How the COVID-19 pandemic reshaped telepsychology: Insights from an Italian survey

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ABSTRACT

The coronavirus disease 2019 (COVID-19) pandemic rapidly boosted the introduction of certain changes in mental healthcare services, consequently driving up the adoption of remote care delivery options. We conducted an online Italian survey to evaluate telepsychology use, attitudes, acceptance, and training needs, as well as to understand patient-professional interactions in video-consultations, aiming to inform future mental healthcare practices and policies. The current study's survey responses were collected using an anonymous, self-reported questionnaire on the 'REDCap' platform from 25 October 2022 to 26 July 2023. In total, 128 mental health professionals and 113 patients completed the survey. In our sample, 69 % of patients and 79.7 % of mental health professionals reported having used telepsychology during COVID-19 pandemic; in particular, 84.6 % of patients and 95.1 % of professionals selected video-consultation modality. Data showed that participants expressed high satisfaction with this communication tool. The increase in satisfaction was directly proportional to increase in the quality of interactions and in relation to the quality of the experiences. The critical factors influencing the video-consultation experience include communication style, information completeness, patient-centredness, and the comfort underscoring the central role of the professional-patient relationship, which, substantially, remains a key element in the psychological treatment process. These findings reinforce the need for continued refinement and expansion of telepsychology services, thus highlighting the potential for integrating innovative technologies into mental health practise.

1. Introduction

The coronavirus disease 2019 (COVID-19) pandemic has transformed various healthcare service fields. To contain the virus's global spread, many public health policies have been implemented, prompting healthcare services and providers to adapt their traditional service delivery methods (Sayin Kasar and Karaman, 2021).

Although the use of remote healthcare has increased exponentially over the past decade, the onset of the COVID-19 pandemic strongly boosted the adoption of remote care delivery options (Snoswell et al., 2020). Moreover, the measures adopted, such as social distancing and home isolation, led to increased requests for assistance in the mental health field, resulting in the need for a structural reorganisation of psychological service networks (Brooks et al., 2020). Traditional in-person visits and therapy sessions became significantly limited, leading mental health professionals and healthcare facilities to rapidly adopt digital solutions and telepsychology (Shklarski et al., 2021). In particular, the term 'telepsychology', as delineated by the American Psychological Association (Joint Task Force for the Development of Telepsychology Guidelines for Psychologists, 2013), refers to the delivery of psychological services through the utilisation of telecommunication technologies; here, a professional in one location conducts the relevant practise with a patient in another location, and it is executed through digital interaction, adopting information technology or other

means of communication (Bashshur et al., 2009).

Digital technologies facilitated the provision of health services through various communication tools such as video-consultations, chat, e-mail, and telephone-calls, making mental healthcare more accessible to many (Appleton et al., 2021). Their effectiveness varies depending on the type of mental health issue being treated. For example, video-consultations is generally effective for depression, anxiety, and Post Traumatic Stress Disorders, while apps are useful for mood tracking and anxiety management (Philippe et al., 2022).

The transformation in healthcare deliveries and new intervention methods have enhanced accessibility and convenience for patients and professionals, ensuring continuity in the delivery of mental health services and promotion of individual well-being through different means. However, there may have been some obstacles in using digital systems and tools, such as unfamiliarity with the digital devices required for service provision, the non-availability or inadequacy of digital devices, and patients' lack of compliance in replacing in-person sessions with remote visits (Mann et al., 2020).

Acknowledging the growing integration of digital solutions into standard mental healthcare practices, this study explored the experiences of patients and mental health professionals with telepsychology during the COVID-19 pandemic. We conducted a national online survey to assesses telepsychology modalities, prior use, attitudes, acceptance, plans for future use, and needs for training, information, or resources with the goal of informing future practices and policies in mental healthcare. Additionally, to gain a deeper understanding of patient-professional online interactions, we specifically examined the video-consultation experience.

2. Materials and methods

We administered an online survey to investigate experiences related to the use of telepsychology among the mental health professionals who provided psychological services and the patients who received them, with a focus on the pandemic years and the period that immediately followed them.

To reach a wider audience we adopted an online convenience sample (Fricker, 2008). The survey, available in Italian and accessible on mobile, tablet, and desktop devices, was disseminated through social media platforms (Facebook and Instagram), allowing respondents free access.

