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**PSYCHOLOGISTS AND CLIENTS IN ONLINE INTERVENTIONS: NEW TOOLS AND
RESOURCES TO PROMOTE WELL-BEING**

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«The only journey is the journey within»

R. M. Rilke

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ABSTRACT

The use of online interventions in psychological care has been increasing over the past ten years, providing professionals and clients with innovative and flexible solutions, opening new possibilities of practice.

With the onset of the COVID-19 pandemic, the worldwide panorama of psychological interventions faced a forced transition to the online setting to adapt to the challenges and disruptions posed by such unprecedented situation. The pandemic acted as an evolutionary catalyst in Italy and worldwide, enabling the extensive experience of online psychological interventions, allowing for the identification of resources and difficulties connected, opening new possibilities to determine an important step forward in this area.

In this sense, such unprecedented situation allowed both psychologists and clients to change their attitudes and perspectives on online interventions by extensively experiencing it.

Starting from the opportunity of evolution provided by this unprecedented circumstances, the present thesis investigated the use of online interventions in psychological care with a contested perspective focused on the current challenges.

First, by exploring the experiences of Italian psychologists' and psychotherapists' with online interventions, *Study 1* investigated their experiences during the pandemic, trying to gain a comprehensive understanding of their needs and concerns, with a specific focus on the strategies they used to create and maintain a satisfactory therapeutic relationship with their clients online.

Second, by exploring the impact of the pandemic on the mental health and well-being of the vulnerable population of young adults, *Study 2* investigated the current challenges and needs to be addressed in psychological care.

Third, by developing and carrying out an intervention study to tackle the current challenges in vulnerable populations, *Study 3* investigated the perspectives of clients involved in a blended pilot intervention (online and offline) aimed at supporting their well-being and social connectedness, while testing its feasibility and relevance.

Comprehensively discussed the results of the present thesis provide knowledge about the specific situation lived through the pandemic in the psychological area and remark the importance of developing and elaborating further a critical approach towards the use of online interventions in psychological care. A perspective that represents a fundamental step to respond to the current challenges and to work back-to-back with professionals, clients and institutions, tackling the contemporary and future challenges of mental health and well-being in the general population.

INTRODUCTION

Online consultation is a modern option for psychological care, particularly in situations where traditional face-to-face support may be impeded by environmental, physical, emotional, and medical restrictions and constraints. Technology itself may encourage the approach to psychological consultations for some clients and psychologists, increasing accessibility especially when client and psychologist are unable to meet in person (Cipolletta et al., 2018; Haddouk, 2015).

Web-based psychological interventions have already opened new possibilities in healthcare practices in terms of assessment and treatment, such as supporting clients from afar, collecting data to monitor improvements, app mobile interventions, improving engagement and adherence in chronic illnesses (Andersson, 2018; Castelnuovo et al., 2015; Ebert et al., 2018; Karekla et al., 2019). Moreover a study by Apolinário-Hagen and colleagues (2018) showed that awareness of psychological online interventions is rather poor in the general population that considers it less effective and less preferred than the face-to-face ones. A study by Mendes-Santos and colleagues (2020) pointed out that psychologists' attitude toward online consultations and interventions is neutral or negative, moreover, psychologists claim to be rather unfamiliar with digital tools to be able to deliver web-based therapy and psychological interventions. One of the most significant concerns for psychologists regarding online consultation is the therapeutic relationship with clients. Indeed, psychologists are concerned that differences in communication may have a negative impact on therapeutic relationships online, particularly given the absence of the usual, nonverbal signs and clues that characterize a traditional therapy setting (Cipolletta & Mocellin, 2018). Psychologists who are unfamiliar with online consultations feel less confident when it comes to their ability of building a strong online alliance with their clients compared to face-to-face situations (Sucala et al., 2013).

On an international level, several software platforms are employed to provide online video consultation (Zoom, Doxy.me, PsychHelp.com.au, and so on). Professionals face several difficulties in selecting the most appropriate one for a variety of reasons (clinical, technical, and methodological). This ambiguity highlights the necessity for an accurate evaluation of IT tools in the context of application, which would ideally result in the formulation of shared guidelines for best practice and in the provision of accessible and specifically devised tools to deliver online psychological consultation.

Different e-health practices and treatments are distributed internationally. Many countries (including Canada, Australia, Sweden, the Netherlands, and Austria) widely use psychological online-based interventions in both the private and public sectors, whereas in Italy prior to the pandemic, these were still poorly implemented, particularly in the National Healthcare System. The National Council of the Order of Psychologists (CNOP, 2017) has redacted national guidelines for online psychological practice as a result of the increasing spread of web-based psychological intervention in Italy over the last decade, but strong skepticism persists among both psychologists and clients, particularly regarding efficacy, unclear policies, and the inadequacy of digital tools and technological education available for professionals.

The COVID-19 pandemic and consequent lockdown, social distancing and quarantine, their highly stressful impact on general population's mental health (Brooks et al., 2020), expected acute stress disorders, post-traumatic disorders, sleep and emotional disturbance, feared negative economic consequences (Marazziti & Stahl, 2020) have raised a great need and request of online psychological support and interventions (Duan & Zhu, 2020; Kluge, 2020). The pandemic "forced" the use of online psychological consultation and web-based interventions, enabling professionals and clients to experience the resources and the limitations of these practices (Van Daele et al., 2020). This scenario gave Italy (CNOP, 2020) and worldwide experts (APA, 2020; EFPA, 2020) the opportunity of dialogues and renovations that might lead to a great thrust forward in online psychological interventions.

The overall goal of the project is to explore and understand Italian psychologists' and clients' experience with online psychological interventions, aiming to assess both limitations and resources, address their needs and promote resources to support them in delivering online interventions and in creating a therapeutic relationship in this setting.

The research project is structured in three main studies, conceptualized, designed and implemented starting from a systematic review of the literature and the most relevant and updated literature on the topic.

The research questions that oriented the creation and carrying out of each study are the following:

Study 1: How did the pandemic affect the experiences and attitudes of Italian psychologists and psychotherapists toward providing online interventions, particularly in terms of their use of digital

tools and the effects on the therapeutic relationship? How did these experiences influence their future intentions to provide online interventions?

Study 2: To what extent the pandemic impacted on mental health and well-being in the vulnerable population of college students? How can we use such knowledge to develop and implement specific psychological interventions to tackle the current challenges?

Study 3: What are the experiences with online interventions from the perspective of clients? And more specifically, what is the impact and satisfaction of a blended intervention to address social isolation, loneliness, and promote well-being among international college students, a vulnerable populations facing the major impact of the pandemic?

The present dissertation is structured in six chapters organized as following: chapter one and two, will present the theoretical overview regarding online psychological interventions and the impact of the COVID-19 pandemic. Chapter three, four and five, will present the overall aim of the present PhD project and the different research studies. Finally, chapters six will present and discuss the general outcomes of the PhD project and future perspectives.

In the first chapter of this dissertation, will be introduced the framework of telepsychology, focusing on the resources and limitations of online psychological interventions, the attitude reported by professionals and clients with such setting and modalities specifically referring to the pre-pandemic situation and the therapeutic relationship in the online setting, focusing on the international and Italian context.

In the second chapter, will be introduced and reported the specific context of the COVID-19 pandemic as the unprecedented scenario that impacted on the general population well-being and mental health, posing the attention to those most fragile populations, the subsequent increase in request for psychological care and the implications of such period on the field of psychological care. Specific attention will be posed to the forced shift that professionals faced with the onset of the pandemic and the psychological interventions developed and implemented internationally to respond to the challenges posed by the COVID-19 pandemic, by presenting a systematic review of the literature that was conducted to lay the foundations of the research project.

In the third, fourth and fifth chapter, will be presented the three empirical studies investigating the experiences of Italian professionals with online interventions and therapeutic relationship in the virtual setting during the pandemic (Study 1), the impact of the pandemic on the population of college students, in terms of mental health and well-being to assess the current challenges in psychological care (Study 2) and the design and implementation of a pilot study to investigate the impact of a

blended intervention to support well-being and social connectedness in international college students at the University of Padua (Study 3).

In the sixth chapter, will be provided general discussion outlining the main outcomes of the overall project, transforming the lessons learnt during the pandemic into future perspectives, then the overall limitations and conclusions of the present project. Finally, will be reported references and appendix.

CHAPTER 1. ONLINE INTERVENTIONS IN PSYCHOLOGICAL CARE

Online psychological interventions are part of the broader macro-area of “telepsychology” a term used by the American Psychological Association (APA), which defines it as the provision of psychological services through communication technologies, which include telephone, mobile devices, interactive video conferencing, e-mail, chat, messages and the Internet (e.g. self-help forums, blogs and social media). (APA, 2013). Many organizations over time have been involved in the provision of specific guidelines for the online psychological practice, for example, the National Board for Certified Counselors (NBCC, 1998), the International Society for Mental Health Online (ISMHO, 2009), the American Psychological Association (APA, 2013), the American Telemedicine Association (2013) and also American Psychiatric Association (2018). In Italy the guidelines have been drawn up by the Italian Online Psychology Service (SIPO) and the National Council of the Order of Psychologists (CNOP). In particular, the latest update by the 2017 CNOP emphasizes that the ethical principles and norms of the Code of Conduct are also applied in cases where the interaction between client and therapist takes place online. These principles must be explained to clients before starting any online intervention and the professional is required to assess the adequacy of such modality according to the characteristics of the client involved. In the Guidelines for the Practice of Telepsychology, the APA (2013) also clarifies how these communications through technological media can take place in a synchronous way, with multiple parties interacting in real time (e.g. video conferencing, telephone), or in an asynchronous way, with the parties involved interacting not in real time (es. e-mail) both modalities can be used alone or in combination in the provision of telepsychological services.

The broader macro-area of telepsychology with its different modalities and methods, allows the professional and the patient to “meet” at a distance, bridging the gap or impediment that can impede the provision of physical psychological services (APA, 2013). Telepsychology can be both used to complement therapy sessions that take place in person or as a primary method to provide psychological support (Martin et al., 2020). Common uses of telepsychology to complement in-person sessions include telephone sessions with the purpose of monitoring the progress of therapy or to address urgent issues, the use of e-mails to send additional information or research links, and using text messages to set up new appointments. Additional tools are also mental health apps that

monitor and track client's behavior and allow completion of tests or online evaluation tools (Martin et al., 2020).

But in many cases, providing online interventions, is the preferred choice for accessing psychological support especially when physical, geographical, health related, accessibility related and other limitations or constrains are experienced by both clients and professionals, allowing the overcoming of such barriers. Telepsychology is, in fact, able to offer opportunities to psychological care, which in many cases are not achievable with personal services, allowing for example, the overcoming of geographical, financial, transportation barriers, physical limitations and guaranteeing access to experienced specialists (Martin et al., 2020).

1.1 The virtual setting: resources and limitations

The virtual setting and the application of online interventions in the clinical practice, offer many opportunities in clinical care, as well as many challenges, raising numerous concerns for professionals as well as for clients (Stoll et al., 2020).

On a general level, online psychological interventions allow greater access to psychological care and services, especially for those living in rural or remote areas (Zur, 2007), facilitating more frequent contact between therapists and clients and guaranteeing specialized visits when needed (Chakrabarti, 2015). In addition, online psychotherapy offers care opportunities for patients who are forced to live at home or with reduced mobility (Godine & Barnett, 2013), as well as with clients living conditions such as agoraphobia and/or social anxiety that limit physical encounter (Fitzgerald et al., 2010). However, this format may not be suitable for all types of patients, especially those suffering from serious conditions of mental disorders or patients who are highly dysfunctional and could threaten themselves and/or others (Brenes et al., 2011). In any case, online interventions offer a valid alternative to the in-presence modality and can also be used as a supplement to it (Johnson, 2014), offering opportunities for creative approaches involving different therapeutic models and different technological modalities.

Much discussed is the lack of non-verbal signals in the interaction that takes place online, especially when using text-based tools (e.g. e-mail, chat, forums), which can possibly lead to misunderstandings and difficulties in communication (Bauman & Rivers, 2015), putting at risk the possibility of feeling presence and a satisfactory therapeutic relationship characterized by empathy, warmth and spontaneity (Harris & Birnbaum, 2015). Last but not least, online interventions face a great challenge in the handling of crisis situations, involving threat behaviors to the patient or others,

suicidal attempts etc., making it more difficult to manage the situation, given the different location of therapist and clients (Lovejoy et al., 2009).

On a general level, both clients and professionals consider remote psychotherapy useful and suitable (Drum & Littleton, 2014; Stoll et al., 2020), valuing it as well for its flexibility in terms of place and time (Montalto, 2014). In particular, it seems useful and appropriate for patients with mild to moderate symptoms, but it also presents itself as a useful tool for patients in acute seizures who do not have the opportunity to receive immediate in-presence care (Gun et al., 2011).

Looking at the relational aspects when practicing online, many professionals have raised doubts regarding the possibility of effectively and successfully developing and maintain a satisfactory therapeutic relationship online (Baker & Ray, 2011; Richards & Viganó, 2013) a thing that will be furtherly discussed in the following paragraphs.

For some, by reducing the need to go physically to the therapist's studio, online psychotherapy can increase the sense of anonymity and privacy (Chester & Glass, 2006), while at the same time fostering an easier opening up and discussing emotional problems. By removing obstacles to first access, online psychotherapy can reach patients who would never have gone to therapy in person (Kramer et al., 2013). However, there are still many concerns regarding the need of guarantying privacy during online interventions, especially connected to the use of non-specifically devised software to deliver online psychological interventions, making those resources easily attacked by hackers (Fantus & Mishna, 2013).

Another advantage relates to the cost-effectiveness of online psychological interventions, with the potential to reduce costs for the therapist, the patient and society in general (Morland et al., 2015; Stoll et al., 2020), potentially reducing long waiting lists for in-presence treatment (Proudfoot, 2004).

Among the ethical arguments against online practice, Stoll and colleagues (2020) identified the need for specific trainings to develop technological skills, as well as clinical and therapeutic skills specific to online practice. In fact, professionals practicing online must be aware of ethical rules and guidelines, as well as know the regulatory requirements and policies to practice online in security (Johnson, 2014). Online practice also requires a particular forms of informed consent, different from the one required for presence therapy (Maheu et al., 2013), underlining the need to update the international and country specific regulations around online practice to make it more safe, protected and effective for both therapists and clients.

1.2 Digital resources: different possibilities of application

As reported by Bozzaotra and colleagues (2017) psychological interventions mediated by the web are realized through three prevailing modalities: e-mails, chats and video-consultation. Written communication between therapist and patient uses tools such as e-mails and chats to communicate synchronously or asynchronously. The systems and devices such as the video-conference allow, instead, a synchronous communication between the actors of the therapeutic relationship with the possibility of being able to integrate audio and video, the modality perceived as the most similar solution compared to traditional in-presence consultation or therapy sessions (Bozzaotra et al., 2017).

Through videoconference technologies therapist and patient can connect in real time with audio and video using a computer, a tablet or a phone and through the mean of a platform such as Skype, Zoom, FaceTime and Google Meet.

Online psychological interventions have a wide range of application, from self-guided interventions via the web, to online counseling or online psychotherapeutic consultations capable of treating various pathological conditions (Barak & Grohol, 2011), that can involve only the therapist and the client, as well as a group.

Online psychological interventions cover different areas of application as reported in the following sub-paragraphs:

1.2.1 Guided and non-guided self-help interventions

Guided and non-guided self-help interventions online are generally organized in a series of online lessons or modules that include different exercises and tasks. In this type of intervention the therapist can assist and support the client, evaluate the work done, the difficulties encountered and the progress, but this kind of contacts with the professional are rather limited and in some cases the feedback to the patient is provided in an automated way through messages or e-mail (Barak et al., 2009). This type of intervention has proven its effectiveness in various clinical conditions, such as depression (Lintvedt et al., 2013) anxiety disorders (Kählke et al., 2019), post-traumatic stress disorder (Lewis et al. 2017) and grief elaboration (van der Houwen et al., 2010). Various analyses, however, have shown that web-based interventions in which the figure of the therapist offers feedback and support to the patient are more effective than unguided self-help programs, where the drop-out from treatment is much higher (Richards & Richardson, 2012).

1.2.2 Online Counseling

Another area of application of online psychological interventions concerns online psychological counselling, generally defined as online counseling. This type of practice involves a client and a mental health professional who are physically distant for reasons such as geographical distance or physical limitations; their interaction therefore takes place through communication technologies (Cipolletta & Mocellin, 2018; Richards & Viganó, 2013). This interaction can be synchronous or asynchronous and can be used as an autonomous function or as a supplement to the traditional therapy in the presence. Moreover, this type of online intervention can be realized in a written interaction between therapist and client (e.g. e-mail, chat) or, more often, through video conference platforms, which then allow the two subjects of the dyad to interact with each other through a screen (Richards & Viganó, 2013).

This online procedure has proven its effectiveness for the treatment of various disorders, such as anxiety, depression and post-traumatic stress disorder and more, as shown in a review of the literature (Poletti et al., 2020), being considered a valid alternative to the in-presence modality.

1.2.3 Online support groups

An additional field of application of online psychological interventions are online support groups. This type of communication can take place in real time (synchronous videoconference group) or delayed (discussion forums, chat rooms or e-mails); both modalities request the presence of a professional in the role of moderator to ensure proper use of the group and its purpose (Worrall et al., 2018). Online support groups exist for numerous conditions, from patients with asthma to parents of children with autism, from teenagers with hearing problems to children of parents with Alzheimer's, from rape survivors to students with dyslexia, from groups for divorced people to support groups for patients with cancer (Banbury et al., 2018). For those who join an online support group, the other members of the group act as a lasting and responsible resource of help, through which to obtain and transmit information and receive emotional support. These groups allow socialization and the possibility to develop companionship with others who share a similar discomfort (Banbury et al., 2018; Worrall et al., 2018) as well as the sharing of medical information, practical resources and much more (Cipolletta et al., 2020; Cipolletta et al., 2017; Chen, 2012).

1.2.4 Online psychotherapy groups

Online psychotherapy groups are characterized by the presence of an experienced professional psychotherapist, who is always present and effectively guides the group following a specific treatment protocol. Although these groups, like support groups, can be conducted in synchronous or asynchronous modality using chat, forums and email, in most cases they take place in videoconference, using platforms that allow the connection of both video and audio (Weinberg, 2020).

A meta-synthesis on guided and unguided online support interventions (Bennett et al., 2020) highlighted the effectiveness and acceptability of online psychological interventions in improving depression, anxiety, alcohol-related problems and mental health. However, such results highlighted that online psychological interventions are not free of limits. In fact, as reported by Bennett and colleagues (2020), such interventions show a greater difficulty in establishing a trust relationship online compared to interventions in-person. Other limitations have to do with availability of internet access and privacy issues. As reported by Bennett and colleagues (2020), there are some elements and clinical considerations to be taken into account when preparing and delivering such intervention modality; such as stressing the importance of familiarizing with technological tools both professionals and clients; considering the ethical implications of using online interventions aiming to maximize their benefits and minimize their harm; as well as working to ensure that people involved are guaranteed access to digital resources to take active part in the psychological intervention.

1.3 Professionals' and clients' attitudes toward online interventions

Attitudes reported by professionals and clients with regards to online psychological practice can play an important role in their actual use. Those, in fact, may vary depending on the preferences and opinions of professionals, or may be influenced by other factors such as demographic variables, the therapeutic theoretical orientation, previous experience and knowledge and the familiarity and ability to use the technology (Cipolletta & Mocellin, 2018).

Several studies have investigated the attitudes of professionals towards online psychological interventions prior to the COVID-19 pandemic, pointing out ambivalent results. In fact, some studies reported neutral attitudes (Wangberg, et al., 2007), potentially due to a lack of knowledge about these new methodologies; others reported a positive attitude (Becker & Jensen-Doss, 2013; Schuster et al., 2018); while other pointed to the lack of enthusiasm in professionals that are concerned about the effectiveness of the treatment in the online setting (Schröder et al, 2017).

A systematic review by Connolly and colleagues (2020) highlighted that there is a general positive attitude towards the online practice among those who implemented it in their activities, pointing out that the most important factor in determining the intention to use online support interventions is the perception of utility (Monthuy-Blanc et al., 2013).

Although the general attitudes of professionals towards interventions via videoconference are positive (Adler et al., 2013; Cipolletta & Mocellin, 2018; Cunningham et al, 2013; Lindsay et al., 2017), some negative perspectives have been collected especially related to potential barriers, the perception of online interventions as detached and the risk of increasing clients' social isolation. Non-using this method has been associated with concerns regarding technological issues, professional's perception of an extra effort and the feeling of fatigue due to the need to have special equipment and adequate spaces (Adler et al., 2013; Shulman et al., 2017). Before the advent of COVID-19, therefore, the fatigue of online work was more linked to practical aspects of the use of the technologies and the spaces needed; with the pandemic period instead new features have been identified, more connected to the emotional and personal aspects that will be furtherly discussed in the next chapter.

The review of Connolly et al. (2020) identified six negative factors related to the use of online psychological interventions: (a) the impersonality impacting the therapeutic relationship (e.g. difficulty detecting non-verbal signals, difficulty in maintaining eye contact, interruptions in the flow of conversation, etc.); (b) the privacy and legal concerns (e.g. difficulties in assessing the risk and possible hospitalization, professional responsibility in case of crisis, restrictions on the license to practice beyond the borders of a given State, etc.); c) the professionals' perception of the unpleasantness of the online modality for the client; (d) the lack of knowledge regarding confidentiality and security online, on the part of the professional; (e) the non-adaptability of such methods to all patients (e.g. patients with hearing or vision impairment, socially isolated or at high risk); (f) the inability to conduct an effective assessment, including a physical examination (e.g. delivering tests, assessment procedures, etc.).

On a general level the most positive attitude reported by professionals concerns those interventions delivered through videoconference; in particular the benefits of this practice are related to the increased efficiency, flexibility and access to psychological care for clients.

In another review of the literature on online interventions (Payne et al., 2020), the authors highlight how, although online therapy appears to be effective and acceptable, practitioners continue to have conflicting opinions when they are asked to provide this type of intervention. While, on one hand, professionals find positive aspects of online psychological intervention, such as ease of

scheduling appointments, a more efficient use of clinical time, a reduction in waiting times and greater involvement of patients, on the other remain concerns related to emotional differences and practices associated with online therapy. Authors state that it is widely accepted that the construction of a strong therapeutic relationship between therapist and client is crucial for psychological interventions, more than the specific therapy orientation. If opinions about what makes a therapeutic relationship “successful” may differ, the aspects of the therapy that are based on human connection and the construction of a personal relationship may be impacted by the virtual setting (Payne et al., 2020). Non-verbal communication (e.g. eye contact, facial expressions and body language) is often cited as a fundamental aspect of building a therapeutic relationship, and mental health professionals have frequently raised concerns about the absence of this aspect of communication, both in telephone and text-based therapies (e.g. e-mail, chat, forum) and in videoconferencing therapy (Payne et al., 2020).

The therapeutic orientation of the practitioner is often seen as a predictor of whether or not these methodologies will be used. A study (Perle et al., 2013) has highlighted that therapists with a cognitive-behavioral and systemic orientation are more likely to accept this modality compared to psychodynamic, psychoanalytic and existential approaches.

Similar results were found in a previous study (Wangberg et al., 2007) revealing that dynamically oriented therapists were less likely to support online therapy and more likely to have negative attitudes towards it, while cognitive therapists showed a more positive attitude.

An Italian study (Cipolletta & Mocellin, 2018) aimed at investigating the attitudes of psychologists towards different aspects of online therapy, provided through e-mail, chat, forums and videoconference, found similar results pointing out that cognitive-behavioral and cognitivism approaches were more inclined to online therapy compared to psychoanalysis and psycho-corporal approaches. Also in this study it is stressed that an important factor that could influence the attitude towards the application of online psychological interventions is the knowledge that psychologists have about this practice, acquired through direct experience or through knowledge of studies on this subject. The study shows that few respondents had direct experience with online practice or were aware of guidelines and educational materials. However, the willingness of half of the participants to open an online consulting service indicated a certain interest in Italian professionals in expanding their knowledge and experience in the telepsychology macro-area of intervention (Cipolletta & Mocellin, 2018).

On a general level, a more positive attitude towards online intervention, as well as greater confidence in one’s ability to provide psychological assistance through such modalities, were

registered among professionals who have already practiced online (Connolly et al., 2020; Lazuras & Dokou, 2016). This result seems to underline that the experience of online psychological interventions determines not only a more positive attitude in the professional towards online practice, but also a greater sense of competence in providing psychological support from a distance. Furthermore, having provided remote interventions is accompanied by a less negative attitude towards this practice, with less difficulty in the use of technology, in the management of risk situations or in the development of the therapeutic relationship (Connolly et al., 2020).

Several studies (Adler et al., 2013; Brooks et al., 2011; Newman et al., 2016) have also reported the surprise of therapists for their clients' positive attitudes towards online practice, their willingness to participate and the speed with which they have adapted to this new way of delivering treatment.

Despite this, however, many studies that have compared the opinions of professionals about psychological interventions conducted through videoconference and the practice in presence have highlighted that professionals consider in presence therapy more desirable than the one conducted remotely, considering it more effective in the evaluation and interventions on children. In addition, psychodynamic therapists have described videoconferencing therapy as slightly less effective than in-person sessions. Studies that analyzed the experience of practitioners who performed both presence and videoconference treatments revealed for presence sessions a significantly higher rate of satisfaction of therapists, as well as a higher perception of achieving goals, completing tasks and developing a therapeutic bond (Connolly et al., 2020).

An Italian study (Cipolletta & Mocellin, 2018) also analysed the attitude of a sample of psychologists from Northern Italy (n=289) towards different aspects of online counseling. The study shows that just over 18% of respondents had experience with online counselling. The tools used for this type of practice have turned out to be e-mail, video conferencing, chats and forums. Online modes have been used to deal with anxiety, depressive and mood disorders and relationship problems. More than 44% of respondents expressed preference to meet new patients in person before transferring sessions online and almost 57% indicated preference for having at least one telephone conversation. The majority of respondents agreed about the need for a training course and a certification to conduct psychological interventions online. The benefits of online practice mostly indicated by the respondents were the reduction of geographical boundaries, the optimization of time and the guarantee of anonymity. Among the most indicated disadvantages resulted the reduction of non-verbal communication signals, the frustration due to technological problems and the possibility of

intrusion into the room when client and psychologist are communicating (Cipolletta & Mocellin, 2018).

Different studies (Glueckauf et al., 2018; Lazuras & Dokou, 2016; Mendes-Santos et al., 2020; Vigerland et al., 2014) show that the effective use of online psychological interventions in one's clinical practice is rather modest among mental health professionals in Europe and the world. Despite the various benefits regarding online practice the lack of adequate training, competences and tools to practice online, as well as the lack of clear guidelines and ethical rules that define online practice, are often deterrent for choosing to provide psychological interventions at a distance. Such results underline the importance of actively taking action by moving forward with research, specific support for professionals and clients, and updating and redefinition of international and country specific guidelines to support online clinical practice.

1.4 Being in relationship online, new ways of interaction

The therapeutic relationship is an important component of any psychological intervention and is the main predictor of the success of the psychological treatment (Martin et al., 2020). The online setting can determine relevant changes for the creation and maintenance of a satisfactory therapeutic relationship, however, several studies have shown that also in the online setting it is possible to establish and maintain it (Barak & Grohol, 2011; Finn & Barak, 2010).

As reported by literature (Sucala et al., 2013; Watts et al., 2016) the therapeutic relationship developed through videoconference modality in the online psychological setting, is reported as similar to that established in presence.

Most of the studies carried out on the topic, have focused on the client's point of view, revealing how their perception is not always shared by professionals as well (Hogan et al., 2016); clients in fact, report a more positive attitude connected to the perception of online interventions as less invasive and intimidating compared to conventional ones (Simpson, 2001). Different studies have shown that online psychological practice (delivered via videoconference) does not negatively interfere with the development of therapeutic relationship in patients with generalized anxiety disorder (Watts et al., 2020), post-traumatic stress disorder (Hernandez-Tejada et al., 2014), depressive disorder (Stubbings et al., 2013), obsessive compulsive disorders (Goetter et al., 2014), panic disorders (Bouchard et al. 2020), social anxiety (Yuen et al., 2013), and eating disorder (Ertelt et al., 2011); highlighting the potential quality of the relationship that can be developed using digital tools.

Many professionals are convinced that the therapeutic relationship cannot take place without the physical presence of both participants in the interaction stressing that the absence of non-verbal sensory signals and embodiment, considered key components of the relationship, cannot be replaced (Germain et al., 2010). As reported by Aafjes-van Doorn and colleagues (2020) professionals report feeling more connected and in relationship with their clients in the the online setting, when they have more work experience and familiarize with different digital tools during their practice. Literature points out that a period of adaptation for clients and professionals with online tools and setting is necessary, delineating a different situation compared to in-presence sessions, that might request more time to both making it is plausible to delay the construction of the therapeutic relationship (Simpson, 2001; Thorp et al., 2012).

The lack of non-verbal communication during videoconferencing sessions should lead psychologists and psychotherapists to pay attention to other elements to empathize with their patients, such as facial expressions (Krumhuber et al, 2013), tone of voice (Johnstone & Scherer, 2000), visual contact (Adams & Kleck, 2005), which allow to recognize the emotions of the client.

Such need for adaptation and re-definition of elements to create and evaluate therapeutic relationship online, request to professionals to be flexible and creative, compensating the loss of physical signals and embodiment by, for examples, moving the camera, exaggerating movements, explaining the behavior or the posture to the client.

Contextual factors such as time constraints, real-life events, online and offline interactions that can facilitate, but also hinder, empathy in computer-mediated interactions are also important to be taken into account. Ideally, online interactions should take place without external distractions, but professionals and patients may be distracted by other electronic devices or noise sources. These distractions could compromise reciprocity and empathy, underlining how finding a quiet space to conduct clinical sessions is crucial (Williams et al., 2015).

On a general level, the online practice is not a simple shift from in-presence methodologies and interventions to digital ones, specific features, regulations, characteristics, implications, etc., discussed up to know have to be taken into account and furtherly explored to allow the identification and understanding of its peculiar aspects.

According to different authors (Cipolletta, 2012; Geller et al., 2012; Siegel, 2010), presence in a psychological session is the possibility of being in relationship with a patient, embodying an encounter that focuses on the patient's verbal and nonverbal experience and fostering therapeutic

engagement. Various psychological theoretical perspectives have explored and acknowledged presence as a trans-theoretical process (Geller, 2020; 2017; Geller et al., 2012).

As for in person psychological interventions we could claim the construct of “presence” as fundamental for the therapeutic relationship, in the online setting, such construct need to be revised and redefined. Rochlen and colleagues (2004) defined presence in the online setting “telepresence” as “the feeling of being in the presence of someone without sharing a physical space” (p. 272).

Such construct is characterized by three aspects: the physical presence, as the feeling of being in the same room; the social presence, as the sense of being connected in the same interaction; and absorption, as the feeling of being fully involved in the interaction (Bouchard et. al., 2011). Telepresence influences the construction of the therapeutic relationship and is supported by the therapist’s empathic skills (Grondin et al., 2019); in this sense “Being” and feeling connected even if the interaction mediated by the computer is indispensable to create and maintain a satisfactory therapeutic relationship.

The absence of non-verbal communication cues, as well as of physical movements, postures, etc. that could convey presence and relational closeness to the other during a session (Oshni Alvandi, 2019), could have a negative impact on how telepresence is experienced (Geller, 2017). These aspects are related to the particularities of the digital setting.

Presence as a relational process has been acknowledged as a means to scaffold and sustain the development and maintenance of a satisfying therapeutic relationship, facilitating the patient's therapeutic processes (Cipolletta 2012; 2015; Geller et al., 2012), on which the effectiveness and, consequently, the results of the psychological intervention itself depend (Geller, 2017; Hayes & Vinca, 2017; Norcross & Lambert, 2019).

From this perspective, presence and telepresence play an important role in clinical practice, emphasizing the importance of analyzing their presence and quality in the psychological session itself.

Certainly more studies are needed to better understand the construction of the online therapeutic relationship, in fact, many of the research that have been conducted are in the preliminary stages, have research designs that provide qualitative methods, small-scale surveys and have focused only on the relationship itself. Further insights are therefore indispensable to better understand the phenomenon and promote improvements in the online setting for the future of clinical practice.

CHAPTER 2. THE COVID-19 PANDEMIC AS AN EVOLUTIONARY CATALYST FOR THE ONLINE PSYCHOLOGICAL PRACTICE

The COVID-19 pandemic is an international health crisis caused by the SARS-CoV-2 coronavirus. It was originally discovered in December 2019 in the Chinese province of Hubei's metropolis of Wuhan. The World Health Organization (WHO) declared a pandemic on March 11, 2020 as a result of the virus' fast global spread to multiple nations (World Health Organization, 2020). Governments and health agencies around the world implemented a variety of measures and social restrictions, which differed from country to country, to stop the virus' spread and lessen its effects. Many areas and nations have enacted harsh lockdowns and stay-at-home directives, forcing people to remain at home except for necessities like getting food, getting medical attention, or going to work in essential sectors. Schools, universities, bars, movie theaters, and gyms that weren't essential were closed, and when possible, services were moved online. Travel restrictions have also been put in place, including the closing of borders and the need for international travelers to stay in quarantine. In order to keep a safe physical distance from others, social gathering size restrictions and social distancing were also implemented (Glowacz & Schmits, 2020; Takács et al., 2023).

Many people have experienced substantial disorientation, stress, and fear as a result of the pandemic's unexpected alterations. Tomaino and colleagues (2021) suggest that there are various interpretations that can be made of the COVID experiences; one of these is the sense of anxiety (Cipolletta & Ortu, 2021; Tomaino et al., 2021), connected to the experience of a such unprecedented event with impossibility to anticipate its duration, causing the loss of certainties about the future and about interactions with others. The pandemic, however, was more than just something new and challenging to explain; it was something that could change one's life, leading to uncertainty about one's own personal conceptions and resulting in the experience of threat for one's personal survival and well-being (Tomaino et al., 2021). In fact, such unprecedented situation caused a profound change in society's fundamental structures and a sense of potential total annihilation because of the virus's deadly nature, which affects everyone regardless of immunity (Cipolletta & Ortu, 2021). People have reacted to the pandemic in various ways, some simply wanted their lives to return to

normal and be exactly as they were before, while others actively engaged in challenging themselves and viewing the pandemic as an opportunity to change.

Overall, the COVID-19 pandemic had a significant and unprecedented influence on people and communities all across the world. A variety of dimensions of people's mental, well-being and health have been impacted by the measures used to prevent the virus from spreading, which have also impacted people's lives, careers and certainties.

