

Students' Experiences in Clinical Training in Telepsychology: A Multicenter Study in Colombia

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Research Article

Keywords: Telepsychology, clinical competencies, student training

Posted Date: August 26th, 2026

DOI: <https://doi.org/10.21203/rs.3.rs-10542851/v1>

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Additional Declarations: No competing interests reported.

Abstract

Objective

To characterize the experiences of psychology students during their telepsychology training in a multicenter university network in Colombia.

Method

A descriptive cross-sectional study with 360 undergraduate and postgraduate students from nine university psychological counseling centers, selected through non-probabilistic sampling by voluntary self-selection. Data were collected using a self-administered questionnaire and analyzed using descriptive statistics.

Results

70.3% of the students expressed initial concerns related to the therapeutic relationship, the loss of clinical information, and client dropout. Following the training, a favorable perception of telepsychology predominated; 96.9% believed the experience was beneficial for developing clinical competencies, 98.1% reported acquiring new knowledge for remote care, and 96% felt prepared to provide psychological care via telepsychology. Challenges persisted, primarily associated with relational skills, and addressing more complex clinical situations.

Conclusions

The students perceived the clinical practice in telepsychology as a positive learning experience, associating it with the development of clinical competencies and the acquisition of knowledge for remote psychological care. The results support the incorporation of clinical experiences in telepsychology into psychology training programs and suggest strengthening the competencies that students identify as most challenging for clinical practice in digital environments.

Clinical Trial Registration

Not applicable.

Introduction

The incorporation of digital technologies has taken on a very important role in health care, particularly in the field of mental health, where telepsychology has established itself as an increasingly widely used

technological tool for clinical practice [1]. Given this expansion, various scientific and professional organizations have developed guidelines to ensure its ethical and competent practice [2, 3]. However, based on experiences in different contexts, telepsychology has taken on various forms of care that address patients' financial needs, the time available to professionals, the required technological complexity, and geographic barriers [4, 5].

In Colombia, and in Latin America in general, the transition from traditional mental health services to digital modalities accelerated during the COVID-19 pandemic in response to mandatory quarantine and the population's growing mental health problems [6, 7]. Given this global phenomenon, there was a need to expand and improve the coverage of psychological care through a modality that would facilitate remote service delivery, such as telepsychology [7]. Various studies have demonstrated its effectiveness in psychotherapeutic processes, as well as its feasibility and cost-effectiveness [8, 9], showing that it is effective for assessment and diagnosis across diverse population groups—including adults, adolescents, older people, and ethnic groups—and for various disorders. Additionally, this tool helps reduce economic inequalities and barriers to access associated with traditional psychotherapy [2, 5, 8, 10].

Despite evidence demonstrating the effectiveness of telepsychology, some psychotherapists remain concerned that it may be more difficult to build a therapeutic alliance, convey empathy to clients, and maintain confidentiality [11]. These concerns are related to professionals' lack of training and inexperience in telepsychology. In this regard, recent research highlights the need for training and education in the use of telepsychology to ensure its responsible and ethical use [12]. This training should include technical aspects, the use of digital platforms, adaptations of telepsychology to meet the needs of each client, and specific guidelines for addressing specific clinical conditions [2, 3, 12, 13].

Regardless of this need, training in telepsychology is still uncommon in formal academic programs [14]. In many cases, training is offered through continuing education programs, without sufficient clinical supervision. Therefore, once again, the need to include telepsychology in formal undergraduate and graduate academic training is emphasized. Furthermore, telepsychology expands the possibilities for mental health care, particularly in cases where certain clinical characteristics of clients or contextual conditions make it difficult to attend in-person care [15, 16].

In different parts of the world, studies have been developed to introduce training models designed to prepare students to provide psychological services both online and in person [17]. The importance of including hybrid supervision settings—both group and individual [18]—is highlighted, as is the value of strengthening training in telepsychology using resources such as webinars, article reviews, and additional supervision sessions to reinforce clinical competencies [19]. They also emphasize the importance of maintaining open communication between therapists, supervisors, and academic program managers to facilitate the transition from in-person to virtual clinical practice and ensure that students feel confident in this experience [19].

In Latin America, evidence on training in telepsychology is still limited. In Mexico, a study showed that a self-directed online course strengthened participants' clinical skills; however, it should be supplemented

with supervision and follow-up sessions to help consolidate what was learned [20]. Likewise, it has been proposed that telepsychology be incorporated as part of the professional training for psychologists, alongside other areas related to applied computing, information and communication technologies, computing applied to clinical psychology, digital competencies, and artificial intelligence, with the aim of strengthening the application of psychological knowledge to practical problems [21].

