deliver messages and mutual understanding.
Despite this, psychotherapists keep claiming that the body is important and relevant for treatments, but not as important as they used to believe.

"Why does it work? It is so weird that it [VPC] works without the body… I'm really surprised" P8

Technology mediation facilitates these questioning and pose a risk to disclose incoherence of the therapeutic model and treatments, and doubts of VCP effectiveness (allegiance), which is relevant to develop therapeutic alliance.

Beside this, technology also enhances the idea of an omnipresence therapist, that is one message away to assist clients through their psychological problems, which bring a feeling of safety and relief for clients without much self-confidence. These issues should be addressed also in therapy, promoting the autonomy and self-confidence of the client, without breaking the trust they put in therapists. However, the new relationship between clients and therapists seems to bring them closer and change the traditional relationship that presencial psychotherapy dictated.

Further on, most psychotherapists agree that they have learned by their own experience and practice, and would like to have education about VCP to keep developing their thoughts and theories regarding VCP and tele-therapeutic alliance.

c) interculturality
Since technology omnipresence features don't care about countries and geographical distance, participants have become more familiar with different cultures, time zones, and being an "international" individual, which entails a flexible lifestyle with different schedules.
This pushes psychotherapists to learn more about different cultures to better assist their clients. Psychotherapists feel compelled to learn more about cultural practices like ramadan (for example, from Muslim culture), and be aware of different cultural practice around the world.
Additionally, most clients doing VCP are expats, and bring problems rooted in their local context, transmitting information and facilitating an intercultural awareness. Most psychotherapists offer services in English and their mother language, and sometimes a mix of both or more languages, that can be supported by translation software during online sessions. This is the most clear hermeneutic mediation (Idhe, 1990) that technology offers in VCP.

"My client is from Ukraine and he usually gets stuck with some words that he resolves using google translator during the session. It is also very convenient that google Meet allows subtitles, assisting our speech and communication, that in presencial psychotherapy may be more distracting" P0

4.2 Discussion

During the first section of this thesis, psychotherapy was presented as a controversial pan-theoric practice that keeps bringing new contextual methods to offer mental health to individuals. The adoption of technological solutions was inevitable, and today, video-conferencing psychotherapy is allowing new practices, theories and ethics to psychotherapy that are still being explored.

What are the main beneficial mediations of technology for video-conferencing psychotherapy?

The current results suggest that the main technological affordances for psychotherapy are:

a) the omnipresence of the psychotherapist, embodied in the smartphone and reachable beyond time and space, which arise from the wireless mobility and ubiquity of most ICTs. Technology also invites clients and therapists to send text and voice messages that can be used for further analysis and deliver very accurate psychological interventions.
b) the promotion of self awareness, arising from the video feedback feature that most video-conference software offers, facilitates emotional regulation and expression between clients-therapists. It also allows the adaptation of methods to increase self esteem using the client's image in real time, allowing attractive and interactive interventions.
c) the flexible communication and accessibility advantages makes psychotherapy more inclusive and easy to fit in the socio-technical ecosystem of calendar, email, and text messaging. Further on, it could be even considered environmentally friendly, since it saves commuting time, transportation costs, printing expenses, and facilitates access to psychotherapy to expats, individuals living in rural places, and individuals suffering from illness conditions that don't allow transportation.
d) the emergence of new therapeutic practices, like walking therapy and adaptations of therapeutic methods to technology. Mostly arising from the free mobility and commodity that smartphones afford, fitting in one hand and allowing long conversations; as well as the control of clients to choose their preference about how and what to communicate, turning off/on the camera, hiding the background context or turning on/off the microphone.
e) new therapeutic theories, rationales and ethics, that raises questions about the relevance of the body for psychotherapy, privacy concerns, and new ethical guidance to cope with the lack of risk management that VCP entails. In this case, technology affordance to talk without full body presence, and the problems that the lack of vision that technology provides, facilitate reflections and research that could guide the future technological design of devices with therapeutic ends.

I introduced these affordances as positives for the aim of psychotherapy, but some points need to be discussed. The idea of an omnipresence therapist may be good to deliver safety and support to insecure clients looking for a protective figure, but it may also promote dependency and foster insecurity. Beside this, it may create pressure in psychotherapists dealing with clients with suicidal behaviors and other risky bahaviors. Even though participants interviewed didn’t indicate this feature as a problem, I have discussed this topic with other psychotherapists, sharing their concerns with this situation. The common solutions seem to be new guidelines and more research about the consequences of being able to reach your therapists so easily.