The survey responses were collected using an anonymous, structured, self-reported questionnaire on the 'REDCap' platform (https://www.project-redcap.org/) from 25 October 2022 to 26 July 2023. 'REDCap' is a secure web tool for designing customised surveys and managing online databases; it is specifically tailored for supporting online and offline data acquisition for research studies.

The appropriate Ethics Committee reviewed and approved our survey dissemination in accordance with local legal standards and authorised disclosures (Protocol no. 184_2021bis). Informed consent was obtained from all participants involved in the study before responding to the survey.

2.1. Survey development and structure

We created a survey based on the recommendations of Langbecker et al. (2017), who investigated the most common surveys and tools used in remote medical research.

The survey was structured using three sections. The first section was aimed at gathering demographic data and general information; the second section was designed to collect data on the use of different alternative communication technologies (such as telephone, e-mail, chat and, video-consultation), as compared with in-person visits, before and during the pandemic; and the third section, which was accessible only to the video-consultation users, examined the following constructs: 'Satisfaction', 'Experience', 'Technical Quality', 'Usefulness/Perceived Usefulness', and 'Effect on Interaction' (Langbecker et al., 2017) (Table 1).

Table 1
List of indicators, definitions, and variables.

Constructs	Definition	Indicators
Satisfaction	Subjective evaluation of whether the user's expectations were met	- Overall satisfaction - Willingness to use/re-use
Experience	Evaluation of the user's experience of a healthcare service: the experience can be objective (e.g., waiting time) or subjective (e.g., level of patient-centredness)	- Patient-reported experience measures - Comfort - Patient-centredness
Technical Quality	Subjective evaluation of the quality of the technology used	- Audio and picture (video) - Quality - Reliability - Usability/ease of use - Intuitiveness/learnability - Privacy and security
Usefulness/Perceived Usefulness	Objective or subjective assessment that a telehealth interaction produced some benefit or met the purpose of the interaction	- Convenience - Time consequences - Cost consequences - Accessibility - Effect on continuity of care - (Future) intention to use - Willingness to use/practise - Acceptability
Effect on Interaction	Subjective assessment that the modality of communication affected clinician–patient or clinician–clinician interactions	- Communication style - Ease of communication - Completeness of information

We focused on video-consultations as they best mimic face-to-face visits. Unlike text messages and e-mails, video-consultations allow real-time interaction, enabling observation of facial expressions, speech prosody, and other non-verbal cues for a more holistic communication experience.

Finally, an additional final section, which was addressed to mental health professionals, was designed to explore whether they found it useful to receive support services for video-consultations (e.g., training regarding the ethical or legal issues of video-consultations and technical assistance with regard to using digital systems). The study participants were asked to rate their degree of agreement with several statements using a Likert scale ranging from 0 ('strongly disagree') to 4 ('strongly agree') (see Appendix A for mental health professionals survey, Appendix B for patients' survey).

2.2. Statistical analysis

A Microsoft Office Excel spreadsheet was used to collect, process, and organise the data. The statistical analysis of the data was conducted employing the R Core Team (2022). Descriptive statistics were applied to analyse the relevant data; the continuous variables were assessed using mean and standard deviations, and categorical variables were expressed as frequencies and percentages.

To better enhance the differences between groups and better understand the overall trend of responses, before the statistical analysis, the positive ('quite agree' and 'strongly agree') and negative ratings ('quite disagree' and 'strongly disagree') of the survey responses were grouped respectively into the 'agree' and 'disagree' levels.

The Shapiro-Wilk test was first applied to determine the normality of data. Then, the two groups (mental health professionals and patients) were compared using non-parametric tests: Wilcoxon test for continuous variables and the Chi-Square Test or Fisher's Exact test (for small

expected counts) for categorical variables.

To determine the presence of correlations between the survey constructs, the Spearman's rank correlation coefficient (r) was computed, and particular attention was paid to identifying high ($r = 0.7$–0.9) and very high ($r = 0.9$–1) positive and negative correlations (Mukaka, 2012). All statistical significance were established at $p < 0.05$.

3. Results

3.1. Patients

Out of the 114 patients who received the survey, 113 (78 women; mean ± SD, age: 35.3 ± 12.8 years; education: 16.5 ± 2.6 years) completed it, resulting in a high completion rate of 99.1 %. Most respondents worked in Northern Italy (80/113, 70.8 %) and were employed (79/113, 69.9 %). Before the COVID-19 pandemic, 58 patients (51.3 %) had never used alternatives to in-person visits. However, during the pandemic, telepsychology became a more frequent method for accessing psychological services, with 78 out of 113 patients (69.0 %) utilising it (Table 2).