It is important to note that students' direct experiences also help them understand and guide the integration of telepsychology into their training. In this regard, some studies suggest incorporating the continuous use of telepsychology into clinical practice to consolidate skills and strengthen confidence and autonomy in the provision of psychological care services [22, 23].

Given the importance of incorporating telepsychology into the training of psychologists, certain competencies have been identified that should be developed in this context, such as communication skills on digital platforms, digital informed consent processes, and technology education [26, 27].

In Colombia, studies have shown that telepsychology has had positive outcomes for both patients and students in clinical training, and that it offers the opportunity to develop clinical skills and effectively conduct interviews, assessments, and interventions in this setting, with supervision being a key factor in maintaining the quality of clinical training [24, 25].

Even with the advances described, there is a need to expand knowledge regarding the inclusion of telepsychology in the training of psychologists, both in Latin America and in Colombia [20, 21, 24, 28]. For this reason, this study aims to characterize the experiences of undergraduate and postgraduate students in clinical psychology programs³ who are part of a multicenter university mental health network in Colombia, exploring their expectations, concerns, perceptions of clinical practice, and the development of competencies and learning derived from this modality of care.

Design and Setting

A descriptive cross-sectional study was conducted. A self-administered questionnaire was applied to students who had completed their clinical practice in the telepsychology modality [29, 30]. The study was carried out by the Network of University Psychological Care Service Institutions (ISUAP Network) and supported by the Colombian Association of Psychology Faculties (ASCOFAPSI). The ISUAP Network guides, evaluates, and implements improvement initiatives in university psychological counseling settings and brings together centers that serve a dual purpose: providing psychological services to the community and serving as clinical practice settings for undergraduate and postgraduate psychology students [31].

Nine university psychological counseling centers participated: Institución Universitaria de Envigado, Universidad Católica Luis Amigó, Universidad Católica del Norte, Universidad San Buenaventura Cali, Corporación Universitaria Iberoamericana, Fundación Universitaria Konrad Lorenz, Pontificia Universidad Javeriana, Universidad de Los Andes, and Universidad El Bosque, located in five cities in the following

three departments: Envigado, Santa Rosa de Osos, and Medellín (Antioquia); Santiago de Cali (Valle del Cauca); and Bogotá, D.C. (Cundinamarca).

Participants

All undergraduate and postgraduate psychology students identified by the nine participating centers who completed clinical practice via telepsychology between March 2020 and June 2023 were invited to participate. In total, 1,176 eligible students received an invitation to participate in the study.

A non-probabilistic sampling strategy was used, employing the voluntary self-selection technique [32]. The final sample consisted of 360 students who voluntarily agreed to participate and completed the questionnaire, representing a response rate of 30.6%. The study included students who had provided psychological care via telepsychology during the study period and who provided their electronic informed consent. Incomplete records, duplicate responses, and questionnaires without valid informed consent were excluded.

The characteristics of the sample are presented in Table 1. In terms of geographic distribution, 75.6% of the students completed their clinical practice at institutions located in Bogotá, D.C.; 22.2% in Antioquia; and 2.2% in Valle del Cauca. Regarding experience with telepsychology by academic period, the semesters with the highest representation were the first semester of 2023 (22.8%), the first semester of 2021 (21.7%), and the first semester of 2020 (21.4%). In terms of psychotherapeutic approach, the behavioral approach predominated (74.2%), followed by the psychoanalytic (11.9%), systemic (8.1%), and humanistic-existential (5.8%) approaches.

Table 1
Characterization of the Population

Characteristics	n (%)
Geographic location	
Bogotá D.C.	272 (75.6)
Antioquia	80 (22.2)
Valle del Cauca	8 (2.2)
Period of Telepsychology Use	
2020 – I (January – June)	77 (21.4)
2020 – II (July – December)	58 (16.1)
2021 – I (January – June)	78 (21.7)
2021 – II (July – December)	61 (16.9)
2022 – I (January – June)	49 (13.6)
2022 – II (July – December)	43 (11.9)
2023 – I (January – June)	82 (22.8)
Approach	
Behavioral	267 (74.2)
Psychoanalytic	43 (11.9)
Systemic	29 (8.1)
Humanistic-existential	21 (5.8)
Note: In the “Period of Telepsychology Use” variable, students could select more than one academic period; therefore, the frequencies and percentages do not represent the total number of students.	

Instrument

The instrument used in this study corresponds to the one originally employed in the study conducted by Colón-Llamas et al., which consists of five dimensions of analysis: expectations regarding treatment, therapeutic alliance, satisfaction with the service, telepsychology care, and development of clinical skills. For the present study and its implementation at the participating centers of the ISUAP Network, minor adjustments were made to the writing and institutional context, which did not alter the structure or content of the assessed dimensions. In the original study, the instrument underwent content validation in its original language (Spanish) through the review of five experts who assessed the coherence,

relevance, and clarity of the items, as well as a pilot test that allowed for adjustments to be made before its final application [24].