2.1 The impact of COVID-19 on mental health and well-being

Since the beginning of the pandemic, several studies have explored and deepened its effects on the mental health of the general population, finding a high prevalence of depressive symptoms, anxiety, insomnia and acute stress, highlighting from the very first moments how the pandemic itself has important repercussions on the population's mental health (Salari et al., 2020; Shevlin et al., 2020; Singh et al., 2020) and inviting the authorities to consider pre-emptive intervention on mental health to prevent or mediate the long-term effects that were assumed at the beginning and that then lasted for about 3 years.

According to the most updated studies on the topic, the negative impact of the COVID-19 pandemic on mental health and well-being has been especially acute in young adults, who are more vulnerable to developing mental health problems than other age groups, particularly those with pre-existing psychopathological symptoms (Takács et al., 2023). According to recent research, young adults' levels of depression, anxiety (including panic attacks and somatic symptoms), and insomnia increased during the pandemic restriction compared to pre-pandemic levels (Glowacz & Schmits, 2020; Hawes et al., 2022; Sewall et al., 2022). Additionally, substance abuse (i.e., alcohol and drugs), suicide ideation, and the increased occurrence of post-traumatic stress disorder symptoms in different groups have been observed more frequently (Cipolletta et al., 2022a; Glowacz & Schmits, 2020; Horigian et al., 2021; Megalakaki & Kokou-Kpolou, 2022).

Some authors have used different perspectives to explain the symptoms of anxiety and depression, which have increased the most. The high levels of uncertainty that young adults already felt about their future and educational prospects were exacerbated by the constant change in restrictive measures, the close proximity to contamination, as well as the growth of conspiracy theories and misleading information (Glowacz & Schmits, 2020; Solomou et al., 2021).

Young adults have also been observed to experience more diffuse concerns as a result of social withdrawal and lock-down policies (Hawes et al., 2022). Concerns about COVID-19, such as the fear

of contracting the disease or spreading it to loved ones, worry about the future, and about one's finances and health, are linked to poor mental health and can be early indicators of generalized anxiety disorder and behavioral issues (Megalakaki & Kokou-Kpolou, 2022; Solomou et al., 2021).

However, one of the explanatory theories that has received the most evidence in the literature argues that loneliness played a significant mediating role in the detrimental effects of the pandemic on young people's well-being and mental health. Young adults' relationships with others have been impacted by the COVID-19 limitations to sociality, increasing feelings of loneliness and social isolation (Christiansen et al., 2021; Horigian et al., 2021; Megalakaki & Kokou-Kpolou, 2022; Takács et al., 2023). According to research by Labrague et al. (2021) and Lee et al. (2020), high rates of experienced loneliness can worsen pre-existing psychological problems and affect psychological and social well-being. High rates of loneliness have also been linked to stress, depression, anxiety, and suicide. For young adults, however, the adverse impacts persisted, worsening their mental health crisis, especially for adolescents and young adults, in fact, after the initial "spikes" in lockdown, high rates of distress and mental disorders, including suicidality, have persisted and gotten worse among young people (De France et al., 2021), highlighting the need for prevention and interventions that target loneliness and decreased social support caused by the pandemic (Lee et al., 2020).

2.1.1 A focus on most fragile populations, the case of young adults and particularly of international college students

Even though the COVID-19 pandemic's effects have had a mental, physical, and economic impact on the entire world populations, research has identified certain populations as being at a higher risk of developing mental-health issues as a result of the pandemic and its restrictions (such as older adults, those with pre-existing conditions of mental illnesses, and those who are socioeconomically disadvantaged) (O'Connor et al., 2021). Being a college student has been recognized as one of many risk factors for developing mental health problems during the pandemic, as the spread of the COVID-19 pandemic has severely impacted the higher education sector (Alaklabi et al., 2021; Bilecen, 2020; Chen, J. et al., 2020).

College students had to deal with several changes in their daily lives as well as their academic experience. Many countries have stopped in-person educational instruction in favor of the remote learning structure, and school closures have resulted in the suspension of essential services for students such as food services, medical health support, and housing (Alaklabi et al., 2021). Changes have impacted both local and international students' academic experiences, as well as their well-being

and mental health. College students faced numerous challenges, including stress related to the online teaching paradigm, concerns about delayed graduation, self and family health and security, uncertainties about future employment, changes in the studying and working environment, and social isolation (Son et al., 2020).

More specifically, during the pandemic, international students were identified as a more vulnerable group compared to local students (Firang, 2020; Mbous et al, 2022). In fact, the additional difficulties brought on by the pandemic exacerbated the pre-existing problems, increasing the risk factors for mental illness and other health issues in international students, endangering their academic progress (Mbous et al., 2022). According to Chirikov et al. (2020), major depressive disorder has doubled its incidence among international students compared to 2019 and generalized anxiety disorder has increased 1.5 times in prevalence. Additionally, international students had different difficulties than their local counterparts, particularly with regard to immigration laws and border closures because of the pandemic (Mbous et al., 2022). Several studies examining the experiences of international students during the pandemic's spread noted that while the majority of local students were able to return home, many of international students faced impediments and were not able to do so (Alaklabi et al., 2021; Bilecen, 2020). Those who were able to return to their home country during the pandemic missed out on academic activities, valuable insights that come from in-person participation in the academic life and social interactions with peers (Al-Oraibi et al., 2022; Maleku et al., 2022). However, compared to those who returned, international students who remained abroad reported higher levels of stress associated to COVID-19, which had a detrimental effect on their mental health by increasing their perception of stress and causing them to feel more anxious, depressed, and experience insomnia (Maleku et al., 2022). Due to the separation from their loved ones and the lack of social support, international students who stayed in their host countries have reported neglected psychological needs for relationship, which intensifies their feelings of loneliness and homesickness (Mbous et al., 2022). Due to cultural and linguistic barriers, students who remained in the host country had difficulty in accessing health care and services (Chen, J. et al., 2020), and particularly those from Asia experienced social exclusion, discriminatory attitudes, and were the targets of harassment and verbal abuse (Bilecen, 2020; Chen, J. et al., 2020). Financial difficulties, housing problems, food insecurity, problems with remote learning, and issues with the online academic environment were also frequent challenges highly impacting their mental health and well-being (Hari et al., 2021).

The lack of opportunities for an immersive experience in the new environment during the pandemic made it difficult for students to engage with one another and build communities, which are essential forms of social support for adjusting to the new cultural setting. International students may have faced greater feelings of social isolation and loneliness due to a lack of social connections, which may have had a detrimental effect on their mental health, found to exacerbate feelings of isolation and enhance difficulties in adjusting to the local culture (Al-Oraibi et al., 2022; Bhavsar et al., 2021; Chen, J. et al., 2020; Zhao et al., 2022).

Such a pervasive and lasting impact over time brings with it the need to take into account the long-term effects on mental health and well-being expected in these populations, with the aim of responding to the needs and frailties exacerbated by the pandemic and identified through research.

In this framework are rooted and contested part of the research projects that were carried out as part of the total PhD project, that will be presented in details in the next chapters.

2.2 Implications of the pandemic for mental-health professionals and clients: the forced shift to the virtual setting

In the pandemic context, where social distancing was one of the main tools to limit the spread of COVID-19, mental health professionals have found themselves trying to adapt to those challenges by reducing the provision of face-to-face services, increasing online psychological practice (Inchausti et al., 2020; Probst et al., 2020; Van Daele et al. 2020).

In particular, in Italy the National Council of the Order of Psychologists (CNOP, 2020) has recommended, in compliance with the guidelines to contain the spreading of the virus shared by the Higher Institute of Health and the legal decrees issued by the Council of Ministers, to move to remote interventions to protect the collectivity's health and security. This forced shift to the virtual setting involving all professionals and clients, has been called "black swan" because of its exceptional and unprecedented happening specifically concerning the forced and extensive use of digital tools and methodologies in psychological care, able to determine a turning point in such field (Wind et al., 2020). In fact psychologists, psychotherapists, mental health professionals and their respective clients all over the world experienced online interventions forced by the contingencies of the pandemic, opening new horizons for such practice also in the future (Hanley, 2020). As an unprecedented experience, many difficulties and disruptions were faced by both professionals and clients, in transitioning from face-to-face settings to online ones at the beginning of the pandemic requesting to psychologists and psychotherapists of all the theoretical orientations and training to re-invent or re-

adapt their knowledge, competencies and personal style without enough time and resources to reflect on all the implications involved (Bèkès & Aafjes-van Doorn, 2020). Many professionals faced this forced transition by confronting with colleagues and supervisors, looking for national guidelines on the online psychological practice, preparing new informed consent forms, participating in webinars and reading scientific articles; while at the same time talking openly to clients aiming at preparing together for such transition and defining tools and new rules (Bèkès et al., 2020).

Numerous are the challenges that have characterized this transition: first of all technical difficulties associated with the use of different platforms not specifically devised for delivering online interventions, then concerns regarding the possibility of feeling emotionally resonant with the client and his emotions, fearing potential disruptions, distractions and technical difficulties during the session (Aafjes-van Doorn et al., 2020; Bèkès et al., 2020; Chen et al., 2020). Another challenge reported was connected to the complexity of finding new directions and quality in the therapeutic relationship online, fostering mutuality and empathic attunement in the virtual setting, requiring to the therapist and client to negotiate new strategies to create and maintain a satisfactory therapeutic relationship (Simpson et al., 2021). Vallario (2020) stressed that for clients this forced change has potentially caused several disruptions such as privacy issues in doing the consultation session at home especially during the lockdown periods. Acknowledging such potential disruptions is fundamental help clients build and or find their most suitable and preferred space for participating in an online psychological intervention.

Such unexpected shift to the online setting, was positively accepted mostly by professionals and clients with previous experiences with the online setting and familiarity with the digital tools and new technologies (Payne et al., 2020).

Although the situation was far from ideal, the pandemic could act as the catalyst for the continuous use of online psychological interventions also in the future (Van Daele et al., 2020). In light of this, exploring and examining such unprecedented and extensive experience lived by professionals and clients all over the world, appears of fundamental importance to provide useful knowledge and guidelines for the future of online clinical practice and its potential evolutions from the pandemic to beyond.

2.3 Laying the foundations of our study: a systematic review of the literature and a qualitative synthesis on the COVID-19 contemporary challenges¹

Given these premises, to lay the foundations of this PhD project, we carried out a systematic review of the literature to investigate how psychological support services were delivered during the first wave of the COVID-19 pandemic with particular attention to the scenario of online psychological interventions and its implication on psychological care, in terms of the transition from in-person to online therapy for mental health professionals and their clients. This systematic review aimed as well at developing a conceptual model to support our understanding of the implications that this forced and unprecedented experience will have for future clinical practice in terms of evaluating opportunities, disruptions, and needs for the future of clinical practice by qualitatively synthesizing the results identified through the review.

2.3.1 Methods

The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) model was used to conduct this systematic review. Systematic reviews, as well as meta-analyses, are helpful methods for synthesizing organically and accurately evidence emerged on a specific topic (Liberati et al., 2015), providing the reader with the opportunity to have an overview of the studies under consideration, in order to stay up to date on the latest scientific evidence in relation to the topic of interest.

2.3.1.1 Search strategy

The most pertinent scientific databases, such as PubMed, EBSCOhost (APA PsycInfo), and Scopus, were searched. The terms used were the following: “telemental health” OR “telepsychology” OR OR “telecounseling” OR “telepsychotherapy” OR “online therapy” OR “online psychology” OR “online counseling” OR “e-psychology” OR “videotherapy” OR “remote psychology” OR “remote psychotherapy” OR “cyber psychology” AND “COVID-19” OR “SARS-CoV-2” OR “novel coronavirus”.

¹ The present study has been published in the following research paper: Tomaino, S. C. M., Viganò, G., & Cipolletta, S. (2022). The COVID-19 Crisis as an Evolutionary Catalyst of Online Psychological Interventions. A Systematic Review and Qualitative Synthesis, *International Journal of Human-Computer Interaction*, DOI: 10.1080/10447318.2022.2111047

2.3.1.2 Inclusion and exclusion criteria

Inclusion and exclusion criteria for the studies were developed after the definition of the research question. The inclusion criteria were studies (empirical, conceptual, case studies, commentary) carried out during the early stages of the pandemic, particularly between March 2020 and February 2021, as the first 12 months of the pandemic have been the most complex and disruptive for the shift to an online setting in psychological care; studies that were published in English; studies including licensed and in training mental health professionals (psychologists, psychotherapist, etc.) and their clients.

The exclusion criteria were studies examining the psychological impact of the pandemic on the general population; studies investigating the use of online psychological interventions prior to the COVID-19 pandemic, and studies that were publicly available in other languages.

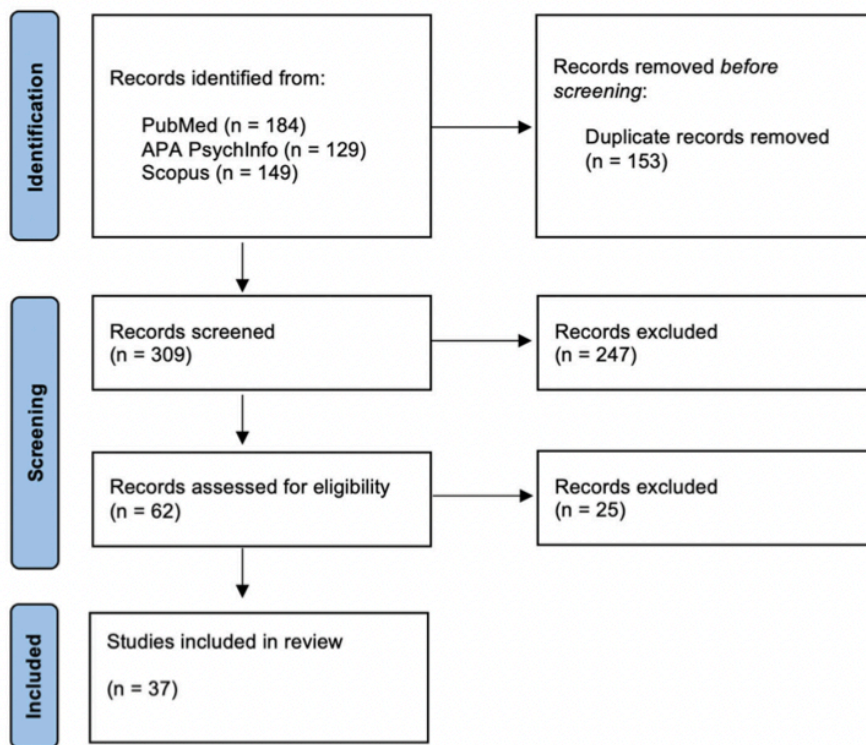
2.3.1.3 Qualitative synthesis

Additionally, a qualitative synthesis of all pertinent data from the systematic review results was conducted in order to provide an exhaustive summary of the most recent advancements in this particular issue. By independently examining the literature, identifying studies, and evaluating which studies to include in the review, two independent reviewers worked together to create a qualitative synthesis. Each of the included research was evaluated independently by both reviewers, who then met to discuss the results, choose common themes, and develop the overarching conceptual model. A third researcher oversaw the entire procedure and ultimately added to the conceptual framework.

2.3.1.4 Study selection

A total of 462 studies have been identified searching in the mentioned scientific databases. A preliminary duplicate screening resulted in the exclusion of 153 studies and 247 studies were excluded after a secondary abstract review. After carefully reading 62 studies, another 25 were excluded based on the inclusion criteria. For the qualitative and comparative evaluation, a total of 37 studies were taken into account (see Figure 1 for the PRISMA flow diagram).

Figure 1. *The PRISMA flow diagram from The COVID-19 Crisis as an Evolutionary Catalyst of Online Psychological Interventions. A Systematic Review and Qualitative Synthesis* by Tomaino S.C.M, Viganò, G., Cipolletta, S., 2022, pp. 3, (DOI: 10.1080/10447318.2022.2111047). Copyright 2022 by Taylor & Francis.



2.3.2 Results

A total of 37 studies were selected and analyzed in the present systematic review (Aafjes-van Doorn et al., 2020; Békés et al., 2020; Békés & Aafjes-van Doorn, 2020; Boldrini et al., 2020; Cioffi et al., 2020; Colleluori et al., 2021; Gentry et al., 2021; Humer et al., 2020a, 2020b; Jurcik et al., 2020; Korecka et al., 2020; Lakeman & Crighton, 2020; Mc Kenny et al., 2021; Pierce et al., 2021; Probst et al., 2020, 2021; Sammons et al., 2020a, 2020b; Sampaio et al., 2021; Wang X. et al., 2020; Zubala & Hackett, 2020). Looking at their characteristics, 17 were conducted in Europe, 14 in USA, 2 in China, 1 in Russia, 1 in South Africa, 1 in Israel and 1 in Australia; out of the total 21 employed online surveys, 2 therapist's reports and 1 a combination of online interviews and online groups. Focusing on the samples involved in the studies, 35 included only therapists, 1 only clients and 1 both therapists and clients. An overview of the key elements of each included study is given in Table 1.

Table 1. An overview of the studies included in the systematic review from *The COVID-19 Crisis as an Evolutionary Catalyst of Online Psychological Interventions. A Systematic Review and Qualitative Synthesis* by Tomaino S.C.M, Viganò, G., Cipolletta, S., 2022, pp. 3, (DOI: 10.1080/10447318.2022.2111047). Copyright 2022 by Taylor & Francis.

Authors	Aim	Data collection	Sample	Key findings
Aafjes-van Doorn et al. (2020) USA	To explore therapists' experiences with video therapy during the pandemic	Online survey	141 therapists (105F); mean age 46 (23-79 y.o.)	Therapists experienced self-doubt and anxiety, but reported a relatively good therapeutic relationship with their patients online Indecision about using video therapy in the future
Adamlje & Jendričko (2020) Croatia	To report therapists' experience in conducting group work online during the pandemic	Therapists' reports	8 participants (5M, 3F) in the therapy group delivered by the authors (group analysts)	Technical and relational difficulties associated with the virtual setting Changes in communication patterns Appreciation of the possibility of continuing the online therapeutic work online
Békés & Aafjes-van Doorn (2020) USA	To explore therapists' attitudes toward online interventions during the pandemic	Online survey	145 psychotherapists (106F); mean age 46.50 (23-79 y.o.)	Modalities through which therapists prepared themselves for the transition to online psychotherapy Positive attitudes due to previous experience with online psychotherapy Different attitudes about using online psychotherapy in the future
Békés et al. (2020) USA	To explore therapists' experiences with online therapy before and during the pandemic	Online survey	190 analytic therapists (127F, 63M); mean age 60.5 (28-90 y.o.)	Therapists felt as confident and as competent in online sessions as in in-person work More positive perception of online therapy than before
Boldrini et al. (2020) Italy	To study which factors had a significant role in predicting the rate of interrupted treatment during the lockdown, and psychotherapists' satisfaction with the online modality	Online survey	306 psychotherapists (84% F); mean age 45.1	The predictors drop-out: psychotherapists' lack of experience, theoretical orientation and patients' lack of privacy at home The predictors of psychotherapists' satisfaction: incidence of drop-out, prior online experience, compatibility with theoretical orientation
Brkić (2020) Bosnia and Herzegovina	To show the advantages and disadvantages of using online therapy during the pandemic	Therapist's report	7 participants in the therapy group (6F, 1M) delivered by the author (group analyst)	Patient experiencing privacy issues Experiences of setting therapeutic boundaries Positive evaluation about online therapy to continue receiving psychological support
Cioffi et al. (2020) Italy	To analyse psychotherapists' satisfaction after using videoconferencing psychotherapy	Online survey	507 psychotherapists (421F, 86M)	Satisfaction with actual online practice due to previous experiences with online psychotherapy
Colleluori et al. (2021) Italy	To investigate healthcare providers' experience with ED patients during the pandemic	Online survey	84 healthcare providers	Reported sense of therapeutic failure Compromised therapeutic alliance
Cronin et al. (2021) United Kingdom	To explore therapists' experiences of translating systemic practice online with families	Therapists' reports	Five groups of family and systemic psychotherapists and clinicians	Modalities adopted by therapists to transition to video therapy Technical and practical difficulties, Therapeutic boundaries Therapist and patients' satisfaction
Endale et al. (2020) USA	To report the experience of the Kovler Center Child Trauma Program (KCCTP), during the pandemic	Therapists' reports	Therapists working at the Klover Center	Lack of adequate equipment for patients for online therapy Lack of privacy and adequate space to receive online support
Flannery et al. (2021) United Kingdom	To describe the transition online of paediatric and adolescent psychological group interventions for chronic health conditions	Therapists' reports	Therapists working at a paediatric and adolescent psychology service	Changes in communication patterns while practicing online Positive feedback about support and connection in the online setting
Fogler et al. (2020) USA	To describe pros and cons of transitioning caregivers' groups to an online context	Therapists' reports	Clinicians working at the Boston Children's Hospital	Communication patterns in the online context Positive evaluation and satisfaction for online therapy
Gentry et al. (2021)	To examine clinicians' perspectives on the acceptability and feasibility of	Online survey	112 mental health clinicians (67F)	High levels of acceptability and satisfaction with video telehealth interventions

USA	video telehealth interventions during the pandemic				Clinicians' intention of using telehealth interventions in the future
Goldschmidt et al. (2021)	To explore the experiences of psychologists in response to pandemic	Semi-structured interviews	16 psychologists (12F, 4M)		Connectivity and privacy issues Concerns about the therapeutic frame
South Africa					
Hu & Huang (2020)	To describe a form of community support group used during the pandemic	Therapists' reports	84 participants to the online groups delivered by the co-authors of the paper		Challenges in managing attendance in the online context Patients' satisfaction with online interventions
China					
Humer et al. (2020a)	To explore changes in the provision of psychotherapy due to the pandemic	Online survey	338 psychotherapists (CZ 112, DE 130, SK 96); 77.8% F; mean age 46.70		Fear of COVID-19 infection during psychotherapy due to personal contact Changes in the number of patients treated with the shift to the online setting
Austria					
Humer et al. (2020b)	To investigate the comparability and experience of remote psychotherapy with face-to-face psychotherapy	Online survey	1162 psychotherapists (891F, 271M); mean age 51.3		Remote psychotherapy is not comparable to face-to-face psychotherapy Experiences with remote therapy were more positive than expected
Austria					
Jurcik et al. (2020)	To explore how the pandemic affected mental-health services in clinical settings in four countries	Qualitative online survey	Eight clinicians (5F, 3M); mean age 41.75		Interruption of services not feasible in the online context Connectivity and privacy issues Professionals' overload with regard to online practice Need for education and training in online practice
Russia					
Korecka et al. (2020)	To explore the experiences of Austrian and German cognitive-behavioural therapists with remote psychotherapy	Online survey	190 cognitive-behavioural therapists (148F, 42M); mean age 47.67		Positive evaluation of remote psychotherapy, but not comparable to face-to-face psychotherapy Previous experiences with psychotherapy via the internet associated with greater satisfaction
Austria					
Lakeman & Crighton (2020)	To explore therapists' perceptions and obstacles about competence and confidence in providing online Dialectical Behavioural Therapy (DBT)	Online survey	28 clinicians, mean age 47 (25-64 y.o.)		Privacy issues due to the lack of adequate space in the domestic context Most clinicians did not feel confident about delivering DBT online
Australia					
McKenny et al. (2021)	To explore systematic therapists' attitudes in the provision of online psychological interventions	Online survey	312 Family Therapy and Systematic Practice (AFT) psychotherapists		Technical difficulties associated with online work and privacy issues Greater insight into clients' homes and lives
United Kingdom					
McCord et al. (2020)	To describe changes in Texas A&M Tele-behavioral Care Program (TBC)	Therapists' reports	Clinicians and trainees working at the TBC clinic		Transitioning to the online setting Experiences with the use of a platform for trainee and staff clinical communication Ability to record sessions and store them in a secure cloud
USA					
Nadan et al. (2020)	To describe operational methods and adaptations for conducting supervision online	Therapists' reports	Supervisors at the Barcai Institute		Positive aspects with regard to online supervision: empowerment, less intrusiveness, more attention to the client
Israel					
Perrin et al. (2020)	To describe the rapid deployment of telepsychology services at the Virginia Commonwealth University (VCU) Primary Care	Therapists' reports	Trainee psychologists at VCU Primary Care Psychology Collaborative		Managing anxiety for online supervision with the gradual start-up of graduate student therapists delivering telepsychology
USA					
Pierce et al. (2021)	To explore the number of psychologists using telepsychology prior to the pandemic, during and intention to use after	Online survey	2619 psychologists (64.2%F); mean age 57.29		Use of telepsychology increased dramatically during the pandemic Most psychologists reported the intention to continue to use telepsychology after the pandemic
USA					
Power et al. (2021)	To explore the experiences of art therapists working online during the pandemic with people with a learning disability, describing barriers and facilitators	Online group video-calls	105 art therapists		Wide variation in how different working environments responded to the pandemic Loss of professional identity due to the sudden shift to the online setting Prior relationship with the client or group supported the shift to online therapy
United Kingdom					

Probst et al. (2020)	To describe the change in the provision of psychotherapy in the first weeks of the lockdown	Online survey	1547 psychotherapists (75.7%F); mean age 51.67	Decreases in the number of patients treated on average per week by face-to-face psychotherapy were greater than increases in the number of patients treated on average per week with online psychotherapy
Austria				
Probst et al. (2021)	To investigate how psychotherapists and patients experience the transition from face-to-face to remote psychotherapy during COVID-19	Two online surveys (psychotherapists and patients)	217 psychotherapists (77% F); mean age 50.66 133 patients (70.7% F); mean age 38.92	Reported perception that remote psychotherapy is not totally comparable to face-to-face psychotherapy
Austria				
Sammons et al. (2020a)	To explore psychologists' previous telepsychology experiences, and its use since the onset of the pandemic	Online survey	3038 psychologists	Decrease in caseload since the beginning of the pandemic Intention to use online interventions in the future
USA				
Sammons et al. (2020b)	To explore the ongoing effects of COVID-19 on psychological practice at six months to the onset of the pandemic	Online survey	3209 psychologists	Skills in using telepsychology had improved to at least some degree since the pandemic began Shift to telepsychological services is likely to be permanent to some degree
USA				
Sampaio et al. (2021)	To explore how many therapists are using online therapy before vs during COVID-19 and how much training they have received	Online survey	768 mental health professionals (92.2% F); mean age 43.74	Technological tools used for online therapy Privacy issues Increase in therapists' self-ratings of "burnout" during the pandemic
USA				
Savarese et al. (2020)	To analyse the psychological difficulties experienced by students during COVID-19 and to describe the online services of the university's psychological counselling treatment	Semi-structured interviews, questionnaires	266 university students (of whom 49 undergoing psychological treatment; 26F, 23M)	Online counselling intervention (including telephone calls, online psychological interviews, psychoeducational groups for anxiety management and workshops) increased the resilience
Italy				
Shaw (2020)	To describe an online group art psychotherapy to adolescents attending a programme for Anorexia Nervosa	Therapist's report	An Art psychotherapist	Patients' body image concerns in the online setting Compromised emotional connection with the client in the online context
United Kingdom				
Shklarski et al. (2021)	To assess psychotherapists' challenges and adaptations in providing remote therapy during the pandemic	Online survey Semi-structured interviews	92 clinicians (83F, 9M); mean age 46.2 (19 of them agreed for the interview)	Technological difficulties Challenges related to patients' distraction in the new context Privacy issues
USA				
van Dijk et al. (2020)	To describe the transition online of a schema therapy-based day-treatment for older adults with chronic affective disorders and personality problems	Therapists' report	Trained therapists	Therapists were optimistic about the capabilities and resilience of patients to adapt to the new situation Positive reevaluation of online interventions
The Netherlands				
Wang X. et al. (2020)	To compare preparedness of two groups of practitioners with regard to the ability to provide psychoanalytic teletherapy during the pandemic	Online survey	329 practitioners (164 Chinese, 73% F), (165 US, 71% F)	Chinese practitioners as compared to US practitioners had more positive opinions about teletherapy before and during the pandemic, in terms of the effectiveness, relational issues and resistance
China & USA				
Zubala & Hackett (2020)	To explore the experiences of art therapists working online during the COVID-19	Online survey	96 Art therapists	Concerns about online security/privacy Increased clinical supervision, specialist training and support from colleagues Over 90% of respondents would continue providing therapy at a distance to some extent in the future
United Kingdom				

By qualitatively analyzing the 37 studies included in the review, researchers identified two main categories, composed of macro-themes and sub-themes, see Table 2 for a synthesis of the macro and sub-themes and their distribution within the studies included.

Table 2. A synthesis of the themes identified through the qualitative synthesis of the studies included. Adapted from *The COVID-19 Crisis as an Evolutionary Catalyst of Online Psychological Interventions. A Systematic Review and Qualitative Synthesis* by Tomaino S.C.M, Viganò, G., Cipolletta, S., 2022, pp. 3, (DOI: 10.1080/10447318.2022.2111047). Copyright 2022 by Taylor & Francis.

CATEGORIES	Found in N studies	MAIN-THEMES	Found in N studies	SUB-THEMES	Found in N studies
The practical implications of shifting to an online setting	31	Professionals and clients preparedness	7		
		Practical challenges and limitations	13	Technological disruptions	8
				Privacy limitations	9
				Therapeutic boundaries	7
		Online interventions employed during the pandemic	11		
Engaging in the shift: experiences of professionals	22	Professionals' attitude towards online interventions	19		
		Changes in the therapeutic relationship	10		
		Intention of use in the future	15		

2.3.2.1 The practical implications of shifting to an online setting

This category describes the transition to the online environment during the COVID-19 pandemic focusing on the technical challenges faced by clients and professionals, containing four main themes and three sub-themes.

- *Professionals and clients preparedness*

Identified in 7 studies (Bekes et al., 2020; Bekes & Aafjes-van Doorn, 2020; Cronin et al., 2021; Jurcik et al., 2021; Power et al., 2021; Shklarski et al., 2021; Zubala & Hackett, 2020), this theme focuses on the rapid shift to the online setting lived by professionals in the time of COVID-19 pandemic. Reporting that many clinical activities and interventions had to be suspended or cancelled as a result of the lack of preparation and effective resources, pointing out the need of accessible and available digital tools, that are necessary to work in the online setting.

- Practical challenges and limitations

Identified in 13 studies (Aafjes-van Doorn et al., 2021; Adamlje & Jendricko, 2020; Bekes et al., 2020; Boldrini et al., 2020; Cronin et al., 2021; Gentry et al., 2021; Goldschmidt et al., 2021; Jurcik et al., 2021; Lakeman & Crighton, 2021; Mc Kenny et al., 2021; Sampaio et al., 2021; Shklarski et al., 2021; Zubala & Hackett, 2020), this theme focuses on the main challenges and disruptions that were faced in the forced shift to the online setting, organized in the following 3 sub-themes:

a. Technological disruptions: difficulties connected to poor quality of the audio and video, poor connection and disparities in the access (lack of proper hardware and/or software) were defined as the most critical disruptions, highly impacting the conversation and negatively influencing the therapeutic relationship, as found in 8 studies (Aafjes-van Doorn et al., 2021; Adamlje & Jendricko, 2020; Cronin et al., 2021; Goldschmidt et al., 2021; Jurcik et al., 2021; Mc Kenny et al., 2021; Shklarski et al., 2021; Zubala & Hackett, 2020).

b. Privacy limitations: delivering and or participating in online interventions during home confinement raised serious privacy concerns for both professionals and clients, as found in 9 studies (Aafjes-van Doorn et al., 2021; Bekes al., 2020; Boldrini et al., 2020; Goldschmidt et al., 2021; Jurcik et al., 2021; Lakeman & Crighton, 2021; Mc Kenny et al., 2021; Sampaio et al., 2021; Shklarski et al., 2021). Even though professionals and clients tried creatively to overcome such difficulties finding private spaces (in the car, while walking etc.), major difficulties in feeling at ease and safe with regard to self-disclosing were reported, leading to higher rates of intervention dropout.

c. Therapeutic boundaries: different factors impacted on professionals possibility to set and maintain effective therapeutic boundaries during such unprecedented times, both professionals and clients tried to rearrange their home environment, but interruptions and various limitations requested to both greater flexibility and looser boundaries, as found in 6 studies (Bekes et al., 2020; Cronin et al., 2021; Goldschmidt et al., 2021; Mc Kenny et al., 2021; Shklarski et al., 2021; Zubala & Hackett, 2020).

- Online interventions employed during the pandemic

Exploring which digital tools to deliver online intervention have been used during the pandemic, it is possible to see that interventions via videoconference were preferred to those via telephone, as found in 11 studies (Boldrini et al., 2020; Cronin et al., 2021; Humer, et al., 2020a; Jurcik et al., 2021; Mc Kenny et al., 2021; Probst et al., 2020, 2021; Sammons et al., 2020a, 2020b;

Sampaio et al., 2021; Zubala & Hackett, 2020). Furthermore, looking at the types of interventions transferred online, it is possible to see that those transferred the most were online counselling and tele-psychotherapy, then many reported also experiences of online group therapies as well as supervision activities for early-career professionals, as found in 12 studies (Adamlje & Jendricko, 2020; Brkic, 2020; Endale et al., 2020; Flannery et al., 2021; Fogler et al., 2020; Hu & Huang, 2021; McCord et al., 2021; Nadan et al., 2020; Perrin et al., 2020; Savarese et al., 2020; Shaw, 2020; van Dijk et al., 2020).

2.3.2.2 Engaging in the shift: Experiences of professionals

This category describes professionals' attitudes, experiences of therapeutic relationships online, and intention to use online interventions in the future, as a result of the forced shift to the online setting posed by the COVID-19 pandemic, composed of three main-themes.

- Professionals' attitude towards online interventions

Professionals' experiences with online interventions during the pandemic were reported by 19 studies (Bekes et al., 2020; Bekes & Aafjes-van Doorn, 2020; Colleluori et al., 2021; Cronin et al., 2021; Gentry et al., 2021; Goldschmidt et al., 2021; Humer, et al., 2020b; Jurcik et al., 2021; Korecka et al., 2020; Lakeman & Crighton, 2021; Mc Kenny et al., 2021; Pierce et al., 2021; Power et al., 2021; Probst et al., 2021; Sammons et al., 2020a; Sampaio et al., 2021; Shklarski et al., 2021; Wang X. et al., 2020; Zubala & Hackett, 2020), pointing out how the extensive use of online interventions during such unprecedented period changed positively their attitude towards it, as a result of the possibility of significantly experience both limitations and resources of such practice.