3.1.1. Telepsychology
Among the 78 patients who received remote psychological services, video-consultations were the most common communication tool used (66/78, 84.6 %), followed by telephone-calls (23/78, 29.5 %), chat service (3/78, 3.8 %) and e-mail (2/78, 2.6 %) (Table 3).

Mental health professionals played a crucial role in introducing telepsychology, and the service was widely adopted and maintained by patients. In most cases (63/78, 80.8 %), telepsychology was proposed by mental health professionals, while 15 patients (19.2 %) suggested it themselves. The primary services provided remotely were psychotherapy sessions (55 patients, 70.5 %) and psychological support (36 patients, 46.2 %). Most patients utilised telepsychology as a recurrent service (65/78, 83.3 %), and half of the patients (39, 50.0 %) reported continued use of telepsychology.

3.1.2. Video-consultation experience
Among the 78 patients who used telepsychology during the pandemic, 66 (84.6 %) answered to the constructs evaluated in this study (Table 4/Fig. 1). Patients had a generally positive perception of video-consultations as a tool for telepsychology. Specifically, concerning 'Usefulness/Perceived Usefulness' all 66 patients found the remote service useful, with 78.8 % rating it very useful and 21.2 % rating it quite useful. Regarding the 'Effect on Interaction', 69.7 % rated the interaction quality with the mental health professionals as excellent, 27.3 % as good, 1.5 % had no preference, and 1.5 % rated it as poor. The 'Experience' was rated very good by 65.2 % out of 66 patients, good by 27.3 %, with 4.5 % having no preference and 3.0 % finding it not a good experience. 'Satisfaction' levels were high, with 62.1 % very satisfied, 30.3 % quite satisfied, and 7.6 % expressing no preference. The 'Technical Quality' of video-consultation was rated very good by 62.1 %, quite good by 33.3 %, with 3.0 % having no preference and 1.5 % rating it quite poor.

Correlation analysis revealed that the 'Effect on Interaction' was highly correlated with 'Experience' ($r = 0.8$, $p < 0.001$), 'Satisfaction' ($r = 0.8$, $p < 0.001$), and 'Technical Quality' ($r = 0.7$, $p < 0.001$). Additionally, 'Experience' and 'Satisfaction' were highly correlated ($r = 0.8$, $p < 0.001$) (Table 5).

3.2. Mental health professionals

A total of 128 mental health professionals (111 women; mean age ± SD: 38.9 ± 11.0 years) participated in and fully completed the online survey, achieving a 100 % completion rate. The respondents comprised 69 psychologists (53.9 %), 55 psychotherapists (43.0 %), and 4 medical psychotherapists (3.1 %). Most professionals worked in Northern Italy

Table 2
Demographic data of mental health professionals and patients.

128 Mental health professionals		Mean ± SD
Age (years)		38.9 ± 11.0
		N (%)
Gender	Male	17 (13.3)
	Female	111 (86.7)
Professional title	Psychologist	69 (53.9)
	Psychotherapist	55 (43.0)
	Medical psychotherapist	4 (3.1)
Working region[a]	Northern Italy	83 (64.8)
	Central-Southern Italy	45 (35.2)
Working sector	Public sector	13 (10.2)
	Private sector	105 (82.0)
	Public and private sector	10 (7.8)
Working experience (years)	< 5	49 (38.3)
	5–15	44 (34.4)
	16–25	25 (19.5)
	26–35	6 (4.7)
	> 35	4 (3.1)
Previous use of telepsychology	Yes	54 (42.2)
	No	74 (57.8)
Use of telepsychology during the COVID-19 pandemic	Yes	102 (79.7)
	No	26 (20.3)
Provided support services to the populationas part of pandemic interventions	Yes	52 (40.6)
	No	76 (59.4)

113 Patients		Mean ± SD
Age (years)		35.3 ± 12.8
Education (years)		16.5 ± 2.6
		N (%)
Gender	Male	35 (31.0)
	Female	78 (69.0)
Occupation	Student	23 (20.4)
	Working	79 (69.9)
	Unemployed	6 (5.3)
	Retired	5 (4.4)
Area of residence	Northern Italy	80 (70.8)
	Central-Southern Italy	33 (29.2)
Previous use of telepsychology	Yes	55 (48.7)
	No	58 (51.3)
Use of telepsychology during the COVID-19 pandemic	Yes	78 (69.0)
	No	35 (31.0)

[a] Multiple answers possible.

