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Digital mental health: locations and contexts in youths' presentation of self in video consultations— a qualitative study

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Abstract

Background The long-established use of video consultation in mental health services has undergone significant historical development. This study reveals and discusses how video consultations influence youths' presentation of self in video consultations and in different locations and contexts. This phenomenon will be examined in light of Goffman's theory of frontstage and backstage in relation to the sense and impact of place, or placelessness, concidering mental health situations. The aim of this study was to explore whether and how therapy through a screen was experienced and to reveal challenges and opportunities that result from using digital tools to communicate in a therapeutic context. The study employed a hermeneutic-phenomenological approach to gain an understanding of youths' life-world experiences with video consultations in therapy. 33 qualitative interviews were performed with youths in the age between 16–23 years. The recruitment was carried out between mid-august 2021 and end of march 2022. All had participated in VC sessions with their therapist during the COVID-19 pandemic. The analysis followed an abductive approach, where iterative cycles between the empirical data and theoretical framework helped uncover both unexpected and novel insights into the youths' experiences with VC.

Results The findings revealed two main themes to guide our investigation: 1) therapy through a screen versus F2F therapy and 2) different physical contexts for therapy through a screen. The findings show that youths' experiences with the use of video consultations in therapy are diverse and heterogeneous.

Conclusions Face-to-face communication may reduce ambiguity and uncertainty through the use of body language and eye contact. Face-to-face communication requires less cognitive effort to process and involves greater psychological distance than digital communication. The advantages of using video consultations include avoiding school days, avoiding long travel distances, connecting faster when needed, and having shorter conversations to catch up on challenges in collaboration. The implications of location and context may also impact youths' presentation of self.

Keywords Sociology, Goffman, Self-identity, Telepsychiatry, Telehealth, Video consultations, Youths' experiences, Patient perspective

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Background

Telehealth, or more specifically telepsychiatry, used to provide treatment to people struggling with mental health problems is not a new phenomenon. In 1964-1966, Joseph Weizenbaum created "Eliza" [71], a natural language processing computer program, based on Carl Rogers theory of psychotherapy ("parroting method"), who was one of the first chatbots [26, 71]. A simulated conversation with Eliza was intended to create the feeling of being listened to for the participating human. Surprisingly, in this human-machine relationship, the human confided intimate details to Eliza that had not been shared with the therapist [9]. Since this early use of AI and digital therapy, there has been an ongoing shift towards digital rooms and contexts, both at work and in private life, over the last few decades [50, 61, 67]. The COVID-19 pandemic challenged the traditional way of delivering therapy services in mental health, including in Norway [22]. Video consultation (VC) is a digital solution that has been used for decades to address a broad range of mental health issues. In certain regions of Norway, VC has been a part of mental health services since the late 1990s. Since this early implementation of VC, there has been a significant change in the landscape of digital service delivery. Notably, between 2020 and 2022, VC became an established and routine method for delivering mental health care services [21]. Several countries' health systems, including Norway's, were hardly disrupted by the lockdown. During this period, outpatient clinics increased their services to patients via video consultations from a slow to a sharp uptake of telehealth solutions at different levels [1, 11, 66]. This also entailed changes in the way mental health care was delivered to children and youths. During the spring of 2020, the Child and Youth Outpatient Clinic at two hospitals in Norway (Barne- og ungdomspsykiatrisk avdeling, BUPA), offered services almost exclusively via VC for three months. However, in the post-pandemic landscape, it is evident that the initial rapid adoption of telehealth solutions has not been sustained [51]. This is probably a complex and wicked challenge, and there is a need to explore some of the reasons for this. In this paper this will be done with a particular focus on youths' experiences with VC within the therapeutic context. In this regard, it is also essential to understand these experiences from the youths' perspective, and this article contributes to an in-depth understanding of youths' experiences of interacting with their therapist through a screen. The main aim of this study was to explore whether and how therapy through a screen was experienced and to reveal challenges and opportunities that result from using digital tools to communicate in a therapeutic context. How do physical settings versus video consultations influence youths' self-presentation and interactions with their therapist, and what impact do different locations and contexts have?.

Research on VC in mental health

The use of VC as a method to provide mental health services to hard-to-serve populations has increasingly been implemented since the 1990s [16]. Research studies of all kinds of telepsychiatry services, or telemental health, have mainly examined these services from a medical perspective, focusing on clinical outcomes [58, 62, 65]. However, there are also numerous studies from patients' perspectives, but these studies have mainly used satisfaction questionnaires to determine patients' satisfaction with telepsychiatry services [58, 64]. Several studies have reported that being physically present with a client does not appear to be essential for generating therapeutic outcomes [29, 58]. Some studies of patients' responses to telepsychiatry services suggest high levels of satisfaction with the services due to accessibility, convenience and flexibility [36, 53, 59]. A systematic review exploring the preferences of rural and remote youth identifies a preference for accessing mental health services faceto-face over telehealth, but long distances can be a reason for conducting therapeutic conversations through telehealth [49]. On the other hand, in a study in the field of paediatric services, children and youths reported that the implementation of VC alleviated their anxiety about consulting a psychiatrist as they felt more scared of being judged in F2F consultations [8]. Several studies have been published recently, notably following the experience of lock-down during Covid. The findings are heterogenous: providing VC as a part of the mental health services is generally seen as a positive, but there are concerns related to legal and regulatory frameworks and privacy [52], the screen being a barrier to establishing therapeutic alliances [60], difficulties recovering from problems for patients and regulating the work situation for therapists [37, 69]. These studies, among others, underscore the significance of comprehensively examining various facets and perspectives of VC to ensure the robust and beneficial utilization of this service.

Theoretical framework

In the period of transition from one millennium to another, several theories about communication technology, changes in society, social relations, and identity were proposed [68]. Today, we often communicate with each other through screens, which challenges us in different ways. Sociological approaches are valuable for exploring interactional issues, and studies indicate that implementing digital solutions such as VC can transform traditional doctor–patient interactions [3, 63]. In this article, we apply Goffman's interactional concepts to analyse

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mediated interactions in therapy sessions based on the experiences captured through qualitative interviews with youths.

