

Satisfaction degree in the using of Video Conferencing Psychotherapy in a sample of Italian psychotherapists during Covid-19 emergency

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Abstract— During the last period of lockdown because of the Covid-19 pandemic influence, a lot of mental health professionals were able to continue working online, assisting their patients from home too. Even if there are still some doubts about videoconferencing psychotherapy (VCP), a lot of studies indicate that VCP can be feasible and clinically effective, in fact the online therapy is becoming increasingly popular, reducing distances even during the current pandemic. The aim of this study is to analyze the degree of satisfaction after using VCP in a sample of psychotherapists freely recruited through the publication on social media of a specially created questionnaire. The collected

data were analyzed by performing descriptive statistics to show the qualitative and quantitative composition of the sample examined. A tree classification model was created to predict the liking of the remote therapeutic intervention based on the socio-demographic characteristics, previous experiences and aspects of psychotherapeutic orientation of the therapists recruited in the study. Through a decision tree that explains which variables are related to positive responses, the following characteristics were found to predict the degree of satisfaction of the psychotherapists in using the VCP: belonging to a specific age group; having previously used VCP; and belonging to a specific

psychotherapeutic orientation. According to the results, the first two important characteristics of the psychotherapists to influence the satisfaction in their use of VCP (belonging to the specific age group 45-65 and having previously used VCP) are probably a matter that can be linked to the degree of professional maturity and experience. The innovation of this research is to highlights the real impact of the distance therapy on the main therapeutic models, concluding that to have a certain level of proficiency, according the own orientation, in the use of the VCP may influence the level of satisfaction of the psychotherapists.

Keywords—videoconferencing psychotherapy (VCP); Electronic-Based Therapy; telepsychology, remote clinical psychology; digital empathy; psychotherapists satisfaction degree.

I. INTRODUCTION

During the last period of lockdown because of the Covid-19 pandemic influence, that was the largest and most dramatic health emergency of our historical period, everyone was invited to stay at home to avoid contracting the virus and limiting the spread of the infection. In this difficult period, the Coronavirus wasn't the only risk for our health, because we had to continue to manage stress [1] and take care of our body and psychological well-being. For this reason a lot of mental health (and not only) professionals were able to continue working online, assisting their patients from home too.

There are a lot of different kinds of Electronic-Based Therapy & Intervention (EBT&I) that were already used for different reasons to ensure psychotherapy and/or psychological counseling service of people who have limited mobility, who live in isolated rural areas or in places where there are no therapists, who need to talk in their own language even if residing in a country with different language or culture than their own, but also people who find it easier to compare through the technological "filter" rather than physically siting in the psychotherapist's office [2, 3, 4].

In general, "telepsychology is defined as the provision of psychological services that use telecommunication technologies" [5], it is part of the electronic healthcare/interactive healthcare field, that is to say the use of communication technologies aimed at promoting health and preventing harmful life spans. The telecommunication technologies include: telephone, mobile devices, interactive videoconferencing, e-mail, chat, text, and Internet (e.g., self-help websites, blogs, and social media). The transmitted information can include writing, images, sounds, or other data. These kinds of communications can be synchronous, with more subjects communicating in real time (e.g., interactive videoconferencing by Skype, Whatshapp videocalling, telephone), or asynchronous (e.g., e-mail). In general, technologies can increase traditional in-person services (e.g., psychoeducational materials shared online after an in-person therapy session) [6, 7] or be used as separate service (e.g., online psychotherapy session). Moreover, different technologies can be used in various combinations and for different aims [8] during the providing of telepsychology services.

Of course, even remote clinical psychology interventions must comply with international and local ethical-professional

regulations [9], in addition to being compliant with national laws, and about that it is interesting to consult the American Psychological Association guidelines.

The results of a systematic review indicate that videoconferencing psychotherapy (VCP) can be feasible, clinically effective and acceptable to patients, has been used in a variety of therapeutic formats and with different subjects, is generally associated with good user satisfaction, and is found to have similar clinical outcomes to traditional face-to-face psychotherapy [10]. In the last two decades, international researches studied advantages, potentials, limitations and defects of each type of online psychological intervention and maybe what drives the professional choice is the theoretical-methodological vision of psychic therapy according to the different theoretical orientations and types of therapy, which better than others lend themselves to this form of intervention [11].