(83 out of 128, 64.8 %) and operated exclusively in the private sector (105 out of 128, 82.0 %). Before the pandemic, 74 professionals (57.8 %) had never used remote communication technologies. However, the pandemic significantly increased the adoption of telepsychology, with 102 out of 128 professionals (79.7 %) utilising alternatives to in-person visits (Table 2).

3.2.1. Telepsychology
Among the 102 professionals who adopted telepsychology during the COVID-19 pandemic, the most (97, 95.1 %) reported using video-consultations, while 33.3 % (34) used telephone-calls, 10.8 % (11) used chat services, and 7.8 % (8) used e-mail (Table 3).

In 80.4 % (82/102) of cases, professionals themselves suggested the use of remote psychological services. In contrast, 27.5 % (28) of the suggestions came from institutions or companies, and 31.4 % (32) were proposed by patients.

Table 3
Telepsychology for mental health professionals and patients.

		102 Professionals N (%)	78 Patients N (%)
Psychological services[a]	Psychological support	86 (84.3)	36 (46.2)
	Psychotherapy sessions	55 (53.9)	55 (70.5)
	Individual	*55 (100.0)*	–
	Couple	*15 (28.8)*	–
	Group	*9 (17.3)*	–
	Neuropsychological evaluations	4 (3.9)	0 (0.0)
	Rehabilitation/ cognitive stimulation	6 (5.9)	3 (3.8)
	Technical in legal/ forensic field	4 (3.9)	0 (0.0)
	Other	10 (9.8)	0 (0.0)
Type of service	Public service	7 (6.9)	4 (5.1)
	Private service	83 (81.4)	72 (92.3)
	Public and private service	12 (11.8)	2 (2.6)
Year[a]	2020	76 (74.5)	56 (71.8)
	2021	78 (76.5)	40 (51.3)
	2022	60 (58.8)	31 (39.7)
	Currently underway	63 (61.8)	39 (50.0)
Rate of service provided/ received remotely after the emergency	<25 %	58 (56.9)	30 (38.5)
	25–50 %	20 (19.6)	5 (6.4)
	51–75 %	14 (13.7)	16 (20.5)
	>75 %	10 (9.8)	27 (34.6)
Telepsychology suggested by[a]	Institution/company	28 (27.5)	1 (1.3)
	Mental health professional	82 (80.4)	63 (80.8)
	Patient	32 (31.4)	15 (19.2)
	Other	5 (4.9)	6 (7.7)
Type of remote service[a]	First consultation	49 (48.0)	4 (5.1)
	Follow-up	23 (22.5)	11 (14.1)
	Recurrent service	94 (92.2)	65 (83.3)
Telepsychology modality[a]	Telephone	34 (33.3)	23 (29.5)
	E-mail	8 (7.8)	2 (2.6)
	Chat	11 (10.8)	3 (3.8)
	Video-consultation	97 (95.1)	66 (84.6)
Platform[a]	Institutional/business platform	22 (21.6)	6 (7.7)
	Personal platform	90 (88.2)	58 (74.4)
	Not known	2 (2.0)	3 (3.8)
Telepsychology technical support	Yes	7 (6.9)	1 (1.3)
	No	95 (93.1)	65 (83.3)
	Did not specify	0 (0.0)	12 (15.4)

[a] Multiple answer possible.

Telepsychology was predominantly utilised for psychological support (86 out of 102, 84.3 %) and psychotherapy sessions (55, 53.9 %), with most services provided privately (83, 81.4 %). Remote services were mainly used for recurrent consultations (92.2 %) and first consultations (48.0 %), while 22.5 % were used for follow-up services. Notably, 61.8 % (63/102) of professionals reported continuing to use telepsychology in their daily practice.