Erving Goffman's [18] dramaturgical approach to social interaction, developed in The presentation of self in everyday life, is a key perspective in microsociology. Drawing from theatrical vocabulary and concepts, Goffman's analysis focuses on how people present themselves and behave in the presence of others. By introducing VC, clinics can decouple services from specific places. This phenomenon can be understood in light of Goffmans' theory of frontstage and backstage related to the sense and impact of place, or placelessness [18]. By applying microsociological perspectives to analyse experiences of interaction via VC, we can gain insights into how patients act and present themselves and investigate how particular places affect the content and quality of the interaction. When people come together, they need to establish a common understanding of the situation they share with others. The concepts of frontstage and backstage refer to different presentations of the self during everyday life. Frontstage, people are visible to others and tend to act in a way that allows them to present an acceptable self to the world whereas backstage, people behave differently and do not have to play a predefined role since they are not seen or heard by a given audience. Several studies have adapted Goffman's interactional framework to analyse mediated communication [23, 44, 56]. Different communication technologies offer different levels of social presence, the extent to which one feels the presence of a person with whom one is interacting [30, 41]. Goffman's theory also highlights the significance of micronorms, which are subtle social rules that contribute to upholding traditional social order. These norms dictate behaviour and interactions in both physical and digital spaces. Another sociological approach is medium theory, which is a promising perspective for the study of communication technologies as it argues that technologies are themselves social contexts that impact interactions, social identities and the balance between people [46]. Electronic media facilitate communication between people who are located in different places [45]. Meyrowitz's medium theory highlights the significance of communication media and spaces in shaping social dynamics, while trust in these interactions is influenced by the safety and control individuals perceive in different settings [45]. Media richness theory, which focuses on the content the medium conveys, was built on social presence theory and postulates that different media differ in their ability to facilitate understanding when people are communicating [25]. Different media have varying abilities to transmit multiple cues, with face-to-face communication being the richest medium due to the ability to use natural language, tone of the voice, context and nonverbal signals [28, 35]. Meyrowitz [44] argues that electronic media transcends physical boundaries, bringing people closer together. While VC enables people to see and hear each other, how it affects the quality of therapist-patient interactions remains an empirical question [15]. Together, Goffman's theory of frontstage and backstage and Meyrowitz's medium theory elucidate the significance of body language, micronorms, space demarcation, and trust dynamics in shaping social interactions. These elements play a pivotal role in how individuals present themselves in different settings, namely frontstage and backstage, and influence trust in contexts such as home, school, and the workplace. The introduction of electronic media means that communication between humans is no longer bound to specific physical locations. This paper will primarily concentrate on elucidating the experiences of young individuals in the context of VC versus face to face (F2F), which is essential for further developing the structure and content of digital services in mental health care.

Methods

Research design

This qualitative study was based on hermeneutic-phenomenological methodology, an approach that entailed focusing on obtaining a profound understanding of the life-world experiences of informants concerning the utilization of VC [31, 32, 54]. Reporting of this study follows the COREQ (Consolidated Criteria for Reporting Qualitative Research) guidelines to ensure rigor and transparency in qualitative research (Supplementary file BMC COREQ checklist). The researchers approached both the data collection and analysis with an open mind, recognizing that the theoretical framework and their own preconceptions could influence the outcomes. The empirical basis for this study is several in-depth interviews with youths using VC to communicate with their therapists. The study utilized a qualitative reading and analysis of the interviews to uncover and interpret how the youths perceived and experienced the use of VC when meeting their.

Selection and sample

Administrative personnel at the mental health hospital identified youths between 16 and 23 years old who had attended therapy sessions via VC after the COVID-19 restrictions were implemented in the department of specialized mental health services for young people, Child and Youth Outpatient Clinic (BUPA). A volunteer BUPA employee (psychologist) identified and contacted youths who fit the inclusion critera, which were 1) between the ages of 16 and 23 at time of recruitment, and 2) had

received video consultations during the COVID-19 pandemic (16th of March 2020 to 5th of August 2021), and asked whether they wanted to participate in the study. The recruitment was carried out from 15th of August 2021 and ended 25th of March 2022. Contact was made via telephone, and all informants were asked if they wanted to talk about their experiences using VC for therapy sessions. A total of 33 participants were included in the study (Table 1).

Context of this study

The services used were specialized mental health services for young people (BUPA), and the population in this study was in northern Norway. This is a sparsely populated rural area. Since the distances between where youths live and the location of services can be considerable, hospitals have worked for decades to implement digitalization and communication technologies for distance follow-up. The video consultation system in use during the study period was Skype for Business, which the hospitals had been using in this capacity for four to five years. The procedure for using video in consultations is described in the following section. The therapists sent invitations via e-mail to the youths, who only had to click on a secure link in the calendar to join the meeting. The youths could could communicate with the therapists if they had access to a secure connection from a computer, tablet, or smartphone.

Interviews

A semi-structured interview guide (supplementeray file, interviewguide eng.), was used to ensure that all themes were covered during an interview session [31]. At the same time, the informants were given space to speak freely about their experiences. During the project the researchers had a close collaboration with five persons with user experiences, defined as co-researchers, including one next of kin (parent to a person with personal experience), and four individuals with personal experience with using VC [20]. The goal for this co-creation group was to grasp youths' experiences with the introduction and use of video consultations. This group was established early in the project to ensure

collaboration and user involvement throughout the entire research process. To include all co-researchers perspectives, the co-creation within the group were mostly workshops with different focus areas. This to develop, among others, the content and the structure of the interview guide based in a common understanding of all the participants in this group.

Telephone interviews following this semi-structured interview guide were conducted between August 2021 and April 2022. Conducting an interview over the telephone changes some aspects of the communication compared to physical meetings, which was also a topic of this study. Our experience in this study was that it is feasible to conduct interviews by phone. The guide was sent to the informants before the interview took place. The aim was to explore why the informants started using video consultation; how they used the technology, including what kind of technology they used and where they were located during the sessions; and how they perceived using video consultations with their therapists. Semi-structured interviews allow informants to freely express their views on the issue of interest and ask questions, facilitating two-way communication [5]. This flexible interaction between informants and researchers is quite similar to conversational exchange in daily life [10]. The objective was to explore informants' viewpoints and extract themes through the analysis process. All the interviews were based on a set of specific aspects regarding the use of VC. The themes covered in the interview guide include the following:

- Why the youths were in contact with a hospital unit and why they used VC,
- Learning and using the technology,
- VC sessions with mental health therapists,
- Cooperation meetings with additional actors and relations and communications.