Although the full instrument was administered for the study, this article analyzed only the dimensions related to the research objective: expectations regarding treatment, telepsychology care, and the development of clinical skills. The dimensions of therapeutic alliance and satisfaction with the service—which focus primarily on the student’s experience with the therapeutic process—were not included in this analysis because they did not address the specific research objective.

To reflect the training focus of this publication, the three selected dimensions were conceptually renamed, while fully preserving the items and the original operationalization of the instrument. The correspondence between the original names, those used in this article, and the operational definition of each dimension is presented in Table 2.

Table 2
Definition of categories of analysis

Original name of the instrument	Name used in this article	Operational definition
Expectations regarding treatment	Initial Expectations and Concerns Regarding Telepsychology	It explores students' initial expectations regarding the feasibility and usefulness of telepsychology, the expected benefits for clients, and their expectations regarding the development of clinical skills by working in this modality.
Telepsychology care	Perceptions of Clinical Practice Through Telepsychology	It explores students’ perceptions of the possibility of conducting essential clinical activities in this modality, including providing appropriate psychological care, assessing the reason for the consultation, conducting clinical evaluation processes, perceptions regarding the clinical scope of telepsychology, and the difficulties and challenges encountered during practice.
Development of clinical skills	Learning and Clinical Skill Development	It explores students' perceptions of the impact of telepsychology practice on the development of clinical skills, the knowledge learned during training, and their perceived ability to provide psychological care through this modality.

These dimensions included single-choice items with a six-point frequency scale (“always,” “almost always,” “sometimes,” “rarely,” “almost never,” “never”); dichotomous items (“yes/no”) with conditional follow-up questions; and multiple-choice items with multiple possible answers. Some items included an open-ended response option (“other, please specify”) to capture experiences not covered by the predefined options.

Procedure

The questionnaire was administered online via the Microsoft Forms platform between May 2021 and June 2023 to students who completed their clinical practice in the telepsychology modality during any semester between March 2020 and June 2023. Each participating institution was responsible for sending out the invitation, which was done via institutional email. Before completing the questionnaire, all students received information about the study's aims, the voluntary nature of their participation, the anonymity of their responses, and the confidential treatment of their data.

Once data collection was complete, the database was cleaned and refined. Initially, ten centers participated in the study; however, one of them withdrew from the project and requested that its data be deleted, so its records were excluded from the analysis. Subsequently, records corresponding to students who did not provide consent to participate, and questionnaires that were incomplete or improperly filled out were removed.

Data Analysis

The data were analyzed using IBM SPSS Statistics version 27. For single-choice questions, absolute frequencies and percentages were calculated. For multiple-choice questions with multiple answers, sets of dichotomous multiple responses were constructed, in which each option was coded as a dichotomous variable, and frequencies and percentages of cases were calculated independently for each option. Since students could select more than one option, the percentages for these items do not equal 100% and are interpreted based on the total number of cases, not the total number of responses.

Ethical considerations

The study was approved by the Research and Ethics Committee of the Faculty of Psychology at the Pontificia Universidad Javeriana, Bogotá campus. The research was classified as low risk, in accordance with Resolution 8430 of 1993 from the Colombian Ministry of Health and Social Protection. All students provided their electronic informed consent before completing the questionnaire. Participation was anonymous, and no information was collected to identify the participants.

Results

Initial Expectations and Concerns Regarding Telepsychology

In general, students expressed positive expectations regarding telepsychology (Table 3). Most students (304/360, 49.3%) believed that, although technical difficulties might arise, telepsychology would be a useful modality for psychological care and would provide benefits for clients. In terms of developing clinical skills, the most common expectation was that this would sometimes or rarely be difficult (247/360, 67.4%), while a minority anticipated that it would always or almost always be difficult (40/360, 21.4%).

Table 3
Initial Expectations and Concerns Regarding Telepsychology (N = 360)

Expectations component	Expectations	n (%)
Expectations Regarding the Feasibility and Usefulness of Telepsychology	It would work well as an alternative for psychological care	127 (35.4)
	It would present technical challenges, but it would be useful	177 (49.3)
	It would present technical difficulties, and there were doubts about its usefulness	41 (11.4)
	It wouldn't be feasible	2 (0.6)
	I didn't have any clear expectations	12 (3.3)
Expectations Regarding the Benefits for Consultants	It would bring many benefits	194 (53.9)
	It would bring some benefits	160 (44.4)
	It wouldn't bring benefits	6 (1.7)
Expectations Regarding the Development of Clinical Skills	It would always / almost always be difficult	40 (11.2)
	Sometimes / Rarely would it be difficult	242 (67.4)
	It would almost never / never be difficult	77 (21.4)
Note: To make it easier to interpret the results, the response categories for the question on expectations regarding the development of clinical skills were grouped into three levels: Always/Almost always, Sometimes/Rarely, and Almost never/Never.		