3.2.2. Video-consultation experience

Out of the 102 professionals surveyed, 95 (93.1 %) responded to questions related to the constructs evaluated in this study (Table 4/ Fig. 1). The overall experience with video-consultations was rated favourably. Specifically, regarding 'Usefulness/Perceived Usefulness' 95.8 % found video-consultations useful (40.0 % very useful, 55.8 % quite useful), while 4.3 % found them either neutral or not useful. Regarding the 'Effect on Interaction' quality, 85.3 % rated it positively (61.1 % good, 24.2 % excellent), 9.5 % were neutral, and 5.3 % rated it poorly. In terms of the 'Experience', 85.3 % out of 95 professionals rated it positively (49.5 % good, 35.8 % very good), with 5.3 % rating it negatively and 9.5 % remaining neutral. 'Satisfaction' levels were high, with 91.5 % being quite or very satisfied, 3.2 % unsatisfied, and 5.3 % neutral. 'Technical Quality' was also rated positively by 96.9 % (61.1 % quite good, 35.8 % very good).

Table 4
Construct response data of mental health professionals and patients on the video-consultation experience.

Construct	Response	95 Professionals N (%)	66 Patients N (%)
Usefulness/Perceived Usefulness	Strongly disagree	0 (0.0)	0 (0.0)
	Quite disagree	1 (1.1)	0 (0.0)
	Neither agree nor disagree	3 (3.2)	0 (0.0)
	Quite agree	53 (55.8)	14 (21.2)
	Strongly agree	38 (40.0)	52 (78.8)
Technical Quality	Strongly disagree	0 (0.0)	0 (0.0)
	Quite disagree	0 (0.0)	1 (1.5)
	Neither agree nor disagree	3 (3.2)	2 (3.0)
	Quite agree	58 (61.1)	22 (33.3)
	Strongly agree	34 (35.8)	41 (62.1)
Effect on Interaction	Strongly disagree	1 (1.1)	0 (0.0)
	Quite disagree	4 (4.2)	1 (1.5)
	Neither agree nor disagree	9 (9.5)	1 (1.5)
	Quite agree	58 (61.1)	18 (27.3)
	Strongly agree	23 (24.2)	46 (69.7)
Experience	Strongly disagree	1 (1.1)	0 (0.0)
	Quite disagree	4 (4.2)	2 (3.0)
	Neither agree nor disagree	9 (9.5)	3 (4.5)
	Quite agree	47 (49.5)	18 (27.3)
	Strongly agree	34 (35.8)	43 (65.2)
Satisfaction	Strongly disagree	1 (1.1)	0 (0.0)
	Quite disagree	2 (2.1)	0 (0.0)
	Neither agree nor disagree	5 (5.3)	5 (7.6)
	Quite agree	50 (52.6)	20 (30.3)
	Strongly agree	37 (38.9)	41 (62.1)

Correlation analysis showed strong relationships between 'Effect on Interaction' and both the 'Experience' and 'Satisfaction' ($r = 0.7$, $p < 0.001$ for both), as well as between 'Experience' and 'Satisfaction' ($r = 0.7$, $p < 0.001$) (Table 5).

The results highlight the overall positive reception of telepsychology among professionals, the need for ongoing training, and the importance of promoting and supporting remote services. Specifically, regarding the support services for telepsychology, 79.0 % found them useful (47.4 % quite useful, 31.6 % very useful). Promoting remote services to users was also seen as important, with 69.5 % considering it useful (42.1 % quite useful, 27.4 % very useful). A significant need for training on deontological, ethical, and regulatory issues was expressed, with 77.9 % agreeing (43.2 % quite agree, 34.7 % strongly agree). Opinions on technical assistance and training for digital systems were mixed, with 49.4 % finding it useful, 25.3 % neutral, and 25.2 % considering it useless.

3.3. Groups comparison

Between-group comparisons were conducted for each survey question. This analysis revealed several key differences between professionals and patients regarding their perceptions of video-consultations. Patients were more likely than professionals to agree that video-consultations saved time overall (patients: 87.9 %, 58/66; professionals: 58.9 %, 56/95; $p < 0.001$) and reduced waiting times specifically (patients: 81.8 %, 54/66; professionals: 51.6 %, 49/95; $p < 0.001$). Patients also believed more strongly in their ability to improve their use of digital systems for video-consultations (patients: 90.9 %, 60/66; professionals: 76.8 %, 73/95; $p = 0.01$) and were more satisfied with the digital equipment used by professionals (patients: 93.9 %, 62/66; professionals: 70.5 %, 67/95; $p < 0.001$).