- Changes in the therapeutic relationship

Specific attention to how the therapeutic relationship changes in the online setting was posed and reported by 10 studies (Aafjes-van Doorn et al., 2021; Bekes et al., 2020; Colleluori et al., 2021; Cronin et al., 2021; Humer, et al., 2020b; Lakeman & Crighton, 2021; Mc Kenny et al., 2021; Power et al., 2021; Probst et al., 2021; Shklarski et al., 2021), pointing out how for some clients it made possible to enhance self-disclosure and sense of safety, even though simultaneously, the virtual setting challenged the detection of some non-verbal signs and the possibility to feel authentic emotional attunement, questioning professionals habitual ways of practicing.

- Intention of use in the future

Many clinicians reported their interest in delivering online psychological interventions after the end of the COVID-19 pandemic, as found in 15 studies (Aafjes-van Doorn et al., 2021; Bekes et al., 2020; Boldrini et al., 2020; Cioffi et al., 2020; Colleluori et al., 2021; Gentry et al., 2021; Jurcik et al., 2021; Korecka et al., 2020; Lakeman & Crighton, 2021; Mc Kenny et al., 2021; Pierce et al., 2021; Sammons et al., 2020a; Sampaio et al., 2021; Shklarski et al., 2021; Zubala & Hackett, 2020), pointing out that such extensive and forced experience made them discover the positive aspects of such practice, seen at this point as a notable resource for the future everyday clinical practice. Along with such enthusiasm for the future, professionals request for specific support in such evolution in particular specific education regarding the legal and ethical aspects and the availability of specific software.

2.3.3 Discussion

The present review investigated online psychological interventions during the COVID-19 pandemic, focusing on resources, limitations, and future perspectives. The pandemic led to the widespread use of digital resources for psychological interventions, enabling professionals and clients to continue their clinical practice despite limitations, creating new opportunities for clinical intervention (Humer, et al., 2020a; Korecka et al., 2020; Pierce et al., 2021; Sammons et al., 2020b; Shklarski et al., 2021; Zubala & Hackett, 2020). The direct and extensive experience of the online setting positively influenced professionals' attitudes towards it (Connolly et al., 2020; Payne et al., 2020), and many professionals appreciated the resources offered by digital tools, such as screen sharing, virtual rooms, and online applications for delivering psychological interventions with children (Bekes et al., 2020; Cronin et al., 2021; Korecka et al., 2020; Mc Kenny et al., 2021; Power et al., 2021; Shklarski et al., 2021).

The unanticipated transition to online setting involved professionals from all backgrounds, even those who were generally unfamiliar to online interventions, making possible for them to overcome insecurities and negative attitude with the online setting by directly and in-depth experience. Such extensive use in fact, fostered an experience-related sense of technical and clinical abilities in the online world (Bekes et al., 2020; Sammons et al., 2020a, 2020b; Zubala & Hackett, 2020).

Additionally, those professionals who, before to the COVID-19 outbreak, had already used online interventions in their clinical practice expressed a somewhat a more positive attitude and higher self-confidence when using online interventions (Connolly et al., 2020; Lazuras & Dokou,

2016), supporting the idea that a previous experience and use of digital tools and online interventions in one's practice can facilitate the decision of using it as well as a reported sense of satisfaction with such modality.

However at the same time, the extensive use of online interventions highlighted numerous limitations and disruptions. The ones that had the biggest effects were those that affected both professionals and clients and were due to technological and connection interruptions (Endale et al., 2020; Goldschmidt et al., 2021; Jurcik et al., 2021; Mc Kenny et al., 2021; Shaw, 2020; Shklarski et al., 2021; Zubala & Hackett, 2020). According to earlier research (Cipolletta et al., 2018), technical interruptions have a negative impact on the quality of sessions and conversational flow, which leads to stress and unequal access to online support (Endale et al., 2020; Goldschmidt et al., 2021; Jurcik et al., 2021), a contingency intensified by the occurrence of the "digital divide" (Mallen et al., 2005) that still today represent a barrier for many people. Disruptions connected to the lack of compatible spaces to receive or deliver online interventions sometimes resulted in clients' dropout (Boldrini et al., 2020), by notably impacting on the likelihood of self-disclosure and perception of sense of comfort during sessions. To help clients find the best way to benefit from online sessions and feel at ease, many professionals have made an effort to explain in advance to clients the implications of operating from a domestic setting and the potential disturbances that may occur (Shklarski et al., 2021; Zubala & Hackett, 2020).

The move to the online world, according to numerous research (Adamlje & Jendricko, 2020; Brkic, 2020; Cronin et al., 2021; Goldschmidt et al., 2021; Hu & Huang, 2021; Mc Kenny et al., 2021), has put therapeutic boundaries and therapeutic relationship in risk; especially when the home and work environments coincided, making it particularly challenging for some professionals to keep their personal life distinct from their professional one (Jurcik et al., 2021; Shklarski et al., 2021).

The stress and "Zoom fatigue" caused by the prolonged exposure to digital devices in the online clinical practice had an impact on the general wellbeing of professionals (Sampaio et al., 2021; Shklarski et al., 2021). Moreover, the virtual setting requested to professionals and clients an effort to redefine and create new strategies to improve their communication skills to avoid misunderstandings (Schuster et al., 2018), as well as to find new possibilities to use and interpret the body language when communicating with one another through a digital mean (Cronin et al., 2021).

Prior expertise with online settings was acknowledged as a positive element regarding the perceived sense of competence and satisfaction that professionals reported when delivering online interventions during the pandemic. The need for specialized educational training with regard to online

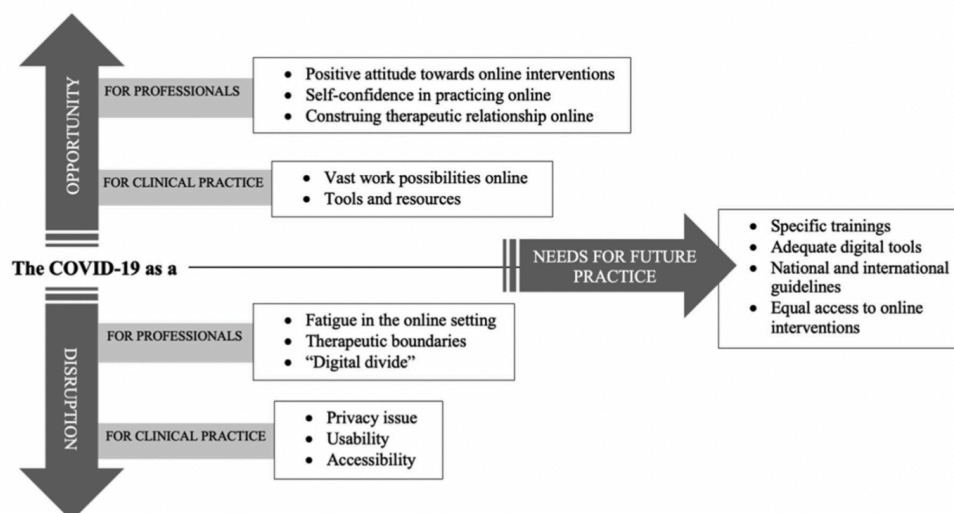
practice, especially regarding ethical and legal aspects, was also mentioned by those with little or no experience with the online setting (Aafjes-van Doorn et al., 2021; Bekes et al., 2020; Perrin et al., 2020), professionals that reported experiencing also significant anxiety and difficulties adjusting to the new situation.

From the broad range of experiences and opportunities had during the pandemic with the clinical practice online, it was possible to draw attention to the fact that many studies (Aafjes-van Doorn et al., 2021; Bekes et al., 2020; Cioffi et al., 2020; Gentry et al., 2021; Jurcik et al., 2021; Korecka et al., 2020; Pierce et al., 2021; Sammons et al., 2020a, 2020b; Shklarski et al., 2021; Zubala & Hackett, 2020) indicated that professionals would be willing to employ digital technologies in their future daily clinical care. For it to happen, professionals call for the implementation of national and international guidelines, the availability of sufficient digital resources and tools, the adoption of territorial support policies to ensure equal access to professionals and clients, as well as specialized educational training regarding the ethical and legal aspects.

As illustrated in Figure 2 (Tomaino et al., 2022), the COVID-19 pandemic presented a unique chance for professionals and clients to experience the wide range of possibilities of online clinical practice, altering attitudes toward it and willingness to use it in the future. At the same time, the pandemic impacted negatively on the accessibility and availability of online interventions, for both professionals and clients, resulting in reported burnout, disruptions to work-life balance and in difficulties maintaining therapeutic boundaries in such setting.

As a result of this "forced" experience, professionals now view online interventions differently and expressed a readiness to include this modality into their present and future clinical practice, demanding for specialized digital training, sufficient digital equipment, updated regulations and strategies to address the "digital divide".

Figure 2. *A dynamic representation of the impact of the pandemic on psychological interventions online from The COVID-19 Crisis as an Evolutionary Catalyst of Online Psychological Interventions. A Systematic Review and Qualitative Synthesis* by Tomaino S.C.M, Viganò, G., Cipolletta, S., 2022, pp. 3, (DOI: 10.1080/10447318.2022.2111047). Copyright 2022 by Taylor & Francis.



2.3.4 Limitations and future directions

There are a few major limitations in the current review. The first is the heterogeneity of researches that were included in the analysis. In fact, this work contains both qualitative and quantitative investigations using a variety of approaches (surveys online, semi-structured interviews and more).

Second, the stringent inclusion and exclusion criteria made the study significantly contextualized during the pandemic period, which could have made the findings less generalizable.

Finally, the investigation of the clients' perspective on the use of online interventions, a fundamental component for understanding such phenomenon, was carried out by only two of the studies included.

Coming to conclusions, from the overview provided from the present review it is possible to state that the COVID-19 pandemic, defined as an "evolutionary catalyst" (Hanley, 2021) for the online clinical practice, gave many professionals and clients the chance to experience resources and limitations of the virtual settings, fostering their positive attitude and willingness to use it in the future. Along with the positive results, the pandemic brought to light many limitations and disruptions caused by the significant use of digital tools in the clinical practice that must be resolved to ensure fair access to care and high-quality online interventions for both clients and professionals, delineating perspectives of interventions and setting targets for future research and clinical applications in such field.

Within the presented context and theoretical background, the PhD overall project, presented and discussed in this thesis dissertation was developed, structured and carried out, as will be presented in details in the next chapters.

OVERALL AIM AND STUDIES

By examining the existing literature focusing on online psychological interventions, clearly appears how such practice and modalities were becoming more prominent in the past 10 years in the psychological practices of professionals all over the world.

Referring to before the pandemic, psychologists and psychotherapists from different countries reported a great interest and curiosity in exploring the resources and possibilities of such practice, as well as numerous doubts and uncertainties about its use, the available and suitable tools and its efficacy; all elements that greatly contributed to determine a generally negative or neutral attitude towards this practice, impacting the choice of using such modalities in the everyday clinical practice.

Such heterogeneous and country specific situations with the use of online interventions, changed drastically with the onset of the COVID-19 pandemic and its implications, drawing unexpected and un-anticipated trajectories of evolution in such field that involved all countries, professionals and clients.

The overall aim of the present doctoral project is to explore and understand Italian psychologists' and clients' experience with online psychological consultations and interventions, aiming to address their needs and promote resources to support them delivering online interventions and creating a therapeutic relationship in this setting.

The project intended to support the Italian context in embracing the opportunity of extensively experiencing and creatively facing the challenges that came with the pandemic, aiming to determine an important step forward in this area and reflecting on the evolution of such practice for the future of clinical care.

To achieve the overall goal of the PhD project three main empirical studies were developed and implemented, aiming at procedurally and globally exploring the experiences with the online practice in Italy since the onset of the pandemic, focusing on the experiences of both professionals and clients, and taking into account the period of great, continuous, and contextual changes that by nature involved and characterized them. The present PhD project is composed of three main studies, structured as following:

- Study 1 aimed to explore Italian psychologists' and psychotherapists' experiences with online interventions during the pandemic, aiming to understand their impact on personal attitudes and intention to deliver online interventions in the future. To gain a comprehensive understanding of this unprecedented experience with online interventions, particular attention was posed to the experiences

with digital tools (hardware and software), as well as to the reported needs, concerns and disruptions faced while practicing online. Last but not least, major attention was posed to the exploration of relational aspects, such as the therapeutic relationship and the experience of being present in an online setting, elements reported by professionals as critical and controversial already before the pandemic.

This investigation has made possible to explore and develop a thorough understanding of the Italian professionals' experiences with online interventions and therapeutic relationships online, providing us with important information to understand such phenomenon and orient the subsequent parts of the project.

- Study 2 aimed to explore the impact of the pandemic on college students' mental health and well-being, to assess the current challenges in psychological care. College students in fact have been identified as a vulnerable population, facing many personal and social disruptions caused by the pandemic resulting in a deterioration of mental health and well-being that underlined the importance of tackling those challenges starting by identifying needs and resources.

This study made possible to explore and identify current challenges and needs, providing a contested knowledge and targeting the specific population of intervention, laying the foundation for the subsequent intervention study.

- Study 3 aimed to explore the experiences of clients involved in an intervention comprising the online and offline setting, taking into account the developments that the pandemic period and the literature evidences had revealed in the meantime; such as the need to address the mental health challenges resulted by the pandemic, the positive and negative aspects of the massive and extended use of online interventions in clinical practice, the possibility and necessity to come back to in-presence activities, looking at the future perspectives and possibilities of this practice.

This investigation, composed of two simultaneous investigations, aimed at assessing the impact and relevance of the pilot intervention while deepening the exploration of participants' perspectives and experiences.

In the following chapters will be presented each of the three empirical studies by discussing literature, specifying research questions and methods, and presenting and discussing the main results.

CHAPTER 3. THE PERSPECTIVES OF PROFESSIONALS WITH ONLINE PSYCHOLOGICAL INTERVENTIONS

STUDY 1 - EXPLORING THE EXPERIENCES OF ITALIAN PROFESSIONALS WITH ONLINE INTERVENTIONS AND THERAPEUTIC RELATIONSHIP IN THE VIRTUAL SETTING DURING THE PANDEMIC²

Looking at the implementation of digital and online interventions in the psychological practice before the COVID-19 pandemic, literature reports that the attitude and opinions reported by professionals about it varied greatly. While some research highlighted their concerns of the effectiveness of online interventions and their low confidence in their own technological abilities (Bekes et al., 2020; Schröder et al., 2017), some investigations highlighted providers' positive attitudes regarding online practice (Becker & Jenses-Doss, 2013).

On a general level, professionals who used a cognitive behavioral approach expressed more favorable attitudes toward online practice compared to their colleagues who used dynamic existential approaches (Perle et al., 2013; Mora et al., 2008), and younger professionals indicated higher receptivity to online practice than did their older colleagues (Dores et al., 2020).

Those who had already incorporated online interventions into their clinical practice before the COVID-19 pandemic, reported having positive attitudes, confidence in their abilities when working remotely, and fewer problems using digital tools and forming strong therapeutic alliances online (Gilmore et al., 2019; Interian et al., 2017).

Prior to the COVID-19 pandemic, the Italian situation with online interventions was characterized by a poor implementation in the daily clinical practice (Cipolletta & Mocellin, 2018). This was largely because of a lack of professional training on the use of digital tools for clinical practice, poor data security and privacy, a preference for face-to-face psychological intervention, the misconception that online interventions cannot replace in-person sessions, and providers' low self-confidence in their own clinical abilities when practicing online (Cipolletta & Mocellin, 2018).

² The present study has been published in the following research paper: Tomaino, S.C.M., Manzoni, G.M., Brotto, G., & Cipolletta, S. (2023). Breaking down the screen: Italian psychologists' and psychotherapists' experiences of the therapeutic relationship in online interventions during the COVID-19 pandemic. *International Journal of Environmental Research and Public Health*, 20, 1037. <https://doi.org/10.3390/ijerph20021037>

The Italian Service of Online Psychology (SIPSIOL) and the National Council of Psychology (CNOP) published the most recent guidelines for online interventions in 2017 that defined ethical and deontological rules for online practice and emphasized the significance of educating patients about the unique characteristics of online interventions, the risks associated with data protection, and the possibility for technological disruptions (Bozzaotra et al., 2017). These recommendations were quickly acknowledged to be insufficient because not followed by any practical resource (Mancuso, 2019).

Indeed, as insufficient data protection can lead to potential privacy violations, practitioners should carefully select appropriate software and hardware for their online practice (Palomares & Miller, 2018). Appropriate tools can help lessen disruptions, such as connection issues or poor video and/or audio quality, which can harm the execution of the online session and result in dissatisfaction and mistrust in both psychologists and patients, harming the therapeutic relationship (Regueiro et al., 2016). Regarding the therapeutic relationship in online psychological interventions, several studies revealed that many patients felt more secure to disclose in virtual sessions, which were said to be less intimidating and more comfortable than face-to-face sessions (Amichai-Hamburger and Hayat, 2013; Cipolletta, 2015; Reynolds et al., 2013), particularly for those dealing with social anxiety, agoraphobia, and depression (Nakash et al., 2015), eating disorders (Sproch & Anderson, 2019), post-traumatic stress disorder, or acute stress disorder (Thorp et al., 2012).

Besides this, professionals reported many concerns about the difference in communication, emotion detection and embodiment that are specific of the online setting and that could negatively influence the development and maintenance of a satisfactory therapeutic relationship with their clients online (Cipolletta & Mocellin, 2018).

With the onset of the COVID-19 pandemic and the restrictions on face-to-face meetings, to continue treating existing patients and to care for new ones, worldwide private and public mental health services were forced to shift their activities to the online setting (Probst et al., 2020; Van Daele et al., 2020), requesting to professionals to be very adaptable in order to respond effectively to such unprecedented emergency scenario (Inchausti et al., 2020). For many, that was the very first experience with online interventions (Wind et al., 2020), but even for those who had previously practiced online, such a forced, rapid and totalizing shift to the online setting was reported as a very challenging situation that caused numerous practical disruptions and difficulties, that professionals attempted to solve on their own (Bekes & Aafjes-van Doorn, 2020).

Many difficulties were experienced and faced such as practical disruptions, poor experience, lack of specific training, privacy issues, the definition and respect of therapeutic boundaries and obstacles to creating and maintaining a satisfactory therapeutic relationship online, in line with previous findings (Tomaino et al., 2022).

Thanks to the extensive experience had during the pandemic, professionals from many nations reported a positive attitude toward online interventions (Humer et al., 2020a), indicating an interest in practicing online also in the future (Bekes et al., 2020; Dores et al., 2020). Such forced and extensive experience led to a turning point in their use of digital tools, highlighting the significance of moving past the acute phase of the pandemic to work with practitioners and policymakers to define the needs of clients and professionals and to make online interventions part of the everyday clinical practice in the future (De Witte et al., 2021; Tomaino et al., 2022).

3.1 Study aims

The purpose of the present study was to learn more about the experiences that Italian psychologists and psychotherapists had with online interventions during the pandemic, aiming to understand the extent to which the involuntary aspect of the change impacted their attitudes and intent to deliver online interventions in the future. Particular attention was posed to the professional's experiences with digital tools (hardware and software), as well as their needs and concerns towards online practice. The exploration of these topics served as a pre-requisite for the investigation of relational aspects, such as the therapeutic relationship (in particular intimacy, proximity, shared purpose, trust in the psychologist and in the intervention) and the experience of being present in an online setting, and allowed us to develop a thorough understanding of the experiences and methods Italian professionals used to "break down the screen" that separated them from their clients.

3.2 Methods

The present explorative study consisted of an explorative online survey created ad hoc by researchers using a mixed-methods approach combining quantitative and qualitative analysis to develop a deeper understanding of the experiences with online interventions and therapeutic relationships online that were reported by the Italian professionals involved. The present research has been approved by the Ethical Committee for the Psychological Research of the University of Padova (protocol 4010, approved on 24 February 2021).

3.2.1 Participants

Italian psychologists and psychotherapists who participated in the online survey were recruited using two different strategies: online advertisements posted on the media pages and websites of the National Council of Psychology (CNOP) and Italian Society of Online Psychology (SIPSIOL), as well as snowball sampling, in which the authors invited colleagues and various national schools of psychotherapy to disseminate the online survey among their students and colleagues. The study's presentation, technical instructions for filling out the questionnaire, and the access link were delivered to participants who replied to the online advertisements or who replied to emails contacting them. One candidate declined to participate in the study, while the remaining five hundred and forty-five potential participants clicked the link and checked the "consent" box before starting the online questionnaire. However, only 368 completed it (mean age 42, 89% female, average professional experience 12.4 years, SD = 10.00), and only their answers were considered in the analyses. Due to respondents completing less than 50% of the survey, 176 replies were discarded. The socio-demographic descriptive statistics of the sample are reported in Table 3.

Table 3. *Socio-demographic descriptive statistics of the sample from Breaking down the screen: Italian psychologists' and psychotherapists' experiences of the therapeutic relationship in online interventions during the COVID-19 pandemic.* by Tomaino S.C.M, Manzoni, G.M., Brotto, G., & Cipolletta, S., 2023, pp. 3-4. (<https://doi.org/10.3390/ijerph20021037>). CC BY 4.0.

Sample Characteristics	N	%
Males	58	15.8
Females	309	83.9
Other	1	0.3
Profession		
Psychologists	107	29.1
Psychotherapists	261	70.9
Psychotherapists' theoretical orientation		
Psychoanalytic approaches	103	39.5
Systemic relational approach	46	17.6
Cognitive behavioral approaches	56	21.4
Humanistic-constructivist approaches	36	13.8
Other approaches	20	7.7
Professional condition		
Self-employed	301	81.8
Working in the National Sanitary System	23	6.3
Employed in private companies	16	4.3
Employed in other fields	28	7.6
Geographical origin		
North (Valle d'Aosta, Liguria, Lombardia, Piemonte, Trentino-Alto Adige, Veneto, Friuli-Venezia Giulia, Emilia Romagna)	228	62
Centre (Toscana, Umbria, Marche, Lazio)	74	20.2
South (Abruzzo, Molise, Campania, Puglia, Basilicata, Calabria)	42	11.3
Islands (Sicilia, Sardegna)	24	6.5
Age group of patients usually assisted		
Adults		92.7
Adolescents		62.5
Children		30.2
Older people		16.6

Sample Characteristics	N	%
<i>Main intervention areas</i>		
Relational problems		62.2
Anxiety disorders		60.6
Depressive and mood disorders		54.1
Family-related problems		37.8
Multiple problems		34.8
Couple-related problems		30.4
Eating disorders		19
Cognitive evaluation		13.9
Other		12.8
Problems related to work		12.5
Sexuality-related problems		12
Cognitive rehabilitation		12
Emergency-related problems (disasters or accidents)		7.9
Emergency-related problems (crisis or suicide)		7.1
Substance addiction		6.8
Internet addiction		4.9
Gambling addiction		3.3

3.2.2 Procedures

During the survey's distribution, researchers distributed an anonymous, reusable link that allowed participants to begin and fill out the questionnaire as well as to save their progress, ensuring that they would have the opportunity to finish it at a later time. This was done to increase the response rate. Following a summary of the survey's objectives and structure, participants were required to indicate their informed consent by checking either the "consent" or "reject" boxes. From February to July 2021, a self-report questionnaire for the current study's online survey was made available on Qualtrics (<https://www.qualtrics.com>). In order to confirm usability, a pilot study with 16 participants was conducted in January 2021. The researchers used specific questions to assess the questionnaire's overall comprehensibility, complexity of questions, and time required for completion. After addressing the issues raised, they improved the survey.

The final version of the questionnaire consisted of 75 items, both close-ended (55 items) and open-ended (20 items), divided into five sections as follows: socio-demographic information (11 items), attitudes and education before the COVID-19 pandemic (7 items), professional experience during the COVID-19 pandemic (15 items), user experience with online practice (24 items), and the online therapeutic relationship (18 items). Single answer, multiple answer, open-ended answer, and Likert scales (to rate respondents' agreement with various propositions) were among the several response options that were employed. To reduce the possibility of dropout, responses to closed-ended questions were required, whereas those to open-ended ones were primarily optional. The completion required approximately 20 min (see Appendix A for the items of the survey and the complete text of each questionnaire).

3.2.3 Analysis

In order to better understand the experiences that the Italian professionals involved in the study report with online interventions and therapeutic relationships, researchers used a mixed-methods approach that combined quantitative and qualitative analysis. Statistical analyses were carried out using Jamovi (<https://www.jamovi.org>). A logistic regression was carried out to test the relationships of the demographic variables (sex, age, education, and professional experience) and theoretical approaches to the use of digital tools in clinical practice before the COVID-19 pandemic. A chi-square test revealed the association between the delivery of online interventions before and during the pandemic. The non-parametric Mann–Whitney U test was carried out to compare aspects of the therapeutic relationships (intimacy, proximity, shared purpose, trust in the psychologist, trust in the intervention, and sense of presence experienced by the professional and patient) of participants who used digital tools before and during the pandemic to those who adopted these tools only from the pandemic's onset (March 2020).

To perform thematic analysis (Braun and Clarke, 2006) on the textual responses to open-ended questions, researchers used ATLAS.ti 9 (<https://atlasti.com>). Two independent researchers familiarized themselves with the responses by reading them, noting important details, and then manually coding the responses in an effort to find recurring patterns (or themes) in the codebook (Braun and Clarke, 2006). After that, the researchers compared their findings to see if they agreed or differed. If a solution could not be found and consensus could not be achieved, a third researcher was consulted to provide a third independent view on the merged code. This process helped to increase the validity of the codification. The thematic analysis approach relies on the identification and codification of explicit themes while minimizing their interpretation. Finally, overarching themes were identified and refined.

3.3 Results

To maintain the survey's organizational structure and to promote the logical consistency of the presentation of findings, quantitative and qualitative results are provided jointly.

3.3.1 Experience before the COVID-19 pandemic

Of the 368 respondents, 140 (38%) reported having delivered online interventions for a mean of 4 years ($SD = 3.24$) before the pandemic onset, and 19.8% of this group declared that they had also conducted telephone interventions for a mean of 4.92 years ($SD = 6.09$). On the contrary, 228

participants (62%) reported having delivered neither online nor telephone interventions before the pandemic onset. Of those who had practiced online, only 14.3% had received specific training related to online practice. Frequency data for all other items (motivations to deliver online interventions, how respondents felt while practicing online, and digital tools used and motivations to choose them) are reported in Table 4.

Table 4. Data on participants who experienced online interventions before the COVID-19 pandemic from *Breaking down the screen: Italian psychologists' and psychotherapists' experiences of the therapeutic relationship in online interventions during the COVID-19 pandemic.* by Tomaino S.C.M, Manzoni, G.M., Brotto, G., & Cipolletta, S., 2023, pp. 6. (<https://doi.org/10.3390/ijerph20021037>). CC BY 4.0.

	%
Reasons to deliver online interventions	
my patient asked it	58.5
for economic reasons	0.7
I want to be present for those who are unable to attend the session in person	51.4
I want to become involved in the actual evolution of the use of digital tools	17.1
other	22.9
How have you felt practicing online?	
very distressed	0.7
sometimes distressed	21.4
neutral	17.1
sometimes at ease	16.4
always at ease	44.3
Which digital tool or tools have you used?	
e-mail	8.7
chat	7.4
videoconference	87.9
other tools	8.1
What were the motivations to choose a specific tool?	
personal preference	33.6
patient's preference	30.7
the tool chosen is the most economical	5.7
the tool chosen is easy to use	25.7
the tool chosen is the most appropriate for this specific intervention	58.6
other	1.4

Logistic regression did not reveal any significant associations between pre-pandemic use of online interventions and age ($p = 0.785$), years of study (by Italian regulations, 6 years for psychologists and 10 years for psychotherapists; $p = 0.070$), or years of professional experience ($p = 0.720$). However, having experience with the online setting prior to the pandemic was significantly predicted by gender ($p = 0.021$, odds ratio = 1.970): women's likelihood of having delivered online interventions before the pandemic was nearly double that of men. Logistic regression also tested whether the use of online interventions before the pandemic was predicted by practitioners' theoretical orientation. This variable has six levels, reflecting the five groups of theoretical orientations created by affinity on the basis of participants' responses: (a) cognitive behavioral approaches, (b) psychoanalytic approaches, (c) systemic relational approach, (d) humanistic–

constructivist approaches, (e) other approaches, and (f) no theoretical framework. The group, including participants who reported using a cognitive behavioral approach, served as the reference level, as the literature has recognized them as having more positive attitudes toward and familiarity with the use of online intervention in everyday clinical practice. No significant difference in the odds of having delivered online interventions before the pandemic emerged between the reference group and the groups using humanistic–constructivist approaches ($p = 0.111$), a systemic relational approach ($p = 0.429$), or other approaches ($p = 0.144$). However, a significant difference was found between those groups and the groups using psychoanalytic approaches ($p = 0.013$) or having no particular theoretical framework ($p = 0.022$), showing that participants in these two groups were less likely to have used online interventions before the pandemic in comparison with their colleagues using cognitive behavioral approaches.

Participants who reported having never delivered online interventions before the pandemic’s onset (62%) were asked an open-ended question about their reasons for not doing so. From their answers, thematic analysis identified three main categories: practical limitations, personal limitations, and relational limitations. These limitations are reported with their specific subthemes in Table 5.

Table 5. Themes and subthemes identified analyzing the responses to the open-ended question regarding the motivations reported by the professionals who have not practiced online before the COVID-19 pandemic from *Breaking down the screen: Italian psychologists’ and psychotherapists’ experiences of the therapeutic relationship in online interventions during the COVID-19 pandemic*. by Tomaino S.C.M, Manzoni, G.M., Brotto, G., & Cipolletta, S., 2023, pp. 6. (<https://doi.org/10.3390/ijerph20021037>). CC BY 4.0.

Themes	Practical Limitations	Personal Limitations	Relational Limitations
Sub-themes	1. Lack of a specific legislation	1. Personal preference for in-presence interventions	1. The online setting is detached and cold
	2. Clinical tools and techniques are not suitable for the online setting	2. Patients’ and professionals’ prejudices among the online setting	2. Lack of non-verbal communication
	3. Interventions with groups, families, and/or couples online are more complicated	3. Lack of specific education to practice online	3. Lack of spontaneity in the interaction
	4. The online setting is not easily accessible to children and older people	4. Prejudices among efficacy of online interventions	4. Loss of welcome and farewell rituals
	5. Difficulties in finding a private space at home for both professionals and patients	5. Professionals’ doubts on personal competencies when practicing online	5. Patients are less engaged and committed
	6. Patients are not used to asking for it		6. Loss of corporeity in the interaction
	7. Difficulties to manage emergency and crisis situations		7. Patients and professional are more distracted by the home setting

3.3.2 Experience during the COVID-19 pandemic

Respondents were asked whether, starting in March 2020, they had begun delivering online interventions via videoconference, e-mail, chat, or other means. Eighty-two answered “yes” (22.3%), 268 indicated “yes, and I am still using it” (72.8%), three chose “no, but I will use it in the future” (0.8%), and fifteen answered “no” (4.1%). With respect to telephone interventions, 126 answered “yes” (34.2%), 137 replied “yes, and I am still using it” (37.2%), 6 answered “no, but I will use it in the future” (1.6%), and 99 chose “no” (26.9%). Of participants who reported having delivered online interventions before the pandemic, 80% answered “yes, and I am still using it”, and 20% said “yes.” Motivations to deliver or not to deliver online interventions during the pandemic (starting from March 2020) are reported in Table 6.

Table 6. Data on reasons whether to deliver online interventions during the COVID-19 pandemic (starting from March 2020) from *Breaking down the screen: Italian psychologists’ and psychotherapists’ experiences of the therapeutic relationship in online interventions during the COVID-19 pandemic.* by Tomaino S.C.M, Manzoni, G.M., Brotto, G., & Cipolletta, S., 2023, pp. 7. (<https://doi.org/10.3390/ijerph20021037>). CC BY 4.0.

Have You Delivered Online Interventions during the Pandemic?		%
<i>Reasons to deliver online interventions</i>		
“Yes” or “Yes, and I am still using it”	I consider it a necessity for public health	67.8
	my patient asked it	40.5
	for economic reasons	8.3
	I want to be present for those who are unable to attend the session in person	57.8
	I want to become involved in the actual evolution of the use of digital tools	18.2
	other	0.7
<i>Reasons not to deliver online interventions</i>		
“No” or “No, but I will use it in the future”	online interventions are not effective as those in person	33.3
	right now, I do not see an added value compared with those in person	20
	in general, I do not like to use technology in my clinical practice	26.7
	my patients do not want it	20
	lack of adequate software and/or hardware	6.7
	I am afraid of making mistakes	6.7
	other	33.3

Respondents were asked how many patients out of their total number of current patients habitually received online interventions: 41.1% answered “less than 20%”, and 19.4% answered “between 20% and 40%.” When asked how many patients currently receiving online interventions would suggest returning to in-person sessions as soon as the situation allowed, 18.3% answered “more than 80%”, and 39.4% said “all of them”. Frequency data for patients’ age groups, problems treated, and proportion of the provider’s total currently assisted online are reported in Table 7.

Table 7. Data regarding patients' assisted online at present from *Breaking down the screen: Italian psychologists' and psychotherapists' experiences of the therapeutic relationship in online interventions during the COVID-19 pandemic.* by Tomaino S.C.M, Manzoni, G.M., Brotto, G., & Cipolletta, S., 2023, pp. 8. (<https://doi.org/10.3390/ijerph20021037>). CC BY 4.0.

<i>Age group of patients assisted online</i>	<i>%</i>
Adults	94.3
Adolescents	43.7
Children	10.9
Older people	10
<i>Problems treated online</i>	
Anxiety disorders	66.5
Relational problems	61.95
Depressive and mood disorders	51.45
Multiple problems	36.3
Family-related problems	36
Couple-related problems	20.7
Problems related to work	11.4
Eating disorders	11.2
Other	10
Sexuality-related problems	9.2
Cognitive rehabilitation	5.7
Cognitive evaluation	3.4
Substance addiction	3.1
Gambling addiction	1.4
Emergency-related problems (disasters or accidents)	1.4
Emergency-related problems (crisis or suicide)	1.4
Internet addiction	1.1
<i>% of patients assisted online at present</i>	
No one	10.6
Less than 20%	41.1
Between 20% and 40%	19.4
Between 41% and 60%	8
Between 61% and 80%	6.6
More than 80%	6
All	8.3

A significant association emerged between the use of online interventions before the pandemic and during the pandemic ($\chi^2(2, N = 368) = 12.7, p = 0.002$), while whether a practitioner practiced online before the pandemic had no significant association with the motivations “I consider it a necessity for public health” ($\chi^2(1, N = 284) = 0.638, p = 0.425$); “my patient asked for it” ($\chi^2(1, N = 284) = 0.349, p = 0.555$); “for financial reasons” ($\chi^2(1, N = 283) = 2.71, p = 0.100$); “I want to be present for those who are unable to attend face-to-face sessions” ($\chi^2(1, N = 284) = 2.45, p = 0.118$); “I want to get involved in the actual evolution of the use of digital tools” ($\chi^2(1, N = 284) = 0.00371, p = 0.951$); and “other” ($\chi^2(1, N = 284) = 0.0645, p = 0.800$).