Moreover, VCP has the potential to overcome challenges, such as time constraints, scheduling difficulties, and client concerns about treatment-seeking stigma, by allowing clients to engage with professional services in the privacy of their own home [12, 13, 14]. The greatest advantage of VCP is its ability to overcome access-to-care barriers for those in underserved regions. This advantage makes VCP an attractive service offering for organizations that serve geographically disperse or isolated populations, such as military personnel, veterans, prison inmates and staff, first responders, mining workers, or people living in rural or remote locations [15, 16]. Online therapy is also suitable for people with special needs such as: disabled and elderly people with mobility problems; people with anxiety disorders such as agoraphobia or social phobia; people who fear social stigma but that can overcome the sense of shame by using remote help; who has time constraints as managers or professionals; who often move their residence for study or work reasons; who are socially isolated for different reasons or fear meeting new people [17]; isolated teenagers in their rooms, with socialization problems or with serious pathologies, such as "hikikomori"; or become a valid support, as in the present moment because of the Covid-19, when the spread of anxiety and social anguish, if contained where possible.

Digital empathy is defined as the ability to take care of others, as well as to express thoughts, emotions and sensations immediately through digital channels, without the specificities of social empathy related to the traditional ways of interacting [18]. Considering that, maybe the relational distance in the Skype sessions is more perceived than real and it seems that the VCP works like the standard therapies, face to face, with different types of users [19]. One of the resources of the online sessions is that the therapist can look at his face in the PC video, monitor his internal state and at the same time the patient can also observe his facial expressions better. In that setting personal facial expression becomes a very important and rich feedback of information related to the relationship with the individual patient or to what happens in the therapist's mind. Watching yourself while the face expresses, in a non-verbal way, a certain emotion activates the mirror neurons [20]. This process promotes greater recognition of the emotional experience without carrying out a self-reflective work, because,

precisely because of the intrinsic characteristics of the mirror system, a pre-reflective, immediate and automatic recognition is activated. Consequently, however, consciously reflecting on these processes promotes greater self-reflexive knowledge in cognitive and emotional terms. This happens both by scrutinizing the other, and when we observe our own face committed to expressing a certain emotion: neuronal activation allows visceral, body, motor, as well as cognitive-semantic recognition, which involve active neuronal areas when we ourselves try that emotion. This is what is called “embodied simulation” [21], closely linked to empathy and interpersonal sympathy. Surely the therapist face and body can convey security or threat and the therapist does not always realize what is going on. Facial micro-expressions, face muscle folds, small moments of distraction or eye contact loss of the therapist are often unaware and are “captured” in an equally unconscious way by the patient, along with all other verbal and bodily aspects [22, 23]. During an online session the Skype reverse camera could help the therapist to become aware of his small movements (such as postural changes, forward or backward bending of the trunk, movements of the head), continuously sending information to his brain, which are then translated into signals that produce changes at the same time in him and the patient [24]. This can be an additional resource of the VCP [25]: the therapist can recognize the activation of his somatic and procedural coping by catching it in live and can be aware of it, noting what is happening inside himself or in the patient and maybe he can even hypothesize what the patient is feeling and why. Identifying and modulating all that promotes greater tuning and consequently a firmer therapeutic relationship.

One of the limitations of online psychotherapies is the value of lost information, such as that coming from the rest of the body or the other sensory channels such as sight and smell. About that different authors may have different opinions on the influence of that according to their different theoretical approach [26]. Moreover there are also technical internet-related problems or other privacy related questions.

However there are still a lot of doubts about VCP. Some issues are related to the personal preferences of patient and therapist (e.g. there are therapists and patients who prefer physical contact which allows for a unique tuning) [27] or, in general, to the complexity of the situation that requires special precautions and approaches that are not always possible remotely (e.g. subjects at risk of suicide or self-injurious behavior) [28].

Anyway, thanks to all these efficacy studies, online therapy is becoming increasingly popular, reducing distances even during the current pandemic.

II. AIM OF THE STUDY

The aim of this study is to analyze the degree of satisfaction after using VCP interventions in a sample of psychotherapists freely recruited through the publication on social media (Facebook) of a specially created questionnaire, during the period of lockdown because of the Covid-19 pandemic influence.