Professionals tended to favour in-person consultations than remote for accuracy and ease of understanding. In detail, professionals were
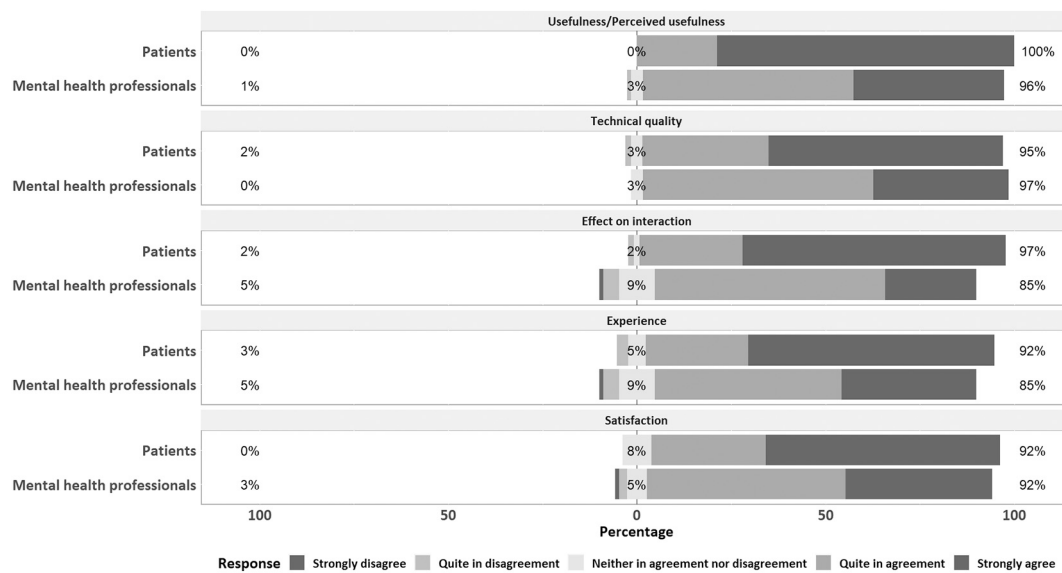
Fig. 1. Responses given by mental health professionals and patients to each construct of the survey.

Table 5
Spearman's correlations between the construct response data of mental health professionals and patients on the video-consultation experience.

Group	Survey construct	Usefulness/Perceived Usefulness	Technical Quality	Effect on Interaction	Experience
Mental health professionals	Technical Quality	r = 0.5 p < 0.001*			
	Effect on Interaction	r = 0.5 p < 0.001*	r = 0.6 p < 0.001*		
	Experience	r = 0.6 p < 0.001*	r = 0.6 p < 0.001*	r = 0.7 p < 0.001*	
	Satisfaction	r = 0.6 p < 0.001*	r = 0.6 p < 0.001*	r = 0.7 p < 0.001*	r = 0.7 p < 0.001*
Patients	Technical Quality	r = 0.5 p < 0.001*			
	Effect on Interaction	r = 0.4 p = 0.002*	r = 0.7 p < 0.001*		
	Experience	r = 0.3 p = 0.03*	r = 0.5 p < 0.001*	r = 0.8 p < 0.001*	
	Satisfaction	r = 0.3 p = 0.01*	r = 0.5 p < 0.001*	r = 0.8 p < 0.001*	r = 0.8 p < 0.001*

* $p < 0.05$.

more likely to believe that in-person consultations were more accurate (55.8 %) and easier for understanding patients (55.8 %), while the remaining professionals showed no difference between the two modalities (44.2 %). No professionals thought video-consultations were better. In contrast, most of patients perceived no difference between in-person and remote consultations in terms of accuracy (66.7 %) and understanding (72.7 %), with a smaller proportion favouring in-person consultations (31.8 % for accuracy and 25.8 % for understanding), and very few preferring remote consultations (1.5 % for both aspects).