Regarding initial concerns associated with telepsychology as a care modality, 70.3% (253/360) of the students reported having experienced doubts at the start of care, while 29.7% (107/360) indicated they had no initial worries. Table 4 presents the distribution of the main initial concerns reported by the students.

Table 4
The main initial concerns regarding the use of telepsychology (N = 253)

Concerns	n (%)
Difficulty establishing an appropriate rapport with the client	175 (70.9)
Failure to capture the information provided by the client	159 (64.4)
Risk of early desertion due to difficulties adapting to the modality	140 (56.7)
Risks related to confidentiality	59 (23.9)
Lack of technical knowledge needed to use telepsychology	52 (21.1)
Limited scientific evidence on the effectiveness of telepsychology	26 (10.5)
Note: Students could select more than one option; therefore, the percentages represent the number of cases and do not represent 100% in total.	

Perceptions of Clinical Practice Through Telepsychology

Regarding the development of essential clinical activities through telepsychology, students generally reported favorable perceptions of their experience, with more than 80% responding “always” or “almost always” for all components of the practice explored (Table 5).

Table 5
Perceptions of Clinical Practice Through Telepsychology (N = 360)

Clinical activity	Always/Almost always n (%)	Sometimes/Rarely n (%)	Almost never/never n (%)
To provide appropriate psychological care	336 (93.4)	22 (6.1)	2 (0.6)
To provide treatment based on technical parameters for various psychological issues	316 (87.8)	38 (10.5)	6 (1.7)
To assess the different psychological care needs	295 (82)	63 (17.5)	2 (0.6)
To explore sufficiently the reasons for the consultation	322 (89.5)	37 (10.3)	1 (0.3)
To develop the psychological assessment process sufficiently	316 (87.7)	44 (12.3)	0 (0.0)
Note: To facilitate the presentation and interpretation of the results, the response categories were uniformly grouped into three levels: Always/Almost always, Sometimes/Rarely, and Almost never/Never. The percentages were calculated based on the total number of valid responses for each item.			

In addition, the students shared their views on the clinical scope of telepsychology, considering clinical applications, therapeutic modalities, and the populations for whom they estimated this form of care appropriate. The results are presented in Table 6.

Table 6
Perceptions of the Clinical Applications of Telepsychology During Clinical Training (N = 360)

Category	n (%)
<i>Clinical applications</i>	
Difficulties related to the COVID-19 pandemic	305 (85)
Emotional and mood-related difficulties	280 (78)
Difficulties adapting to new situations	267 (74.4)
Loss and grief	244 (68)
Difficulties related to sexual orientation and/or gender identity	244 (68)
Difficulties in romantic relationships	234 (65.2)
Difficulties in family relationships	231 (64.3)
Learning difficulties and low academic achievement	173 (48.2)
Behavioral difficulties	149 (41.5)
Difficulties related to maladaptive personality characteristics	106 (29.5)
Psychopathological diagnosis	60 (16.7)
Therapeutic modalities	
Psychological counseling	315 (87.5)
Techniques from the field of psychology as applied to health	281 (78.1)
Psychotherapy	267 (74.2)
Supportive psychotherapy	257 (71.4)
Psychoeducation, counseling, and community mental health	223 (61.9)
Psychological first aid	167 (46.4)
Other de-escalation and containment techniques	166 (46.1)
Crisis intervention	153 (42.5)
Population	
Adults	344 (95.6)
Adolescents	273 (75.8)
Couples	201 (55.8)
Note: Students could select more than one option for each question; therefore, the percentages represent the number of cases and do not represent 100% in total.	

Category	n (%)
<i>Clinical applications</i>	
Families	182 (50.6)
Older adults	133 (36.9)
Children	81 (22.5)
Note: Students could select more than one option for each question; therefore, the percentages represent the number of cases and do not represent 100% in total.	

Regarding the difficulties and interferences experienced by students during telepsychology sessions, 29.7% (107/360) reported experiencing them, and 74.4% (268/360) reported experiencing interferences in communication with clients. Among the most frequently reported difficulties were those related to the physical space where the session took place, the equipment required for this modality, and the adaptation of the therapeutic technique. Meanwhile, the main interferences were related to failures in the client's internet connection, audio difficulties during the session, and privacy issues in the client's environment (Table 7).