Individual interviews were conducted with youths by phone from August 2021 to April 2022 by all the authors. The average duration of the interviews was 28 min. All interviews were recorded and transcribed

Table 1 Information informants and selection process (total N included = 33)

Information participants and selection process (Total N included in the final selection = 33)					
Female	Male	Age	The criterion of inclusion was:	N Agreed to be contacted by a researcher to schedule an interview	Retract from the study after the interviews were conducted
N=25	N=8	16–23	1) Retrieved one or several treatments on video consultations between 16th of March 2020 to 5th of August 2021 2) Age between 16–23	N=42 N=9 didn't answer or changed their mind	None

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verbatim, and the informants were given the opportunity to read through the transcripts. The original language of the interviews was Norwegian, and quotes were translated after the analysis.

Analysis

Focusing on individuals is a normal way of analysing interviews [70]. However, in this article we present a theme-based analysis with the goal of identifying themes across the interviews [31], p. 201). The analysis has been inspired by an abductive approach [6], where the goal is to move from the informants' descriptions, concepts and interpretations of the activities to more generalized concepts and theories, including a method of theory construction. Abduction is based on iterative or cyclic processes rather than on linear logic. The analysis of the transcripts was structured by the interview guide, which not only led to the identification of anticipated themes but also revealed additional, unexpected findings beyond the initial scope. Through an in-depth reading of the interviews, the data were coded to identify patterns, similarities, and differences in how the informants interpreted and viewed the use of VC technology [31], p. 201). Subsequently, through a comprehensive discussion, we identified a subset of themes that pertained to inquiries concerning the interaction dynamics between therapists and patients, with a particular focus on the questions regarding the communication between the therapists and the patients to be interesting, including the difference between therapy via VC and face to face. The phenomena described under the themes are not discrete. We reread the interviews, this time guided by theoretical frameworks, mainly theories focusing on interaction, especially Goffman and the presentation of self in everyday life [18].

Results

Based on our analysis of the interviews with the users, we identified two main themes to guide our investigation: The first them was 1) Therapy through a screen versus F2F, with subthemes a) Verbal expression – hard to share feelings and thoughts (F2F); b) Body language and the screen; and c) Clinical Gaze – the loss of eye contact. The second main theme was 2) Different physical contexts for therapy through a screen with the subthemes a) Therapy at Home – sense of place, and b) Therapy at School – loss of privacy. The phenomena described under the themes are not discrete. Typically, VC was always performed at a specific place. The selected quotations exemplify the viewpoints expressed by several of the informants during the interviews. We have not investigated different forms of therapy, which is defined here as the communication and interaction between therapist and user.

Therapy relation through a screen versus F2F

a. Verbal expression – the difficulty of sharing feelings and thoughts (F2F)

In the interviews, informants compared VC counselling with in-person encounters, and many reported that the two forms resembled each other. Like in regular in-person meetings with a therapist, real-time spoken conversation is a major part of meetings via VC. However, the informants thought that there were significant differences between speaking in a VC setting and attending meetings at the clinic. When describing their experience of talking to the therapist during VC, one of the informants commented on how they felt that meeting the therapist virtually made them shy away from discussing deeper issues.

I struggled to open up when it was on Skype, could not say anything. It was mostly the therapist who spoke. Mm, but I do not know why it turned out like that. It was just a bit unpleasant to have to open up over the screen. IP3

Several of the informants expressed that they do not share their emotions and thoughts in VC as they would in face-to-face meetings. It was also mentioned that they found it difficult to express feelings, including sorrow, during VC. "The only thing is that I think it is difficult to express emotions through Skype". IP18.

Some informants reported that working with a therapist in VC made them less talkative, less active in the conversation and less willing to express emotions than when meeting the therapist in person. However, there are examples of informants who believed that they communicated better via the screen *but were nevertheless* more inclined to open up and share their inner thoughts when visiting the clinic (i.e. despite communicating better on the screen they felt more comfortable opening up in person).

However, in physical meetings, I feel that you can open more up/talk more freely. It's difficult to explain why, but there is just something inside me that makes it easier to speak in a physical meeting and to explain things with my own words. IP5

b. Body language and the screen

One of the informants said that it is more challenging to communicate via the screen because you are not able to fully observe body language.

He has not caught much of my body language.

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On Skype, he could only see my face and the words that were audible. Body language has great significance for communication, including verbal communication. IP14

The informants were more focused on how VC allows for less display of nonverbal language, affecting therapists' observation and interpretation, rather than how it affects patients' ability to read the therapist. The ability to display emotions and moods is a key feature in therapy sessions. One of the informants shared their impression that the therapist was not able to observe their mood as effectively when they met via the screen compared to when they were in the same room.

I feel that maybe the therapist is not able notice if I'm truly down or sad. She's not able to do that in a way she would have seen in the same room. So... she doesn't fully notice the mood. IP3

It is not just that the informants tend to suppress or restrain emotions during video therapy; they also think that it is difficult for the therapist to notice the vibes people are sending out. In a physical meeting, the therapist is able to observe and interpret the entire body language of the patients for cues about their emotions.

Vibes that we send out and that other people notice are very difficult via a medium such as Skype. You feel sorrow or joy from the other person (when sitting F2F). IP25

If she could not see [my] body language, it was difficult for her to interpret what I was thinking. IP7

One informant mentioned that they use hand gestures to express their emotions, and they believe that the therapist is better able to read emotions in a physical meeting because they can see the full picture of the body language.

On Skype, it was hard[er] to see on his face if he actually understood what I meant than when we were sitting together. It was a bit better and stuff like that. To get in touch with each other then and see each other like that with body language. IP3

c. Clinical gaze – the loss of eye contact

When people come together face to face to talk, we look at each other. Eye contact is an important aspect of nonverbal communication. The most com-

mon way to show attention is to gaze at the person who is speaking. Some informants said that they were not able to have the same eye contact during VC as they would in a face-to-face meeting at the clinic.