3.3.3 Attitudes toward online interventions

Participants were asked to express their level of agreement with 14 statements using a five-point Likert scale (from 1 = completely disagree to 5 = completely agree). All percentages of agreement for all the statements are reported in Table 8.

Table 8. Level of accordance with sentences on the use of online interventions from *Breaking down the screen: Italian psychologists' and psychotherapists' experiences of the therapeutic relationship in online interventions during the COVID-19 pandemic.* by Tomaino S.C.M, Manzoni, G.M., Brotto, G., & Cipolletta, S., 2023, pp. 8. (<https://doi.org/10.3390/ijerph20021037>). CC BY 4.0.

	%	%	%	%	%
<i>Please Express Your Accordance with the Following Sentences on the Use of Online Intervention from 1 (Completely Disagree) to 5 (Completely Agree)</i>	Completely Disagree	Mostly Disagree	Neutral	Mostly Agree	Completely Agree
I am willing to use online interventions (email, chat, video) in my clinical practice	1.4	11.1	13.1	39.7	34.6
Patients have asked/are asking me for the possibility to be treated online (video, chat, email).	4.9	18.3	22.0	36.6	18.3
I feel that digital tools are useful for my clinical practice	0.6	9.4	16.0	43.1	30.9
Using the online tools (video, chat, email) facilitates my clinical practice	9.1	23.4	34.6	20.0	12.9
I feel competent in using digital tools (hardware and software)	1.7	7.4	24.3	38.0	28.6
I have attended training courses about the theory and practice of psychological interventions online (video, chat, email)	29.4	18.9	14.9	27.7	9.1
Using online interventions (video, chat, email) allows me to save time	7.4	11.4	17.1	36.3	27.7
Using online interventions (video, chat, email) allows me to save money	14.6	18.0	24.6	24.3	18.6
Using online interventions (video, chat, email) causes me to earn less	39.7	26.3	20.9	8.6	4.6
My patients think that online practice (video, chat, email) is different from the in-person one	5.4	16.0	25.4	38.6	14.6
I think that online practice (video, chat, email) does not equal the in-person one	6.3	12.9	18.0	37.7	25.1
If I could choose, I would not practice online (video, chat, email)	16.3	16.3	18.0	27.4	22.0
If I could choose, I would practice more online (video, chat, email)	29.1	31.4	19.7	11.1	8.6
I would recommend online practice to colleagues (video, chat, email)	3.1	10.9	33.4	32.0	20.6

A majority of the participants (202; 79.35%) who delivered online interventions during the pandemic agreed that they hoped to continue practicing online even after the pandemic's end. By contrast, 71 (20.7%) stated that they did not want to continue practicing online. Table 9 presents professionals' reasons to continue practicing online and their answers to the question "From your point of view, what can be done to support online interventions and professionals who use them?".

Table 9. Professionals' motivations to continue their practice online and points of view regarding ways to support the use of online interventions from *Breaking down the screen: Italian psychologists' and psychotherapists' experiences of the therapeutic relationship in online interventions during the COVID-19 pandemic.* by Tomaino S.C.M, Manzoni, G.M., Brotto, G., & Cipolletta, S., 2023, pp. 9. (<https://doi.org/10.3390/ijerph20021037>). CC BY 4.0.

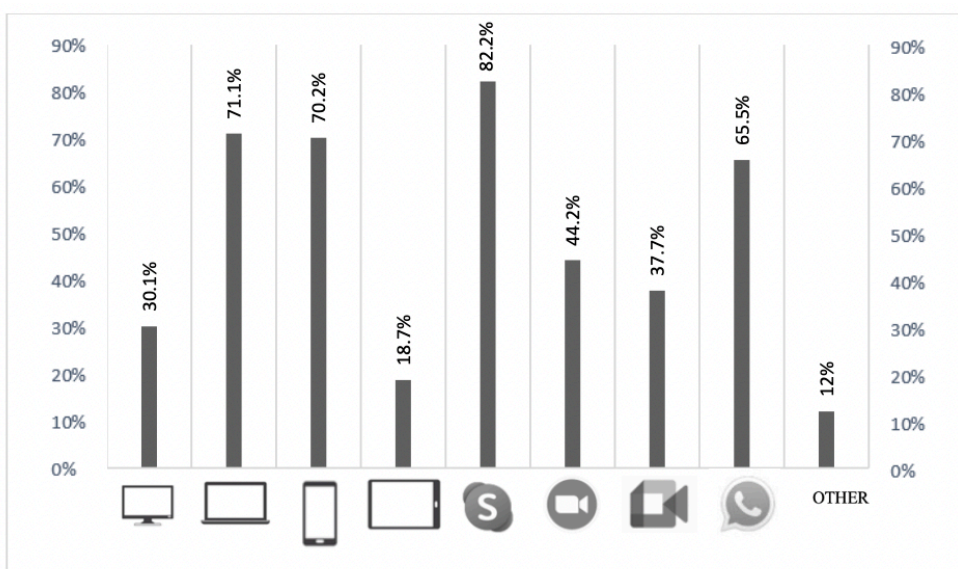
<i>Motivations to Continue Practicing Online after the Pandemic</i>	%
My patients find it convenient and useful	52.6
My patients ask to be assisted online	34.6
For economic reasons	8.5
For practical and convenience reasons	42.3
I got used to the online practice	15.4
I want to remain in contact with the actual evolution of the patients' use of digital tools	21.7
Other	28.3
<i>What can be done to support online interventions and professionals who use it?</i>	
Training on hardware for the online practice	15.5
Training on software for the online practice	33.5
Education on ethical and deontological aspects of the online practice	60.3
Education on legal and normative aspects of the online practice	50.7
Education on security and privacy of the online practice	59.8
Provision of tools (hardware and software) specifically devised for the online practice	51.9
Improving the accessibility of online practice for patients	35.3
Improving the accessibility of online practice for professionals	30.9
Improving the accessibility of online practice for public services	28
Other	7

3.3.4 User experience with digital tools

Participants were asked to share information about the tools used to deliver online interventions.

Descriptive statistics of the hardware and software used to deliver online interventions are reported in Figure 3.

Figure 3. Hardware and software implemented to deliver online intervention during the pandemic from *Breaking down the screen: Italian psychologists' and psychotherapists' experiences of the therapeutic relationship in online interventions during the COVID-19 pandemic.* by Tomaino S.C.M, Manzoni, G.M., Brotto, G., & Cipolletta, S., 2023, pp. 9. (<https://doi.org/10.3390/ijerph20021037>). CC BY 4.0.



When asked to rate whether the software they used was safe for online interventions, 64.3% stated “yes”, 4.7% indicated “no”, and 31% answered “I do not know”. One hundred fifty-one participants (44.2%) reported having “sometimes” faced technical disruptions during online sessions, mainly due to sound (25.7%), video (23.5%) and internet connection (77.1%) problems. Two hundred sixty-two participants (81.1%) reported having never canceled a session because of technological disruptions, and 216 (66.9%) had never received a cancellation from a patient because of technical disruptions.

Participants’ mean levels of satisfaction with hardware ($M = 4.17$; $SD = 0.783$) and software ($M = 3.95$; $SD = 0.788$) were high on a scale from 1 to 5. An intrusion and/or the occurrence of an uncontrollable event during an online session was reported by 35.6% of participants. Two hundred seventy-four (84.6%) confirmed having consulted the Italian guidelines for online practice.

3.3.5 Therapeutic relationship online

One hundred twelve participants (37.8%) reported that they “sometimes” perceived online sessions more tiring than face-to-face sessions, while 62 (20.9%) reported that they “often” did so. The variables that helped professionals feel connected to their clients online are reported in Table 10.

Table 10. Variables that help professionals to feel connected with their patients online from *Breaking down the screen: Italian psychologists’ and psychotherapists’ experiences of the therapeutic relationship in online interventions during the COVID-19 pandemic.* by Tomaino S.C.M, Manzoni, G.M., Brotto, G., & Cipolletta, S., 2023, pp. 10. (<https://doi.org/10.3390/ijerph20021037>). CC BY 4.0.

<i>Variables That Help Professionals to Feel Connected with Their Patients Online</i>	<i>%</i>
The video quality	47
The size of the screen	23.4
The audio quality	41.6
The video angle (only face, half bust, distant, close, etc.)	38.5
The background	8.1
The emotional climate	76.7
The therapeutic relationship with the patient	88.2
Other	1.7

Only six professionals (2%) reported always feeling greater intimacy and emotional closeness to their patients while practicing online, while 13 (4.4%) reported that the online modality can greatly affect the trust patients have in professionals and psychological interventions. Between the therapeutic relationships of participants who reported having delivered online interventions both

before and during the pandemic and those of participants who delivered them only during the pandemic, significant differences emerged on intimacy ($p < 0.001$), proximity ($p = 0.002$), and shared purpose ($p < 0.001$). The former group perceived greater intimacy, proximity, and shared purpose in their therapeutic relationships while practicing online than did their colleagues who began practicing online only in March 2020.

It was very important to feel present in online sessions to 277 participants (93.6%). Sense of presence was further explored through open-ended questions about the meaning of “being present” in the online setting and the elements that help one feel present in online sessions. Textual responses were analyzed, and two main themes were identified: “meaning of ‘being present’ online”, with seven subthemes, and “factors that help professionals and patients feel present online”, with nine subthemes. These themes and subthemes are reported in Table 11 and are illustrated by quotations chosen from participants’ responses.

Table 11. Themes and subthemes identified analyzing the responses to the open-ended question regarding the meaning of “being present” in the online setting and the factors that help professionals and patients feel present in the online session from *Breaking down the screen: Italian psychologists’ and psychotherapists’ experiences of the therapeutic relationship in online interventions during the COVID-19 pandemic*. by Tomaino S.C.M, Manzoni, G.M., Brotto, G., & Cipolletta, S., 2023, pp. 11. (<https://doi.org/10.3390/ijerph20021037>). CC BY 4.0.

Themes	Meaning of “Being Present” Online	Factors That Help the Professionals and Patients Feel Present Online	Quotations
subthemes	1. Being there beyond space and time	1. Asking and giving feedback	“Meta-communicating through asking constant feedback to the patient”
	2. Experiencing we-ness	2. More sustained eye contact	“I am present in the conversation with eye contact”
	3. Focusing on “here and now”	3. Not getting distracted by other things	“Trying not to get distracted and to be focused on the patients as if we were physically in my studio”
	4. Being actively engaged with the patient	4. Losing track of time	“I feel present when I lose track of time”
	5. Active listening	5. Making behaviors more pronounced (e.g., explaining what I am doing)	“Looking into the screen, explaining what I am doing (e.g., “I am taking notes”) in case it was not visible from the webcam”
	6. Feeling an emotional attunement	6. Feeling like we are in the same room	“I feel present when there is so much emotional attunement and empathy, that it seems that we are in the same room”
	7. Being immersed in the conversation	7. Hearing and seeing clearly the other person	“Video, audio, and connection have to work properly”
		8. Spontaneity of speech turns and conversational fluency	“Spontaneity of the conversation and of the speech turns”
		9. Feeling spontaneous while interacting	“Smoothness of the conversation . . . as if we were dancing”

3.4 Discussion

The findings of the current study demonstrate that the experience with online interventions made necessary by the COVID-19 pandemic allowed Italian psychologists and psychotherapists to use and experiment with online therapy in their clinical practice, leading to a long-lasting change in

their attitudes toward and intent to use such tools and, thereby, charting new perspectives for the future of clinical practice. This vast experience showed distinct problems, such as those addressing the relationship features and consequences of the virtual setting. It also brought professionals obstacles and disruptions, but it also revealed resources and opportunities related to the use of online interventions.

3.4.1 Online interventions in the era of COVID-19

Numerous research (Wind et al., 2020; Bekes & Aafjes-van Doorn, 2020; Humer et al., 2020a; 2020b; De Witte et al., 2021; Simpson et al., 2021) have documented that the COVID-19 epidemic gave psychologists and psychotherapists around the world a previously unthinkable chance to apply digital tools in clinical treatment. The experiences of professionals who provided online interventions during the pandemic vary depending on country differences and levels of "maturity" in the adoption of online therapies in the mental health care system (Gaebel et al., 2020).

The results of the current study, which showed that only 38% of participants had delivered online interventions before the first lockdown in 2020, were consistent with the findings that online interventions for mental health were underutilized and largely unintegrated in daily clinical practice in Italy prior to the pandemic (Cipolletta & Mocellin, 2018). This was primarily due to patient requests and/or because patients were unable to attend face-to-face sessions due to physical limitations, geographic distance (such as distance from a patient's home), or both. According to earlier findings (De Witte et al., 2021), the majority of participants in this study did not deliver online interventions prior to the pandemic due to worries about crucial issues, including ensuring privacy, providing adequate spaces, and managing potential software and/or hardware disruptions and its efficacy, as well as limited to no demand for online interventions from clients.

Italian professionals were hesitant to practice online due to concerns about losing their in-person expertise, in fact, the forced shift to the online clinical setting raised doubts and fears about management, therapeutic relationships, communication, and embodiment; in line with previous findings (Cipolletta & Mocellin, 2018). Videoconferences were perceived as the preferred tool for online practice, as they seemed similar to face-to-face settings (Van der Vaart et al., 2014; Baumeister et al., 2020). This highlights the need for Italian professionals to choose a modality that ensures practical and relational continuity of clinical practice for both professionals and patients.

As a result of the pandemic, the patients who were followed online during the epidemic were adults rather than children, adolescents, or older adults, whereas before the pandemic, survey

respondents worked primarily with adults and adolescents. This outcome is consistent with other researches, which shown that particular patient groups, such as those who are not familiar with digital tools, old people, or children, are more likely to experience practical and personal difficulties when adjusting to these tools and modalities. These limitations, if not effectively taken into account and handled, may prevent such patients from accessing to online interventions (Dores et al., 2020; Perle et al., 2013).

Patients' reasons for requesting online care showed consistency between pre-pandemic (Cipolletta & Mocellin, 2018; Dores et al., 2020) and pandemic experience, with relational issues and anxiety- and depression/mood-related problems dominating the list. As a result of the pandemic, these issues got exacerbated (Cantone et al., 2021).

The usage of digital technologies in clinical practice did not differ according to the professionals' age, years of experience, or level of education, either before or during the pandemic, as shown by a previous Italian study (Cipolletta & Mocellin, 2018). In contrast, (Dores et al., 2020) discovered that younger clinicians delivered online interventions more frequently than older colleagues in Portugal during the pandemic. However, we must consider that the mean age of the respondents to the current survey was very high (42 years old), which may account for the lack of a relationship between age and the use of digital tools in clinical practice. Additionally, the pandemic compelled a move to the online environment, almost constricting the option of choosing to practice online, which was different from other studies of circumstances in which professionals who practiced online freely chose to do so.

The usage of and preference for online interventions in clinical practice were also influenced by practitioners' theoretical backgrounds (Humer et al., 2020b). Compared to people utilizing a cognitive behavioral approach, participants who reported using a psychoanalytic method in the current study were less likely to have utilized online therapies before to the pandemic. According to earlier research, practitioners who employed systemic relational or cognitive behavioral approaches were more favorable about online interventions than the professionals who used psychoanalytic or humanistic-constructivist approaches (Perle et al., 2013; Mora et al., 2008). The study's results found that most respondents delivered online interventions to patients during the pandemic. However, those who had never worked online before faced challenges such as difficulties with digital tools, dealing with new spaces at home, finding strategies to compensate the lack of corporeality when interacting and overcoming initial perceptions of online interventions being less effective than in-person

sessions; such experience of online sessions changed many practitioners' attitudes towards online interventions, in line with other results (Thome et al., 2021).

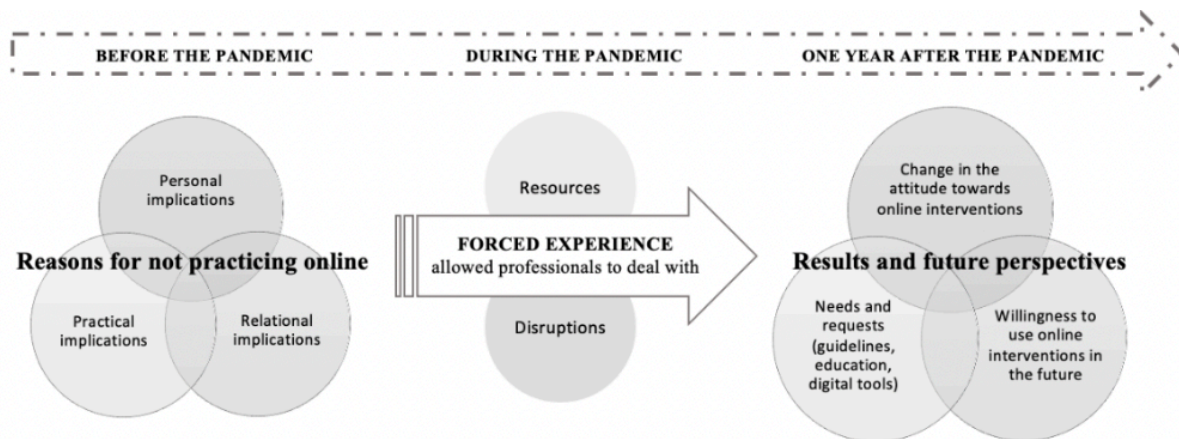
A study (Dores et al., 2020) found that many participants continued delivering online interventions a year after the pandemic, despite restrictions on face-to-face meetings were mitigated. Studies before (Cipolletta & Mocellin, 2018; Perle et al., 2013) and during (Bekes et al., 2020; Bekes et al., 2021) the pandemic showed that providers developed technical and professional skills to practice online, positively influencing attitudes towards digital tools. Professionals who intended to continue using digital tools were those with positive attitudes, sufficient experience, and perceptions of their effectiveness (Bekes et al., 2020). Most participants in the present study were willing to continue practicing online in the future due to the convenience and usability of online settings for different situations and populations of clients.

The pandemic has significantly impacted the use of online interventions by professionals without prior experience, causing disruptions and challenges; however, the rapid transition to online settings has made it more difficult for professionals and patients to adapt to digital tools and modalities (Bekes et al., 2020; Aafjes-van Door et al., 2021). Respondents of the present study faced practical, personal, and relational limitations, such as audio, video, and connection disruptions. Additionally, concerns about privacy and security protection and adequate training for using digital tools in clinical practice were reported, in line with other findings (Mancuso, 2019; Amichai-Hamburger et al., 2014; Cipolletta et al., 2018; Perle et al., 2011).

Online sessions have been found to be more tiring than in-person sessions due to increased cognitive load and difficulty in respecting personal time and private spaces. This phenomenon, known as "Zoom fatigue," requires further exploration and proper addressing to ensure the best conditions for professionals and patients (Sander & Bauman, 2020). To support professionals and patients in using and proposing psychological interventions online, specific tools and educational resources must be developed and implemented. Participants requested ad hoc digital tools that guarantee privacy and security standards while remaining accessible and easy to use, preferably provided by the National Council of Psychology. Factors that could positively influence Italian psychologists and psychotherapists' choice to use online psychological interventions in the future include a positive attitude towards online interventions, patients' favorability, the pandemic experience, the provision of tailored tools and educational courses for online practice, and clarification of ethical and deontological issues. The COVID-19 pandemic has forced a significant leap forward in the use of online interventions by mental health professionals and patients worldwide (Tomaino et al., 2022),

particularly for Italian professionals and patients. This evolution has led to future opportunities and directions for online interventions in clinical practice, while also underlining needs and doubts regarding this practice (see Figure 4).

Figure 4. A graphic representation of the effects that the COVID-19 pandemic had on Italian psychologists' and psychotherapists' attitudes towards online intervention from *Breaking down the screen: Italian psychologists' and psychotherapists' experiences of the therapeutic relationship in online interventions during the COVID-19 pandemic*. by Tomaino S.C.M, Manzoni, G.M., Brotto, G., & Cipolletta, S., 2023, pp. 13. (<https://doi.org/10.3390/ijerph20021037>). CC BY 4.0.



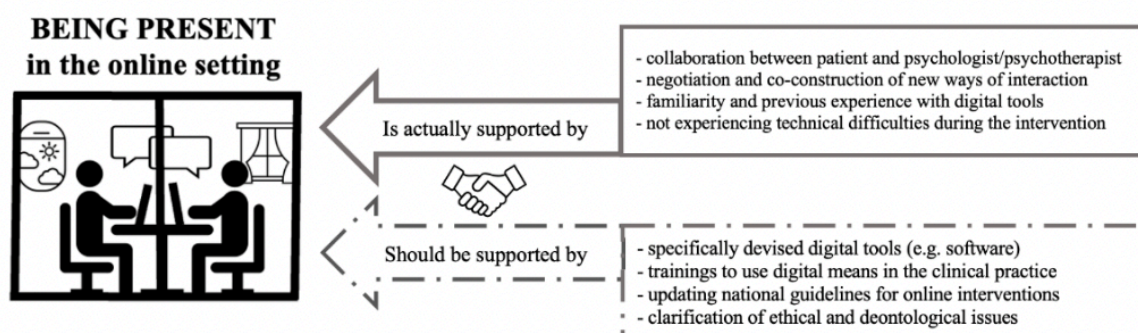
3.4.2 Feeling present and connected in the online setting

Practicing in a virtual setting highlighted the necessity to define specific characteristics and strategies to create and maintain a strong therapeutic relationship when moving from the physical to a virtual setting. Feeling present and connected to the other person during a conversation that is mediated by a digital tool (the screen) may be difficult and stressful for both professionals and patients. According to Bouchard et al. (2011), presence in videoconference settings consists of three elements: feeling like both people are in the same room, participating actively in the conversation, and feeling totally absorbed in it. Participants reported that a variety of factors, such as reciprocal and active participation, the sense of we-ness, presence beyond space and time (as if they were in the same room), the complexity of the conversation, and the depth of the emotional connection, all contributed to the experiencing of sense of presence during an online session. Being able to experience presence in online sessions, made possible for participants to establish a virtual environment where self-consciousness, creativity, and collaboration can develop and sustain a fulfilling therapeutic relationship (Simpson et al., 2021).

According to the results of the present study's survey, which are consistent with those of other studies (Barak & Grohol, 2011; Finn & Barak, 2010; Socala et al., 2013; Watts et al., 2016), professionals who practiced online during the pandemic were successful in establishing and upholding satisfying therapeutic relationships during online sessions, particularly those who were already familiar to online interventions before the pandemic. However, as was the case in previous research (Manfrida et al., 2017; Simpson et al., 2021), participants identified some factors that might help them in the online relational process, such as the provision and availability of ad hoc digital tools (for example, software specifically designed to deliver online interventions), the implementation of national educational programs aimed at training professionals to use digital tools in their clinical practice, and the updating of specific guidelines to address ethical and deontological questions, concerns, and uncertainties.

It's important for both professionals and patients to experiment with and agree upon new forms of communication during therapeutic relationships in online sessions. Although these techniques may be similar to those used in a face-to-face meeting, the online context also requires the joint development of a conversation and cooperation between the two parties to establish opportunities as well as boundaries (Cipolletta, 2015; Simpson et al., 2021). According to this idea, our findings suggested potential future directions for interventions and additional research as participants emphasized the significance of a multi-level collaboration among numerous parties (such as colleagues, institutions, and patients) to address the difficulties and uncertainties faced by professionals who prioritize feeling present in the fulfilling therapeutic relationships of their online practice (see Figure 5).

Figure 5. A visual representation of the factors that are involved in the experiencing of presence in the online setting and which need to be addressed to support it from *Breaking down the screen: Italian psychologists' and psychotherapists' experiences of the therapeutic relationship in online interventions during the COVID-19 pandemic.* by Tomaino S.C.M, Manzoni, G.M., Brotto, G., & Cipolletta, S., 2023, pp. 14. (<https://doi.org/10.3390/ijerph20021037>). CC BY 4.0.



3.5 Limitations and future directions

The study presents some limitations. First, the sample was made up primarily of professionals who work in northern Italy, which introduced bias and prevented conclusions from being applied to the entire country. Second, because the survey was only made available online, it may have attracted participants who were accustomed to using websites, social media, and other digital platforms and, as a result, were more likely to know about or have already used digital interventions in their practice. Furthermore, despite participants being notified of the option to pause and continue the completion at a later time without losing the already recorded responses, many respondents were unable to complete the questionnaire due to its length. Last but not least, because the current study offers exploratory results, the p-values presented in the result section are nominal and not corrected for multiple-hypothesis testing. Authors are aware that data may contain false-positive findings as a result, underscoring the importance of conducting additional research and analyses in the future to figure out this possibility.

Coming to conclusions, from the present study we know that the COVID-19 pandemic has significantly impacted Italian psychological practice, forcing mental health professionals to shift from physical to virtual settings. This involuntary adaptation has altered practitioners' perspectives on digital tools, leading to experimentation with different tools and a positive attitude towards digital interventions. Italian professionals have been exploring the implications of digital interventions, despite preferring in-person methods. They have requested education on ethical and deontological aspects of online practice, the development of tools for delivering psychological interventions online, and increased accessibility for patients. The pandemic has propelled significant progress in online psychological practice, overcoming resistance and doubts about online treatment. This study highlights the importance of embracing new strategies, negotiating new ways of interaction, and considering patients' perspectives on the online experience.

CHAPTER 4. ASSESSING THE IMPACT OF THE PANDEMIC TO TACKLE THE CURRENT CHALLENGES IN PSYCHOLOGICAL CARE

Study 2 and 3 move the focus of our research work from the perspective of professionals to the ones of clients, first by identifying the current challenges in the most vulnerable populations and second, by involving them in a psychological intervention consisting of both in-presence and online resources. As reported in the general introduction, the choice of the population and the specificities of the intervention were driven by different elements, primarily by deepening the knowledge on the impact of the pandemic on the most vulnerable population, and then by critically discussing those findings to find the best solution to address the current challenges.

In this sense in fact, the restrictions lived during such unprecedented times requested a forced and nearly exclusive use of online intervention, but at almost three years from the onset of the pandemic literature reports the importance of construing a new balance in its use, as well as promoting a critical exploration of new possibilities of practice combining different modalities and resources. As already presented, one of the main outcomes of the measures to confine the spreading of the virus resulted in great psychological suffering, social isolation, loneliness and poorer wellbeing in the general population and with even worse outcomes in vulnerable populations.

The importance of addressing such outcomes and challenges shed light on the significance of critically discuss the impact of the exclusive use of online and digital resources in the psychological practice, elaborating new strategies and possibilities of intervention, starting from new awareness and such extensive experience.

Our second empirical study was grounded and structured in this perspective, aiming to explore the impact of the pandemic and the actual needs of the vulnerable population of college students, to guide the definition and construction of new possibilities of intervention to address those challenges. More specifically, the second empirical study will present a cross-sectional study, aimed at exploring and understanding the impact of the pandemic on mental health and wellbeing in college students, especially focusing on their experiences during the academic year 2021/2022, a period of transition from online to in-presence educational activities characterized by many uncertainties especially regarding the slow return to social environments without COVID-19 restrictions.

This study represented a fundamental step to structure and determine the subsequent study, pointing out the specific challenges and needs reported by these populations, opening to possibilities to address them.

As a consequence, our third empirical study structured and carried out an intervention to respond to the needs identified in study 2, supporting the mental health, wellbeing and need for socialization of college students. This last study is composed of two simultaneous investigation phases reporting both quantitative and qualitative data, that will be presented separately to support logical consistency, while presenting connections between them to provide a processual perspective. More specifically the two simultaneous investigation phases of study 3 are structured as following:

- Study 3.1: The intervention study, aimed at carrying out and testing the impact of a pilot study of a blended intervention including in-presence group activities and online self-help materials that involved international students. The pilot intervention has been structured in different conditions to allow the exploration and evaluation of pros and cons of each activity, involving participants in an evaluation of outcomes and collection of feedbacks to orient future implementations and evolutions. All the activities and materials implemented in the different conditions have been created ad hoc by the research team based on the findings of Study 2, the most updated literature on the topic and their clinical experience.

- Study 3.2: A qualitative inquiry to explore international students' narratives, experiences and challenges while living abroad and dealing with another cultural context, shared and discussed while taking part in the blended group carried out in study 3.1. The present qualitative inquiry is also interested in exploring participants experiences and feedbacks with the blended intervention condition (structure, relevance for participants, pros and cons etc.), specifically in terms of interactions with the group and use of the online self-help materials, aiming to collect important data to orient improvements and adjustments for the future implementations of the intervention.

STUDY 2– A CROSS-SECTIONAL STUDY TO EVALUATE LONELINESS, SOCIAL ISOLATION AND WELL-BEING AMONG COLLEGE STUDENTS AFTER THE COVID-19 PANDEMIC

The COVID-19 pandemic has represented a worldwide health emergency, drawing attention for its physical, psychological, social and economic consequences. The sudden requirement to place the population under lockdown has been a significant problem and a significant source of stress (Clemente-Suárez et al., 2020). People have experienced psychological suffering as a result of working and studying from home, being apart from loved ones, and being afraid of contracting an infection (Arslan & Allen, 2021; Todorova et al., 2021). A qualitative study carried out in Italy (Tomaino et al., 2021) found that when working from home, many experienced difficulties in staying motivated and productive, while others said they felt lonely and missed out on social opportunities; reporting a general sense of confusion and uncertainty about the future and a desire to go back to the usual everyday activities.

Coping with such an unprecedented and prolonged situation has represented a great challenge found to have impacted mental-health in terms of increasing anxiety, depressive and post-traumatic symptoms, together with stress and poorer sleep quality (Cipolletta et al. 2022a; Petzold et al., 2020; Rossi et al., 2020; Salari et al., 2020), still increasing at one year from the onset of the pandemic (Benke et al., 2022; Bourmistrova et al., 2022; Fountoulakis et al., 2022).

Previous studies (Beam & Kim, 2020; Glowacz & Schmits, 2020; Houghton et al., 2022) pointed out that young adults, particularly those between the ages of 18 and 30, have been the group to experience the most suffering during the pandemic, along with teenagers (Glowacz & Schmits, 2020; Houghton et al., 2022). Several studies have found that older adults, tend to report less anxiety, depression and have generally better mental health, compared to younger adults (Bruine de Bruin, 2021; Li et al., 2021). Along with a high prevalence of psychological symptoms, young adults experienced loneliness (Horigian et al., 2021; Lisitsa, 2020). Loneliness has increased in the general population during the COVID-19 pandemic (Ernst et al., 2022). The influence of restrictive measures, particularly social distancing, has changed the quantity and frequency of social connections, sometimes leading to a considerable disruption of social networks (Lampraki et al., 2022).

Across all age categories, perceived social support decreased throughout the pandemic (Li et al., 2021); nonetheless, those who reported high social support had significantly lower risks for depression, sleeplessness, anxiety symptoms, and loneliness (Grey et al., 2020; Ma et al., 2020).

Loneliness and social support have an inverse relationship. People who feel socially supported are less subjected to suffer loneliness (Matthews et al., 2020; Teo et al., 2013). On the contrary, people who are socially isolated or lack adequate social support, are more vulnerable to loneliness and its implications on their mental health and well-being (Hwang et al., 2020). According to Lee and colleagues (2020) young adults with less social support reported increased levels of loneliness during the pandemic. On a broader level, social support and loneliness have an impact on our wellbeing, directly influencing our mental health, symptoms, functional outcomes and time to recover (Wang et al., 2018). Such knowledge during the pandemic has raised awareness on the importance of the role of social support to prevent negative outcomes and foster wellbeing (Lampraki et al., 2022).

Within the broader group of young adults, the specific population of college students has experienced particular challenges during the COVID-19 pandemic anticipating disruptions on the social and academic life with negative consequences for their mental health (Haikalis et al., 2022). The uncertain duration of lockdown measures and, consequently, of remote learning has been a source of worry. As a vulnerable population facing many challenges, college students have been considered a population of interest when investigating the psychosocial consequences of the pandemic (Cao et al., 2020; Haikalis et al., 2022; Savarese et al., 2020).

Referring to the experiences of college students, previous studies have found that being a female college student during the pandemic predicted higher anxiety levels, but lower depression symptoms (Wenjuan et al., 2020); while others found no gender differences in this population (Cao et al., 2020; Parola et al., 2020). International students have also been mentioned as more vulnerable and at risk during such unprecedented times (Firang, 2020; Hari et al., 2021; Kivelä et al., 2022; Mbous et al., 2022). In fact, this population is recognized to have to face challenging and novel circumstances, including a new cultural and language environment, new housing, and the absence of familiar sources of social support, frequently resulting in emotions of loneliness and isolation (Sawir et al., 2008). International students can experience "cultural loneliness", the feeling of isolation that results from being in a foreign cultural or linguistic environment (Sawir et al., 2008), a sensation that has been proven to be highly relevant among this population and linked to poorer perceived social support and higher psychological discomfort (Cipolletta et al., 2022b). During the pandemic, international students faced additional and specific disruptions such as fear and anxiety of accessing healthcare in a foreign country and worrying about the health of family members in their home country (Hari et al., 2021), stigma and discrimination (Chen et al., 2020), the closure of university

campuses and other facilities, housing insecurities together with difficulties with learning and socializing with peers.

Data about the impact of the pandemic on wellbeing and mental health in college student underline the importance of assessing actual challenges to respond to their needs with specific and tailored interventions, preventing worse outcomes. In line with this, many authors underline also the importance of evaluating other relevant aspects that might have been impacted by the pandemic such as quality of life and the effects of the reduced contacts with peers, expecting further deteriorations in this population mental health and wellbeing after the end of the restrictions (Buizza et al., 2022; Carvalho et al., 2022; Elharake et al., 2023). The novelty of the present study consists in the evaluation of those relevant aspects focusing especially on the transition phase from the strictest phases of the pandemic to the progressive restoring of social contacts. Exploring those elements is of particular interest especially in terms of orienting specific and tailored interventions to respond to major effects of the pandemic in this specific population, supporting college students' wellbeing and mental health to prevent worst outcomes (Buizza et al., 2022; Carvalho et al., 2022; Elharake et al., 2023). Last but not least studying this specific phase represent an important opportunity to identify potential resources and knowledge to inform policy makers and academic staff with relevant information to create timely and effective interventions.