III. MATERIALS AND METHODS

A. Statistical methodology

The collected data were analyzed by performing descriptive statistics to show the qualitative and quantitative composition of the sample examined. A tree classification model was created to predict the liking of the remote therapeutic intervention based on the socio-demographic characteristics, previous experiences and aspects of psychotherapeutic orientation of the therapists recruited in the study. For this reason, the assessments expressed regarding the liking of remote therapy have been divided into negative and positive (tab. 5). The positive ratings were added together to create a dimensional variable used as a dependent variable of the tree classification. The predictive variables are all nominal variables. As a method of tree expansion, the CRT (Classification Regression Trees) method was used, it divides the data into homogeneous segments with respect to the dependent variable. Since this is an explanatory exam, no validation method was used; to avoid overfitting problems, the maximum number of tree levels has been limited to five. The CRT expansion method maximizes homogeneity within the node, this maximization is measurable through an impurity indicator. The minimum impurity reduction required for dividing a node has been set at 0,0001.

B. Description of the sample

The sample consists of 507 subjects, 49.9% of which belong to the Campania region, the remaining group of subjects is mainly distributed between Lazio (8.3%), Lombardy and Sicily (6.5%), Veneto (4.5%) and Liguria (3.0%). The subjects belonging to the various regions don't differ significantly in socio-demographic characteristics, in the opinions expressed in the survey questions and can be treated as a uniform sample.

The sample was freely recruited through the publication on social media (Facebook) of a specially created questionnaire.

TABLE I. GENDER

	<i>Frequency</i>	<i>Percentage</i>
<i>Male</i>	86	17
<i>Female</i>	421	83
<i>Total</i>	507	100

The subjects of the sample are divided into 86 males and 421 females. This distribution of the gender is superimposable on the percentage of males and females present in the population of Italian psychotherapists.

TABLE II. AGE GROUPS

	Group	Frequency	Percentage
Until 35 years old	1	124	24.5
36 - 45 years old	2	176	34.7
46 - 60 years old	3	176	34.7
Over 60 years old	4	31	6.1

24% of the study participants are under 35 years old, 70% are between 36 and 60 years old and 6% are over 60 years old. The age distribution is similar to that of the population of Italian psychotherapists.

TABLE III. WORK CONTEXT

	Frequency	Percentage
Public	70	13.8
Private	410	80.9
Mixed (private and institutional context)	27	5.3

Most of the subjects in the sample (80.9%) carry out their therapeutic activities in a private clinic. 5.3% work alongside private jobs in institutional settings, such as social areas and municipal services.

TABLE IV. PSYCHOTHERAPEUTIC ORIENTATION OF REFERENCE

	Frequency	Percentage
Psychoanalytic	159	31,4
Gestalt	104	20,5
Systemic Relational	100	19,7
Psychodynamic	67	13,2
Cognitive Behavioral	43	8,5
Transactional Analysis	22	4,3
Humanistic	12	2,4

The most represented therapeutic model in the sample was the Psychoanalytic model, followed by the Gestalt and Relational Systemic model; the least represented orientation was the Humanistic one.

TABLE V. EVALUATION OF THE REMOTE THERAPY EXPERIENCE

Type of evaluation	N	%	
It involves greater psychotherapist flexibility in the setting	302	59.57	Pos.
It needs higher levels of attention and concentration	280	55.23	Neg.
It restricts or prevents the possibility of applying certain techniques	257	50.69	Neg.
It is inapplicable with some types of patients	238	46.94	Neg.
It fatigues more	210	41.42	Neg.
It reduces "silence", making breaks more difficult	205	40.43	Pos.
It changes the asymmetry of the patient-therapist relationship	193	38.07	Neu.
It does not impact on clinical efficacy	110	21.70	Pos.
It has less clinical efficacy	106	20.91	Neg.
It requires more attention to privacy issues	70	13.81	Neu.
It predisposes more to technical errors	46	9.07	Neg.
Technological tools are not adequate	34	6.71	Neg.
He is more relaxed	17	3.35	Pos.
It is no different	11	2.17	Pos.
It has greater clinical efficacy	2	0.39	Pos.
Positive Evaluations	365	72	
Negative Evaluations	479	94.6	

Most of the subjects (94.6%) expressed at least one negative opinion while 72% expressed at least one positive opinion. The relevant data is that most of the subjects had an experience that classified positive in some ways and negative for others. The category "neutral" was also included in the classification of the judgments for those who expressed a value that was not directly attributable in a uniform manner.

37.1% (188 subjects) had already used a remote treatment method before the lock down, mainly video calls (159 subjects) or phone calls (44 subjects).