I feel that when we are sitting in the same room, you are able to have eye contact, but that is not possible when you are on video. We don't think about that, but it's a big difference. So it does not feel like that they look at me in the same way. IP31

Some of the informants thought that VC changed the way we look at each other during a conversation. They said that when they are doing video therapy, they feel that they are not expected to maintain eye contact all the time as they do in a faceto-face meeting. In a VC session, some informants thought that because there was less attention given to them, it became easier for them to talk.

(...) [VC is] a positive thing because you are not too focused on keeping eye contact all the time. When you are digital, it is more natural to not stare/gaze at the person all the time. IP13

Different physical contexts for therapy through a screen

The informants had mixed feelings about talking to the therapist remotely via a screen. There were those who believed that communication via a screen is a viable alternative to F2F meetings. Other informants stated a preference for travelling to the clinic and talking to the therapist in her or his office, and in some cases, the informants said that meeting the therapist through a screen was just a way to maintain contact during the lockdown period. Typically, the informants in this study would travel to the clinic to meet with their therapists at the therapists' offices. While several informants indicated that their travel time to the clinic was relatively short, others residing in rural areas reported significantly longer travel duration, often several hours, to reach the clinic. Some informants expressed a desire to choose between VC and F2F meetings as they thought that the two ways of communicating serve different purposes.

a. Therapy at home – sense of place

Most of the informants in this study reported that they had been at home while participating in the therapy sessions. The informants had mixed feelings about receiving video therapy at home. One of the informants stated that they dared to say things that they otherwise wouldn't because they were comfortable in their own home: IP19 (...) "I was at home, and

it's comfortable to talk about things, and there were things I dared to say". Another informant described how being at home meant that they had more control of the situation, and it also made her dare to speak more openly.

(...) At home, it was actually nice because I felt it was not too much attention to me; it was more comfortable and [I could] take it easy. Sometimes, at the clinic, I maybe felt a bit nervous because it's difficult not to be able to think about what you want to say. While at home, I could think more before answering. IP11

It's maybe easier to say things (via VC), it's less personal and you are sitting, or I did at least, at home, in your own room and you are relaxed in a way. IP9

Other informants reported that being at home was not an optimal solution because they could not tell the therapist things out of fear that their family members would hear. Some informants who lived with their families said that it was annoying to talk to their therapist because someone in the house could hear their conversation because the rooms in the houses or flats were not soundproof.

Since so many were at home, together with me, I was not comfortable talking. It was very unpleasant to sit at home, knowing that my stepsister was lying in her bed in her room, beside my room, and that she could hear everything I said. In addition, if someone were sitting in the living room right outside, they would hear everything I said. I felt I couldn't sit anywhere where I could talk privately because there is no sound proofing between the rooms in our house. IP7

The informant said that because they did not access to a private room, it felt almost as if the therapy was on pause. On the other hand, one informant pointed out the advantage of doing VC from home, as it allowed for privacy.

And I think it depends on the day, when feeling [up] for it, if I'm feeling all right and want to meet (F2F) and talk, or I'm lazy and want to stay home, and then it would be very nice to have the possibility to have a video meeting at home, not having to dress properly and so on. IP2

Others also stressed the point of avoiding being

in public spaces, such as a bus, after a demanding therapy session and appreciated the opportunity to just lie down and relax and therefore avoid headache.

b. Therapy at school – loss of privacy

All of the informants still in school were pupils at upper secondary schools. Some of them had the option to participate in VC at school. However, most of the informants expressed discomfort with doing VC at school. One of the informants reported that even if there was an opportunity to arrange VC at school, they preferred to have therapy sessions at home. One obstacle to doing VC at school was that teachers might enter the room, even when the door was locked. One reason could be that the rooms were often occupied during the COVID-19 pandemic, and the pupils had to use teachers' offices for therapy sessions. Additionally, there were instances when the scheduling of the rooms was incorrect, requiring extra effort to resolve the issue.

I always had sessions at home because it would have been uncomfortable sitting at school. Well, right? Even if you lock the door a teacher may enter, because... it's not all the time that the room is registered in a correct way and then you have to go and report it, and then there is a lot of fuss. IP9

Informants who had used VC reported that they have encountered problems with privacy issues. One of the informants mentioned the unsettling feeling of not knowing if there were people just outside the door listening to the conversation. The uncertainty of when somebody, a fellow pupil or a teacher, might enter the room made it difficult for the person to express what they truly wanted to say to the therapist. On the other hand, one informant believed it was acceptable to meet their therapist via VC at school due to the time it took to go to the clinic and return to school. The informant was provided with the option to have VC in a room at the school, ensuring that they could be alone during the session.

I thought a video call was very good because then I did not have to go from school and back. There was a lot of travelling, which took a lot of time. However, I got a room at school where I could sit in private, and it does not take as much time when you have finished to get back to class. IP12

The environments and contexts in which VC sessions were conducted were frequently characterized as challenging, posing difficulties for effectively

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expressing emotions through the screen. Furthermore, in instances where the sessions were held at school, therapists were not able to provide the physical presence required for patient care.

It is more difficult to express feelings when we are on video, at least I would say. I felt a little ashamed if I nearly started to cry because I was at school and the therapist couldn't have done anything, and then it's embarrassing to go back to the classroom. IP14

The informants tried to organize video therapy sessions to minimize time absent from school, either by scheduling sessions outside of school hours or during the last school hour of the day. This was done to avoid having to go back to school after a video therapy session at home. They found it embarrassing to go back to the classroom after they had been crying during a therapy session. When youths are seen at the clinic, it takes time for them to return to school, which gives them an opportunity to prepare for meetings with fellow pupils. The informants reported different experiences using VC as a platform for communication with their therapists. There are those who prefer meeting the therapist F2F rather than via the screen. Other informants said that they preferred to communicate with the therapist via the screen. However, there are also those who said that they sometimes preferred talking with their therapist via VC while at other times they preferred to talk F2F.