Regarding the promotion of self awareness, some participants actually find this affordance as a problem because they get distracted from getting awareness of their facial expressions when they are crying, angry, or emotionally disturved.
Actually, a critical argument can be developed for all these affordances: flexible communication and accessibility facilitates identity camouflage, which create new problems to charge clients or design accurate intervention plans due to the lack of background; the commodities of having sessions from home comes with problems of privacy, interruptions, and pose a fragile therapeutic alliance which depends on the quality of the internet connection; new therapeutic practices have not been properly researched, and the lack of education on video-conference psychotherapy also pose risks for clients, obstacles to build a tele-therapeutic relationship due to the lack of IT skills. Further on, privacy concerns, technical problems, poor therapeutic settings, and distractions related to technology or inappropriate context, are probably the most common problems that new psychotherapists would encounter when adopting VCP.

The major concern would be that VCP promotes a new theoretical framework that underminish the relevance of the body for the practice of psychotherapy. Additionaly, its practices may put in danger the life of clients with suicidal and risky behaviors. In the same line, young people with more technological experience may prefer to use the digital space as a safe space to talk about their emotional vulnerabilities, turning presencial interactions as a place to just interact superficially.

However, from a more optimistic point of view, more research will contribute to new guidelines to practice VCP and tele-psychotherapy, which may improve the current guidelines of the American Psychologist Association (2013) that doesn't consider deeply the role of technology in the therapeutic process.

In the same direction, further research can bring new insight to promote responsible design of devices for psychotherapy purposes, which could address problems identified in this research. For example, user-friendly options to remove the participant's face from the screen could help to use this feature better, many therapists and clients don't know how to change this since it is not very intuitive. Similar modifications could be made to Zoom for example, removing the record button to not trigger confidentiality worries; suggesting to change to audio while the internet connection is unstable; adding user-friendly tips to troubleshoot technical problems of audio and video; tips to remind clients to seek for private and quiet places before starting the video call; a latency indicator that helps therapists decide about starting complex and sensitive interventions; keep a chat history between sessions to facilitate the coherence among sessions, etc.
These ideas clearly would need more research from a participatory angle and may significantly enhance the outcome and experience of current VCP.

4.3 Reflexivity and further research suggestions

This research allowed me to reflect on the technological mediation of psychotherapy in different dimensions (practical, ethical, ontological), which were not fully covered in this research design. However, it deeply motivates me to keep exploring these dimensions,

hoping to use this knowledge to contribute to responsible ethical design of software and new technologies for psychotherapy purposes.

My primary motivation to research about VCP was to get qualitative insights to design future devices for psychotherapy purposes. I was already dreaming about implementing solutions that involved artificial intelligence, haptics to facilitate presence, and other similar innovative interventions using cutting edge technology. Therefore, my semi-structured interview was more focused on practices to carry on psychotherapy than the deep effects of technological mediation found. After gathering the first interviews and going deeper in the literature review, I noticed that there are many controversial topics to explore and discuss before continuing to bring more technologies to the practice of psychotherapy.

Now, I feel very tempted to go back and ask participants about the nature of tele-therapeutic alliance, what technology features facilitate therapist's empathy, or how the practice has changed the meaning of psychotherapy. In this regard, facilitating a workshop or focus group between psychotherapists doing VCP could bring more insights about the mediating role of VC technologies in psychotherapy.

Actually, a sixty minutes interview can't really give enough access to the field to grasp an ethnographic view of what happens between therapist-technology-client relationship, and my autoethnographic effort is not the best angle to answer questions about the therapeutic alliance and technological mediation of ethics in VCP. Therefore, a continuation of this research should benefit from more participatory instances to reflect these early findings, seeking to facilitate value-sensitive design of video-conference software for psychotherapy.

5. Conclusion

During and after COVID pandemic, the world was practically forced to adopt ICTs and telecommunication technology to cope with the interpersonal distance required by governments. This crisis brought change to the current socio-technical practices of society around the globe, and psychotherapy was one of the most affected, adapted to be delivered through telecommunication devices to cope with consequences of the pandemic.