4.1 Study aims

The present cross-sectional study aimed to investigate college students' wellbeing, social behaviors, and quality of life, focusing on their experiences during the academic year 2021/2022, a period of transition from online to in-presence educational activities in which college students were slowly going back to social environments without COVID-19 restrictions, but with many uncertainties and facing the complexity of a new way of being in relationship with others. In particular, the present study aimed to explore whether there were any differences in terms of mental health and loneliness in relation to the perceived impact of COVID-19 pandemic, social support, socio-demographic variables, living conditions and leisure activities, following the present hypothesis:

- 1) College students would have reported high levels of loneliness, anxiety, and depression with some differences related to gender and the search for professional support. More specifically, those who

were receiving professional psychological assistance would report more severe symptoms of anxiety and depression, and less life satisfaction;

- 2) International students would report higher loneliness, anxiety, and depression and perceive less social support than Italian students; and their quality of life would have been more affected by COVID-19 pandemic than Italian students;
- 3) To a perceived higher impact of COVID-19 on participants' quality of life would have corresponded a higher loneliness, anxiety, depression and a lower satisfaction with life;
- 4) Higher social support would have been associated with lower levels of loneliness, anxiety, depression, a minor impact of COVID19 on the quality of life and a higher satisfaction with life;
- 5) Specific conditions such as living with at least one other person and engaging in leisure activities with others rather than alone, would have been associated negatively with measures of anxiety, depression, and loneliness and positively with the satisfaction with life.

4.2 Methods

4.2.1 Participants

A total of 291 students of the University of Padua (Italy) took part in the present study. However, only data from 268 participants were used in the final analysis due to failure to complete at least 90% of the survey on the part of the other respondents. Of the 268 respondents, 198 were Italian students (153 women and 45 men). Mean age in the Italian group was 22.55 (SD = 2.90). The international students group included 70 participants, of which 48 were women, 21 were men and one participant described themselves as non-binary. Mean age was 23.71 (SD= 3.27), 84.29% (59) were long-term international students, whereas 15.71% (11) were short-term (Erasmus) students. International students were asked for how long they've been in Italy; mean length of stay was 17.16 months (SD= 11.64).

Out of the total sample, the 49.25% (n = 132) of the sample reported attending at least 75% of their lessons in presence, while the proportion of students attending mostly online was of 25.75% (n = 69). Furthermore, the 18.66% (n = 50) reported receiving professional psychological support at the time of the data collection, and the 41.42% (n = 111) reported having received psychological support at least once in their lifetime. Other characteristics of the sample are reported in Table 12.

Table 12. *Socio-demographic characteristics of the sample*

Gender	n	%	Group	n	%
Male	66	24.63%	Italian students	198	73.88%
Female	201	75%	International students	59	22.02%
Other	1	0.37%	Erasmus students	11	4.10%
Total	268	100%		268	100%
Provenance (Italian non-residential students)	n	%	Provenance (international and Erasmus students)	n	%
North of Italy	73	70.19%	Africa	3	4.29%
Centre of Italy	11	10.58%	America	14	20%
South of Italy	20	19.23%	Asia	26	37.14%
			Europe	27	38.57%
Total	104	100%		70	100%
Living situation	n	%	Degree attended	n	%
Apartment with flatmates	135	50.37%	Bachelor's degree	137	51.12%
Living with family	102	38.06%	Master's degree	122	45.52%
Student dormitory	16	5.97%	Postgraduate internship	3	1.12%
Apartment alone	7	2.61%	Short specialization program	3	1.12%
Living with significant other	4	1.49%	PhD	3	1.12%
B&B/Hotel/Hostel	3	1.12%			
Homeless	1	0.37%			
Total	268	100%		268	100%

Participants were recruited by posting notices on university social media (Facebook, Instagram) and by actively involving students' representatives in the university and degree courses' coordinators that shared with their students and colleagues the email invitation to take part in the study. In order to be

included in the study participants had to be at least 18 years old, enrolled full-time in a degree program at the University of Padua, or Erasmus short-term international students. The Ethical Committee for the Psychological Research of the University of Padova approved the study (protocol 5112, last modification approval date 13 December 2022).

To determine the necessary sample for the present study, a power analysis was conducted using G*Power, founding that a total sample of 214 was necessary to achieve a power of .80 in a multiple regression model. To examine the differences between the two groups (international and Italian students), a second power analysis was performed. Results revealed the need to recruit at least 64 participants for each group in order to conduct a T test with a power of .80. For both power analyses, statistical significance was set at $\alpha = .05$.

4.2.2 Data collection

The research team created an online survey composed of a total of 60 items, distributed via Qualtrics (<https://www.qualtrics.com>) both in Italian and in English between September 2022 and January 2023. The survey was divided into two sections and that took around 10 minutes to be completed. The first section (15 questions) was created to collect socio-demographic data, participation in academic and extracurricular activities for the academic year 2021–2022, participants' present or prior access to professional psychological help. Measures of loneliness, perceived social support, anxiety, depression, and life satisfaction were collected for the second part of the survey (45 items) divided in the following six short self-report questionnaires (see Appendix B for the items of the survey and the complete text of each questionnaire).

a. The ULS-6 (Neto, 1992) is a short version of the UCLA Loneliness Scale (Russell et al., 1978), composed of 6 items, with the same validity of the long version and a good reliability ($\alpha = .77$).

The 6 items describe a feeling, or a thought, and the respondent has to indicate if they feel that same way 'often', 'sometimes', 'rarely' or 'never'. The original scale was composed of 20 items, 10 positive and 10 negative (Russell et al., 1978). Some years later, authors pointed out the need for a shorter and more practical version of the tool, that could be suitable for telephone interviews, brief surveys or included in larger surveys without requiring too much time for completion. Neto (1992) conducted a factor analysis aimed at identifying the core items of the scale and proposed the ULS-6 short. The ULS-6 has never been validated in Italy. In order to include it in the Italian version of our survey, we retrieved the Italian translation of four of the 6 items from the Italian translation of the

ULS-7 conducted by Zammuner (2008); since four of the 7 items corresponded to the ULS-6 items, it was possible to partially rely on that translation. We later conducted a back-translation of the two remaining items and conducted a trial to evaluate their comprehensibility; finally, Cronbach's alpha was measured in order to verify the reliability of our translation ($\alpha = .85$).

b. The Multidimensional Scale of Perceived Social Support (MSPSS) (Zimet et al., 1988) was developed to assess the perceived social support from different resources. It is composed of 12 items and three subscales: Family, Friends and Significant Other. Each item of the scale is rated on a 7-point Likert scale going from 'very strongly disagree' to 'very strongly agree'; each subscale is composed of four items exploring different types of support. The final score that can be obtained ranges from 12 to 84: low social support is described by scores between 12 and 48, whereas scores from 49 to 68 indicate moderate social support and scores from 69 to 84 suggest high perceived social support. The original scale has a good reliability ($\alpha = 0.88$). An Italian version of this instrument was created and validated, showing psychometric properties comparable to the original one (Di Fabio & Palazzeschi, 2015).

c. The General Anxiety Disorder-7 (GAD-7) (Spitzer et al., 2006) is a tool designed to carry out the screening, assessment and diagnosis of the generalized anxiety disorder. It is composed of 7 items, each presenting a specific symptom referring to the last two weeks. Answers to each questions go from 'not at all' (score 0) to 'nearly every day' (score 3) on a Likert scale. The final score ranges from 0 to 21, scores 1-4 indicate minimal symptoms, 5-9 mild symptoms, 10-14 correspond to moderate symptoms and scores above 15 correspond to severe symptoms (Spitzer et al., 2006; Grey et al., 2020). The reliability of the GAD-7 is 0.88 (Johnson et al., 2019).

The GAD-7 is used as a screening tool for anxiety disorders, performing a well detection of General Anxiety disorders as well as moderately well detection of panic disorder (sensitivity 74%, specificity 81%), social anxiety disorder (sensitivity 72%, specificity 80%), and post-traumatic stress disorder (sensitivity 66%, specificity 81%) (Spitzer et al., 2006). Many studies involving young adults and college students have used it as a measure to detect symptoms of anxiety in that specific population (Buizza et al., 2022; Carvalho et al., 2022; Elharake et al., 2023).

To date GAD-7, generally combined with other brief measures of depression, quality of life and so on, is also used in many primary care services such as academic psychological assistance services, to assess the presence of anxiety symptoms. Because of its usability and sensitivity this test

is recognized as an effective initial screening measure for patients' wellbeing and mental health to be followed, in case of need, by more specific and extended evaluations of anxiety symptomatology.

d. The Patient Health Questionnaire-9 (PHQ-9) (Kroenke et al., 2001) is considered a reliable instrument to assess the presence and the severity of depression and is composed of 9 items. The PHQ-9 is brief, relatively easy to use and it has good sensitivity and specificity (Kroenke et al., 2001). Responses are provided based on a Likert scale going from 0 (not at all) to 3 (nearly every day), with the total score ranging from 0 to 27. Total scores can be read as following: 0-4 none-minimal symptoms, 5-9 mild symptoms, 10-14 moderate symptoms, 15-19 moderately severe and 20-27 severe symptoms. The PHQ-9 is considered a reliable instrument to assess the presence and the severity of depression, presenting a good construct validity and a reliability between 0.86 and 0.89 (Beard et al., 2016).

e. The Satisfaction With Life Scale (SWLS) (Diener et al., 1985) is a brief instrument to assess global life satisfaction. It is composed of 5 items all positively formulated, each with a scoring from 1 ('strongly disagree') to 7 ('strongly agree'), and a total score that can range from 5 to 35. Scores can be interpreted as following: 5-9 represents extreme dissatisfaction, 10-14 dissatisfaction, 15-19 slight dissatisfaction, 21-25 slight satisfaction, 26-30 satisfaction and finally 31-35 represents extreme satisfaction. A score of 20 is considered a neutral point, where satisfaction and dissatisfaction are equally present. The SWLS has been validated in a number of different studies and cultural contexts, including the Italian one and young adults (Di Fabio & Busoni, 2009; Di Fabio & Gori, 2016). Diener and colleagues (1985) reported a reliability of 0.87, whilst the reliability of the Italian translation was 0.84 (Di Fabio & Gori, 2016).

f. The COVID-19 – Impact on Quality of Life scale (COVID-19-QoL) (Repišti et al., 2020) is a short measure developed to evaluate the perceived impact of the COVID-19 pandemic on quality of life with a reliability between 0.85 and 0.88. The scale is composed of 6 items, each covering a different area of quality of life, with specific attention given to mental health. Answers are measured with a 5-point Likert scale, where 1 stands for 'completely disagree' and 5 for 'completely agree'. Total scores are calculated by averaging the scores on all the items. A higher score indicates greater perceived impact of the pandemic on one's quality of life.

This instrument was never validated in Italy, we have conducted a back-translation of the items and a trial to evaluate its comprehensibility, in order to be able to include it in the final survey. Finally, Cronbach's alpha was measured in order to verify the reliability of our translation ($\alpha = 0.85$).

4.2.3 Analysis

Rstudio software was used for the statistical analysis. Descriptive analysis were conducted on the socio-demographic and questionnaire data. A Shapiro-Wilk test was conducted to ensure that our sample was normally distributed. The sample did not exhibit a normal distribution in regard to the majority of the measures gathered, apart from the COVID19-QoL and the SWLS that were normally distributed. To maintain consistency every measure was analyzed using non parametric test.

Mann-Whitney U tests were used to compare measures of social support, loneliness, and mental health between different groups (females and males participants, national and international students and those who reported getting some forms of psychological help and those who did not).

Spearman correlation analysis was used to investigate the association between self-report measures of the impact of COVID19 pandemic on participants' quality of life, loneliness, social support, life satisfaction, anxiety, and depression. Moreover, Spearman correlational analysis was performed to explore the relation between social support, the frequency of activities carried out with others, activities carried out alone, of lessons attended in presence, of those attended online and living with cohabitants, and the measures of loneliness, anxiety, depression, life satisfaction and impact of the COVID-19 pandemic.

In line with Pek et al. (2018) about linear regression models with non-normally distributed data, a multiple regression linear analysis was conducted on the whole sample to verify whether participants' loneliness could predict levels of social support, symptoms of anxiety and depression. Furthermore, a multiple linear regression was also carried out on international students' data to examine the influence of group specific characteristics such as provenance and length of stay on loneliness, anxiety, depression, life satisfaction and the impact of the pandemic on quality of life. The level of statistical significance for each analysis was set at $=.05$.

4.3 Results

4.3.1 Comparison between groups

Out of the total of participants in the study the 72.39% (194) reported high scores in the MSPSS, the 25.3% (68) medium scores and the 2.24% (6) low scores. The 9.33% (25) reported severe PHQ-

9 scores, the 10.45% (28) moderately severe scores, the 17.91% (48) moderate scores, the 37.31% (100) mild scores and the 25% (67) none-minimal scores. Moreover, the 20.15% (54) reported severe scores in the GAD-7, the 20.52% (55) moderate scores, the 36.94% (99) mild scores and the 22.39% (60) minimal scores. Regarding the SWLS the 5.6% (15) of participants reported to be extremely satisfied, the 18.28% (49) to be satisfied, the 29.48% (79) to be slightly satisfied, the 6.34% (17) to be neutral, the 25% (67) to be slightly dissatisfied, the 10.45% (28) to be dissatisfied and the 3.73% (10) to be extremely dissatisfied. The mean score in the ULS-6 was 8.53 (SD = 4.47) in a range from 0 to 18. The mean score on COV19-QoL was 2.89 (SD = 0.89) in a range from 1 to 30, total scores are calculated by averaging the scores on all the items. Differences in scores at the questionnaires divided for the Italian and international group can be found in Table 13.

Table 13. *The descriptive statistics of the Italian and international groups.*

Psychological support	Italian		international	
	n	%	n	%
At present	42	21.21%	8	11.43%
In the past	78	39.40%	33	47.14%
MSPSS	n	%	n	%
High (scoring 61-84)	151	76.26%	43	61.43%
Medium (scoring 36-60)	4	22.22%	64	34.29%
Low (scoring 12-35)	3	1.52%	3	4.28%
GAD-7	n	%	N	%
Severe (scoring 15-21)	38	19.19%	16	22.86%
Moderate (scoring 10-14)	42	21.21%	13	18.57%
Mild (scoring 5-9)	81	40.91%	18	25.71%
Minimal (scoring 0-4)	37	18.69%	23	32.86%
PHQ-9	n	%	n	%
Severe (scoring 20-27)	17	8.59%	8	11.43%
Moderately severe (scoring 15-19)	19	9.60%	9	12.86%
Moderate (scoring 10-14)	41	20.70%	7	10%
Mild (scoring 5-9)	78	39.39%	22	31.43%
Minimal (scoring 0-4)	43	21.72%	24	34.28%
SWLS	n	%	n	%
Extremely satisfied (scoring 31-35)	6	3.03%	9	12.86%
Satisfied (scoring 26-30)	33	16.67%	16	22.86%
Slight satisfaction (scoring 21-25)	58	29.29%	21	30%
Neutral (scoring 20)	14	7.07%	3	4.29%
Slight dissatisfaction (scoring 15-19)	54	27.27%	13	18.57%
Dissatisfied (scoring 10-14)	24	12.12%	4	5.71%
Extremely dissatisfied (scoring 5-9)	6	3.03%	4	5.71%

Gender differences were explored, showing that women reported a significant higher social support but also higher anxiety and a higher impact of COV19 on their quality of life compared to men (Table 14).

Table 14. Differences between male and female students in the scores of the tests

Scale	Gender	Mean	Median	Mann-Whitney U	p
ULS-6	Male	7.81	8.00	7483	0.117
	Female	8.73	9.00		
MSPSS	Male	62.86	67.00	7856.5	0.024
	Female	66.83	68.00		
PHQ-9	Male	8.11	6.50	7483	0.117
	Female	9.52	8.00		
GAD-7	Male	7.73	6.00	8236	0.003
	Female	9.62	8.00		
SWLS	Male	20.29	21.00	5984	0.306
	Female	21.30	21.00		
COV19-QoL	Male	2.64	2.67	4935	0.003
	Female	2.96	3.00		

From the comparison between participants who declared receiving professional support at the present moment and participants who did not, the first showed significantly higher loneliness, anxiety and depression, and more impact of the COVID19 pandemic on their quality of life (Table 15).

Table 15. Differences between people receiving professional support and people who are not in the measures of interest

Scale	Group	Mean	Median	Mann-Whitney U	p
ULS-6	Therapy now	10.30	10.00	3917.5	0.002
	No therapy	8.12	8.00		
MSPSS	Therapy now	67.44	70.00	4798	0.187
	No therapy	65.44	67.00		
PHQ-9	Therapy now	12.08	10.50	3630	<0.001
	No therapy	8.57	7.00		
GAD-7	Therapy now	11.76	12.00	3710.5	<0.001
	No therapy	8.61	7.00		
SWLS	Therapy now	19.58	19.50	4510	0.076
	No therapy	21.40	21.00		
COV19-QoL	Therapy now	3.14	3.33	4109	0.011
	No therapy	2.82	2.83		

Another comparison was conducted between Italian and international students in loneliness, social support, anxiety, depression, life satisfaction and impact of the COVID-19 pandemic. Italian students reported significantly higher perceived social support than international students; life satisfaction was instead higher for international students compared to the Italian group (see Table 16).

Table 16. Differences between Italian and international students in the measures of interest

Scale	Group	Mean	Median	SD	Mann-Whitney U	p
ULS-6	Italian	8.57	8.50	4.18	7070.5	0.801
	International	8.41	8.50	5.23		
MSPSS	Italian	66.79	69.00	10.66	8232.5	0.019
	International	63.06	64.00	12.52		
PHQ-9	Italian	9.28	8.00	6.03	7341.5	0.433
	International	9.07	7.50	6.82		
GAD-7	Italian	9.25	8.00	5.21	7366.5	0.460
	International	9.04	7.50	6.41		
SWLS	Italian	20.54	20.00	5.82	5504	0.016
	International	22.47	22.50	6.69		
COV19-QoL	Italian	2.89	3.00	0.84	6764	0.963
	International	2.90	3.00	1.03		

4.3.2 Correlations between variables

Spearman correlations between the perceived impact of the pandemic on quality of life, loneliness and symptoms of anxiety and depression were all positive and significant, showing that a more negative impact of the pandemic correlated with higher loneliness and symptoms of anxiety and depression (Table 17).

Table 17. Spearman correlations between the impact of the pandemic on life quality (COV19-QoL), loneliness (ULS-6), anxiety (GAD-7) and depression (PHQ-9)

	Group	ULS-6	GAD-7	PHQ-9
COV19-QoL	Italian	.42***	.51***	.58***
	International	.52***	.56***	.58***
	Whole sample	.45***	.58***	.52***

* $p < .05$ ** $p < .01$ *** $p < .001$

Spearman correlational analysis was also performed in order to explore the relation between MSPSS, the frequency of activities carried out with others, activities carried out alone, of lessons attended in presence, of those attended online and living with cohabitants, and the measures of loneliness, anxiety, depression, life satisfaction and impact of the COVID-19 pandemic. The results showed that higher perceived social support was associated with lower loneliness, anxiety, depression and perceived impact of the pandemic on life quality and higher levels of life satisfaction. Furthermore, in our sample, a higher frequency of activities carried out with others was correlated with higher perceived social support and life satisfaction, a higher frequency of the same activities was associated with lower loneliness, anxiety and depression levels, together with a lower perceived negative impact of the pandemic on life quality. Moreover, a higher frequency of activities carried out alone was associated with lower perceived social support and higher loneliness, symptoms of depression and anxiety. Results are reported in Table 18.

Table 18. Spearman correlations between perceived social support (MSPSS), frequency of leisure activities with others and alone, frequency of lessons attended in presence and online, and the number of cohabitants

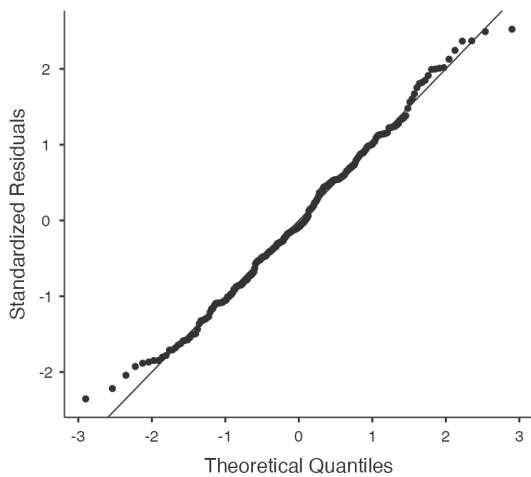
	MSPSS	ULS-6	PHQ-9	GAD-7	SWLS	COV19-QoL
MSPSS	-	-.52***	-.30***	-.20***	.45***	-.36***
Frequency of activities with others	.23***	-.30***	-.27***	-.22***	.25***	-.24***
Frequency of activities alone	-.16**	.18**	.17**	.14*	-.07	.06
Frequency of lessons in presence	.03	-.01	-.10	-.11	.12	-.06
Frequency of lessons online	-.04	.03	.02	-.02	-.07	.04
Number of cohabitants	-.09	-.04	-.006	-.001	-.09	.03

* $p < .05$ ** $p < .01$ *** $p < .001$

A multiple regression linear analysis, following the best fit procedure (after entering one predictor at a time, based on R^2), was conducted on the whole sample's data to verify whether participants' loneliness could predict levels of social support, symptoms of anxiety and depression

($R^2 = .501, p < .001$), showing that loneliness predicts increased symptoms of anxiety ($\beta = 0.15, p = .008$) and depression ($\beta = 0.22, p < .001$) and diminished perceived social support ($\beta = -0.16, p < .001$). Even though showing not significant differences between being an international student compared to being an Italian one ($\beta = 0.67, p = .132$). The assumption of linear relationship among the dependent variable and independent variables is respected and also the residuals of the model are normally distributed as showed in the Q-QPlot (Figure 6).

Figure 6. Q-QPlot of the multiple linear regression showing normal distribution



To explore whether international students' provenance and length of stay impacted significantly on PHQ-9 and COV19-QoL scores, a multiple regression linear analysis conducted. In particular, depressive symptoms were predicted by length of stay, expressed in months ($R^2 = .487, p < .001$); one month increase in length of stay predicted a 0.15 increase in PHQ-9 scores. COV19-QoL scores were predicted by length of stay and by provenance as well ($R^2 = .579, p < .001$). In fact, compared to coming from Africa, coming from Europe predicted higher COV19-QoL ($\beta = 1.29, p = .004$), followed by coming from America ($\beta = 1.02, p = .027$) and Asia ($\beta = 0.84, p = .046$).

4.4 Discussion

The COVID-19 pandemic has significantly impacted young adults' mental health, and especially more vulnerable populations such as college students, that during such unprecedented times had to face stress, isolation, and remote learning. Many studies explored this impact during the first waves of the pandemic but we still need to explore this impact in the long term and especially in the transition phase from the strictest restriction measures to contain the contagion to the progressive

restoring of social contact. By the time this study was conducted, the Italian scenario was finalizing the transition from online to in-presence educational activities in which college students were slowly going back to social environments without COVID-19 restrictions. Such new situation, characterized by many uncertainties and difficulties, determined a turning point after the years of the pandemic and underlined the importance of exploring and understanding the implication of such shift on mental health and wellbeing of the most fragile populations to address the current challenges.

As reported by different authors (Haikalis et al., 2021; Savarese et al., 2020) and showed by our results, the pandemic had a significant impact on college students' mental health and wellbeing. Participants reported a relatively high incidence of both moderately severe to severe depressive symptoms and severe anxiety, a prevalence lower when compared to those reported by researches carried out in the young adult populations at the early stages of the pandemic (Faisal et al., 2022; Liu et al., 2020; Varma et al., 2021). However, at the start of the pandemic, a similar incidence was discovered in an Italian sample (Rossi et al., 2020).

When looking at the characteristics of our sample, in line with previous studies (Cao et al., 2020; Parola et al., 2020; Wenjuan et al., 2020) results revealed higher anxiety and impact of the pandemic on one's quality of life in women than men but also, a higher perceived social support. No significant gender differences were found for loneliness, depression, or life satisfaction.

Our results also showed that participants who were receiving psychological support at the time of data collection also reported higher levels of loneliness, anxiety, and depressive symptoms, indicating that students who seek professional assistance are more likely to experience mental health issues, a result in line with previous findings (Cipolletta et al., 2022b) and suggests that psychological support remains the prevalent solution searched by those suffering from mental health problems and loneliness.

In the specific case of international students, we expected significant differences and a more detrimental effect of the pandemic on the quality of life of international students compared to the national ones. Interestingly, despite the fact that Italian students' levels of perceived social support were much higher than those of international students, there was no significant difference in their levels of loneliness, anxiety, depression, and effect of the pandemic on their quality of life.

These findings are in contrast with earlier research (Skromanis et al., 2018), which suggested that international students had worse mental health outcomes; however, as Kivelä and colleagues (2022) suggested, it is possible that during the pandemic local students' mental health has deteriorated more noticeably, leading to outcomes that are comparable to those found among international

students. This might be the case of our participants, but since our work was cross-sectional, it is not reasonable to presume that the mental health of our sample has also gotten worse. It is crucial to note that, despite what our findings might suggest, international students do not necessarily have high levels of psychological well-being. In fact, both Italian and international students showed substantial prevalence of anxiety and depressive symptoms. These findings highlighted this population's vulnerability and underlined the necessity to address the needs of college students and offer them assistance and support in order to lessen their mental health issues.

Another interesting result from our analysis is the comparison of satisfaction with life between Italian and international students, showing that Italian students reported significantly lower life satisfaction. A possible explanation of such result could stand in the reported high motivation of international students carrying out a choice of personal growth and investment in their future (Milian et al., 2015; Sobkowiak, 2019). Further reflections that could be carried out take into account the existence of protective factors that we did not evaluate when gathering our data such as the variables proposed by Alharbi and Smith (2019), that are personality and coping mechanisms that might have a major impact on happiness and quality of life.

Finally, looking at the impact of provenance and length of stay in international students we found that a longer stay in Italy predicted more severe depressive symptoms, anyway the provenance did not reveal any statistically significant differences, suggesting that it might not have a major impact as a standalone predictor, but when combined with length of stay and problems associated to student status, it still plays a role in predicting a negative pandemic impact.

As reported by the literature, another major impact of the pandemic regarded the increasing of loneliness in the general population (Ernst et al., 2022), that was negatively impacted by social distancing, and changed the quantity and frequency of social interactions, sometimes resulting in a significant disruption of social networks (Lampraki et al., 2022). As pointed out by previous studies (Kim & Cho, 2020; Shen et al., 2022), disruptions in social interactions can have a negative impact on mental health because there is a link between frequently carrying out activities with others and better psychological wellbeing rather than simply being engaged in leisure activities. In line with this, our results showed that participants' reporting to engage often in leisure activities with others also reported lower loneliness, anxiety and depression, compared to those who were mainly carrying out in activities alone. Furthermore, the frequency of the activities carried out with others was characterized by a negative correlation with the perceived impact of the pandemic on one's quality of life, underlining that those who reported a higher impact of the pandemic, were engaging less

frequently in social activities with peers. On the contrary, the frequency of the activities carried out with others was positively correlated with perceived social support and life satisfaction.

Those findings stress the important effect of the social interactions with others in supporting their mental health and wellbeing, anyway it is not possible to draw conclusions regarding causal relationships from the nature of our analysis, but it is possible to hypothesize that college students' frequent social interactions with others throughout the last academic year may have reduced their loneliness sentiments, anxiety and depressive symptoms. However, young people who show similar symptoms might also be less likely to leave their home and interact with others, which reduces the frequency of social activities. Similar inferences might be made regarding the effects of the pandemic: people reporting a higher impact of the pandemic on their quality of life may have had more distress in their lives since the onset of the pandemic, which may have led them to stay home more frequently. On the contrary, people who were able to carry on frequent social activities may have felt less of a difference between their lives prior to and after the pandemic, which would have resulted in lower impact of the pandemic on their quality of life.

As shown by previous studies (Clair et al., 2021; Costa et al., 2022; Grey et al., 2020; Lee et al., 2020), social support has an important role in protecting people's mental health, especially reporting a connection between high perceived social support and greater well-being and satisfaction with life, a better capacity to deal with stress, as well as it is related to lower levels of loneliness, anxiety, and depression. The results of the present study supported this connection, in fact students' perception of social support was associated with lower loneliness, anxiety and depression and higher satisfaction with life, underlining the important role of social support in supporting young adults' mental health and wellbeing. Such protective effect, can also be seen in the impact of the pandemic on one's quality of life, in fact, as reported by our results students who perceived a higher social support also experienced a less negative impact of the pandemic on their quality of life.

Last but not least, our results underline how experiencing loneliness predicts increased symptoms of anxiety and depression and diminished perceived social support in college students. Those data point out that addressing this aspect could play an important role in enhancing students' wellbeing and mental health, underlining the importance of developing and delivering timely and effective interventions to promote social support and social connectedness with peers, in line with different findings (Buizza et al., 2022; Carvalho et al., 2022; Elharake et al., 2023).

4.5 Limitations and Future Directions

The study presents some limitations. First, its cross-sectional design provided a contested picture of the situation, underlining the importance of assessing the same variables at different times to have a longitudinal comparison that could help assess the pandemic long-lasting impact on psychological well-being, loneliness and social support in this population. Second, the number of participants, which is not representative of the student population at the University of Padua, preventing us from generalizing the results. Last, our sample showed a disproportion between male and female students, with a majority (75%) of female students, whereas only one participant identified themselves as non-binary, underlining the importance of balancing the sample in future researches.

CHAPTER 5. ON THE OTHER SIDE OF THE SCREEN: EXPLORING THE PERSPECTIVES OF CLIENTS IN ONLINE PSYCHOLOGICAL INTERVENTIONS

STUDY 3.1 – A PILOT STUDY OF A BLENDED INTERVENTION TO SUPPORT WELL-BEING AND SOCIALIZATION IN INTERNATIONAL STUDENTS AT THE UNIVERSITY OF PADUA

As already reported in the introduction of the previous study, literature highlighted how young adults are expected to be the ones most impacted by the psychosocial consequences of the COVID-19 pandemic (Beam & Kim, 2020), with major attention that must be given to most vulnerable populations, such as the group of college students, as the pandemic caused many disruptions on the social and academic life, having a strong impact on their mental health and well-being (Haikalis et al., 2022). In the specific case of international students, some researchers raised questions about the impact of the pandemic in exacerbating and enhancing their risk of experiencing social isolation and loneliness, together with the reported worsening of their mental well-being during such period (Firang, 2020; Mbous et al., 2022). As discussed in the previous study, our results point out that the COVID-19 pandemic has undoubtedly highlighted this population's vulnerability, underlining the priority and significance of providing tailored and specific intervention protocols to address the typical challenges of their situation such as difficulties related to adaptation process (Koo et al., 2021), linguistic barriers (Alshammari et al., 2023), facing discriminatory behaviors (Güneş & Aydar, 2019), as well as the ones posed by the pandemic.

In this sense, when thinking of the elements to be taken into account for developing effective strategies to respond to such challenges it is important to evaluate different elements and their combination. In the experience of being an international student, interpersonal relations play a crucial role in supporting students in their acculturation process (Hofhuis et al., 2019; Nakao, 2019; Pang, 2020) as well as their life satisfaction (Hofhuis et al., 2019; Koo et al., 2021), underlining the importance of maintaining a network of conational friends back home and creating a new one with locals in their host country, an element that has been found to foster a positive impact on self-esteem and adaptation, offering a sense of belongingness and emotional support (Mohd-Yusoff, 2011; Pang,

2020). Alongside, the pandemic pointed out indisputably the effects of loneliness and social isolation, with its detrimental effects on health, suggesting the significant need to develop and implement interventions that address those challenges to enhance the well-being of individuals and the entire community (Bessaha et al., 2020). The panorama of interventions to tackle those challenges in young adults is vast, with a broad set of theoretical frameworks and very diversified study designs, delivery modalities, topics, and strategies (Eccles & Qualter, 2021; Hickin et al., 2021; Osborn et al., 2021; Zagic et al., 2022). As found in different studies, enhancing social support and expanding opportunities for social interaction may help reduce social isolation, while addressing maladaptive interpersonal cognition and developing social skills will directly improve the quality of social interaction and thus reduce loneliness (Masi et al., 2011; Zagic et al., 2022).

Different studies, have found that strategies based on enriching social support networks and facilitating new interactions with others are effective (Bouwman et al., 2017; Masi et al., 2011), implying that experiencing new relationships allows people to challenge their own system of constructs and potentially change the elements that keep them stuck in loneliness.

The effectiveness of interventions can also vary depending on the design of the study and the characteristics of the procedures used (Eccles & Qualter, 2021; Hickin et al., 2021; Masi et al., 2011; Osborn et al., 2021; Zagic et al., 2022), pointing out the importance of structuring and implementing interventions based on an exhaustive need analysis and updated literature.

On a broader level, group interventions appear to be preferred in addressing social isolation and loneliness considered a useful setting to elaborate on such elements (Bessaha et al., 2020; Eccles & Qualter, 2021; Hickin et al., 2021; Masi et al., 2011; Osborn et al., 2021.; Zagic et al., 2022). Group interventions have shown to be more efficient because they can foster a shared sense of belonging and social identity, which makes group members feel like a part of the larger group (Bessaha et al., 2020; Gold et al., 2019; Haslam et al., 2019; Masi et al., 2011; Zagic et al., 2022). By being part of a group, members decrease loneliness by experiencing to be unite with others and playing individual roles, sharing meanings, and purposes; all elements found to increase self-esteem and the perception of having autonomy (Bessaha et al., 2020; Haslam et al., 2019).

The group setting provides a context in which the experience of new relationships raises awareness of the ways in which social support improves health by relying on each other's knowledge and resources (Haslam et al., 2016; 2019). Group interventions were found to be more effective than individual sessions in increasing the quality of social connections in many of the studies (Eccles & Qualter, 2021; Masi et al., 2011; Zagic et al., 2022). Within the group setting, peer-to-peer

interventions are receiving more and more interest in the field. In fact, peer supported interventions are frequently founded on the idea that providing social support between peers might improve well-being outcomes and lessen feelings of loneliness (Bessaha et al., 2020; Simoni et al., 2011; Weinert et al., 2011), perceiving peers as people from the same social group (Simoni et al., 2011), increasing feelings of self-acceptance and social support, which in turn lowers depressive, anxious, and helpless feelings (Bessaha et al., 2020; Kotwal et al., 2021). On the contrary, professionally facilitated groups provide regular opportunity to focus on certain concerns by stimulating thought and encouraging well-organized discussions that successfully keep focus on the assigned topic. Notably, even during moments of open discussion, professional leaders demonstrate strong ability in directing group conversations towards the key themes, avoiding distractions or potential deviations. It is plausible that these elements play a significant role in the enhanced benefits seen in professionally led groups (Mann et al., 2017). Additionally, in some instances of extreme loneliness, peer-led interventions may prove ineffective, demanding a more specialized and individualized approach to achieve maximum impact (Rodríguez-Romero et al., 2021).