4. Discussion

Our survey investigated the experiences of patients and mental health professionals in utilising telepsychology. Overall, our results showed that most of the participants expressed strong satisfaction with the video-consultation experience. Interestingly, it was found that satisfaction increases with increase in quality of the interaction (i.e., modality of communication, completeness of information) and in relation to the quality of the experience (i.e., patient-centredness, comfort). These correlations were similar for patients and professionals, indicating that both groups derived the same level of satisfaction from the same factors. This similar satisfaction levels underscored that the same critical

factors were shaping a positive video-consultation experience for patients and mental health professionals. Although the interactions occurred through virtual channels with remote connections and the screen as a filter, the central role of the professional-patient relationship remains substantially a dominant factor in the psychological treatment process. Furthermore, despite the success of psychological therapy based on the quality of interactions and shared experiences (Pierce et al., 2021), even in a remote relationship, it is possible to translate and replicate the interaction type that occurs in person and ensure that the therapeutic alliance is not compromised (Reese et al., 2016). Our findings revealed that the critical factors explaining this result involve patient-centeredness, communication style, and the ability to express oneself freely and effectively even through remote communication devices.

Second, our results have demonstrated that the digital service's technical quality, which underlies its success, supports the relationship and experience of the practise, ensuring that interactions between mental health professionals and patients are positive and constructive experiences (Gajarawala and Pelkowski, 2021).

4.1. Digital transition during the COVID-19 pandemic

The COVID-19 pandemic accelerated widespread acceptance of remote health care, particularly regarding mental health services; this trend has persisted even after the immediate crisis. Our data showed that patients and professionals widely used telepsychology during the pandemic-induced social isolation; furthermore, even after the emergency subsided, many of them continued to use it. In fact, 60 % of the mental health professionals and half of the patients in our sample are currently engaging in mental health consultations via telepsychology.

Moreover, these results confirm the pandemic's catalyst effect on remote health services; furthermore, 70 % of the patients and 80 % of the professionals readily embraced telepsychology during the crisis. Additionally, they demonstrated that a part of the sample of 241 participants had previous experiences with telepsychology. Specifically, about half of the patients had prior exposure to telepsychology, whereas a smaller proportion of the professionals had previous experiences with the practise, indicating that the pandemic acted as a catalyst and prompted many professionals to explore telepsychology for the first time. Overall, these findings underscore healthcare delivery's adaptive and dynamic nature, particularly during crises.

Notably, we found that, at an early stage of the crisis, mental health professionals (81.4 %) and patients (92.3 %) had access to telepsychology through the private sector. This trend was probably partly influenced by the limited availability of mental health services in public institutions in Italy (Barbui et al., 2018) and partly by the private professionals' quicker adaptability to change because they are usually not constrained by the lengthy restructuring times of public health agencies and the existing regulations that may have influenced the rapid adoption of telepsychology. This theme has raised some critical issues regarding potential healthcare access disparaties based on socioeconomic and demographic factors due to increased telepsychology usage (Timmermans and Kaufman, 2020). While the pandemic accelerated the transition to telepsychology, the adaptation disparity between the private and public healthcare settings, along with other limitations, highlighted the pressing need for institution-wide reforms, standardised protocols, and practise guidelines. These reforms are crucial for facilitating a more effective integration of telepsychology into the broader healthcare system (Di Carlo et al., 2021).

4.2. In-person visit vs. video-consultation: which is better?

Our findings offer a user's perspective on preferences regarding the favoured modality for session execution.

Taken together, the experiences, outcomes, and deliveries related to mental healthcare services that are provided through remote settings are considered to be sufficiently equivalent to in-person visits, as has been observed in other studies (Christensen et al., 2020; Moeller et al., 2022).

Both groups (70.5 % of mental health professionals and 78.8 % of patients) expressed no preference between in-person and remote settings, thus implying that the level of satisfaction or perceived equivalency regarding the delivery of mental healthcare service through both modalities was high. This convergence between preferences strongly suggested that virtual care—delivered through video-consultations or other remote methods—is perceived as being comparable to in-person care.

However, a deeper analysis revealed some significant differences regarding certain aspects. In particular, compared to patients, mental health professionals reported a greater propensity toward preferring the in-person session because of aspects such as overall service accuracy ($p = 0.003$), opportunity to ask questions to further explore the issues raised ($p = 0.03$), and ease of understanding the patient's narrative ($p < 0.001$). This implies that face-to-face interactions have a perceived advantage because of specific elements of service delivery, which must be considered when determining the appropriate mode for psychological consultation deliveries.

Conversely, factors such as punctuality, session duration, clarity of visit purpose, and privacy adherence were similarly perceived by mental health professionals and patients, regardless of the session modality.