However, presencial psychotherapy and video-conference psychotherapy are not exactly the same, and a research gap emerged from this new practice that was massively adopted without much reflections on the role of technology and its potential consequences.

Studying a Master in Techno-Anthropology did open my eyes to see the powerful role of technologies to shape society's practices and individuals' metaphysics. This new approach invites researchers to take technologies seriously, abandoning this traditional perception of technologies as simple passive tools waiting to be used.
Actually, technology does have agency and mediate the world through their designs, thus paying attention to them from a reflexive stance opens doors to approach problems from new angles. In our digital times, ignoring the role of technology poses enormous risks, especially for healthcare disciplines like psychology.

What is the role of technology in video-conferencing psychotherapy?
What kind of practices emerge from this client-technology-therapist relation?

To answer these questions I reflect upon theoretical frameworks that highlight the relation between humans and technology. Understanding psychotherapy as a social relational practice, Post-phenomenology and Enactivism, became the most coherence theories to explore video-conferencing psychotherapy and the mediating role of technology in this practice.

During the spring semester of 2022, empirical data from clients and psychotherapists doing video-conferencing psychotherapy (VCP) was collected through interviews and complemented with my own experience as a psychologist delivering VCP since March 2020.
The data was analyzed through content analysis methodology, allowing me to review reflexively and iteratively my experiences and interviews regarding VCP.

I started this research wondering how technology could be designed and shaped for psychotherapeutic purposes. Instead, I found out that psychotherapy is already changing to fit telecommunication technologies, affordances and agency, which again state the invisible power of technologies to influence human subjectivity and practices.

In a summery, results point out three main topics that technology have influenced in the practice of psychotherapy: (1) the communication, transformed in omnipresent, with diminished non-verbal language, challenged by technological and context related distractions; (2) privacy concerns, giving opportunity to modify and control the identity performed to participants and raising questions regarding confidentiality; (3) Impact in psychotherapy practices, with the emergence of a tele-therapeutic alliance more fragile than

in presencial psychotherapy, new methods and therapeutic practices in hybrid contexts, increase accessibility, and new reflections regarding therapeutic theories and ethics to regulate VCP.

The study brings novel ideas about the impact of video-conferencing technology in psychotherapy, highlighting the key role of technology in social configuration and practices, and the relevance of philosophy of technologies to promote responsible design and innovation through technology to deal with topics like healthcare.

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Appendix

1. Interview guidelines for psychotherapist

Brief Introduction.
Hi. My name is… this study is to explore the role of technology in video-conferencing psychotherapy…

Warming up.
How are you feeling today?
How long have you been a psychotherapist?
When did you start doing VCP?
What do you think about VCP?

Context in VCP
Can you tell me step by step how you do VCP? Walk me through it please
Where do you do VCP? Do you have any special settings?
What has been difficult in VCP? What feels wrong?
What has been interesting? What feels right?

Practices in VCP
What methods or tools do you use in VCP?
How do you take notes?
What settings and software do you use? Why?
How do you schedule?
How is the communication with your clients?

Reflexivity

Do you have any concerns about VCP?
What do you prefer? VCP or presencial Psychotherapy?
What is missing from VCP?
Do you have special education in the practice?
How do you think clients understand it?
What is essential in VCP?

Others

Do you have any bad experiences that could be shared with me? (related to VCP)
Do you have any good experiences to share with me? (related to VCP)

2. Interview for clients.

Brief Introduction.
Hi. My name is… this study is to explore the role of technology in video-conferencing psychotherapy…

Warming up.
How are you feeling today?
How long have you been in therapy?
When did you start doing VCP?
What do you think about VCP?

Context in VCP
Can you tell me step by step how you do VCP? Walk me through it please
Where do you do VCP? Do you have any special settings?
What has been difficult in VCP? What feels wrong?
What has been interesting? What feels right?

Practices in VCP
What settings and software do you use? Why?
How is communication with your psychotherapist?

Reflexivity

Do you have any concerns about VCP?
What do you prefer? VCP or presencial Psychotherapy?
What is missing from VCP?
What is essential in VCP?

Others

Do you have any bad experiences that could be shared with me? (related to VCP)
Do you have any good experiences to share with me? (related to VCP)