When taking into account the possibility allowed by the cyberspace, literature has shown that the use of online interventions have been associated to lower levels of social anxiety, being more acceptable by lonely people who show avoidant and withdrawing social behaviors (Andersson, 2016; Seewer et al., 2023). Beside this, in many cases standardized online interventions may lack tailorization of the needs and specificities of the user, being more susceptible to high dropout rates due to a decreased engagement (Andersson, 2016; Bouwman et al., 2017; Seewer et al., 2023). In the panorama of such interventions, online self-help materials have demonstrated to be effective in reducing loneliness and having positive effects on depressive symptoms and social avoidance. However, even though such modality might be preferred by some digital user populations, such as young adults, these interventions have been shown to benefit only those people who are highly motivated to use digital interventions (Seewer et al., 2023).

Looking at the specific population of international students, to date the most effective interventions to support their mental health and improve their wellbeing are structured in the form of a combination of psychoeducation, counseling, and social support intervention, preferably delivered in the group modality (Carr et al., 2003; Yakunina et al., 2011). However, exists limited literature on interventions for this specific population, as well as on specifically devised online interventions, while some studies have shown that interventions developed specifically or culturally adapted for an

international context have been effective in reducing stigmatizing attitudes and improving mental health outcomes (Clough et al., 2020; Kanekar et al., 2010).

Coming to conclusions, evidence presented so far indicates that it is challenging to find a universally effective intervention due to the complexity of loneliness and social isolation, and their underlying causes. As a result, it is essential to create and apply complex, mixed strategies that may be tailored for different people and situations, investigating the mechanisms of change in these interventions and increase their efficacy (Bouwman et al., 2017).

To do so, the following two simultaneous studies (Study 3.1 and Study 3.2) have been carried out, the first aimed at evaluating the impact of a blended pilot intervention on social isolation and loneliness among international students at the University of Padua, comparing three different intervention conditions; and the second aimed at exploring narratives and personal meanings of international students participating in one of the group conditions to qualitatively understand their experiences, needs and satisfaction with the intervention proposed to gain useful insights for future developments.

5.1 Study aims

The present study aimed to evaluate the impact of a blended intervention on social isolation and loneliness among international students at the University of Padua, considering the comparison of pre- and post-intervention measures from participants in three different intervention conditions: blended intervention group, self-help intervention group, and peer-to-peer intervention group; plus a control group. In particular, the analyses evaluate the variations in social isolation, loneliness, and well-being between baseline and post-intervention for each group, and these differences are compared between groups to assess the various impacts of the interventions and identify potential variations. Here are listed the primary research questions:

1) Does the blended intervention improve well-being and perceived social support while reducing loneliness?

2) Does the blended intervention, which also gives participants the chance to make new social relationships, have a greater impact on fostering feelings of social support compared to the intervention that solely provides online self-help materials?

3) Are there relevant differences between the group intervention moderated by a qualified professional and the one carried out by peers?

4) Are the intervention structure and topics addressed, appropriate and relevant to participants needs and personal perspectives?

5.2 Methods

The present pilot study was originally intended to be a randomized controlled trial (RCT) (registered on ClinicalTrials.gov with ID NCT05867758 on), but due to the small sample size and difficulties recruiting participants, the rigid structure of an RCT was abandoned, acknowledging the potential weaknesses inherently present in non-randomized study for psychological research. The study is therefore a non-randomized pilot study reporting a group comparison.

The present research project has been approved by the Ethical Committee for the Psychological Research of the University of Padova (Protocol 5112, last modification 13 December 2022).

5.2.1 Participants

An initial (registered at baseline, T0) total number of 49 participants took part in the present study, showing a global mean age at the baseline (T0) is 25,10 ($SD=3,44$) years. The majority is female ($N=29$, 59,18 %) and the sample show that participants come from different nationalities (primarily from non-European countries) and that about their degree programs, participants are enrolled to a bachelor's ($N=14$, 28,57%) or single cycle degree ($N=1$, 2,04%), to a master's degree ($N=24$, 48,98%) or to a PhD international program ($N=10$, 20,41%). The initial number of participants ($N=49$) significantly reduced during the study, resulting in a final sample of 22 participants (treatment completers), pointing out a high dropout rate ($N=27$, 55.10%) and for this reason those data have been excluded from the analysis.

The treatment completers sample (registered at the end of the intervention, T1) was composed of 22 participants, the global mean age is 24,82 ($SD=3,17$) years; of which 45,45% are male ($N=10$) and 54,55% female ($N=12$). The 27,27% of students ($N=6$) are enrolled in a bachelor's degree program, 31.82% ($N=11$) are enrolled in a master's degree program, while 22,73% ($N=5$) are attending a PhD (see Table 19 for the sample characteristics). Participant have been divided into four different groups: the three intervention groups and one control group. A brief description of the final composition of each group will be provided in the following paragraphs.

Table 19. *Treatment completers characteristics.*

Post-intervention T1		Blended group (N=5)		Self-help group (N=6)		Peer to Peer group (N=5)		Control group (N=6)		Total (N=22)	
		N	%	N	%	N	%	N	%	N	%
Gender	Male	1	20	3	50	4	80	2	33,33	10	45,45
	Female	4	80	3	50	1	20	4*	66,67	12	54,55
Nationality	European	0	0	0	0	0	0	2	33,33	2	9,09
	Non-European	5	100	6	100	5	100	4	66,66	20	9,91
Degree Program	Bachelor	2	40	0	0	1	20	3	50	6	27,27
	Master	3	60	1	16,67	4	40	3	50	11	50
	Phd	0	0	5	83,33	0	0	0	0	5	22,73
Mean age		22,6	SD=1,95	28,17	SD=2,99	24,8	SD=2,49	23,33	SD=2,07	24,82	SD=3,17
Age range		20-25		23-31		23-29		20-26		20-31	

5.2.2 Participant recruitment and group allocation procedure

The project was originally intended to be a randomized controlled trial (RCT), with participants randomly assigned to one of four conditions from a previously involved sample of students. However, due to limited participation and confirmation, the required number of participants needed for the RCT design was not achieved, and a between-groups comparison was realized. International students involved were offered the opportunity to participate in an intervention promoting social connectedness with peers and addressing loneliness and social isolation. Subsequently, their willingness to participate in one of the condition proposed was requested and based on their availability and preferences, they were then assigned to the various conditions.

The inclusion criteria for participants were: being an international student regularly enrolled in a degree or a PhD program of the University of Padua, being over 18 years old, domiciled in Padua or province during the research period and fluent in speaking and understanding English.

A written informed consent was obtained from all participants included in the study.

Participants were recruited by posting notices on university bulletin boards and involving university services dealing with international students (Global Engagement Office, the Inclusion Office, and the Tutor Buddies service), which allowed the intervention to be promoted on WhatsApp groups by contacting representatives of international degree programs.

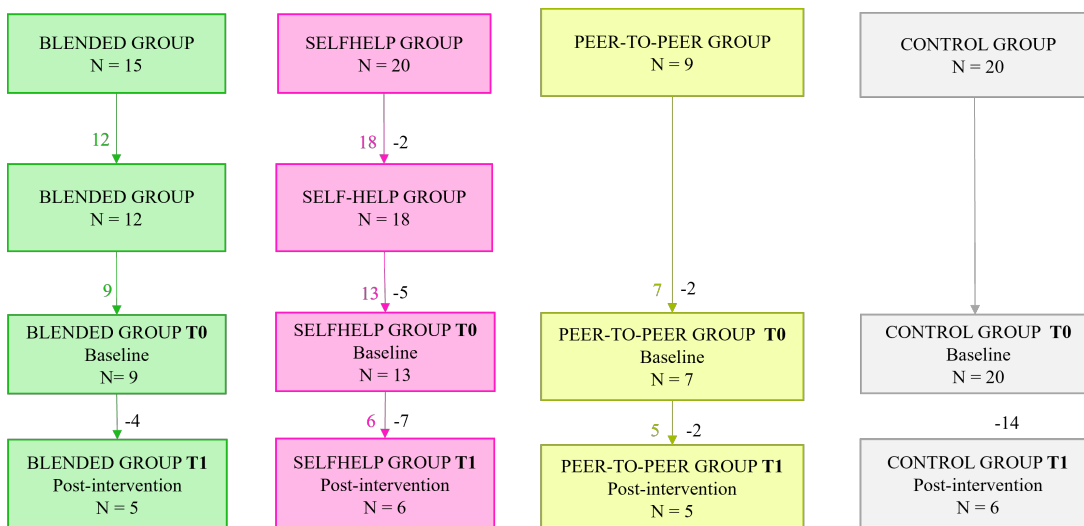
In total, 64 international students provided their email addresses or contacted the research team to express their interest in participating in the scheduled intervention. When contacted again, the researchers proposed the blended group to the first 15 participants who confirmed their availability to participate in group activities, whereas the self-help condition initially included 20 students who

expressed their availability to participate only in online self-help activities, as the scheduled group sessions did not meet their availabilities.

Those who did not confirm their interest in participating in the interventions after being contacted via email were assigned to the control condition, while the remaining 9 people who confirmed their willingness to participate in in-person group activities were assigned to the peer-to-peer group.

The exact number of participants who actively participated in the activities and were included in the analyses is summarized in Figure 7 and will be explained in the following subparagraphs, one for each group.

Figure 7. Flow diagram showing participants progress in the study.



a. The blended group

At the end of the assignment procedure, participants allocated to the blended group condition were 15. However, only 12 students confirmed their participation and out of these, only 9 students attended the first group meeting and completed the self-report questionnaires at baseline (T0). Four participants dropped out the group after the first session (dropout=44,44%), while 5 people attended the group sessions and completed the post-intervention questionnaires (T1) and the final survey, therefore were included in the analyses.

The sample of 5 participants included in the analysis comprises 80% females (N=4) and 20% males (N=1), 2 people are in a bachelor’s and 3 in a master’s degree, and the mean age is 22,6 (SD=1,95) years. In the data collected through the surveys, one participant (20%) reported receiving

private psychological support for emotional difficulties at the time of post-intervention questionnaire completion (T1), but not in the past. Whereas 3 participants (60%) reported they received psychological support in the past but not at the time of completion (T1). The majority of group members live in apartments with others (4 people), while one participant lives alone.

b. The self-help group

The number of participants in the self-help group was 20 at the time of allocation, but out of these, only 18 confirmed their intention to participate before the start of the activities, and only 13 students completed the baseline questionnaires (T0). Therefore, the self-help sample at baseline consisted of 13 individuals, but among them only 6 completed the post-intervention questionnaire (T1) (dropout rate=53,85%), and only 3 participants completed the satisfaction surveys. Thus, the treatment completers' sample size which is considered in the analysis counts 6 participants. The mean age of the treatment completers was 28.17 (SD=2,99) years, and 83,33% (5 participants) were PhD students, equally distributed across genders. Among 3 respondents to the final survey, one participant (33,33%) reported to have received psychological support in the past (in 2021) for relational difficulties, while no participants reported to receive psychological support at the time of completion. Regarding living situations, 2 participants (66,67%) live in student residences, and 1 participant (33,33%) lives in apartments with others.

c. The peer-to-peer group

At the time of assignment, the group consisted of 9 participants. At the start of the activities (baseline, T0), the group consisted of 7 participants, who completed the baseline questionnaires, while at the post-intervention (T1) only 5 participants completed the self-report and the final surveys. As a consequence, the final peer-to-peer group consisted of 5 participants (dropout rate = 28.57%), composed of 80% males (N=4) and 20% females (N=1). The mean age is 25 (SD=2,2) years, 4 participants (80%) are master's degree students and only one participant is enrolled in a bachelor's program (20%). In the final survey, one participant (20%) reported living in student residence, while 4 participants (80%) live in apartments with others. None of them have received psychological support either in the past or at the time of the intervention.

d. The control group

The control group has been evaluated to ensure a more comprehensive evaluation of differences between the groups. The total number of participants in the control group was 20 at baseline (T0), and 6 of them also completed the self-report questionnaire at the post-intervention (T1).

The treatment completers' sample included in the analysis (N=6), reported a mean age of 24,4 (SD=3.91); 50% of the participants (N=3) are enrolled in a bachelor's degree program and 50% (N=3) in a master's degree program. Participant who identified as non-binary at baseline defines herself female at T1, therefore, 33,33% (N=2) of the sample is male and 66,66% is female (N=4).

5.2.3 Structure of the intervention

As mentioned above, the interventions encompassing an active condition proposed in this research included two distinct activities: in-person group sessions and online self-help materials.

The blended intervention provided participants with both activities, whereas the self-help intervention only provided online materials with no in-person sessions. The peer-to-peer intervention, on the contrary, was limited to in-person group activities. The structure of the planned activities remained consistent among groups, and it is detailed in the following subparagraphs after the presentation of the theoretical framework in which they were developed and carried out.

5.2.3.1 The theoretical framework of the whole intervention

The intervention activities, consisting of group activities and self-help materials, were developed and structured by the research team following the updated literature on the topic and their clinical experience. The theoretical framework in which they were imagined, developed and carried out is the Personal Construct Psychology, a detailed and comprehensive theory of personality which allows for a deep and coherent psychological knowledge of the person experiencing life events and challenges (Kelly, 1955).

The PCP perspective states that by actively exploring and elaborating ones' experiences people can create and validate their personal system of meanings and with that give sense to their world, experiences and relationships (Kelly, 1955); in this sense the person is viewed as a curious researcher that continuously carries out experiments by interacting with their surroundings (environment, people, situations etc.) to test and improve their personal perspectives and their anticipations about the world. It is by actively participating in their life experiences that people can create and revise their understanding of reality, by actively anticipating it (Kelly, 1955).

Kelly uses the term "movement" to clearly define the dynamic nature of transformation and according to the view of the person as an active researcher and elaborator of one's world, the changes that people could experience are not seen as the result of external occurrences, but rather as the

experience of incompatibility with their typical ways of construing events, which leads to the possibility of giving new meaning.

This premises are important to understand the choices that were made in developing, structuring and facilitating both the in-presence and online interventions, as the PCP perspective was used both in the structure and contents of the activities and materials.

In this sense, the PCP framework was used also with the intention of expanding the perspective on well-being focusing on the investigation of personal interpretations and taking into account the active role that each person plays in creating and interpreting their reality. In the PCP lens in fact, well-being is construed as a personal and individual experience, based on how people live and give meaning to their life, and not as an objective measure. Additionally, meaningful relationships, as possibilities to give meaning to the world, play an active role and expand one system of meanings are considered a fundamental part for well-being, especially concerning meaningful relationships and perceived social support (Umberson & Karas Montez, 2010; Ryff, 1989). From this point of view we construed and carried out the interventions acknowledging each person's uniqueness and subjectivity and rejecting a universal approach to promote well-being.

In line with this, through the activities proposed, people were encouraged to discover and create their own path to well-being, valuing each person unique way of interpreting and giving meaning to reality. The proposed activities in fact, were designed to support students in becoming more self-aware by exploring their own personal beliefs and constructional patterns, identifying more valuable and positive constructions that could improve their overall well-being and social connections.

5.2.3.2 The in-presence group intervention

The structure of the group activity, as well as the topics and activities proposed, remained consistent in both the blended and peer-to-peer interventions, details are reported in Table 20.

The general structure comprised eight weekly meetings, for a duration of 90 minutes each, aiming to involve around 12 students in sharing and discussing personal experiences and perspectives with peers on different topics within the safe space created in the group setting. More specifically, the blended group was moderated by a psychologist (the author of this thesis dissertation), assisted by a trainee psychologist and supervised by a psychotherapist (the supervisor of this thesis dissertation); whereas the peer-to-peer group was moderated by two trainee psychologists enrolled in the master's degree in clinical psychology in the University of Padua and supported and supervised by the author and supervisor of the present dissertation (as psychologist and psychotherapists).

The group modality, as the structure and content of the intervention, was chosen to provide participants with the chance of connecting with other international students, creating a multicultural community and exploring their personal meanings and experiences. According to Yalom (1975), group interventions can promote hope and lessen isolation by normalizing individual experiences and pointing out the similarities among members' difficulties and experiences. In fact, within the groups, it was facilitated an open exchange of ideas, information, and experiences that fosters the creation of further perspectives and creative responses to common problems, all aspect recognized as fundamental to help members develop new social and communication abilities (Yalom, 1975).

In this sense, for the international students involved in this study, the group activities provided a setting for socializing, practicing English, addressing academic, personal, and social concerns, as well as relieving acculturation stresses and receiving social support from a culturally sensitive context (Carr et al., 2003; Dipeolu et al., 2007). The group activities were created with the assumption that the group, along with its structural framework, acts as both the container of the social experience and the social experience itself (Zagic et al., 2022).

Accordingly, the group activities proposed in the blended and peer-to-peer interventions were specifically developed and aimed to provide the experience of new social connections and interaction offering the opportunity for the construction of novel and collective meanings. Such elaboration, fostering the creation of shared meanings in the group, was facilitated by proposing a closing activity at the end of every session, that invited participants to elaborate together while creating a shared artwork, representing the perspective of the group on the topic elaborated that day. Table 20 provides a brief overview of the structure of each session and the topics proposed.

Table 20. *A summary of the sessions' objectives in the group interventions*

Title	Objectives
<i>Session 1 – “Creating the group. Sharing fears and expectations”</i>	<ul style="list-style-type: none"> - Creating a participative and supportive group atmosphere, this was achieved engaging participants in activities to know each other. - Explore and share eventual fears and expectations about the group activity. - Define together the rules of the group to create a safe space.
<i>Session 2 – “The experience of being an international student”</i>	<ul style="list-style-type: none"> - Reflecting on the personal motivations that guided them in the choice of going abroad to study. - Sharing and discussing about the expectations they had before living and the challenges they might have encountered. - Starting from the experiences had, elaborate them further including the insights that came with the effective experiences.

<i>Session 3 – “My idea of well-being, confronting perspectives”</i>	<ul style="list-style-type: none"> - Reflecting on one's personal idea of well-being. - Share and discuss in the group all the perspectives, elaborating cultural and social aspects that might play a significant role. - Explore if and how such ideas have changed and/or evolved within the experience of being an international student.
<i>Session 4 – “Empowering my well-being, what can I and we do?”</i>	<ul style="list-style-type: none"> - Elaborating and sharing personal strategies used to empower one's well-being. - Discussing together both positive and negative implications of such strategies and how to transform them in everyday activities. - Elaborate together potential activities aimed at fostering the group's well-being that could be done with peers of others.
<i>Session 5 – “Digital tools and social media, are they helping me getting in touch with others or isolating me?”</i>	<ul style="list-style-type: none"> - Explore and share one's personal use in everyday life of digital tools, such as social media and applications. - Discussion together of the positive and negative impact that digital tools might have or are having on the participants lives. - Elaborating together which role those tools are playing in the specific situation of being and international student abroad.
<i>Session 6 – “Mapping our network of resources and places in Padua”</i>	<ul style="list-style-type: none"> - Exploring and sharing places and resources that participants include in their network of resources in the city of Padua (services, offices, bars, favorite sports etc.). - Elaborating together the important role of local resources in supporting one's experience and well-being when abroad. - Sharing with others information, names and addresses of relevant places and resources they refer to in case of necessity in Padua, to construe a shared map.
<i>Session 7 – “Facing different challenges of being an international student by putting into practice ideas and strategies shared in the group”</i>	<ul style="list-style-type: none"> - Elaborating together different strategies to overcome challenges shared within the previous group sessions to starting summing up the contents shared. - Experience together the importance of construing solutions and strategies to overcome difficulties with others, living in first person the important role of others in overcoming personal and common challenges. - Discussing together about the role that the local institutions are playing or could play in supporting them with such challenges.
<i>Session 8 – “Drawing conclusions of our group activity and of the relationships created in the group”</i>	<ul style="list-style-type: none"> - Sharing and discussing together about the pros and cons of the group activity in meeting their needs and requests. - Discussing together the outcomes and take-home-messages derived from this experience, asking for feedbacks and things to be changed/implemented. - Thinking of the future perspectives of the group outside the intervention setting, imagining new possibilities of being together and in relationship with each other.

5.2.3.3 The online Self-Help materials

The online self-help materials consisted of a handbook divided in eight chapters that were sent to participants weekly. Online self-help materials are acknowledged as a form of support that is compatible with in-person services for assistance (Williams & Whitfield, 2001) and can benefit students in a number of ways (Pakrosnis & Cepukiene, 2015). Self-help are standardized therapeutic approaches with which the client can help himself without significant support from the therapist (Cuijpers, 1997). Self-help resources have a number of advantages, including being able to access them from a distance, the reduction of potential stigma and the protection of one's privacy, the

opportunity to use them at one's own pace and time, the possibility to explore the materials and moving back and forth depending on the needs and situations (Pakrosnis & Cepukiene, 2015).

Different authors (Thorpe & Barsky, 2001; Grant, 2002) underlined the value of self-help materials to promote self-reflection, which is known to be necessary in order to make a change, taking into account that self-help methods can differ from one another both in form and substance. According to Pakrosnis and Cepukiene (2015), even if differing for structure and/or contents (e.g., books, online audio or video materials, self-reflection worksheets, etc.), self-help materials encourage users to reflect on their experiences, difficult circumstances, and other aspects of life.

In light of the PCP framework (Kelly, 1955), the research group composed of the author of this dissertation (Tomaino Silvia C.M.), Venier Elisabetta, a trainee in psychology and the supervisor of this dissertation (Professor Sabrina Cipolletta) developed, construed and illustrated this self-help materials with the goal of supporting students in elaborating personal meanings and perceptions about different topics. Each chapter includes several activities that encourage the reflection and elaboration of everyday life events and personal resources regarding different topics, coherent with those addressed in the group sessions. Each chapter was written to correspond to the topic-related in-person session, but the activities offered by in-person meetings and online self-help resources were distinct and did not overlap, including a variety of activities, short games, and questions designed to encourage users' self-reflection on a variety of issues.

The general composition of each chapter is structured as follows: first an opening vade-mecum outlines how to use the handbook, then different activities are proposed, and at the conclusion of each chapter, a written insight suggest further reflections on the topic and exercises, proposing as well a specific online video that could help participants confront their experience with the one reported by another person. A summary of each chapter contents with its title is reported in Table 21, furthermore, in Appendix C are reported some samples of this materials.

Table 21. *An overview of the self-help materials titles and contents*

Title	Contents
<i>Chapter 1 – “Nice to meet you”</i>	Activities and reflections to raise awareness over one’s person and specificities, fostering the possibility to take into account cultural and social elements that might influence us in the way we construe ourselves and others.
<i>Chapter 2 – “Me, you, us”</i>	Activities and reflections to foster the elaboration of one’s social connections and the relationships with others, taking into account relationships at home and more specifically the challenge of creating new ones while abroad.

<i>Chapter 3 – “Exploring the idea of well-being”</i>	Activities and reflections to exploring one’s personal meanings of well-being and the places, people, activities and resources that could empower it, trying to elaborate as well the potential changes derived because of the experience of living abroad and in a different cultural and relational context.
<i>Chapter 4 – “Creating my idea of well-being”</i>	Activities and reflections to elaborate and define the steps (activities, routines, etc.) that could foster and support one’s well-being, paying attention to the specific and new cultural context in which the student is living.
<i>Chapter 5 – “Caught in the net or surfing?”</i>	Activities and reflections to explore and reflect on one’s use of digital tools and social media, trying to assess in what sense and to what extent it is supporting and/or impacting one’s well-being and possibility of socialization with others.
<i>Chapter 6 – “Construing my network of resources”</i>	Activities and reflections to help the student create one’s personal network of resources in the host country, by fostering the exploration of places, services, tools and people around them.
<i>Chapter 7 – “Can we start to see a way?”</i>	Activities and reflections to start connecting all the elements addressed in the previous chapters, putting together the resources and information gained to see in what way they connect with and support one another.
<i>Chapter 8 – “Moving forward one step at a time”</i>	Activities and reflections aimed at construing a toolbox of resources and useful insights that might be useful to overcome difficulties or face challenges connected to the experience of being an international student living abroad, highlighting the take home messages.

In the following subparagraphs will be presented the timing and characteristics of the four intervention conditions.

a. The blended intervention condition

The blended intervention occurred from November 9th, 2022 to January 25th, 2023, with a one-month pause for the Christmas holidays. Because some attendees were traveling and unable to attend during that period, the seventh and eighth meetings were held after the break. Group sessions were held at the SCUP, the university's psychological clinical service.

Participants in the blended group received weekly online self-help materials, which were provided on the same day as the group activities.

b. The Self-help intervention condition

The timing of provision of the self-help materials during the online self-help intervention aligns with the timing used for the blended group: students participating in this intervention received weekly modules via email from November 2022 to January 2023 for eight weeks.

c. The peer-to-peer intervention condition

The peer-to-peer intervention provided in-person group activities from April 12th to June 7th, 2023, which took place at the Faculty of Psychology of the University of Padua. The structure of the

intervention was consistent to the activities of the blended group, with the exception of the facilitators, that were two trainee master's degree students in Clinical Psychology at the University of Padua.

d. The control group condition

The control condition was a non-active condition which served as a reference, and which was expected to be stable over time. It was used for a more comprehensive evaluation of the interventions and did not involve any specific activity or intervention.

5.2.4 Measures

Data were collected using five distinct self-report questionnaires³ and a final survey. Three questionnaires were used to assess well-being (SWLS, Diener et al., 1985), loneliness (ULS-6, Neto, 2014), and perceived social support (MSPSS, Zimet et al., 1988). As screening instruments for anxiety and depressive symptoms, two self-report questionnaires were utilized (GAD-7, Spitzer et al., 2006 and PHQ-9, Kroenke et al., 2001). The final evaluation survey, was administered only to the three active condition groups at the end of the activities with the goal to evaluate the satisfaction and relevance of the intervention provided (See Appendix D for the complete text of both surveys).

Data were collected anonymously and T0 and T1 were matched using an identification code created ad hoc by participants during the study. The self-report survey to evaluate students' satisfaction with the intervention was composed of 43 items divided into two sections: one to collect personal socio-demographic information (4 items: nationality, gender, age, and degree program), and the other to administer the five questionnaires (a total of 39 items). The questionnaires utilized were the same for all groups and required about 15 minutes for completion. Instead, the final evaluation survey was composed of a total of 47 to 57 items (specific sections were varying depending on the condition of participation), allowing for the collection of information about participants' living conditions, use of psychological assistance, satisfaction and relevance of intervention condition, subjective improvement in well-being and in coping resources, frequency of activities performed individually or with others (leisure activities, study activities, or sports), and others. The survey comprised as well six open questions asking participants to write about the initial motivations that led them to participate in the intervention, the strengths and weakness of the activities and the final takeaway of the experience, allowing researchers to collect participants' personal perspectives in the analyses, to better evaluate the intervention usefulness, relevance, and feasibility.

³ In Chapter 4, Study 2, more precisely paragraph 4.2.2 *Data collection* the clinical questionnaires used in the present study are described in more details, moreover in Appendix B are reported the complete text of each questionnaire.

Moreover, personal opinions, subjective evaluations, and feedback from participants provided insights for potential future modifications and further exploration. The final evaluation survey requested a total of approximately 15 to 20 minutes for completion.

When responses to some items were missing, those were substituted using the Simple Mean Imputation method to prevent the exclusion of entire scales from the analysis (Siddiqui, 2015). This included calculating the mean of all the other items on the same scale and replacing any missing values with this participant's mean score.

5.2.5 Timing of administration

The above mentioned questionnaires were administered to participants at two different time frames: T0 at the baseline and T1 at the post-intervention.

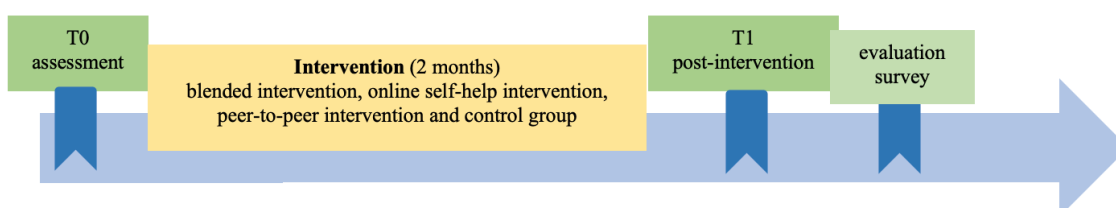
Baseline data were collected before the beginning of the activities: in November 2022 for the blended and self-help groups, and in April 2023 for the peer-to-peer group. The participants in the group activities completed the questionnaires in a paper format during the first in-presence session, whereas the self-help group completed them online using the Qualtrics platform.

After the interventions T1 measurements were immediately administered. The blended group and peer-to-peer group completed T1 questionnaire at the end of the last session in a paper format, whereas self-help and control groups finalized it online using Qualtrics platform. One participant from the blended group and one from the peer-to-peer group completed the T1 survey online because they were missing at the last session.

After the end of each intervention, the evaluation survey was administered online using Qualtrics platform, in this case between February and March 2023 for the blended and self-help groups and in June 2023 for the peer-to-peer group. The final survey, aimed at assessing satisfaction with the intervention and was administered exclusively to those who participated in an active intervention condition, thus excluding participants of the control group.

See Figure 8 for a visual synthesis of the general procedure of data collection.

Figure 8. A visual synthesis of the general procedure of data collection



5.2.6 Data Analysis

Quantitative data analyses were performed using Jamovi software version 2.3.24.

A per protocol modality (PP) was chosen to analyze the results of the present pilot study, thus only the data of participants who completed the intervention (treatment completers) were considered in the analysis. Anyway, given the high dropout rate, additional analysis were performed on the drop-out sample aiming to get useful insights. Following this choice, in the result section first will be reported the results of the drop-out group and second, the results of the treatment completers.

To analyze data collected through the self-report questionnaires, statistical analyses considered five total scorings and five subscale scorings as continuous outcome variables, whereas group condition and timing of administration were considered as 4-levels and 2-levels categorical independent variables respectively.

Descriptive analyses were initially performed to describe groups scorings at the baseline (T0) and post-intervention (T1). An independent samples t-test was performed on the drop-out group sample to assess for any significant differences between the treatment completers' sample and the dropout sample.

A preliminary analysis of variance, ANOVA one factor between, was conducted to investigate whether significant differences existed between the 4 groups before the intervention activities (at baseline, T0) on any outcome variables.

The main effects of the intervention were evaluated using a mixed-model ANOVA for repeated-measures, including a within factor (timing) and a between factor (group condition). This general analysis assessed the presence of significant effects due to time, experimental condition, and their interaction. Subsequent paired student's t-test analyses were conducted to assess the presence of significant differences between baseline and post-intervention scores for each condition (repeated for each treatment condition). This analysis compared the scores obtained in the different tests at the two time points, describing a longitudinal trend and evaluating the effectiveness of each intervention (different trends over time between the various conditions).

Moreover, survey items assessing improvements in social interaction, in well-being and in coping abilities, as well items measuring satisfaction and relevance (all rated from 1 to 7), were analyzed comparing groups scorings, using an ANOVA one factor between (group condition) analysis. Concerning statistical analyses, the p value was set at 0,05 and the effect size was calculated using η^2 (eta squared) and the standardized mean difference *d* Cohen measures.

Since this is a pilot study, the sample size allowed for further individual-level analyses to examine potential changes in individual profiles and explore all possible impacting factors. Thus, additional graphical analyses were conducted on individual participants using Z-scores. Since Z-scores are calculated on the mean and standard deviation of a reference population, in this analysis, standardization was implemented on the baseline international students' sample (N=49), calculating standard deviations and means of every questionnaire output. In this way, the T0 sample (N=49) reflected our reference population of international students, on which Z-scores are calculated for each participant's questionnaire (N=22). Z-scores allowed us to graphically observe the variation in each participant's scoring over time, thus, it allowed comparison between different timepoints. Concerning ULS-6, GAD-7 and PHQ-9 questionnaires, whose scores are expected to decrease as a well-being index, the z-scores have been reversed in sign, to easily visualize all the eventual improvements occurred at post-intervention and at follow-up. Furthermore, data collected through the final survey open-ended questions were analyzed qualitatively using a thematic analysis approach (Braun & Clarke, 2006), a qualitative methodology already presented in the previous studies reported in this dissertation (e.g. see Study 2).

5.3 Results

In the following subparagraphs will be reported and described data from all participants in the pilot study. First will be reported the results of the drop-out group (N=27) who answered only to the questionnaires administered at baseline (T0) and second, the results of the treatment completers (final sample N=22), who answered both to the questionnaires administered at baseline (T0) and post-intervention (T1), as well as to the final survey regarding the satisfaction with the intervention.

5.3.1 Analysis of the drop-out group

The total dropout rate was 55.10% (N=27), with a dropout rate of 44.44% (N=4) for the blended group and 53.85% for the self-help group (N=7). In the peer-to-peer group, the dropout rate was 28.57% (N=2), while the control group had a dropout rate of 70%.

Additional statistical analysis were conducted to assess any significant differences between the sample that dropped out of the study and the sample that completed it.

Significant differences were found between the group that dropped out and the one that completed the study in the ULS-6 (t-value=262.032, p-value=0.012), MSPSS family (t-value=-207.849, p-value=0.043), and GAD-7 (t-value=226.690, p-value=0.028) questionnaires. The dropout

group reported significantly higher levels of perceived loneliness and anxiety symptoms, while showing significantly lower levels of perceived social support from family. The results of the analysis are summarized in Table 22.

Table 22 Results of the independent samples t-test comparing the dropout group (N=27) with the final group (N=22).

	Dropout group mean	Dropout group SD	Final group mean	Final group SD	t-value	p
ULS-6	10.26	4.30	7.09	4.09	262.032	0.012
MSPSS_TOT	5.03	1.04	5.40	1.09	-121.187	0.232
MSPSS_SO	4.81	1.55	5.10	1.54	-0.64826	0.520
MSPSS_FA	4.87	1.52	5.69	1.18	-207.849	0.043
MSPSS_FR	5.40	1.29	5.40	1.25	0.00115	0.999
GAD-7	11.26	5.45	7.58	5.90	226.690	0.028
PHQ-9	11.07	6.00	7.97	6.54	172.960	0.090
SWL	20.30	6.82	23.05	6.34	-144.771	0.154

5.3.2 Comparison between groups of treatment completers

Descriptive analyses examined the scores of the administered questionnaires for each group at baseline (T0) and post-intervention (T1) considering only the treatment completers (N=22).

As show in Table 23 at baseline (N=22), the group revealing the lower score in the ULS-6 is the control group (mean=5.83). In the sample, the average GAD-7 scores are 8.40 for the blended group, 8.33 for the control group, 7.13 for the peer-to-peer group, and 6.50 for the self-help group. The first two groups still exceed the clinical threshold. Similarly, for PHQ-9, a lower level of depressive symptoms is observed in the blended group (mean=8.40).