Overall, these results indicated that virtual care is not only a viable alternative but can also be considered as being on par with traditional in-person care when it comes to fulfilling the needs and expectations of mental health professionals and patients (Bilimoria et al., 2021).

4.3. Support for professionals: what is required?

We aimed to offer valuable insights for developing new telepsychology solutions, thus, we asked professionals about the perceived level of usefulness of various formats and documentations for supporting daily practise. Telepsychology encounters significant legal boundaries due to different rules and regulations for its use; this has led to confusion among providers. Mental health professionals must adopt risk management strategies, understand potential legal implications, and keep abreast with evolving government regulations to ensure patient safety and avoid licensing or litigation issues in the context of the rapid expansion of telepsychology (Gajarawala and Pelkowski, 2021). Our results suggest that institutional and healthcare facilities should focus on providing training regarding regulatory requirements and the ethical considerations and deontological aspects of remote consultations and on promoting the service to patients to help increase their awareness of the available options for accessing healthcare services. Professionals' preparedness in managing telepsychology is crucial for ensuring regulatory compliance and ethical adherence; institutions can enhance this by implementing targeted communication strategies, fostering awareness about legal regulations and acceptance among patients while improving professional practise.

4.4. Limitations

This study had several limitations; thus, our findings should be interpreted with caution.

The primary limitation of this study is the low response rate, which restricts the generalizability of the findings to a broader patients and professionals population. In fact, the survey was conducted online using a convenience sampling method and distributed via social media. Consequently, the responses may not fully represent the population examined, particularly those with limited or no access to information technology.

Given the online distribution of the survey, we cannot ascertain the response rate relative to the total number of potential recipients, nor can we determine if there were systematic differences between those who completed the survey and those who did not.

Additionally, the high support for telepsychology observed in our sample could be attributed to the relatively young age of respondents (average age of 35 years for patients and 39 years for mental health professionals), who are more likely to adopt and utilise telepsychology services. This age bias is significant as younger individuals typically have a stronger affinity for technology therefore older adults, individuals with lower digital literacy, might be underrepresented in the survey results. It is possible that participants who chose to complete the survey were more inclined to use or favour telepsychology than non-participants, introducing a bias that may skew the results toward a more positive view of telepsychology. It is crucial to recognise and account for potential biases introduced by the age distribution when interpreting our results. To mitigate these biases, future research should employ strategies to engage a more representative sample. Recommendations include implementing targeted outreach strategies to increase participation across different demographic groups, including older adults and those with limited internet access. Utilising a combination of online and offline sampling methods can help reach a broader audience, including those without access to technology. Additionally, including a wider age range and varying levels of professional

experience among mental health professionals will enhance the generalizability of the findings.

Other notable limitations include the sample's characteristics of mental health professionals, who, in addition to being young, had limited years of experience and a low representation of males. These factors could collectively affect the generalizability of the findings. Future research should address these limitations by incorporating a more balanced demographic and professional profile among participants. Including a wider age range and varying levels of professional experience among mental health professionals will enhance the generalizability of our findings.

Furthermore, the sample predominantly resided in the Northern regions of Italy and urban areas, limiting its representativeness across the entire geographical territory. This urban bias excludes the potential benefits of telepsychology for disadvantaged populations, such as those in rural areas. Future research should explore the feasibility and benefits of introducing telepsychology to patients in rural settings to address this limitation. Ensuring a balanced geographic distribution by actively recruiting participants from different regions, including rural areas, will capture a more comprehensive picture of the Italian patient population.

5. Conclusions

In conclusion, to improve telepsychology practices, we recommend that practitioners and policymakers prioritise the follows key areas. Firstly, training and support should be improved by developing comprehensive programs that equip therapists with the skills to effectively use telepsychology tools and address technical challenges. Accessibility must also be addressed by investing in infrastructure to provide stable internet access and user-friendly platforms for both therapists and patients. To boost patient engagement, strategies should be implemented to minimise drop-out rates, such as regular follow-ups and personalised communication. Additionally, data security measures should be reinforced to safeguard patient confidentiality and foster trust in telepsychology services. Finally, it is crucial to encourage ongoing research and feedback from patients and therapists to continuously refine and improve telepsychology practices. By concentrating on these areas, telepsychology has the potential to become a more effective and widely accepted standard for mental healthcare delivery.

Declaration of competing interest

None.

Data availability

The data presented in this study are available on request from the corresponding author.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.invent.2024.100764.

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