Limitations and strengths of the study

This study was conducted within the context of COVID-19 restrictions, which mandated the use of VC to sustain treatment. Through the data gathering, we contacted several youths in the region with diverse perspectives and experiences related to digital therapy, thus mitigating potential bias. One potential limitation of the study lies in its reliance on digital interviews. As demonstrated in this investigation, engaging in video-based communication can introduce filters and create a sense of distance between the participating parties. Consequently, the information gleaned from these interviews might have been different had the interviews been conducted in person.

Discussion

The onset of the COVID-19 pandemic prompted a significant transformation in the delivery of mental health services, compelling many service users to adapt to virtual communication through VC [13, 27, 57]. The widespread

implementation of lockdown measures during the early months of the pandemic necessitated remote alternatives to in-person mental health consultations. The current body of research, including this paper, has revealed distinctions between screen-based therapy and traditional F2F encounters, with particular emphasis on the limitations of technology in effectively transmitting nonverbal cues and emotions [7, 12, 40]. The analysis of digital interactions within therapeutic video conversations, as outlined in this article, can provide valuable insights into the development and enhancement of digital therapy in the mental health field. By deepening our understanding of how technology and screen-based communication influence interpersonal relationships, trust and openness, we can better comprehend the distinct ways in which young people engage and behave in digital contexts compared to physical ones. Our discussion echoes Goffman's theoretical framework, which illuminates the significance of nonverbal cues as conduits for the expression of emotions, intentions, and adherence to societal norms within face-to-face interactions, as well as Joshua Meyrowitz's medium theory, which explores how communication technologies alter social dynamics and the experience of place.

In line with Goffman's ideas, our discussion unfolds along two principal themes which serve as guiding threads for our inquiry: 1) The importance of locations and contexts for the presentation of self, and 2) Different settings create varying levels of trust.

The importance of locations and contexts for the presentation of self

While numerous theories in media studies have traditionally centred on the content that media convey, Meyrowitz [45] contends that certain theorists have directed their attention towards alternative facets, specifically examining how these aspects contribute to shaping media physically, psychologically, and socially differently from other media and face-to-face interactions [45]. Even the same or similar content can be perceived differently in different media. We have noted how Goffman uses theatrical metaphors to analyse social encounters and interactions between people. Specifically, he analyses situations where people are able to observe each other. According to Goffman [19], body language is an essential part of, and plays a crucial role in, how we present ourselves, and it is used to reveal our feelings and support our verbal messages. Unfortunately, when communicating through VC, only the upper body and face are usually visible, limiting the ability to observe, make eye contact and read body language, especially when trying to communicate attitudes and emotions [2, 7, 14]. The youths in our study were more concerned about the therapists' inability to observe

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the full body or other nonverbal cues than the other way around. The lack of access to full-body language may hamper communication between therapists and youths. Both Goffman's and Meyrowitz's theories touch upon the concept of space demarcation, the separation of physical and virtual spaces [19, 45]. This demarcation influences how individuals interact and behave in different environments, which may also impact the experience of therapy in different contexts. Some youths focused on the negative aspects of being located in different places. The informants used the word "impersonal" to describe the lower degree of social presence when taking part in VC with their therapist. This finding is consistent with previous research showing that the use of VC can create a sense of distance and impersonality between informants [33]. There is a feeling of social distance even though the communication partners can see each other, a feeling that prevented some of the youths from talking freely. The absence of physical presence can create doubts about the authenticity and reliability of the interaction [37]. However, other informants found that the screen functioned like a shield. The fact that the VC medium was considered to be impersonal compared to F2F gave them a feeling of being more in control [37, 42].

The interaction order, which is a concept used to describe a set of shared rules and expectations, creates predictability through the actor's commitment to interactional norms and rules. When a youth is in the office at the clinic, there is a set of micronorms that inform their approach to communication and behaviour. When using VC, the interaction order is disrupted; the way people interact may change because it is more challenging to uphold the traditional interaction order [42]. The interaction order of VC requires youths to navigate a hybrid space that combines elements of both public and private life, where traditional social cues are either absent or transformed and new norms must be established. When communicating via a screen, some of the informants said that they found that the rules for eye contact were less strict and that they felt that they did not have to answer a question immediately, as they would in a F2F meeting; this was also revealed in other studies [7, 37, 42, 48]. However, this feeling of impersonality did not necessarily have a negative effect on the informants' ability to speak. In fact, some informants reported that the use of VC made it easier for them to share their personal thoughts and feelings with their therapist because the screen acted as a kind of shield, allowing them to feel more comfortable and less vulnerable [4]. In addition, for some youths, VC can offer a more comfortable and familiar environment [17] and potentially reduce the anxiety associated with in-person meetings. VC allows them to present themselves in a controlled manner, with opportunities for impression management. This may, however, conflict with their true needs.

Different settings create varying levels of trust

Trust in communication is influenced by the perceived safety of the environment, and this is an important issue when understanding the use of VC: place matters [24, 43]. Trust and cooperation in a therapist-patient relationship are built upon the understanding that the therapy room is a safe space where everything shared remains confidential, which is also related to technical issues and who is in the room [22, 47]. VC challenges this condition. Doing VC sessions at school means that patients must meet their therapists in places that are not meant for such activities. Therapists cannot fully control who might have access to the session, and as informants have reported, youths often struggle to find a private space [17, 39]. This could be because a room is not soundproof, or it is not possible to lock the door, and that the practice of doing video therapy sessions collides with social practice. The closeness in distance and time between different spaces, for example between the VC room and the classroom, made some of the informants retain information that could have triggered strong emotional responses. Consequently, privacy concerns impacted their willingness to express emotions and discuss sensitive topics during VC sessions [39]. Some found it difficult to move from being a patient to being a pupil in just a few minutes. When visiting the office at the clinic, there was a time gap between finishing the therapy session and returning to the classroom. Informants encountered some of the same challenges doing video therapy at home as in school, including finding a private and soundproof space [15, 38]. The home environment offers youths a greater sense of control, and they often employ screens as shields for online interactions. Concerns about privacy emerged due to experiences related to the lack of soundproofing, which impacts trust in both home and school environments [38]