IV. RESULTS

We assessed the socio-demographic characteristics of the sample that allow us to predict the positive perceptions of the experiences, building a tree classification system that presents the characteristics shown in Table 6.

TABLE VI. EVALUATION OF THE REMOTE THERAPY EXPERIENCE

<i>Growth method</i>	CRT
<i>Target variable</i>	number of positive opinions
<i>Included Independent variables</i>	people up to 35 years old - people already used remote therapy - people are between 36 to 45 years old - people are between 46 to 60 years old - those that work in a public context - those that are male - those that are female - those that work in a private context
<i>No. of nodes</i>	7
<i>No. of terminal nodes</i>	4
<i>Depth</i>	3

TABLE VII. SUMMARY OF FORECAST EARNINGS - SOCIO-DEMOGRAPHIC CHARACTERISTICS

	<i>Node for node</i>			<i>Cumulative</i>	
	<i>N° subjects</i>	<i>Percentage</i>	<i>Average</i>	<i>Percentage</i>	<i>Average</i>
<i>Node 3</i>	149	33.10%	1.0671	33.10%	1.0671
<i>Node 5</i>	96	21.30%	0.9063	54.40%	1.0041
<i>Node 2</i>	109	24.20%	0.8899	78.70%	0.9689
<i>Node 6</i>	96	21.30%	0.875	100.00%	0.9489

We assessed the socio-demographic characteristics of the sample that allow us to predict the positive perceptions of the experiences, building a tree classification system that presents the characteristics described in Table 9.

For the construction of the tree classification, having used during the lock down phase, as a means of continuing remote treatment, video calls rather than phone calls was used as an influencing variable.

TABLE VIII. SUMMARY OF THE PREDICTIVE TREE MODEL OF SOCIO-DEMOGRAPHIC CHARACTERISTICS

<i>Growth method</i>	CRT
<i>Dependent variable</i>	number of positive opinions
<i>Included Independent variables</i>	psychodynamic - gestalt - psychoanalysis - relational systemic - cognitive - transactional analysis – humanistic
<i>Number of nodes</i>	9
<i>No. of terminal nodes</i>	5
<i>Depth</i>	4

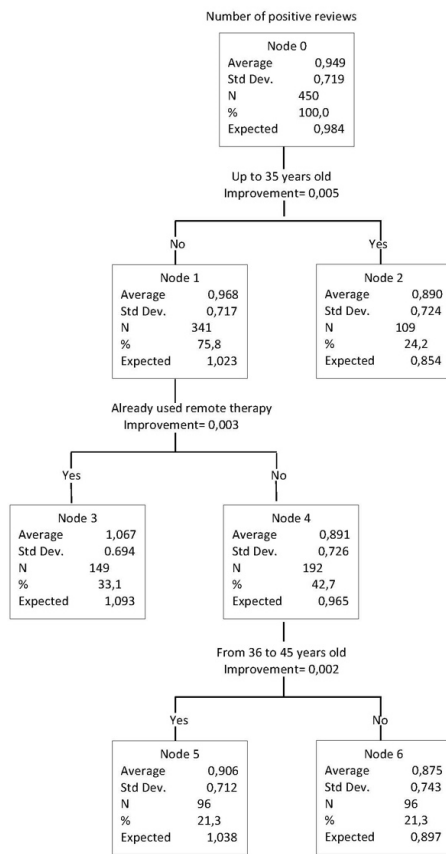


Fig. 1 “Forecast tree: socio-demographic characteristics”

A. Description of the tree

The first branch shows that subjects who are under 35 years old (109) tend to express fewer positive opinions. The second branch shows that subjects who had previously used remote therapy (149) express a greater number of positive opinions. The third branch shows that subjects aged between 36 and 45 years old (96) express a greater number of positive opinions.