Table 7
Main Challenges Identified During Telepsychology Care

Difficulties during the development of attention (n = 107)	
Therapeutic Process	n (%)
Modification of the therapeutic technique	31 (31.0)
Monitoring of treatment goals	27 (27.0)
Achievement of therapeutic goals	21 (21.0)
Conditions for providing care	
Physical space for providing care	48 (48.0)
Equipment required to develop the modality	40 (40.0)
Communication Interferences (n = 268)	
Internet connection failures on the part of the client	252 (94.0)
Audio difficulties during the session	140 (52.2)
Lack of privacy in the client's environment	134 (50.0)
The client's difficulty in starting the session on time	129 (48.1)
Image difficulties during the session	121 (45.1)
Environmental noises	112 (41.8)
Internet connection failures on the therapist's part	102 (38.1)
The client forgets or misses the session	92 (34.3)
Problems with the virtual platform	83 (31.0)
Note: Students could select more than one option; therefore, the percentages represent the number of cases and do not represent 100% in total.	

Finally, 70.6% (254/360) of the students reported that they would always or almost always use telepsychology again when treating clients, 27.8% (100/360) indicated that they would do so sometimes or rarely, and 1.6% (6/360) said that they would almost never or never use this modality again.

Learning and Clinical Skill Development

96.9% (349/360) of the students reported that the psychological counseling provided via telepsychology enabled them to develop clinical competencies and skills. 6.7% (24/360) of the participants considered telepsychology to be a form of care that affects the development of skills. Figure 1 presents the main clinical competencies and skills developed during the clinical practice and those impacted by the modality.

Furthermore, 98.1% (353/360) of the students reported that their telepsychology clinical experience allowed them to acquire new knowledge related to practice in digital environments. The most frequently reported learnings were related to therapeutic possibilities and precautions associated with the use of information and communication technologies, data protection, privacy, and confidentiality, as well as the implementation of strategies to promote clients' proper understanding of the information (Figure 2).

Among the students who expressed a need to strengthen their training and digital counseling skills, the main needs centered on managing risky or crisis situations, understanding the impact of telepsychology on clients, and measures related to data protection and confidentiality (Table 7).

Finally, 95% (342/360) of the students felt that, after completing their clinical training at the institution, they were qualified to provide quality service and respond to the social demand for telepsychology care.

Discussion

The purpose of this study was to characterize the experiences of psychology and clinical psychology students at a multicenter university network in Colombia, exploring their expectations, concerns, perceptions of clinical practice via telepsychology, and the lessons learned from their practice in this modality of care. Overall, the results show a favorable assessment of telepsychology.

The students recognized the relevance of this modality for psychological care and felt that clinical training contributed to the development of competencies and knowledge relevant to their professional education, particularly their telehealth skills. However, this positive assessment was accompanied by initial concerns, difficulties during implementation, and the identification of specific training needs, which highlights a critical and nuanced approach to tele-psychological practice.

Regarding initial expectations about telepsychology, the results show that students had a favorable perception of this modality before beginning their training. They acknowledged technical difficulties, but these did not undermine their perception of the modality of clinical utility. Only a minority doubted its feasibility. Overall, they viewed the benefits for clients positively, and the expected difficulty in developing clinical skills was perceived as occasional rather than persistent. This is consistent with the literature, which reports favorable attitudes toward telehealth despite the recognition of specific difficulties; benefits in terms of accessibility and the clinical care process reported by mental health professionals; and greater confidence and autonomy rather than persistent difficulties in developing clinical skills during telehealth training [22, 33, 34].

Despite the initial favorable assessment, most students also reported specific concerns before beginning treatment, which highlights that the general acceptance of the modality did not mean there were no concrete concerns regarding the students' clinical practice. These concerns focused primarily on clinical and relational aspects, such as difficulty establishing rapport, loss of clinical information, and the risk of early dropout among clients. In contrast, regulatory or technical concerns—such as confidentiality, lack of technical knowledge, or limited scientific evidence regarding the modality's

effectiveness—played a secondary role. This suggests that students did not perceive telepsychology as a technological challenge, but rather as a setting that required adapting clinical skills to a different environment in order to preserve the quality of the therapeutic relationship and the continuity of the clinical process. However, these concerns do not appear to be specific to virtual modality. Concerns have been documented among students about to begin in-person clinical practice, including fear of the first interview, doubts about the usefulness of the theoretical training received, and confusion between the roles of student and psychologist [35]. These findings suggest that some of what the students reported in our study may reflect anxiety typical of beginning clinicians in general, rather than a difficulty attributable to telepsychology per se.