Conclusions

In this study, we revealed that youths' experiences with the use of VC in therapy are diverse and heterogeneous. As noted in the background section of this paper, the utilization of telepsychiatry within specialized mental health services has significantly decreased, resulting in reduced reliance on video consultations (VCs). It is challenging to identify exactly what factors are responsible for this decrease, but some barriers related to entail meaningful and safe recovery are presented. By shedding light on youths' experiences through the theoretical lenses of Goffman and Meyrowitz, in this study we found that F2F communication may be more natural, reduce ambiguity

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and uncertainty, require less cognitive effort to process, and provoke greater physiological arousal than digital communication. It also offers context, synchronicity, nonverbal signals, and the maximum quantity of cues, all of which increase the quality of interaction [28, 35]. On the other hand, there are several advantages to the use of VC for young people. For instance, they avoid losing school days, avoid long travel distances, connect faster when needed, and have shorter conversations to address challenges in collaboration.

One of the most important issues might be to reorganize the services and develop and implement a model of blended and persohn-centred care [34, 40, 55]. The use of digital tools in therapy should be discussed early during treatment, especially for youths, to assess the situation and context. The incorporation of VCs in therapeutic interventions may present avenues for empowerment by affording service users the agency to choose VC as their preferred medium, thereby enhancing the accessibility of services, even in the presence of physical limitations related to things such as schoolwork. Overall, further research is needed to explore how we can succeed in the future in delivering mental health care for youth in our digital world. There is a clear imperative for further inquiry, particularly through qualitative research, to establish a robust, evidence-based foundation that can inform the development of customized services for individuals in recovery and those in need of mental health care. Future research should focus on capturing service users' lived experiences, fostering cocreation among diverse stakeholders, and addressing the scalability of VC usage while ensuring the appropriateness, safety, and accessibility of the services delivered.

Abbreviations

BUPA

VC Video consultations E2E Face to face

The Child and Youth Outpatient Clinic at two hospitals in Norway

(Barne- og ungdomspsykiatrisk avdeling—BUPA)

Supplementary Information

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Supplementary Material 1.

Supplementary Material 2.

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Authors' contributions

All the authors, Monika K. Gullslett, Henriette L. Nybakke, Frank A. Larsen, have made significant contributions to the manuscript. The study was conceived

and drafted in close cooperation. All authors participated in the process of data collection, conducted the analysis and reflected on the findings together. The authors contributed to the writing of the paper's background and discussion sections and its revisions. The first and second authors were responsible for writing most of the theoretical perspectives in the background section. The manuscript was written in collaboration, and all the authors read and approved the content of the final manuscript.

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Data availability

The data used in this paper will not be openly shared to protect the included informants' privacy and due to general security concerns. Permission to reproduce material from other sources. Not relevant.

Declarations

Ethics approval and consent to participate

The study was approved in advance by the ethical committee (Privacy Commissionaire ID 2717, Research Funding Organisation (project ID HNF1592-2)). Consent was given in accordance with the laws governing privacy in research. Written informed consent was obtained from all participants (informants), in the study due to approval of the etichal committee (Privacy Commissionaire ID 2717). The informantss were given both written and verbal information about the topic and goal of the study, as well as information about the researchers and interview process, before agreeing to participate. The included informants sent their signed consent via mail to the first author, and these were stored without any connection to the gathered data material.

Consent for publication

The authors confirm consent to publish this paper in accordance with the study informants' consent.

Competing interests

The authors declare no competing interests.

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References

- Abid R, Rizwan M, Veselý P, Basharat A, Tariq U, Javed AR. Social networking security during COVID-19: a systematic literature review. Wirel Commun Mob Comput. 2022;2022:1–21.
- Alvari G, Coviello L, Furlanello C. EYE-C: eye-contact robust detection and analysis during unconstrained child-therapist interactions in the clinical setting of autism spectrum disorders. Brain Sci. 2021;11(12):1555.
- Andreassen HK, Dyb K, May CR, Pope CJ, Warth LL. Digitized patient–provider interaction: How does it matter? A qualitative meta-synthesis. Soc Sci Med. 2018;215:36–44.
- Backhaus A, Agha Z, Maglione ML, Repp A, Ross B, Zuest D, Rice-Thorp NM, Lohr J, Thorp SR. Videoconferencing psychotherapy: a systematic review. Psychol Serv. 2012;9(2):111.
- Barriball KL, While A. Collecting data using a semi-structured interview: a discussion paper. J Adv Nurs. 1994;19(2):328–35.
- Blaikie N. Approaches to social enquiry: advancing knowledge. 2nd ed. Cambridge: Polity Press; 2007.
- Borghouts J, Eikey E, Mark G, De Leon C, Schueller SM, Schneider M, Stadnick N, Zheng K, Mukamel D, Sorkin DH. Barriers to and facilitators of user