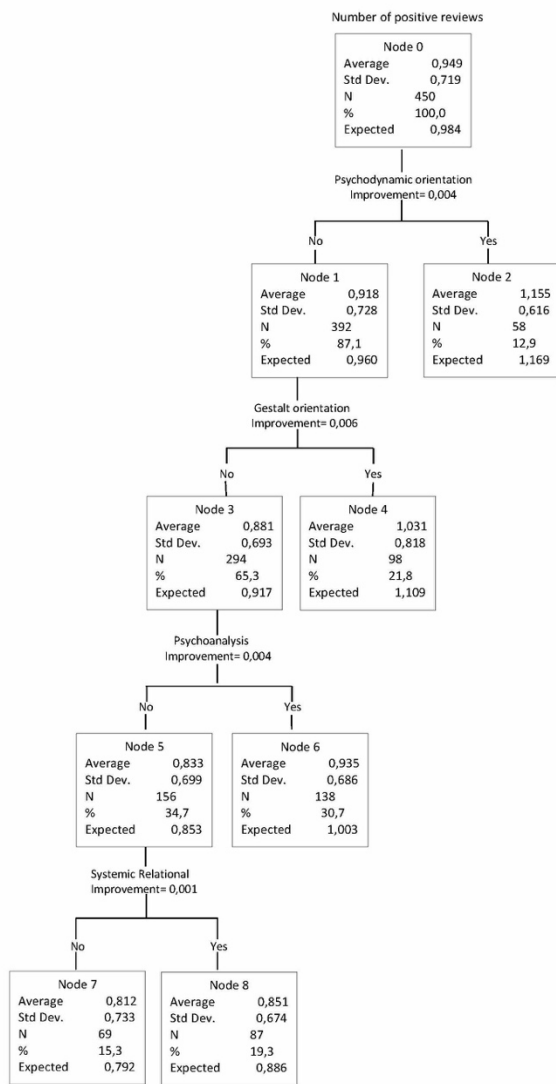


Fig. 2 “Forecast tree: therapeutic reference model”

B. Description of the tree

The first branch shows that subjects (58) who have a psychodynamic orientation express a greater number of positive opinions. The second branch shows that subjects (98) who have a Gestalt orientation express a greater number of positive opinions. The third branch shows that subjects (138) who have a psychoanalytic orientation express a greater number of positive opinions. The fourth branch shows that the subjects (87) who have a systemic relational orientation express the greatest number of positive opinions.

TABLE IX. SUMMARY OF FORECAST EARNINGS - REFERENCE THERAPEUTIC MODEL

	Node for node			Cumulative	
	N° subjects	Percentage	Average	Percentage	Average
Node 2	58	12.90%	1.1552	12.90%	1.1552

	Node for node			Cumulative	
	N° subjects	Percentage	Average	Percentage	Average
Node 4	98	21.80%	1.0306	34.70%	1.0769
Node 6	138	30.70%	0.9348	65.30%	1.0102
Node 8	87	19.30%	0.8506	84.70%	0.9738
Node 7	69	15.30%	0.8116	100.00%	0.9489

V. DISCUSSION

This study, analyzing the responses to a satisfaction questionnaire published online by psychotherapists from all over the Italian territory, identified specific characteristics of psychotherapists able to predict their degree of satisfaction in using VCP in this period of health emergency because of Covid-19.

In particular, through a decision tree that explains which variables are related to positive responses, the following characteristics were found to predict the degree of satisfaction of the psychotherapists in using the VCP: belonging to a specific age group; having previously used VCP; and belonging to a specific psychotherapeutic orientation.

Considering the greater familiarization of the new generations (digital natives) with computer or digital devices (video chat, real-time multiplayer of video games, whatsapp, etc.), it is simple to think that the problem of the supposed reduced empathy or difficulty in using the VCP, could be perceived more by so-called digital hybrids or migrants; maybe because for a young therapist there is not much difference between Skype sessions or in person, because, in some way, he is already accustomed to expressing intimate, personal, emotional aspects in these ways. However what emerges from the results of this study does not confirm that. In fact, the results of this study show that a greater degree of satisfaction in the use of VCP is perceived by older psychotherapists, while the group of psychotherapists who perceived less satisfaction in the use of VCP is that of less than 35 years of age. According to the results, the first two important characteristics of the psychotherapists to influence the satisfaction in their use of VCP (belonging to the specific age group 45-65 and having previously used VCP) are probably a matter that can be linked to the degree of professional maturity and experience. This result agrees with a previous study in which, among the top five ethical arguments to attentionate in online psychotherapy, there were therapist competence and need for special training [16]. Moreover, according to the *MORE Life Experience Model* [29], life challenges are catalysts for the development of wisdom, and that psychological resources crucially influence how people appraise life challenges. Maybe, following this argument, older age [30] and life experiences allow to understand a wider range of clients and older therapists are likely not afraid to perturb clients with demands or limitations like those linked to online psychotherapy, that in the long run will help do better therapy. The last factor predicting the degree of satisfaction of the psychotherapist in the use of VCP is the psychotherapeutic orientation. In particular, from the data analyzes, it emerged that the therapists who preferred more

using the VCP were those coming from the three following orientations: psychodynamic, gestaltic and psychoanalytic.