Regardless of their origin, specific evidence and guidance on these priority concerns already exist in the literature. There are expert consensus guidelines for building rapport in telepsychology sessions and evidence that the effectiveness of therapy in this modality is comparable to that of in-person therapy [13, 36]. An interesting finding relates to students' fears regarding treatment dropouts, given that preliminary evidence in the literature suggests that telehealth does not necessarily increase the risk of clients dropping out of therapy [37]. Lower-priority concerns, such as confidentiality and the technical handling of devices, are also addressed by established regulatory guidelines [2, 3].

Regarding the category of perceptions of clinical practice through telepsychology—specifically, students' perceptions of their clinical competence in the five fundamental clinical activities—providing appropriate psychological care, intervening within technical parameters, assessing care needs, thoroughly exploring the reasons for consulting, and conducting the psychological assessment process—a favorable response rate of over 80% was obtained. These data contrast with the students' initial expectations and suggest that anticipatory uncertainty did not lead to a negative perception of the clinical experience in these five activities. This finding is consistent with reports from psychology students who describe their clinical competencies as transferable to telepsychology, building on skills already developed rather than representing an entirely new learning experience, and with evidence that clinical confidence in telehealth tends to increase with training and exposure to practice, consistently across different mental health telehealth training programs [14, 22, 38]. While much of the initial uncertainty responses to general clinical inexperience rather than the virtual modality itself, it is expected that such uncertainty will diminish with direct practice, regardless of the modality.

Furthermore, particularly with regard to initial concerns about the limited evidence of telepsychology and its effectiveness as a care modality, changes in perceptions once the practice has been implemented are consistent with the evidence indicating that both diagnostic assessment and clinical intervention via telehealth are comparable in reliability and effectiveness to those conducted in person [35, 39].

On the other hand, within this category, students identified a broad spectrum of psychological issues, therapeutic modalities, and populations for which they considered this type of care appropriate. Thus, the perceived feasibility of providing care for common emotional difficulties, psychological support processes, and the adult population was higher than for complex psychopathological conditions, crisis

intervention, and care for children. As in other studies, the students identified limitations to the application of telepsychology in certain clinical contexts. The main concerns described above align with recommendations in the literature that emphasize the need to carefully assess clinical complexity, risk level, and the client's circumstances when selecting this form of care [5, 18, 22, 26].

Although a significant proportion of students reported interferences related primarily to technological issues, environmental conditions, and privacy concerns in the client's setting, as well as difficulties associated with adapting therapeutic techniques, these did not appear to result in a rejection of the modality. On the contrary, the results suggest that the students distinguished between the limitations inherent in the implementation conditions and the potential of telepsychology as a care modality.

In this sense, some of the difficulties identified may be related to the conditions under which telepsychological care was provided. The study was conducted at university centers that primarily serve socioeconomically vulnerable populations, a context in which limitations on stable internet access, the availability of private spaces for consultations, and the physical conditions for connecting may pose additional barriers to remote care. Furthermore, part of the data collection process took place during the COVID-19 pandemic, a period of mandatory lockdown that entailed restrictions on privacy in the home, and a rapid implementation of telepsychology. These results can also be understood in light of the literature, which has documented that the implementation of telepsychology is often affected by technological barriers, privacy conditions, and contextual factors, specifically in scenarios of rapid adoption of the modality [9, 26, 40, 41].

Despite these difficulties, the students gave an overall positive assessment of the clinical experience and expressed a strong willingness to use telepsychology again in their professional practice. These findings suggest that the challenges experienced during the practice did not undermine acceptance of the modality but rather represent issues that could be addressed through better training and appropriate implementation conditions.

In terms of learning outcomes, the results show that most students completed their training with the perception that they had developed clinical competencies and skills through telepsychology practice. Among the most frequently reported competencies were listening skills, empathy, a therapeutic attitude, emotional support and guidance, and therapeutic communication, suggesting that, for these students, this modality may contribute to the development of relational skills that are fundamental to clinical practice. However, a smaller proportion of students reported difficulties in developing these competencies during their practice. It is interesting to note that these difficulties are primarily concentrated in aspects related to the therapeutic relationship, such as establishing the therapeutic alliance, understanding the client's emotional experience, therapeutic communication, and emotional containment. Far from representing contradictory findings, both results appear to reflect distinct experiences within the sample. While the majority perceived that telepsychology contributed to strengthening their clinical competencies, a group of students identified specific challenges in those skills that depend more heavily on interpersonal interaction and the establishment of the therapeutic

bond. In this regard, the findings suggest that telepsychology provides a setting that facilitates the learning of relevant clinical competencies, although it also highlights the need to strengthen training and supervision strategies aimed at developing those relational skills that students find most challenging in a remote care context. These results are consistent with previous studies showing that technology-mediated clinical experiences promote the learning of competencies necessary for professional practice and represent an increasingly important component in the training of psychologists [41].