- engagement with digital mental health interventions: systematic review. J Med Internet Res. 2021;23(3):e24387.
- Boydell KM, Volpe T, Pignatiello A. A qualitative study of young people's perspectives on receiving psychiatric services via televideo. J Can Acad Child Adolesc Psychiatry. 2010;19(1):5.
- Bråten S. Dialogens vilkår i datasamfunnet: essays om modellmonopol og meningshorisont i organisasjons-og informasjonssammenheng. Oslo: Universitetsforlaget; 1983.
- Brinkmann S. Qualitative interviewing: conversational knowledge through research interviews. Oxford: Oxford University Press; 2022.
- Bucci S, Schwannauer M, Berry N. The digital revolution and its impact on mental health care. Psychol Psychother Theory Res Pract. 2019;92(2):277–97.
- Cataldo F, Chang S, Mendoza A, Buchanan G. A perspective on client-psychologist relationships in videoconferencing psychotherapy: Literature review. JMIR Mental Health. 2021;8(2):e19004.
- 13. Cooper N, White J, Toth K, Naag N, Murphy M. A UK School-based mental health service response to the covid-19 Pandemic. Hellenic Child Adolesc Psychiatry. 2021;9:47–59 https://www.place2be.org.uk/media/ti0nfw5y/cooper_uk_school_special-article_2021-final-published.pdf.
- 14. De Witte NA, Carlbring P, Etzelmueller A, Nordgreen T, Karekla M, Haddouk L, Belmont A, Øverland S, Abi-Habib R, Bernaerts S. Online consultations in mental healthcare during the COVID-19 outbreak: An international survey study on professionals' motivations and perceived barriers. Internet Interv. 2021;25:100405.
- Frittgen E-M, Haltaufderheide J. 'Can you hear me?': communication, relationship and ethics in video-based telepsychiatric consultations. J Med Ethics. 2022;48(1):22–30.
- Gajaria A, Conn DK, Madan R. Telepsychiatry: effectiveness and feasibility. Smart Homecare Technology and TeleHealth. 2015;(3): 59–67. https://doi. org/10.2147/SHTT.S45702.
- Galvin E, Desselle S, Gavin B, Quigley E, Flear M, Kilbride K, McNicholas F, Cullinan S, Hayden J. Stakeholder perspectives and experiences of the implementation of remote mental health consultations during the COVID-19 pandemic: a qualitative study. BMC Health Serv Res. 2023;23(1):1–14.
- 18. Goffman E. The presentation of self in everyday life. Harmondsworth: Penguin Books; 1978.
- Goffman E. Interaction ritual: essays in face-to-face behavior. 1st ed. (new publishing). New York: Routledge; 2017. https://doi.org/10.4324/97802 03788387.
- Gullslett M, Kjeklesæter M, Nybakke HL, Larsen F. Digital samarbeidsbasert forskning innen psykisk helsevern for barn og unge under covid-19: Hvordan skape virksomt digitalt samarbeid? Erfaringer fra et kompetanseråd. Tidsskrift for psykisk helsearbeid. 2024;21(4): 358–68. https:// doi.org/10.18261/tph.21.4.
- Gullslett M, Nybakke HL, Larsen F. Videokonsultasjoner i psykisk helsevern ved Finnmarkssykehuset BUPA og UNN BUPA - Brukere og pårørendes erfaringer når videokonsultasjoner overtar for fysiske møter i psykisk helsevern. Tromsø. Helse Nord Trust; 2024. HNF1592–21. https://forsknings prosjekter.ihelse.net/prosjekt/HNF1592-21.
- Gullslett MK, Kristiansen E, Nilsen ER. Therapists' Experience of Video Consultation in Specialized Mental Health Services During the COVID-19 Pandemic: Qualitative Interview Study. JMIR Hum Factors. 2021;8(3):e23150.
- 23. Håland E, Melby L. Negotiating technology-mediated interaction in health care. Soc Theory Health. 2015;13:78–98.
- Hoffmann M, Hartmann M, Wensing M, Friederich H-C, Haun MW. Potential for integrating mental health specialist video consultations in office-based routine primary care: cross-sectional qualitative study among family physicians. J Med Internet Res. 2019;21(8):e13382.
- 25. Ishii K, Lyons MM, Carr SA. Revisiting media richness theory for today and future. Human Behav Emerg Technol. 2019;1(2):124–31.
- James A. The Odd History Of ELIZA, The First Artificial Therapist. The Mindful Therapist; 2022. https://www.themindfultherapist.co/post/the-odd-history-of-eliza-the-first-artificial-therapist.
- 27. Kakunje, A., Mithur, R., & Kishor, M. Emotional Well-being, Mental Health Awareness, and Prevention of Suicide: Covid-19 Pandemic and Digital Psychiatry. Archiv Med Health Sci. 2020;8(1).
- Kock N. The psychobiological model: Towards a new theory of computermediated communication based on Darwinian evolution. Organ Sci. 2004;15(3):327–48.

- 29. Krane V, Kaasbøll J, Kaspersen SL, Ådnanes M. 'It's not like real therapy': young people receiving child welfare services' experiences of video consultations in mental healthcare in Norway: a mixed methods approach. BMC Health Serv Res. 2023;23(1):949.
- 30. Kuyath SJ, Winter SJ. Distance education communications: The social presence and media richness of instant messaging. J Asynchronous Learn Net. 2006;10(4):67–81.
- 31. Kvale S, Brinkmann S. Interviews: Learning the craft of qualitative research interviewing. California: Sage; 2009.
- 32. Kvale S, Brinkmann S. Interview: Det kvalitative forskningsinterview som håndværk. København: Hans Reitzels Forlag; 2015.
- 33. Kysely A, Bishop B, Kane R, Cheng M, De Palma M, Rooney R. Expectations and experiences of couples receiving therapy through videoconferencing: A qualitative study. Front Psychol. 2020;10:474624.
- Lattie EG, Stiles-Shields C, Graham AK. An overview of and recommendations for more accessible digital mental health services. Nat Rev Psychol. 2022;1(2):87–100.
- Lewandowski J, Rosenberg BD, Parks MJ, Siegel JT. The effect of informal social support: Face-to-face versus computer-mediated communication. Comput Hum Behav. 2011;27(5):1806–14.
- Li H, Glecia A, Kent-Wilkinson A, Leidl D, Kleib M, Risling T. Transition of mental health service delivery to telepsychiatry in response to COVID-19: A literature review. Psychiatr Q. 2022;93(1):181–97.
- Liberati E, Richards N, Parker J, Willars J, Scott D, Boydell N, Pinfold V, Martin G, Dixon-Woods M, Jones P. Remote care for mental health: qualitative study with service users, carers and staff during the COVID-19 pandemic. BMJ Open. 2021;11(4):e049210.
- Lüchau EC, Jepsen C, Grønning A, Hvidt EA. Reciprocal dynamics between patients' choice of place and how they experience video consultations: A qualitative study. Digital Health. 2021;7:20552076211052160.
- Lustgarten SD, Garrison YL, Sinnard MT, Flynn AW. Digital privacy in mental healthcare: current issues and recommendations for technology use. Curr Opin Psychol. 2020;36:25–31.
- 40. Marent B, Henwood F. Digital health: A sociomaterial approach. Sociol Health Illn. 2023;45(1):37–53.
- Marent B, Henwood F, Consortium E. Platform encounters: A study of digitised patient follow-up in HIV care. Sociol Health Illness. 2021;43(5):1117–35.
- Mercadal Rotger J, Cabré V. Therapeutic alliance in online and face-toface psychological treatment: comparative study. JMIR Mental Health. 2022;9(5):e36775.
- Meyrowitz J. No sense of place: the impact of electronic media on social behavior. Oxford: Oxford University Press; 1986. https://hdl.handle.net/ 2027/heb31832.0001.001.
- Meyrowitz J. Redefining the situation: Extending dramaturgy into a theory of social change and media effects. In Riggings. S.H. Beyond Goffman: Studies on communication, institution, and social interaction. London: Gruyter de Mouton. 1990;65–97.
- 45. Meyrowitz J. Mediumtheory. In: Crowley DJ, Mitchell D, editors. Communication theory today. Stanford University Press; 1994. p. 50–77.
- Meyrowitz J. Shifting worlds of strangers: medium theory and changes in "them" versus "us." Sociol Inq. 1997;67(1):59–71.
- Moeller AM, Christensen LF, Hansen JP, Andersen PT. Patients' acceptance of video consultations in the mental health services: A systematic review and synthesis of qualitative research. Digital Health. 2022;8:20552076221075148.
- Moore L, Hughes G, Wherton J, Shaw S. 'When the visible body is no longer the seer': The phenomenology of perception and the clinical gaze in video consultations. Sociol Health Illness. 2024;46(3):418-36. https:// doi.org/10.1111/1467-9566.13714.
- Mseke EP, Jessup B, Barnett T. A systematic review of the preferences of rural and remote youth for mental health service access: Telehealth versus face-to-face consultation. Aust J Rural Health. 2023;31(3):346–60.
- Negroponte N, Harrington R, McKay SR, Christian W. Being digital. Comput Phys. 1997;11(3):261–2.
- 51. Nicholas J, Bell IH, Thompson A, Valentine L, Simsir P, Sheppard H, Adams S. Implementation lessons from the transition to telehealth during COVID-19: a survey of clinicians and young people from youth mental health services. Psychiatry Res. 2021;299:113848.
- 52. O'brien, M., & McNicholas, F. The use of telepsychiatry during COVID-19 and beyond. Irish J Psychol Med. 2020;37(4):250–5.