At post-intervention (T1) (see Table 23), ULS-6 scores increase in the control group (mean=8.17) and decrease for the peer-to-peer group, which had an average score of 7.80 at baseline (N=22) and a mean score of 5.88 at post-intervention. The higher levels, exceeding the clinical threshold for GAD-7 and PHQ-9, at post-intervention are observed only in the control group. In the peer-to-peer and self-help groups, lower scores are observed for the GAD-7 test (with means of 4.20 and 4.50, respectively) and the PHQ-9 test (mean=5.80, mean=5.50). However, even in the blended group, scores appear reduced compared to baseline: the mean GAD-7 score is 7.40, while the mean PHQ-9 score is 6.20. At T1, the self-help group exhibits higher life satisfaction (SWLS=26.00) and a

greater level of meaning in life (presence subscale=28.33) compared to the blended, control, and peer-to-peer groups, with mean scores of 22.80, 23.00, and 22.60, respectively.

Table 23. Descriptive analysis of the treatment completers (N=22) of questionnaire scores at baseline T0 and post-intervention T1.

	Group	Baseline T0			Post-intervention T1		
		N	Mean	SD	N	Mean	SD
ULS-6	Blended	5	7.20	4.970	5	7.60	4.980
	Control	6	5.83	4.491	6	8.17	5.456
	Peer-to-Peer	5	7.80	4.438	5	5.88	4.547
	Self-help	6	7.67	3.445	6	6.67	4.227
MSPSS_Total	Blended	5	5.50	0.961	5	5.93	0.780
	Control	6	5.75	0.894	6	6.01	0.481
	Peer-to-Peer	5	5.00	1.314	5	5.47	0.899
	Self-help	6	5.29	1.318	6	5.63	1.328
MSPSS_Significant Others	Blended	5	5.05	1.545	5	5.85	1.167
	Control	6	5.46	1.654	6	6.38	0.685
	Peer-to-Peer	5	4.70	1.595	5	5.80	1.137
	Self-help	6	5.13	1.730	6	5.46	2.159
MSPSS_Family	Blended	5	5.90	0.945	5	5.95	0.855
	Control	6	5.75	1.095	6	5.88	1.009
	Peer-to-Peer	5	5.55	1.595	5	5.80	1.191
	Self-help	6	5.58	1.348	6	5.46	1.749
MSPSS_Friends	Blended	5	5.55	0.855	5	6.00	0.586
	Control	6	6.04	0.697	6	5.79	1.327
	Peer-to-Peer	5	4.75	1.768	5	4.80	1.451
	Self-help	6	5.17	1.411	6	5.96	0.732
GAD-7	Blended	5	8.40	5.128	5	7.40	6.025
	Control	6	8.33	7.633	6	9.67	7.866
	Peer-to-Peer	5	7.13	7.113	5	4.20	2.168
	Self-help	6	6.50	4.848	6	4.50	3.564
PHQ-9	Blended	5	8.40	5.505	5	6.20	2.280
	Control	6	9.50	9.072	6	10.50	9.050
	Peer-to-Peer	5	7.28	6.851	5	5.80	4.438
	Self-help	6	6.67	5.465	6	5.50	3.728
SWL	Blended	5	24.00	6.042	5	23.80	3.114
	Control	6	27.00	5.550	6	27.17	6.242
	Peer-to-Peer	5	18.20	5.263	5	20.20	9.524
	Self-help	6	22.33	6.563	6	26.00	7.457

From the preliminary one-factor between ANOVA analysis, which compared groups at baseline and questionnaires' scores, no significant differences were found among ULS-6 (F=0.250, p-value=0.861), MSPSS (F=0.426, p-value=0.736) and SWLS (F=0.250, p-value=0.861) scores in the groups. From the mixed ANOVA, with one-factor between (condition) and one-factor within (time), to assess the presence of significant effects due to time, experimental condition, and their interaction,

neither the time, nor the condition, nor their interaction were found to have significant effects on the ULS-6 and SWLS test scores. Looking at the MSPSS, a statistically significant effect due to the time factor ($F=6$, $p\text{-value}=0.023$, $\eta^2=0.035$), was found. However, the condition and the interaction between time and condition did not show significant effects ($F=0.463$, $p\text{-value}=0.711$ and $F=0.0951$, $p\text{-value}=0.962$), indicating a general increase in perceived social support at post-intervention (T1) but suggesting that it is not dependent on the intervention condition (See Table 24).

Table 24. results from the mixed ANOVA

	time			condition			interaction		
	F	p value	η^2	F	p value	η^2	F	p value	η^2
ULS-6	0.00238	0.957		0.0170	0.997		1.24	0.325	
MSPSS	6	0.023	0.035	0.463	0.711		0.0951	0.962	
SWLS	0.00305	0.957		0.0170	0.997		1.24	0.325	

Paired t-tests were conducted to evaluate significant differences between baseline and post-intervention scores within each group condition, showing that no significant difference was found between T0 and T1 for each test and each group (see Table 25).

Table 25. results from the paired T-test

	Blended group		Self-help group		Peer-to-peer group		Control group	
	t	p value	t	p value	t	p value	t	p value
ULS-6	-0.215	0.840	0.518	0.627	1.437	0.224	-16.059	0.169
MSPSS	-1.720	0.161	-1.369	0.229	-1.257	0.277	0.8115	0.454
SWLS	0.115	0.914	-1.408	0.218	-0.632	0.561	-0.0909	0.931

5.3.3 Screening measures: Anxiety and Depressive symptoms

The GAD-7 and PHQ-9 questionnaires were administered as screening tests to assess the presence of clinical levels of anxiety and depression, on general level, no significant differences between groups in the GAD7 and PHQ9 were found both at T0 and T1.

From the baseline measures (T0), 60% of participants in the blended group exceeded the clinical cutoff for both GAD-7 and PHQ-9. In the self-help group, 16.67% (one participant) exhibited clinical levels of anxiety and depression. In the baseline assessment of the peer-to-peer group, 20% of participants exceeded the clinical cutoff for anxiety and depression, while another 20% reported

clinical levels of depression but did not exceed the clinical cutoff for GAD-7. Finally, in the control group, 50% of participants reported clinical levels of anxiety, and another 50% reported depression.

Regarding the post-intervention measurements (T1), 20% of the blended group participants exceeded the clinical cutoff for both anxiety and depression, while 40% reported clinically significant levels of depressive symptoms but not anxiety. In the self-help group, only the 16.67% of participants exceeded the cutoff on the GAD-7 and PHQ-9. In the peer-to-peer group, only 20% exceeded the clinical cutoff on the PHQ-9, indicating high levels of depression. In the control group, instead, 50% of the participants reported clinically significant levels of both anxiety and depression with suicidal thoughts. However, only 16.67% exceeded the cutoff on the GAD-7, but not the PHQ-9.

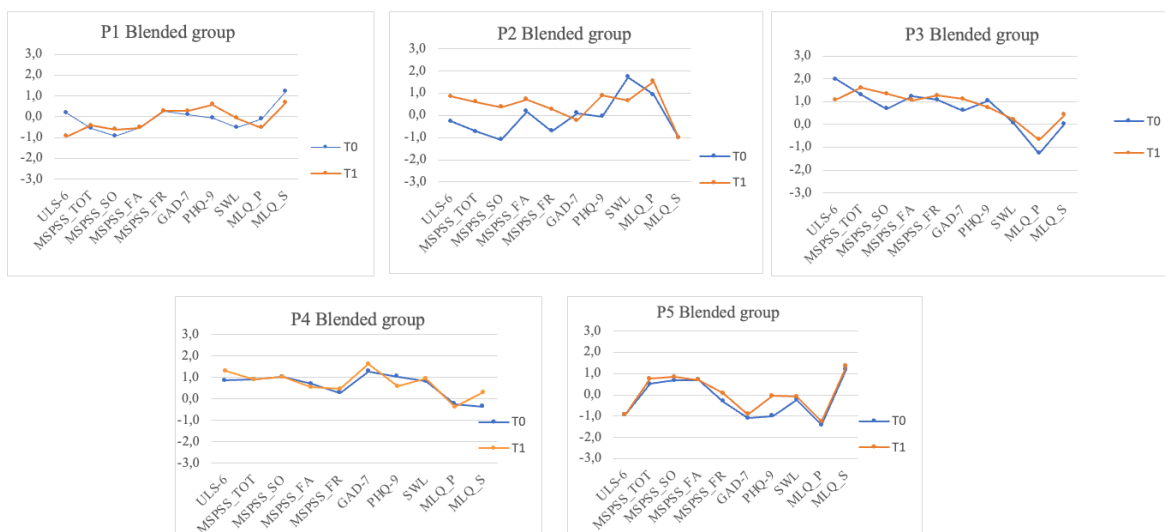
5.3.4 Single-profile analysis

The analyses conducted on individual basis are based on the calculation of z-scores, which allow for a graphical analysis that effectively visualizes the temporal trends of the measured constructs (see Figure 9, Figure 10, Figure 11 and Figure 12)

a. The blended group

Substantial differences between member of the blended group may be seen in Figure 9, which presents individual profiles of blended group participants. A majority of profiles (P1, P3, P4, and P5), however, reveal consistency and comparability in the scores recorded before and after the intervention, with only minor differences in the reported loneliness and depression. Only one person (P2) shows an increase in perceived social support as well as a decrease in loneliness.

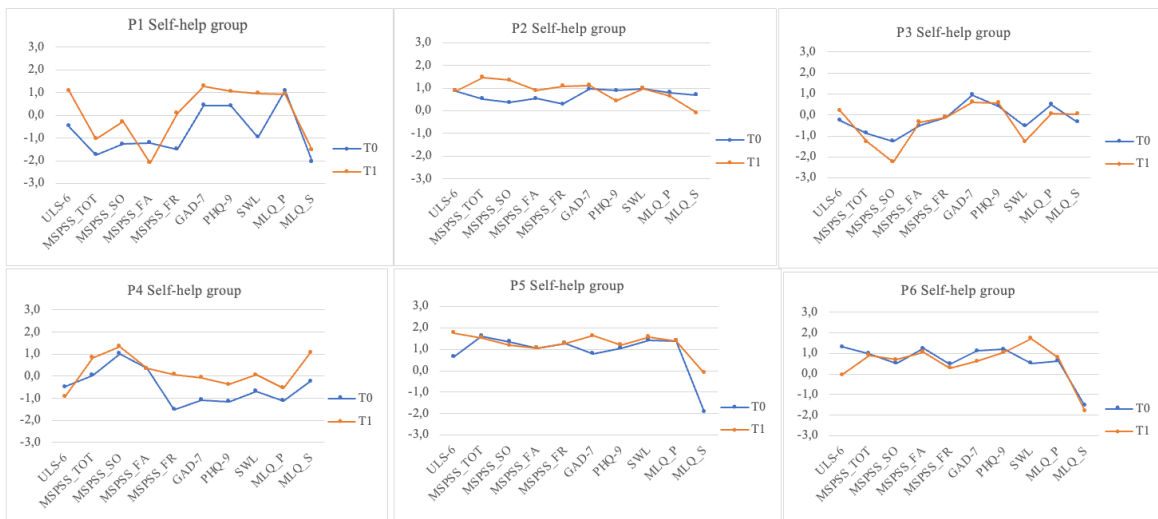
Figure 9. Single profile graphical analyses of the blended group participant



b. The self-help group

In Figure 10 are illustrated the trajectories of participants in the self-help group, showing that they display variations in scores both at baseline and post-intervention. However, P1, P2, and P4 exhibit a general improvement, including an increase in perceived social support and life satisfaction. On the contrary, the profiles of the other participants do not appear to differ significantly.

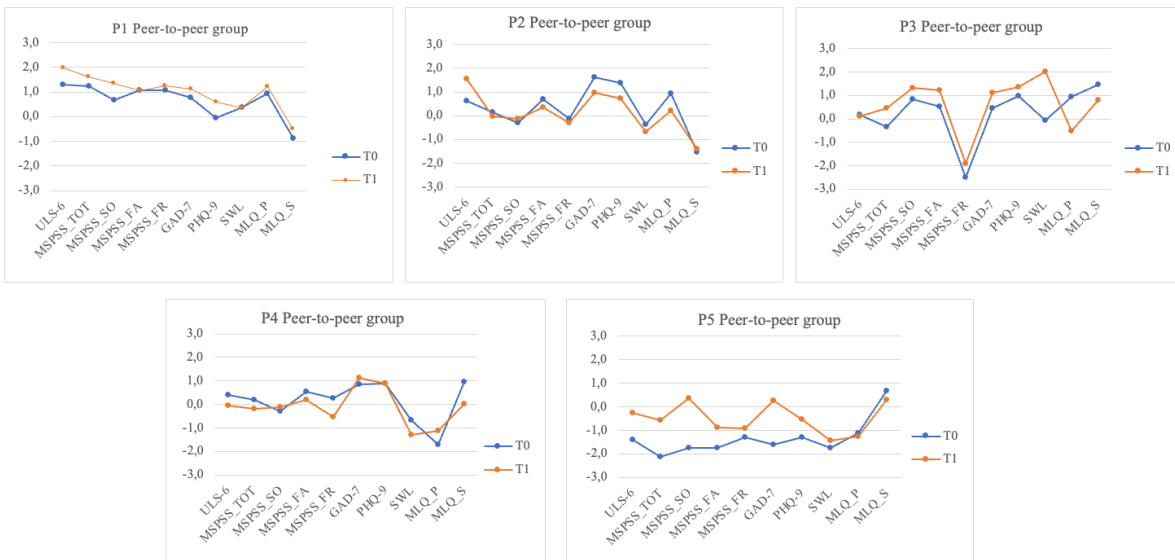
Figure 10. Single profile graphical analyses of the self-help group participants



c. The peer-to-peer group

Instead, three of the five peer-to-peer individuals (P1, P3, and P5) exhibit a positive trend in nearly every of the investigated constructs. Notably, one person (P5) displays a significant improvement in anxiety and depression measures, as well as loneliness and perceived social support. This participant has the most significant benefits among the group members and at baseline reported the most critical scenario (severe anxiety and depression symptoms, together with very high levels of loneliness and low perceived social support) (see Figure 11).

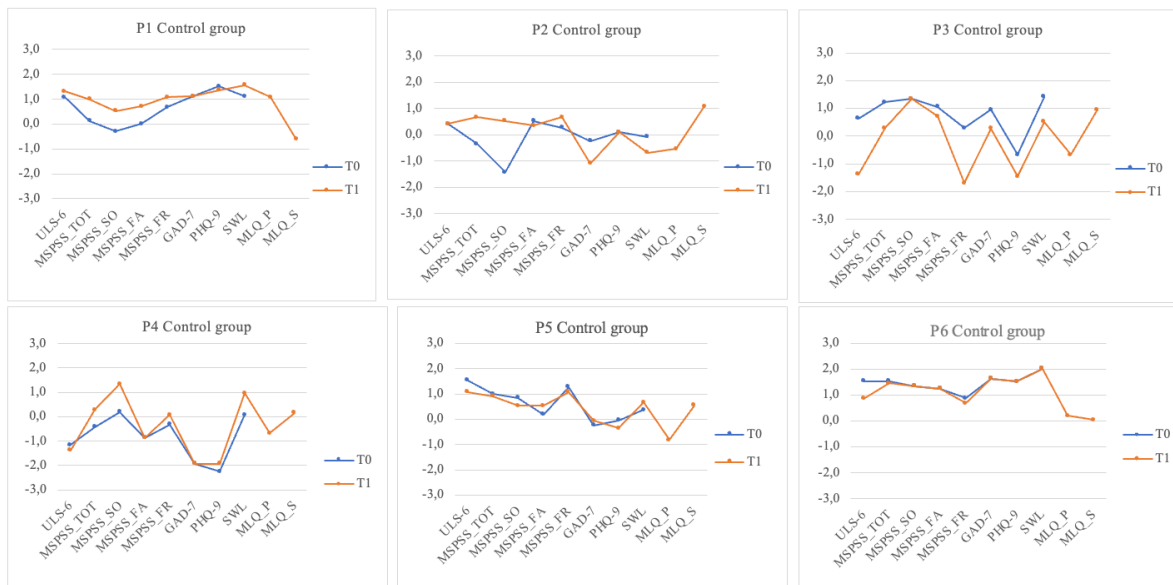
Figure 11. Single profile graphical analyses of the peer-to-peer group participants



d. The control group

Finally, with regard to the control group, the graphs analyzing individual profiles shown in Figure 12 indicate that the T0 and T1 trends approximately overlap in 4 out of 6 cases, with the exception of the improvement in the score related to social support exhibited by two participants. The fifth participant (P3) appears to worsen in all measured indices, particularly loneliness and social support, whereas the sixth participant (P2) shows higher levels of anxiety but also greater social support at T1 (See Figure 12).

Figure 12. Single profile graphical analyses of the control group participants



5.3.5 Analysis of satisfaction with the intervention: the final survey

Table 26 provides an overview of the satisfaction scores related to the interventions. Observing the mean scores obtained in the final survey, it is evident that the blended and peer-to-peer groups exhibit higher scores both in overall satisfaction (means are respectively 6.40 and 6.20) and fulfillment of expectations (mean 6.80 and 5.60) compared to the self-help group, showing a total mean satisfaction of 5.33 and a mean expectations fulfillment of 4.50. Furthermore, regarding satisfaction and perceived relevance of the group activities' contents, the blended group scores are slightly higher. However, a more significant difference is observed in the scores given by the blended group for satisfaction (mean=6.80), relevance (mean=6.80), and functionality (mean=7.00) concerning the self-help materials. These scores are higher than those attributed by the self-help group

(self-help material satisfaction mean=4.83, relevance of self-help content mean=5.67, functionality of self-help organization mean=4.67).

Table 26. Descriptive analysis of satisfaction scorings collected in the final survey.

	Gruppo	N	Mean	SD	Minimo	Massimo
tot satisfaction	Blended	5	6.40	0.548	6.00	7.00
	Peer-to-Peer	5	6.20	1.304	4.00	7.00
	Self Help	3	5.33	0.764	4.50	6.00
expectation	Blended	5	6.80	0.447	6.00	7.00
	Peer-to-Peer	5	5.80	1.304	4.00	7.00
	Self Help	3	4.50	0.500	4.00	5.00
group activity satisfaction	Blended	5	6.60	0.548	6	7
	Peer-to-Peer	5	6.40	0.894	5	7
	Self Help	0	NaN	NaN	NaN	NaN
relevance group content	Blended	5	6.60	0.548	6	7
	Peer-to-Peer	5	6.00	1.000	5	7
	Self Help	0	NaN	NaN	NaN	NaN
functionality group organization	Blended	5	6.60	0.548	6	7
	Peer-to-Peer	5	5.80	1.095	5	7
	Self Help	0	NaN	NaN	NaN	NaN
SH materials satisfaction	Blended	5	6.80	0.447	6.00	7.00
	Peer-to-Peer	0	NaN	NaN	NaN	NaN
	Self Help	3	4.83	0.289	4.50	5.00
relevance SH materials content	Blended	5	6.80	0.447	6.00	7.00
	Peer-to-Peer	0	NaN	NaN	NaN	NaN
	Self Help	3	5.67	0.764	5.00	6.50
functionality SH organization	Blended	5	7.00	0.000	7.00	7.00
	Peer-to-Peer	0	NaN	NaN	NaN	NaN
	Self Help	3	4.67	0.764	4.00	5.50

Table 27 presents the results regarding the personal evaluation of impact, specifically the perceived improvements due to the interventions, revealing higher mean scores for the blended and peer-to-peer groups compared to the self-help group. The blended and peer-to-peer groups rated their improvement in interaction with mean scores of 6.20 and 6.40, respectively, compared to the score of 4.33 recorded in the self-help group. Similar patterns are observed in the increase in the number of

relationships, coping resources, and improvement in well-being (blended group mean=6.00, peer-to-peer group mean=6.20, and self-help group mean=5.17).

Table 27. Descriptive analysis of scorings rating the personal evaluation of the intervention positive effects.

	Group	N	Mean	SD
interaction improvement	Blended	5	6.20	0.447
	Peer-to-Peer	5	6.40	0.894
	Self Help	3	4.33	0.577
number of relationship increased	Blended	5	6.60	0.894
	Peer-to-Peer	5	6.40	0.894
	Self Help	3	4.17	1.258
wellbeing improvement	Blended	5	6.00	1.225
	Peer-to-Peer	5	6.20	1.095
	Self Help	3	5.17	0.289
coping resources increased	Blended	5	6.00	1.000
	Peer-to-Peer	5	6.20	0.837
	Self Help	3	4.83	0.764

The analysis of satisfaction with the intervention was initially conducted by comparing the scores between the different groups who completed the surveys.

An overall higher satisfaction with the intervention was found in the blended and peer-to-peer groups compared to the self-help group, but the differences were not statistically significant ($F=1.23$, $p\text{-value}=0.333$, $\eta^2=0.198$). A statistically significant difference was found in the outcomes of expectation fulfillment ($F=6.16$, $p\text{-value}=0.018$, $\eta^2=0.552$), indicating that the expectations regarding the intervention were more fulfilled in in the blended group. The subjective evaluation of interaction improvement also varied significantly between the groups ($F=9.67$, $p\text{-value}=0.005$, $\eta^2=0.659$), with greater improvement reported in the blended and peer-to-peer groups. Similar results were found for the increase in the number of relationships, with significantly higher scores ($F=6.62$, $p\text{-value}=0.015$, $\eta^2=0.576$) indicating a greater increase in relationships in the blended and peer-to-peer groups. Although not statistically significant, some differences were also observed in the perceived increase in coping resources ($F=3.39$, $p\text{-value}=0.142$): higher scores were attributed to the peer-to-peer and blended groups compared to the self-help group.

Satisfaction with the group activities did not vary significantly among the groups (Student's t -value=4.26, p -value=0.681), as well as the relevance of the group content (Student's t -value=1.18, p -value=0.273) and the functionality of group organization (Student's t -value=1.46, p -value=0.182). However, regarding the subjective relevance of self-help materials, the blended group reported significantly higher satisfaction compared to the self-help group (Student's t -value=6.71, p -value= <0.001 , Cohen's $d=4.90$). Significant differences between groups also arose in the subjective relevance of self-help materials content (Student's t -value=2.71, p -value=0.035, Cohen's $d=1.98$) and in the functionality of self-help materials (Student's t -value=7.25, p -value= <0.001 , Cohen's $d=5.29$).

Furthermore, the survey included as well open-ended questions to collect participants' evaluation of different aspects of the intervention and to investigate participants' motivation to participate in the intervention, the strengths and weaknesses of the activities conducted, and the major take-home messages from the experience. These questions allowed for an exploration of aspects that may not have arisen from the scores obtained in the questionnaires, enabling the analysis of recurring themes and primary focal points that participants focused on.

Responses collected for each questions were thematically analyzed and a summary of themes per group, connected to each question and with useful participants' citations is reported in the following Tables 28, 29, 30 .

a. the blended group responses:

As reported in Table 28 participants' in the blended group, chose to attend the group activities primarily to meet new people and having a space and opportunity to confront with peers. The blended activities resulted in the lessening of the feeling of loneliness and in the elaboration of new perspectives and points of view by sharing reflections and experiences with the group and elaborating them alone with the online self-help materials.

Participants would have wanted the blended group to last longer and involve more participants to enrich the possibilities of getting to know different points of view and experiences.

Table 28. Overview of the main themes identified in blended group open answers.

Question	Themes	Participants' citations
Why did you choose to attend this event?	Meeting new people	"I saw an opportunity to meet new people" (P5)
	Sharing experience and points of view	"I thought sharing my experiences and get to know others' experiences would enlight me" (P3)
	Expectation of an interesting experience	"I thought it would be an interesting experience " (P4)
What did you enjoy most about the overall activity?	Meeting new people	"Meeting other international students" (P2)
	Comfortable, safe and collaborative group atmosphere	"It was a really comfortable space without judgment" (P5)
	Relevant and stimulating topics	"Everyone had great ideas and stimulating input that was always very eye opening and enjoyable to hear" (P1)
	Sharing experiences	"Everyone could share something even the bad stuff" (P3)
What is your biggest takeaway from this experience	Shared experiences	"Everyone is going through the same things" (P5)
	Less loneliness	"I feel less lonely" (P4)
	New perspectives, ideas and hobbies	"New perspectives on life... there are also many new hobbies and habits i've taken up as a result of these conversations" (P1)
What are the strengths of this experience?	Relevant and stimulating topics.	"Speak with peers about relevant topics in our lives" (P1)
	Meeting new people and connecting	"Connecting with international students who have similar experiences" (P2)
	Comfortable and safe group atmosphere	"I felt like it was a safe place to talk about my struggles" (P4)
What are the weaknesses of this experience?	Lack of participation	"More the people, better the understanding" (P5)
	Few meetings (would like to have more meetings)	"Maybe it could've been longer since it's only once a week." (P4)
Practical suggestions for how we could improve this experience	More topics	"There were still some factors which were not discussed, in my opinion. So there is still room to add more topics" (P5)
	More meetings	"I would've loved to do it twice a week" (P4)
	Verify people availability to participate (participation)	"You would interview with the candidates to choose them" (P3)

b. the self-help group responses:

As reported in Table 29 participants that received only the online self-help materials, reported to have chosen this intervention to improve their mental health. Thanks to the online self-help materials, participants reported to have focused more on their wellbeing and recognized the importance of social support. Participants enjoyed the topics of the online self-help materials and

found them relevant and consistent with their everyday life challenges, even though lamented the absence of face-to-face connection with peers that would have enriched the experience itself.

Table 29. Overview of the main themes identified in self-help group open answers.

Question	Themes	Participants' citations
“Why did you choose to attend this event?”	To improve my mental health	"To see the shortcoming of myself and to improve them" (P1)
What did you enjoy most about the overall activity?	Practical and helpful materials	"It is short, comfortable, helpful and practical" (P2)
What is your biggest takeaway from this experience?	Working and focusing on myself for wellbeing	"I can pursue well-being by myself and with some techniques" (P2)
	Social support gives hope.	"To see group of people together gives people hope" (P1)
What are the strengths of this experience?	Relevant and good-organized topics	"Every suggestion is clear and very useful" (P2)
What are the weaknesses of this experience?	Online modality: no face-to-face interaction	"It is important to have it face to face for everyone" (P1)
Practical suggestions for how we could improve this experience	Face to face sessions	"Arrange face-to-face lessons" (P2)
	More suggestions	"More personal suggestions and support" (P3)

c. the peer-to-peer group responses:

As reported in Table 30 participants who took part in the peer-to-peer group reported having chosen this activity to meet new people and have the possibility to share their experiences and difficulties as international students with peers. Participants enjoyed the group activities and the exchange of ideas and experiences that took part in the group, underlining that this sharing of ideas and experiences enriched them, as well as provided them with better communication strategies and new relationships with peers. Participants lamented the poor participation in the group session and the difficulties in being present due to the academic period of exams.

Table 30. Overview of the main themes identified in peer-to-peer-group open answers.

Question	Themes	Participants' citations
“Why did you choose to attend this event?”	Meeting new people and connecting	"Main reason is that I want to meet new international people" (P1)
	Sharing challenges and experiences of international students	"Finding a Place to share similar experiences" (P5)
What did you enjoy most about the overall activity?	Cultural and thoughts exchange	"Exchanging different cultures and thoughts" (P1)
	Commonality and team working	"Working together in all session" (P4)
What is your biggest takeaway from this experience	Cultural and thoughts exchange	"Information and thought perspective of other people" (P1)
	Learning about challenges of international students	"Learnt something about the students challenges" (P2)
	Better communication	"Lose the fear of talking about my bad and good experience" (P5)
	Meeting new people	"People or new friends will be more suitable words" (P4)
What are the strengths of this experience?	Interesting topics and activity organization	"Interesting subjects for talking every" (P3)
	Engagement	"Engagement" (P1)
What are the weaknesses of this experience?	Some topics	"Some parts were boring but just a little" (P3)
	Chosen period	"May be the chosen period for this activity" (P4)
	Lack of participation	"Not participating all member that end up talking with 2 or 3 persons" (P5)
Practical suggestions for how we could improve this experience	Greater participation and more people	"Reach to more people so more people can connect" (P1)
	Creative and applicative games	"And more interesting games to play together no just talking" (P3)
	Period (not exam session)	"It would be good if this event starts in the beginning of the semester" (P4)

5.4 Discussion

The present pilot study aims to test the methods and procedures of an intervention to reduce social isolation and loneliness in international students at the University of Padua, with the primary objective of evaluating its feasibility and relevance for participants, exploring potential effects and experiences that warrant further investigation in a subsequent, more comprehensive study (Thabane et al., 2010). The intervention conditions were specifically developed for international students' needs and challenges, activities and materials were construed and developed in the conceptual framework of the PCP (Kelly, 1955), which views well-being as a subjective experience, and by considering social support as a fundamental construct for well-being, especially in terms of meaningful relationships (Umberson & Karas Montez, 2010; Ryff, 1989).

The pilot study proposed three different conditions of intervention (blended, online self-help materials or peer-to-peer group) and the significant difference between them is that the in-presence group activities provided a social context where to experience social connectedness and get in relationship with peers, while the online self-help intervention left the reflection process to the individuals and their environment, limiting the potential for experiencing social connections.

The comparison of the findings of the blended, self-help, and peer-to-peer interventions with the control condition allowed for an assessment of the interventions' feasibility and the identification of the intervention modality that might be most effective and satisfying in addressing the issue of social isolation and loneliness among international students and in fostering their well-being. The findings revealed that interventions that included in-person group activities (i.e., the blended and peer-to-peer interventions) were perceived as more relevant and had a more functional activity organization compared to the intervention that only involved online self-help materials. This preliminary finding is consistent with the literature on the benefits of group interventions for reducing social isolation and loneliness among college students (Carr et al., 2003; Masi et al., 2011; Osborn et al., 2021).

Furthermore, participants reported that the topics proposed and discussed in the blended and peer-to-peer interventions, which included group activities, were relevant to their lives and encouraged stimulating reflections on their experiences, leading to a development of new perspectives. Notably, in terms of satisfaction with the interventions, the results show that the blended group evaluated the self-help materials as being more relevant, satisfactory, and organized in an effective way compared to the self-help group. These findings emphasize the necessity of

transforming self-help materials' insights and feedback into active and direct experiences, thereby increasing the materials' relevance and beneficial impact on well-being.

This observation is consistent with Esposito and colleagues (2017), who claim that reflexive processes proposed by self-help materials have limited effects when exclusively used for individual thinking but have greater potential when involving a process of shared meaning co-construction among participants in a collective context. As a consequence, the group experience emphasized individuals' active role in guiding their behaviors and creating relationships with their surroundings (Esposito et al., 2017).

From participants' responses to open ended questions we know that the blended and peer-to-peer group interventions showed no notable differences, a result that possibly is due to the same structure of activities and contents. Looking at the in-presence group conditions, the peer-to-peer group underlined how the group itself enhanced the possibility of socially connect with peers, enhancing feelings of self-acceptance and social support that could positively impact on depression, anxiety, and feelings of helplessness as reported by other findings (Bessaha et al., 2020; Kotwal et al., 2021). In line with this, the responses of the participants in the blended group stressed the relevance of the non-judgmental atmosphere of the group, an element that supported them in sharing and discussing significant topics and personal experiences.

The statistical analyses run to verify potential effects of each specific condition on clinical variables did not reveal statistically significant effects concerning the impact of the interventions. In fact, no significant differences were observed between groups, indicating the impossibility to attribute a specific effect to the different types of intervention.

Only perceived social support increased significantly over time across all groups, including the control group, but not providing evidences to attribute such effect to the type of intervention. An hypothesis of interpretation could be found in the evolutionary function of loneliness (Cacioppo et al., 2014), suggesting that loneliness can motivate a reconnection with others, leading to improved perceived social support over time without specific interventions (Masi et al., 2011).

Group interventions offer individuals a chance to reshape their meaning systems and construe novel perspectives, as in the case of well-being, where social connections and the exploration of different perspectives can help participants enrich their constructs or elaborate new strategies and resources. Participants' satisfaction with the intervention and individual relevance of content and activities are essential for assessing its potential impact and feasibility for larger-scale implementation (Thabane et al., 2010). The blended and peer-to-peer intervention facilitated the establishment of new

social connections rooted in the common experience of being international students. A secure and cooperative environment fostered free exchange of experiences and ideas, surmounting communication barriers and forming social networks. The present findings support Garcia-Martínez and colleagues' (2021) hypothesis that report how the process of construing shared meanings can enhance communication and foster transformative interactions. Furthermore, uniting individuals with shared experiences reduces feelings of loneliness and validates individual constructs, leading to more effective anticipations of the international student experience (Bessaha et al., 2020; Carr et al., 2003; Yakunina et al., 2011).

In line with this, participants in the self-help group condition, reported to have found the online materials useful and relevant to address many challenges and to foster one's well-being (Schotanus-Dijkstra et al., 2015; Walsh et al., 2018), but complained about the absence of face-to-face interaction and suggested integrating the intervention with in-person sessions, acknowledging the significance of offline relationships in strengthening well-being and social support (Nowland et al., 2018).

The lack of statistical significance in the questionnaire scores and in the comparison between conditions, raise questions about the reasons behind this unexpected outcome. Hypothetical reasons that have been acknowledged and discussed within the research team are the following, first the small sample size and the high dropout rate may have contributed to the lack of statistical significance, Furthermore, the PCP theoretical framework (Kelly, 1955) in which the interventions were designed, prioritizing the focus on the exploration and elaboration of participants' personal experiences and meanings related to different topic, for its nature fostered the creation and carry out of interventions that avoided excessive standardization. This may have led to difficulties in using standardized questionnaires to measure such experiences, as they may oversimplify complex experiences. In this sense, the PCP framework may have constrained the capacity of the administered tests to measure intervention-induced changes. This limitation could arise from the standardized tests nature itself: questionnaires could not assess changes in the personal processing and elaboration of the constructs they analyze, which constituted a pivotal focus of the intervention.

Moreover, the language of administration of the tests and their cultural sensitivity may have played a crucial role. All of the standardized tools employed in fact were validated involving Anglo-American populations, while the participants of our pilot study that completed those measures, were mainly nonnative English speakers and non-Anglo-American. Such cultural specificity and potential difficulties in understanding and correctly interpreting the questions provided in a vehicular language, could have resulted in the tests' lack of sensitivity to the respondents' cultural diversity and language

ability, compromising the results of the tests. Thus, while the collaborative interactions among students in the group activities could have helped them overcome communication barriers during the activities; potential difficulties connected to the interpretation of a test in ones' not mother tongue, may have influenced the results and compromised the assessments. These results arose different questions regarding the consistency and feasibility of the standardized instruments adopted and the possibility of considering alternative measures for future evaluations.