For the part of the students, the specific knowledge acquired during the practical training relates to adapting psychological intervention to information and communication technologies, the therapeutic possibilities and limitations of these tools, and the ethical issues associated with privacy, confidentiality, and data protection. However, there are also areas they perceive as requiring greater emphasis during training, such as managing risk or crisis situations and understanding the impact of this modality on clients.

The knowledge identified by the students aligns with current competency models for the practice of telepsychology. Thus, aspects such as adapting interventions to digital environments, data protection, privacy, confidentiality, and the safe use of technology are some of the competencies proposed by Perle [18] and Pedersen [26]. The identification of these learning outcomes suggests that clinical practice in telepsychology facilitates the recognition of specific competencies required for this modality, which goes beyond traditional clinical practice.

However, the fact that students expressed the need to strengthen their training in areas such as managing risk or crisis situations indicates that these competencies should constitute a specific focus within telepsychology training programs. Orientation and ongoing supervision should incorporate targeted training strategies, such as role-playing or clinical simulation, to enhance performance in more complex remote care situations, in accordance with international recommendations on telepsychology training [9, 18, 26].

Finally, although the students identified skills and knowledge that need to be strengthened, most said they felt prepared to provide psychological care via telepsychology after completing their practice. This finding highlights the importance of developing, during training, the clinical judgment necessary to identify which situations and clients can be adequately addressed through telepsychology, and which require additional skills, specific protocols, or complementary modalities.

Taking into account the results from the three categories, it is possible to understand the telepsychology training experience as a progressive process. The practice allowed students to develop a favorable perception of the modality without overlooking its limitations or the specific demands associated with providing care of high clinical complexity. This training pathway emphasizes that the incorporation of supervised clinical experiences in telepsychology goes beyond simply learning how to use technological tools. The practice seems to promote fundamental elements at the clinical, relational, ethical, and professional judgment levels that are necessary for working in digital environments. In this regard, the results support the inclusion of supervised telepsychology experiences within psychology and clinical

psychology training programs, enabling students to acquire and develop the competencies and skills required for professional practice.

As these findings come from a multicenter network of university psychology services, they expand the available evidence on telepsychology training experiences in Latin America and provide insights to guide curriculum design and clinical supervision strategies in psychology training programs.

Limitations and Recommendations

The information collected is based on students' perceptions of their educational experience; therefore, the findings do not constitute an objective assessment of clinical performance. In this regard, it is valuable to expand the research, given that telepsychology continues to be used in academic institutions following the pandemic. Furthermore, although the study included students from nine universities, it did not examine specific characteristics of the design and implementation of telepsychology at each institution. For this reason, it is not possible to explore the influence that factors such as supervision models, training strategies, physical resources, or service organizations may have had on the experiences reported by the students. Future studies could take these differences and their impact on students' experiences into account. Although the sample comes from a multicenter network of nine universities, the majority of the sample is located in the central part of the country, which limits the generalizability of the results to other educational contexts. Finally, we recommend conducting longitudinal studies that allow for multiple measurements of the same phenomenon over time, as well as adopting methodological approaches to establish causal relationships between telepsychology, training, and reported learning outcomes.

Declarations

Human Ethics and Consent to Participate

This study was approved by the Research and Ethics Committee of the Faculty of Psychology, Pontificia Universidad Javeriana (Approval No. PSI-DEC-029-2023; Minutes No. 162, March 27, 2023). The committee determined that the study met the applicable scientific, technical, and ethical standards for research involving human participants and classified it as minimal-risk research in accordance with Colombian regulations. Electronic informed consent was obtained from all participants prior to their participation in the study.

Consent for Publication

Not applicable.

Competing interests

The authors declare that they have no conflicts of interest.

Funding

This study was supported by Pontificia Universidad Javeriana, Bogotá, Colombia, through research project ID 110733, entitled “*Caracterización de las experiencias de atención por Telepsicología de los Centros de Atención Psicológica Universitarios en Colombia de la Red ISUAP*”. Financial support for this research was provided by Pontificia Universidad Javeriana.

Author Contribution

Conceptualization: TCLL. Methodology: TCLL, MFRC, and MCLS. Data curation: MFRC and MCLS. Formal analysis: MFRC and MCLS. Investigation: TCLL, MFRC, MCLS, AMAP, CFCG, DIMV, JRPO, MMMM, JDMT, DRSM, and MCCHM. Resources: TCLL, MFRC, MCLS, AMAP, CFCG, DIMV, JRPO, MMMM, JDMT, DRSM, and MCCHM. Writing – original draft: TCLL, MFRC, MCLS, AMAP, CFCG, DIMV, JRPO, MMMM, JDMT, DRSM, and MCCHM. Writing – review & editing: TCLL, MFRC, and MCLS. Supervision: TCLL. Project administration: TCLL. All authors reviewed and approved the final version of the manuscript and agreed to be accountable for all aspects of the work.