The degree of satisfaction is above all higher for psychodynamically oriented psychotherapists, this result partly agrees with what emerged from a study by Gordon [31], according to which psychodynamic oriented VCP is a useful option when considering its unique contribution to the extension of services where necessary. Maybe this data would be explainable according to the specific characteristics of this last orientation. In fact, the psychodynamic psychotherapists usually use psychotherapeutic techniques and strategies based on the clinical interview, many of which are well implemented with VCP, such as: the exploration of attempts to manage disturbing thoughts, emotions and defenses; the identification of recurring themes and characteristic patterns; the discussion of past experience, according to the development point of view; the focus on the therapeutic relationship; the exploration of fantasies and imaginative life [32, 33]. First of all the importance that psychodynamic orientation gives to the therapeutic alliance [34] could be another matter capable of explaining this result, because also for *digital empathy*, the attention to the therapist-patient relationship was seen as fundamental [18]. Also regarding the Gestalt orientation we can find the explanation of this result in the specific characteristics of the model, which refer in particular to the ability to be centered on the unity of the phenomenological field and the co-creation of the contact boundary in the dynamic figure/background [35]. In this perspective the person is not outside the field, but at the center of it: he/she is the foundation of the field. The contact boundary is that place in which experience in the field occurs, based on the communication exchange which occurs through the body and the senses. In the vision of the gestaltists the use of the VCP offers, through the use of the visual channel, the possibility to generate the shared figure, the possibility of interconnection that creates not only the conjunction between the subject and the environment but also the conditions to create the contact. The fact that psychoanalysts are in third position, compared to the psychotherapeutic orientation, to having experienced greater satisfaction in the use of VCP could reflect the fact that in recent years the whole psychoanalytic community has been very open to the topic. In fact, an international workgroup of colleagues from the International Psychoanalytical Association (IPA) and the International Institute for Psychoanalytic Training (IIPT) studied the practice of psychoanalysis and psychotherapy conducted on the telephone and on Internet. They claimed that digital technologies need to be embraced responsibly and with an open mind by the psychoanalytic profession [36, 37].

VI. CONCLUSION

This paper describes the preliminary data of a study carried out in a condition that has never occurred in the history of psychotherapy research. All psychotherapists have been forced to take a personal position in front of the clinical needs of their patients and they have had to test the school principals and theoretical models assimilated in their years of training.

Conditions have emerged that explicitly clarify both the approach to treatment that therapists have in their daily lives

and how and how much they are willing to derogate from the basic assumptions of their model. This paper therefore doesn't address the problem of VCP in the light of one or another school perspective but highlights the real impact of the distance therapy on the main therapeutic models. Although there are still some doubts about VCP, many studies indicate that it can be feasible and clinically effective. Especially during the current pandemic, VCP has become very popular, reducing distances and allowing mental health professionals to continue to care of their patients.

The results of this study show that the predicting characteristics of the psychotherapists satisfaction degree in using the VCP are: belonging to a specific age group; having previously used VCP; and belonging to a specific psychotherapeutic orientation. Therefore, it is possible to affirm that the characteristics of the psychotherapists which most influence their perception of satisfaction in the use of VCP have to do with aspects related to their experience and professional maturity. Finally, it is evident that remote psychotherapy, in this phase of health restriction, was conducted in an improvised and substantially amateurish way. This professional practice is evidently characterized by clinical specificities and therapeutic techniques that clearly differentiate it from the ordinary way of operating therapists in the professional setting. By way of example, this innovative treatment modality lacks the relational dimension attributable to the atmosphere which predominantly informs the intuition of clinicians and the process that tunes therapeutic dyad [38]. On the other hand, the therapeutic encounter with the use of Information Communication Technology tools seems to generate more sustained attention in the patient and favors the analytical processes of treatment [39]. The tools currently used by clinicians who work remotely, however, were born in other relational contexts and have been adapted to the needs of psychological care; therefore, they do not support the main characteristics of this type of intervention. Remote therapy requires a technological apparatus that facilitates intra-cognitive communication aimed at treatment [40].

In this perspective, a close alliance between psychotherapy and the world of Cognitive Infocommunication (CogInfoCom) is essential to encourage the organization of theoretical thinking and the development of a technology suitable for the needs of clinicians and patients working remotely [41, 42].

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