- Orsolini L, Pompili S, Salvi V, Volpe U. A systematic review on telemental health in youth mental health: focus on anxiety, depression and obsessive-compulsive disorder. Medicina. 2021;57(8):793.
- 54. Pope C, Ziebland S, Mays N. Qualitative research in health care: Analysing qualitative data. BMJ: Br Med J. 2000;320(7227):114–6.
- Rasing SP, Stikkelbroek YA, Bodden DH. Is digital treatment the Holy Grail?
 Literature review on computerized and blended treatment for depressive disorders in youth. Int J Environ Res Pub Health. 2020;17(1):153.
- Rettie R. Mobile phone communication: Extending Goffman to mediated interaction. Sociology. 2009;43(3):421–38.
- Santosh P, Cortese S, Hollis C, Bölte S, Daley D, Coghill D, Holtmann, M, Sonuga-Barke EJ, Buitelaar J, Banaschewski T. Remote assessment of ADHD in children and adolescents: recommendations from the European ADHD Guidelines Group following the clinical experience during the COVID-19 pandemic. Eur Child Adolesc Psychiatry. 2023;32(6):921–35. https://doi.org/10.18261/tph.21.4.
- Schubert NJ, Backman PJ, Bhatla R, Corace KM. Telepsychiatry and patient–provider concordance. Can J Rural Med. 2019;24(3):75.
- Serhal E, Kirvan A, Sanches M, Crawford A. Client satisfaction and experience with telepsychiatry: development and validation of a survey using clinical quality domains. J Med Internet Res. 2020;22(9):e19198.
- Simpson S, Richardson L, Pietrabissa G, Castelnuovo G, Reid C. Videotherapy and therapeutic alliance in the age of COVID-19. Clin Psychol Psychother. 2021;28(2):409–21.
- Spitzer M, Dattner I, Zilcha-Mano S. Digital twins and the future of precision mental health. Front Psych. 2023;14:1082598.
- Thabrew H, Stasiak K, Hetrick SE, Wong S, Huss JH, Merry SN. E-Health interventions for anxiety and depression in children and adolescents with long-term physical conditions. Cochrane Database Syst Rev. 2018;8(8):CD012489. https://doi.org/10.1002/14651858.CD012489.pub2.
- Tjora A, Tran T, Faxvaag A. Privacy vs usability: a qualitative exploration of patients' experiences with secure Internet communication with their general practitioner. J Med Internet Res. 2005;7(2):e368.
- Torales J, Vilallba-Arias J, Bogado JA, O'Higgins M, Almirón-Santacruz J, Ruiz Díaz N, García O, Amarilla-Salvioni D, Castaldelli-Maia JM, Ventriglio A. Satisfaction with telepsychiatry during the COVID-19 pandemic: Patients' and psychiatrists' report from a University Hospital. Int J Soc Psychiatry. 2023;69(1):156–60.
- Trondsen M, Tjora A, Broom A, Scambler G. The symbolic affordances of a video-mediated gaze in emergency psychiatry. Soc Sci Med. 2018;197:87–94.
- Tucker I, Easton K, Prestwood R. Digital community assets: Investigating the impact of online engagement with arts and peer support groups on mental health during COVID-19. Sociol Health Illn. 2023;45(3):666–83.
- 67. Turkle S. Life on the screen. 1st ed. New York: Simon and Schuster; 1995.
- Turkle S. Reclaiming conversation: The power of talk in a digital age. New York: Penguin; 2016.
- Wagnild G, Leenknecht C, Zauher J. Psychiatrists' satisfaction with telepsychiatry. Telemed J E Health. 2006;12(5):546–51.
- Weiss RS. Learning from strangers: the art and method of qualitative interview studies. New York: Simon and Schuster; 1995.
- Weizenbaum J. ELIZA—a computer program for the study of natural language communication between man and machine. Commun ACM. 1966;9(1):36–45.

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