Acknowledgement

The authors gratefully acknowledge ASCOFAPSI for its continued support of the ISUAP Network and for promoting collaborative research, as well as the undergraduate and postgraduate psychology students who participated in the study and generously shared their experiences.

Data Availability

The data that supports the findings of this study are available from the corresponding author upon reasonable request.

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Figures

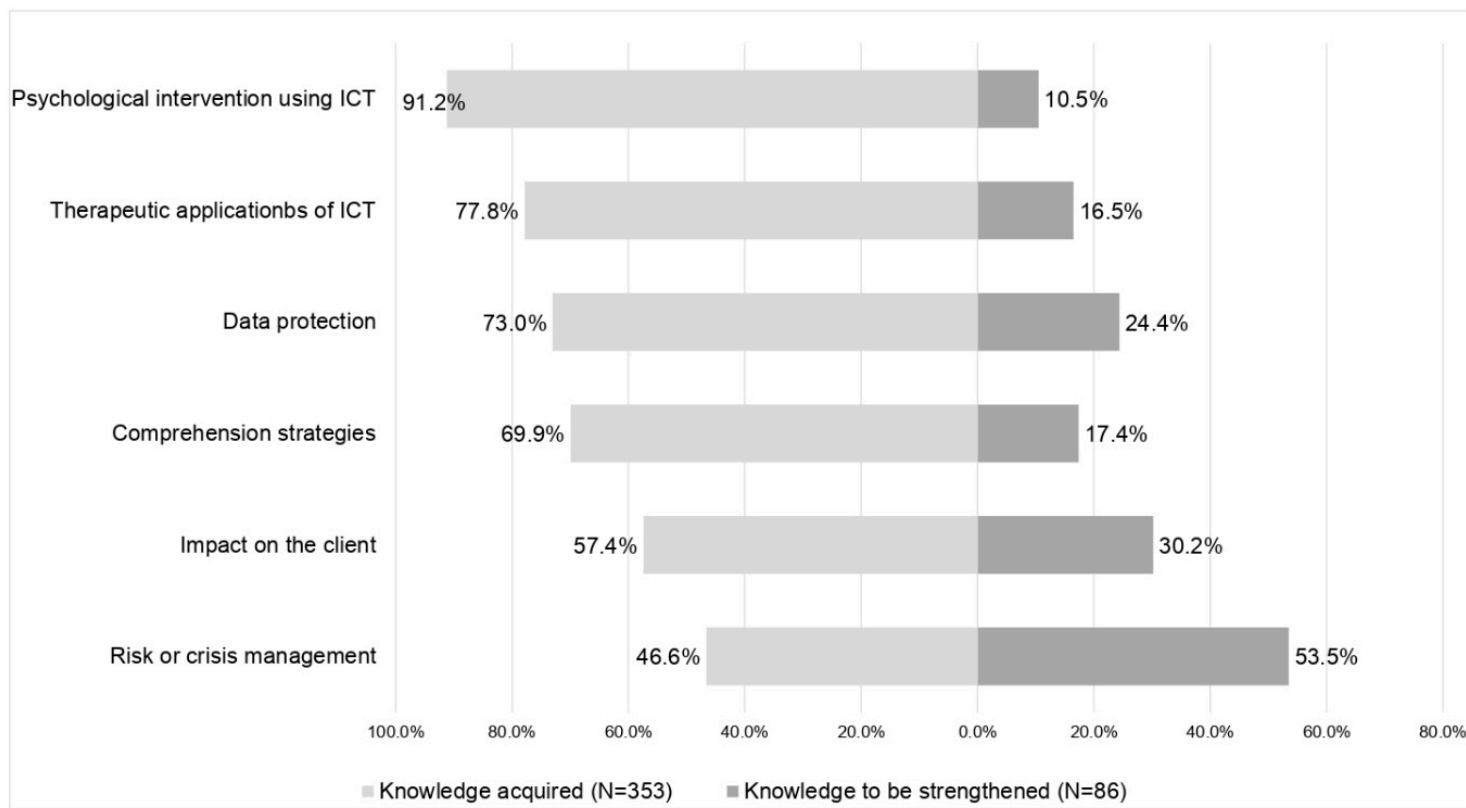


Figure 1

Skills Developed by the Modality vs. Skills Affected by the Modality