Another potential explanation is that interventions to address loneliness are typically focused and designed to increase social connections and reduce social isolation, rather than specifically focusing on reducing experiences of loneliness (Wigfield et al., 2022), this could explain our results with the loneliness test but not with the increase in perceived social support. As a matter of fact, participants both in the blended and peer-to-peer groups, reported to need longer face-to-face group activities to help them develop solid relationships and build satisfactory social support networks that can positively impact their psychosocial wellbeing, in line with other evidences (Brunelli et al., 2016). The study was designed to encompass 8 sessions based on the existing literature (Kotwal et al., 2021; Osborn et al., 2021), which frequently suggests a duration of 6-8 sessions as optimal for implementing these intervention modalities, but as reported by our participants evaluating a different duration should be taken into account for future implementations of the study.

Another important element to consider is that the majority of participants in the present study were enrolled in psychology degree programs, potentially influencing the results and scores attributed due to familiarity bias. In fact, familiarity with professional psychological interventions and psychological tests may have influenced their completion and the evaluation of their impact. In line with this, due to the close timing of the questionnaires' administration within approximately two months, the recorded scores could have been influenced by the test-retest effect and memory bias, potentially determining the underestimation of the actual change.

Moreover, we know that in the blended group all participants except one had previous experience with psychological support, whereas in the peer-to-peer group no one reported previous experiences with psychological support and in the self-help group only one participant did. Taking those element in consideration, it is plausible to hypothesize that the outcomes observed in the blended group might underestimate the potential benefits of the blended intervention. The study suggests that the presence of prior psychological support could have confounded the results, potentially diminishing the specific impact of the intervention. This is because previous interactions with mental health professionals may have already enriched participants' psychological and social

resources, which are the same resources the interventions aimed to provide. Interestingly, the blended group had a greater number of participants with prior experience of psychological support, suggesting that individuals accustomed to a specific intervention structure may have been inclined towards seeking professional-led intervention rather than peer-to-peer activities. Additionally, when psychological support is ongoing, measures of mental health and well-being might be more critical, carrying the risk of subsequently influencing the results. Future investigation, taking into account those elements are necessary to elaborate further our results and hypothesis.

Another relevant element to be discussed stands in the high drop-out rate between baseline and post-intervention assessments. To do so, comparative analyses between the dropout group and the group that completed the interventions were carried out to look for elements that could explain potential causes. Those results revealed significantly higher levels of anxiety and loneliness, and lower family social support in the drop-out group, raising questions about whether participants with elevated levels of anxiety and loneliness might perceive the group intervention as overly threatening or the self-help materials as non-relevant for their needs. These findings may indicate that the treatment completers may not adequately represent the general population, while suggesting that administering a preliminary clinical screening before the start of the intervention may be pivotal for future research, in order to orient different participants to more suitable modalities of intervention based as well on personal characteristics and psychological resources, hopefully preventing the high dropout rate.

Even though not as expected, the results collected in this pilot study support that tailored interventions improve social connectedness and wellbeing, underlining the importance of providing spaces to meet other people and share relevant experiences while dealing with specific challenges and disruptions. The present pilot study in this sense provides initial data and consideration to be taken into account when designing and implementing future versions of tailored interventions to support international students in adapting to the new situation, fostering their social connectedness with peers and their wellbeing. Results provide interesting starting points that foster the possibility of reflecting and discussing over the importance of creating and implementing tailored interventions, involving multidisciplinary activities and resources such as the digital and group ones, responding to the actual needs of these populations.

5.5 Limitations and future directions

The present study reported different limitations. Firstly, being a pilot study, the number of participants taking part in the study is small. In fact, the power analysis conducted during the research design had originally hypothesized a sample size of 136 participants to achieve a statistical power of 0.80 with a medium effect size ($f=0,25$) in a mixed ANOVA analysis, when the significance level was set at $\alpha = 0.05$. However, due to the high dropout rate (55.10%), and the limitations in the participants recruitment, the initial number of participants (49) significantly reduced, resulting in a final sample size of 22. The high dropout rate is one of the study's key limitations, which may have altered the significance of the findings and limited the strength of the conclusions reached from this study (Bouwman et al., 2017).

Furthermore, according to the literature, interventions performed in less formal settings and with more mobile populations, as well as online self-help programs, have greater dropout rates (Masi et al., 2011; Osborn et al., 2021). Looking to future implementations of the present intervention study, it is fundamental to recruit an additional 25% of participants over the number found through the power analysis, in order to mitigate the dropout effect.

Secondly, the study was conceived as a randomized controlled trial initially (RCT), but due to the limited sample size and challenges in recruiting participants, the strict structure of a randomized controlled trial was abandoned, acknowledging the potential weaknesses inherent in non-randomized studies for psychological research. Therefore, the study consists in a group comparison study, which can present important design flaws, including selection bias. In fact, when people are not randomly assigned to intervention or control groups, those participating in the intervention conditions may vary from people in the control condition in ways that have an impact on the study' findings, underlining the importance of reducing such bias with RCT studies (Masi et al., 2021) for future implementations of our research.

Following the implementation of a non-randomized research design, it is possible to observe a different composition of the assigned groups to the various proposed conditions: while the number of participants in each group is approximately homogeneous when dropouts are excluded, it is not equally homogeneous in terms of gender, degree program, and familiarity with psychological support. Looking at the overall sample, females are predominant in the blended, self-help, and control groups, with the peer-to-peer group being the only one with a majority of male participants.

Literature suggests that female international students tend to have higher levels of social support than their male counterparts and are more likely to seek help from others in managing higher levels

of social and cultural distress (Alsubaie et al., 2019; Dwyer & Cummings, 2007; Mahanta & Aggarwal, 2013). For this reason, we hypothesize that female participants could have been involved easier in the interventions proposed leading to inhomogeneous group composition. In this sense, gender may have influenced participants' responses to loneliness experiences, but it is challenging to establish how this differing composition may have impacted the results.

Another variable to consider is the degree program participants are enrolled in, as all international programs were included, in fact the study included all students regularly enrolled in an international program at the University of Padova, encompassing bachelor's, master's, single-cycle, and PhD students. However, the PhD category, which involves a slightly different academic experience suggesting that these participants might be excluded in the future from the target population of international college students, being addressed as a specific population within the broader group of international students. In fact, besides the shared challenges that encompass all international students, PhD students face additional difficulties such as navigating a demanding academic environment, grappling with a wavering sense of self-worth, apprehensions of isolation, diminished motivation, self-doubt regarding intelligence, and feelings of inadequacy (Son & Park, 2014), experiences that might benefit more from tailored and targeted interventions. However, the study reveals that the number of PhD students is consistently lower than other degree programs, except for the self-help group, which is almost exclusively composed of PhD students. This is due to the distinct population of international students, which may produce different results and impacts from the intervention.

Coming to conclusions, the study reveals that group interventions for social isolation and loneliness among international students have a more substantial effect on personal well-being and perceptions of social support. This suggests the importance of maintaining direct face-to-face interactions in all the intervention conditions for future implementations. Furthermore, the study suggests expanding the sample size to better understand the impact of interventions and potentially addressing high dropout rates, while at the same time adopting a randomized controlled trial design to enhance the study's rigor, generalizability and diminish potential bias. Additionally, a longitudinal study design would be useful to capture the longer-term effects of those interventions, allowing for a nuanced exploration of their impact on well-being and social support over time. On a general level, the findings offer valuable insights into the impacts of interventions targeting social isolation and loneliness among international students, and pursuing these perspectives could strengthen the study's

findings and contribute to the development of more impactful and sustainable interventions in this area of research.

STUDY 3.2 – A STUDY IN THE STUDY: A QUALITATIVE INQUIRY ABOUT THE EXPERIENCES OF BEING INTERNATIONAL STUDENTS, THE NARRATIVES SHARED AND ELABORATED IN THE BLENDED GROUP

5.6 Study aims

The present simultaneous study aimed to explore the experiences of international students enrolled at the University of Padua who took part in the blended group intervention, that included an in-person group activities and online self-help materials. The present study is part of the broader above-mentioned research project and will report and examine the qualitative data collected during the in-person blended group activities aiming to deepen participants narratives on the experiences of being international students, as well as their experiences in the group activities and with the online self-help materials.

5.7 Methods

5.7.1 *Participants*

A total of 12 international students who expressed interest in participating to the blended group, were contacted to participate and confirmed their presence, but only nine participants (F = 8; M = 1; mean age = 24.1) attended the first meeting. After the first meeting three of them withdrew, communicating their decision to the research team via email. Causes of withdrew were connected to incompatibilities between the scheduled lectures and blended group sessions. From the second meeting on, six participants (F = 5; M = 1; age $M = 22,3$) took part in the group activities, which included international students enrolled both in master and bachelor degrees as well as PhD programs. Except for one participant (Mark, M, 25, India) who was enrolled in a master degree in astrophysics and cosmology, the other participants were all enrolled in psychology-related courses of study. Participants' were given a fictional name to protect their privacy, their demographical information are summarized in Table 31.

Table 31. *Participants' demographical data*

	Gender	Age	Nationality	Degree	Course of Study	Year of Attendance	Left After the First Meeting
<i>Mark</i>	M	25	Indian	Master	Astrophysics and Cosmology	3	
<i>Lisa</i>	F	22	Turkish	Master	Clinical, social and intercultural psychology	4	
<i>Sarah</i>	F	20	Trinidad de Tobago	Bachelor	Psychological science	3	
<i>Mia</i>	F	24	Turkish	Master	Clinical, social and intercultural psychology	2	
<i>Sage</i>	F	22	USA	Bachelor	Psychological science	4	
<i>Jenny</i>	F	21	Serbian	Bachelor	Psychological science	3	
<i>May</i>	F	27	Mexican	Master	Clinical, social and intercultural psychology	1	X
<i>Georgia</i>	F	24	Iranian	Bachelor	Psychological science	4	X
<i>Carol</i>	F	32	Belarusian	PhD	--	2	X

Inclusion criteria for the present blended group were: being an international student enrolled to a full course of study (bachelor, master, single cycle degree or a PhD) at the University of Padua; being resident in the city or in the province of Padua to be able to attend the in-presence meetings once a week; being over 18 years old and being fluent in English.

Participants were recruited in different modalities, some through the survey presented in the cross-sectional study above mentioned (Phase 1 of the Study 3) by freely leaving their email to be recontacted to propose them future activities for international students; others were recruited by disseminating the invitation to the group activities on social media, specifically sharing the initiative on groups and pages involving international students enrolled in the University of Padua; lastly others were recruited with an invitation that was disseminated via e-mail to the international students at the University of Padua thanks to the collaboration of the Global Engagement Office and the international Student Tutoring Office.

5.7.2 Procedures

Participants, took part in the blended group participating to 8 weekly in-presence meeting, lasting each 90 minutes, moderated by a psychologist (the author of this thesis dissertation), assisted by a trainee psychologist, enrolled in the master's degree in clinical psychology in the University of Padua and supervised by a psychotherapist (the supervisor of this thesis dissertation). Group sessions were carried out at the Psychological Assistance Center of the University of Padua (SCUP) which provided a room. All participants provided their written informed consent in participating in the study and in being audio recorded during the group activities, the study has been approved by the Ethical Committee for the Psychological Research of the University of Padova (Protocol 5112, last modification approval date 13 December 2022).

The meetings were carried out from the 9th of November 2022 to the 25th of January 2023, suspending meetings during winter holidays. Each meeting was structured in the following way: every meeting, with the exception of the first one, began with an invitation to participants to give a brief recap of the previous session in order to include those who were unable to attend the last meeting and to facilitate the start of the current one. Participants who were unable to attend the previous group session were given the possibility to express themselves about the topics that were addressed in the previous week, allowing researchers to collect data from each participant while also offering everyone the opportunity to talk about and reflect on all of the topics. Following the overview of the previous meeting, the moderator introduced the main topic of the current session with an exercise designed to encourage personal reflections on one topic, which participants were invited to share with the rest of the group, creating a safe space for conversation. In order to facilitate the group move from an individual elaboration to a collective perspective, accounting for shared meanings related to the topic of the session, participants were invited to create a group artwork at the conclusion of each meeting (as described in Study 3.1, paragraph 5.2.3 *Structure of the intervention*). The setting of the intervention has been indeed developed in order to represent a safe space for participants, where cooperation, sharing and constructing shared meanings of their experiences were encouraged through a supportive and collaborative approach adopted by the moderator. Between sessions, participants received an email by the moderator, reminding them of the upcoming group session, including a brief synthesis of the contents of the past meeting with the artwork created by the group and the appropriate chapter of the self-help material.

5.7.3 Analysis

In-person sessions have been audio-recorded to gather qualitative data. The verbatim transcription of audio files was followed by a thematic analysis (Braun & Clarke, 2006), performed using ATLAS.ti 9 (<https://atlasti.com>), with the goal of finding recurring themes pertaining to the experiences of all international students enrolled at the University of Padua. Following the guidelines of thematic analysis (Braun & Clarke, 2006) two researchers familiarized themselves with the data by reading the group transcripts and by making notes of any significant information, and then manually coded the responses in an effort to identify repeating themes and finally comparing and discussing those between them. If an agreement was not found between the two researchers, a third researcher was consulted to help in such process, offering an impartial view. Finally, the three researchers discuss together the themes identified and organize these in overarching themes and subthemes, agreeing on their interpretation.

In the present study will be reported and discussed the thematic analysis of the group sessions, a general commentary on the interactional and relational aspects that were observed between participants within the group activities, and a commentary on their use and feedbacks regarding the online self-help materials. In Appendix E is reported a specific commentary for each session and figures of the artworks created by the group, while in Appendix C are reported some examples of the online self-help materials. Such observations will allow the evaluation of specific qualitative aspects that are important to take into account as the intervention itself was designed to create a space and opportunity to enhance one's relationships with peers, fostering social connectedness and expanding the possibilities to get in contact with peers living similar experiences.

5.8 Results

In this paragraph will be presented primarily the thematic analysis of the group sessions, then the commentary on participants' interaction in the group session, and finally the commentary on their experiences with the online self-help materials.

By thematically analyzing the group transcripts researchers identified four overarching themes: being an international student, challenges of being an international student, coping with difficulties and international students' well-being. Each overarching theme contains different themes, for a total of 13, and their sub-themes, for a total of 42, those are reported in Table 32.

Participants' verbatim quotations will be reported followed by a code composed of a fictional name, gender, age and nationality to identify each participant while respecting their anonymity.

Table 32. *Overarching themes, themes and sub-themes identified with the thematic analysis.*

Being an international student	Choosing to move abroad	Personal motivations Cultural motivations
	Preparing for the experience	Being helped by other people Looking for information Broadening one's horizon
	Anticipated outcomes of the experience	Becoming independent far from home Creating memories Becoming a citizen of the world
Challenges of being an international student	Linguistic barriers	Employees in public offices don't speak English Dealing with racism Dealing with a loss of independence Difficulties in improving Italian Lack of English resources in the University environment
	Italian bureaucracy	Practical disruptions Emotional fatigue
	Cultural differences	Challenging one's food habits Dealing with different weather A different University experience
	Facing Loneliness	Missing loved ones in the home country Creating relationships in the host country, not an easy job Resources to overcome loneliness
	The problem of housing	Finding an accommodation Living with other people for the first time
Coping with difficulties	Useful strategies for international students to overcome difficulties	Learn and practice Italian (the local language) Be prepared when dealing with bureaucracy Find your best solutions for health-care Be wise and patient in finding an accommodation Be open to new people and make friends Challenge your food habits, share and explore! Ask for support to friends in the host country
	Requests for the country and university	Make bureaucracy accessible for international students Support international students with housing Foster socialization with other students
International students' well-being	Personal meanings	Being able to trust yourself Finding your balance
	Aspects supporting well-being	Dedicating time to yourself Having a routine/plan and being organized Having social support to rely on and being involved in social activities Handling one's future /Opportunities
	Aspects affecting well-being	Dealing with obligations Lacking social support Dealing with relationship drama

5.8.1 *Being an international student*

This overarching theme is formed by three subthemes that outline participants' narratives on the experience of being an international student. Participants shared and discussed their personal experiences and meanings during group sessions, covering a variety of topics, which have been grouped into the following themes.

- Choosing to move abroad

This theme contains the personal and cultural motivations leading participants to pursue their academic career abroad. On the personal ones participants reported to have chosen to study abroad to support their personal growth and broaden their horizons while challenge themselves and their ability to handle personal challenges: "But [choosing to study abroad] it's just to experience something, trying to meet new people and I think it's not just about doing the university because we have universities back home, It's more just for personal growth" (Sarah, F, 20, Trinidad e Tobago).

Cultural motivations also play an important role in this decision that represents the opportunity to escape bad political situations, pursue better education and opportunities for one's future.

- Preparing for the experience

This theme reports participants' experiences regarding their process preparation, information seeking and support when preparing to go abroad and start their international student experience. Many stated the fundamental role of other people, especially family members and people who have already lived or were living the same experiences. Both in fact represented important resources in the process of looking for information such as bureaucracy, housing and curiosity about the host country culture: "So, for packaging and stuff my mum was there and she made a WhatsApp group with my all cousins who had been abroad. She was just texting what else should be brought and everything." (Mark, M, 25, India)

- Anticipated outcomes of the experience

This theme contains participants' expectations regarding the experience of leaving for studying abroad and the impact that such an experience could have on their lives. Many reported to expect to change ones' perspectives and dreams, gaining cultural knowledge and openmindedness by meeting people from all over the world, creating memorable experiences with others and becoming independent discovering one's strengths.

" Learning new different points of view, then you are like "oh, actually I didn't know this existed"...so you change. And sometimes when I talk to my friends from home, they realize as well like "oh, you wouldn't have said this few month ago" so I think it changes you

a lot...until I came here I didn't have any friends from another country, because I didn't have the environment for that so I never got to experience it and now I get to know a lot of other cultures so that's different." (Lisa, F, 22, Turkey)

Participants also reported fearing to discover themselves changed and somehow not recognizable or changing one's perception of belonging to one culture or place, questioning future projects and perspectives.

5.8.2 *Challenges of being an international student*

This overarching theme include five subthemes that reports challenges and difficulties faced by participants during their experience abroad, specifically contested in the Italian scenario.

- Linguistic barriers

One of the biggest challenges reported by students was related to linguistic barriers experienced by participants in different contexts and connected to different situations and personal meanings. Participants shared how such barriers made them experience a loss of independence, sometimes face acts of racism and diminish their possibility to access to correct information and resources.

"I would always have to ask to my Italian friends which is very humiliating to ask them a favor all of the times and then, yeah, "I'm going to take you for dinner". But like I'm gonna do this, I'm gonna do that. But it's just humiliating" (Lisa, F, 22, Turkey)

Difficulties are reported especially when dealing with public offices or when trying to access to resources of the University, as participants reported a general lack of personnel able to speak in English as well as of information on websites provided in English. Participants try to address this challenge by learning the local language, aiming to reduce the gap between them and local people.

- Italian bureaucracy

Participants reported that dealing with the Italian bureaucracy is very challenging and when disruptions connected to documents or similar occur, those can highly impact their lives in many ways. The long times required every year to renew their residence permit requires them many efforts and limits their possibility to travel, leading to emotional fatigue and distress:

"When I first moved to Italy and then to Padova, so much time is being consumed by hunting down a doctor, to have a residency and know everything with scholarships and all stuff like that. And that kind of limit the way of enjoying everything." (Mia, F, 22, USA)

- Cultural differences

Participants reported having encountered many cultural differences when they moved to Italy, such as tangible differences in food habits, in the weather as well as in the organization and structure of the University, all elements that can be very challenging in the process of adaptation to the new reality.

“That reminds me the first day that it got dark before, I went home and I cried. I’ve never experienced that, it was awful and... It was dark early, it looked like midnight at four p.m. I was disoriented and my roommates told me about seasonal depression and that’s how I get to know seasonal depression, it’s weird.” (Sarah, F, 20, Trinidad e Tobago)

- Facing loneliness

Dealing with loneliness and facing difficulties in cultivating relationships with peers while abroad were reported as major challenges by participants, narrating also the implications of missing friends and families in one’s country struggling to find a suitable way to remain in contact with them without losing opportunities to make new relationships with other students.

“I always say to my friends “if you were there my life would be like 100% perfect” because I feel like there is some sense of security that comes from that, like emotional side that when you have, like, people that you have for your all life. That always helps when you are in a new space.” (Jenny, F, 21 , Serbia)

Making new friends was reported as a hard job, but when possible was recognized as a great resource to overcome loneliness and receive emotional support, and in the specific case of Italian friends, potentially becoming as well a source of practical support with other practical and local challenges.

- The problem of housing

Finding housing when moving abroad can be challenging from different perspectives. Participants shared having faced difficulties in finding an accommodation abroad, mainly due to unbalance between the high demand for university accommodation and the availability. Furthermore, living abroad was the first occasion for all participants to live away from their families and find themselves sharing a private space with strangers facing the difficulties connected as well as the resources of having peer flatmates, a very first social network reported by many as very important.

”I watch movies with my other roommates or we just cook together, we spend time doing normal things that we have to do but together. And then me and one of my roommates,

we have one class together so when It's getting annoying we sit together so It seems more fun." (Sarah, F, 20, Trinidad e Tobago)

5.8.3 Coping with difficulties

This overarching theme include two subthemes that reports the strategies implemented to overcome difficulties faced by international students during their experience abroad.

- Useful strategies for international students to overcome difficulties

Participants reported having thought of and tried to overcome challenges and difficulties related to their experience of being international students with different strategies such as: trying your best to learn and practice Italian (the local language), looking for information and strategies to deal with local bureaucracy, explore possibilities and find your best solutions for healthcare abroad (such as bringing your medicine from home, asking to local friends to come with you to appointments etc.), be wise and patient in finding an accommodation, be open to new people and make friends (don't be shy especially with local peers, such connections can help you improve your Italian and overcome some linguistic barriers as well), challenge your food habits by exploring local things and sharing yours with others as well and ask for support to friends in the host country, as they will become your primary support network when away from home.

"Yeah. I mean, I guess is not like that at home. From home I guess I have friends but if I have some problems I go to family first. I guess that now that I am far from family and friends I go to them when I am not feeling so good." (Sarah, F, 20, Trinidad e Tobago)

- Requests for the country and university

Participants discussed many times about the role of the host country and the University in influencing their opportunity of overcoming difficulties, pointing out gaps and deficiencies while reflecting on potential ways through which such institutions could play a relevant role in supporting international students. The ideas shared and discussed together comprises support modalities such as making bureaucracy accessible for international students through specific offices or English speaking employees, supporting international students with housing and fostering socialization with local and international students by creating spaces and events to promote social opportunities that at the moment, as reported by students, are lacking.

"There are a lot of international students, especially now, but there is not a lot of activities that you can do in English [...] I'd love to join some clubs, create networks and meet people but..." (Lisa, F, 22, Turkey)

5.8.4 International students' well-being

This overarching theme include three subthemes reporting participants narratives related to their idea of well-being experienced as international students living abroad.

- Personal meanings

Participants shared personal meanings regarding their ideas of well-being, and the majority agreed to a definition that stands in describing well-being as the ability to enjoy the moment, understanding what is best for them and act without second thoughts or anxiety, providing a sense of security. In this sense well-being was narrated not as the absence of difficulties, but rather the ability to adjust to new situations, finding a new balance and being able to cope with difficulties.

”Yeah, I mean regardless of the decisions you make, there is no absolute right or wrong.

[...] So you just go for it and if you continue to grow, it is going to lead somewhere, rather than just sitting and thinking about it, not doing anything.” (Mark, M, 25, India)

- Aspects supporting well-being

According to participants, activities such as dedicating time to yourself, having a routine, having a social support to rely on and being involved in social activities are able to positively influence their well-being while studying abroad.

”[...] Last week I said that social support is really important for well-being. And whenever you look at the schedule that I have, I realized that every day I am meeting with my friends, like every day with same people. We drink coffee together at least 2-3 hours. Sometimes it's even more. And yes it is like contribute to my well-being in a positive way [...]” (Sage, F, 24, Turkey)

- Aspects affecting well-being

On the contrary, different aspects are recognized as negatively influencing students' well-being when living abroad, such as dealing with obligations related to work or study that could lead to a strong sense of guilt and frustration, lacking of social support in the sense of not having the possibility to share feelings and problems with friends, and dealing with relationship drama involving parents or close friends in one's home country.

” Like if you get into an argument with your family or a close friend, at least for me, it's way more...it kind of totally brings me down the way more than just get into an argument with a random person, you know.” (Mia, F, 22, USA)

5.8.5 Participants' interaction in the group sessions

Interactions among participants in the in-person group intervention have also been considered as a qualitative index capable of enriching qualitative data collected and accounting for the goal of constituting a relational space where participants could experience social connection (see Appendix E for a commentary of each session and the artwork created by the group). The first two sessions were characterized by an interaction mainly oriented by the moderator, in fact participants talked more when asked rather than freely and several moments of silence were registered. Also in the process of creating the artwork, participants -up to the third session- mainly shared and elaborated individual perspectives, having difficulties in elaborating and creating a common view. From the third session to the fifth, the role covered by the moderator consisted in facilitating participants further elaboration, as the group started to actively elaborate between them. From that moment on the conversation between participants always engaged all members, fostering the creation of shared perspectives and meanings, redefining the role of the moderator mostly at summarizing what was shared and managing the timing of the session. Participants' quantity and quality of interaction constantly increased, reaching its peak in the last session, where participants told us that they were happy with the experience in the group as they have found friendships, while having the opportunity create a space for sharing personal experiences, making them feel comforted, connected and relieved as reported also by two of them: "And what I get from the relationship here is great friendships because I feel like it's the start of something, you know..."(Sarah, F, 20, Trinidad e Tobago) and

"but now, by talking to other people I find that everyone is going through most of the same things...and the words I wrote are comfort because I felt very comfortable to talk about it, everything I mean and connected and the other thing is relieved. [...] And if we continue to be friends out of here, thank you for this." (Mark, M, 25, India)

5.8.6 Participants' experiences with the online self-help materials

Participants' feedbacks and experiences in the use of the online self-help materials have also been considered as qualitative data that could enrich the present investigation, providing us with useful insights on their usability and relevance for participants in the blended intervention.

Every week before the group session, participants received a chapter of the self-help materials and were invited to look at it freely and when they preferred. Interestingly, from the third session on, at the very beginning of each session, participants started to share in the group comments on the self-help materials of that week. Many were sharing their reflections and ideas, asking to the other

members of the group their opinions and experiences, an interaction that was very useful to break the ice between them and start a conversation. Interestingly, supported by the group setting, participants were already actively involved in the process of transforming personal reflections in shared ones, enriching their perspectives with the point of views of peers. In this sense, having at least some participant that consulted the self-help materials before the session naturally facilitated the group elaboration on the topic and supported the social connection between participants.

Only few participant commented the digital extra material suggested at the end of each chapter (videos to move forward the reflections and insights of that chapter) finding them useful especially to move the perspective from individual elaboration to the exploration of the point of view and experience of another person.

Only two participant reported to have printed the chapters to have them in hardcopy, doing so the exercises pen and paper. The majority in fact, reported that they preferred consulting the chapters on their mobile phones and/or tablets, doing the exercises in their mind or on a notebook/agenda. This modality was preferred as it was making the handbook chapters more adaptable, easy to carry and consult in different places and times of the day.

At the end of the blended intervention, participants asked us questions about the creation of the self-help materials in terms of structure, topics and illustrations, reporting us their curiosity for a tool that they have never used before, but that was recognized as an interesting and useful novelty for them. As a side note some participants reported us having shared some chapters with their housemates and international student friends, doing some exercises together or discussing about a specific topic of interest.

5.9 Discussion

The purpose of this study was to investigate the experiences of international students at the University of Padua who took part in a blended group intervention designed to foster well-being and social connectedness.

While several studies have examined the experiences of international students in other countries using qualitative methods (Gautam et al., 2016; Hotta & Ting-Toomey, 2015; Singh, 2018), to our knowledge, this is the first study to be conducted in Italy using such methods. Our findings revealed that international students who chose to pursue their academic education in Italy share many common experiences with international students enrolled in universities around the world, both in terms of the benefits derived from such an experience and of the challenges, difficulties, and coping strategies

employed in dealing with such adversities. According to the existing literature, emphasizing that the challenges international students face vary according to their destination of choice as well as personal and contextual factors (Khanal & Gaulee, 2019; Sherry et al., 2010), our findings support the idea that the Italian context has unique characteristics compared to other countries, particularly in terms of cultural differences. According to previous researches (Cisneros-Donahue et al., 2012; Cubillos & Ilvento, 2013; Haas, 2018; Milian et al., 2015; Sisavath, 2021; Sobkowiak, 2019) studying abroad while in college may result in different positive outcomes such as gaining cultural and functional knowledge, increasing self-efficacy, meeting people from all over the world, broadening ones perspectives and more. Furthermore, our results found that apart from perceived positive changes in oneself (e.g. sense of growth, strength, independence, etc.) derived from the experience of studying abroad, many negative effects related as well to such experience can be faced, fostering conflicts with one's culture of origin and family. In this sense in fact, one's culture of origin can deeply influence personal changes abroad, resulting in the controversial experience of guilt when personal change conflicts with cultural values and expectations, in line with other findings (Berry, 2005; Bender et al., 2019). International students feel the urge to reconnect with their roots and ties in their home countries, especially during times of difficulty, despite the fact that they are aware that cultural norms and expectations may have a negative impact on their well-being. International students try to establish a connection with their roots and with themselves by getting in touch with people they have known for a long time and looking for flavors and smells that take them back home, a connection that helps them feel secure and grounded. Similar to other studies (Nabavi & Bijandi, 2018; Worae & Edgerton, 2023), participants in our study stated that their primary sources of social support are their friends and family back home. Maintaining relationships with loved ones and creating new contacts in the host country is critical for international students, as they may feel isolated in the host country due to the distance from their friends and family members (Poyrazil & Lopez, 2007).

Participants in our study reported that, even though they frequently connect with loved ones back home, not always being in contact with them has a positive impact on their well-being as it makes them feel homesick, lonely, and needing support. This is in line with a prior study (Cipolletta et al., 2022b) conducted at the University of Padua, which highlighted that international students seem to rely more on friends or partners than family members when seeking for support, a result in line with Khawaja & Stallman (2011) highlighting the tendency of international students to avoid discussing problems encountered abroad with family members to avoid confronting with their high expectations on them.

The Italian context presents many similarities to other nations in terms of both the advantages and difficulties experienced by international students, in line with the current literature (Zhou & Zhang, 2014; Milian et al., 2015; Worae & Edgerton, 2023), indicating that challenges faced by international students include adjusting to different eating habits, linguistic barriers, cultural differences, and residential issues. However, the Italian setting exhibits some significant distinctive features. As reported by our participants, the Italian language greatly impacted their lives in many ways, making it difficult to access services such as health care and other public offices, with an even stronger impact on their relationships and well-being. In fact, according to Reinhardt et al. (2006), receiving instrumental support to overcome obstacles is frequently linked to negative outcomes and a loss of independence, both of which have been observed in our research as international students studying at Italian universities are often forced to rely on others to overcome such strong linguistic barriers. Such difficulties are aggravated as well by the lack of English proficiency among Italian citizens and their reluctance to accommodate linguistic differences, contributing to potential episodes of racism and discrimination against international students. These linguistic barriers limit their basic needs, such as housing and healthcare access, as well as their academic life both with services and with peers, affecting their lives from both practical and emotional perspectives.

Participants made a strong point of the absence of extracurricular activities like university clubs, typical in universities all over the world and acknowledged to be excellent social resources for students (Bender et al., 2019; Celik et al., 2023), pointing out the fundamental role of universities institutions as essential source of assistance for international students (Bai, 2016; Cho & Yu, 2015). Sumer et al. (2021) emphasized the significance of giving international students helpful information once they arrive at the University and having services spread out on the area (such as events, seminars, etc.) more accessible in order to facilitate their adjustment process.

Since the University of Padua is expanding its offer of activities, conferences, workshops, and seminars in English and moving toward an international perspective, it is important for us to start a reflection on the discrepancy between the University's actual proposals and how international students perceive them, which may be caused by communication barriers between students and the University. However, regardless of the quantity of accessible activities, participants stressed their need for social connections, attributing interpersonal relationships a critical role for fostering their well-being. According to our findings, consistent with other studies (Cho & Yu, 2015; Worae and Edgerton, 2023), relational issues are the primary determinants affecting international students' well-being, both positively and negatively. All participants agreed that having a strong

relational network is something that positively supports their well-being, whereas the absence of such support and conflicts with loved ones can significantly lower their well-being.

Our findings agree with previous studies (Celik et al., 2023; Reinhardt et al., 2006), which pointed out the dual role of social support, from which international students can benefit both practically and emotionally, highlighting that receiving practical support may result in a loss of independence (Reinhardt et al., 2006), whereas receiving emotional support is generally associated with positive outcomes (Celik et al., 2023). Participants valued the chance to rely on Italian friends, and they did emphasize the importance of local friends as a fundamental resource to overcome challenges encountered in the host country. However, they also reported that being forced to ask for their help results in a loss of independence, which can be painful and embarrassing. Participants stated that the benefit of social support arises mostly from the possibility of experiencing mutual comfort, spending time together, distracting from concerns, and sharing common experiences; stressing that the possibility of feeling understood, listened to, and connected with peers abroad is what they are missing most, not fulfilled by the solely benefit of getting practical help in resolving day-to-day issues. Results in line with previous research stressing the fundamental importance of social support as a factor supporting international students' adaptation process (Ying & Han, 2006; Smith & Khawaja, 2011), adjustment, well-being and health (Bender et al. 2019; Cho & Yu, 2015; Smith & Khawaja, 2011). Our findings support evidence from the literature, emphasizing the need for international students to share and normalize the difficulties of studying abroad by discussing with other international students in a group setting (Dipeolu et al., 2017), which has been found to be a useful strategy to manage stress abroad (Khawaja & Stallman, 2011), providing international students with the opportunity to share advice and experiences.

Interestingly, even while pointing out the need for support from other peers, services, and institutions, participants acknowledged their potential as resources for other international students. Interestingly, even while pointing out the need for support from other peers, services, and institutions, participants acknowledged their potential as resources for other international students. In fact, as found in other studies (Khawaja & Stallman, 2011; Sumer et al., 2011; Wang, 2009) they could play an important role in suggesting practical and emotional coping strategies to deal with difficulties they have encountered while abroad. Given the recognition of the active role that international students can play in such process, participants shared suggestions and requests for the host university and the nation (such as changing bureaucratic procedures, providing more lodging, social activities, etc.) highlight their need for assistance in coping with difficulties while abroad,

emphasizing the significance of the resources and their accessibility, pointing out the crucial role that local institutions can play in supporting their experience specifically in dealing with the hardest challenges.

5.10 Limitations and future directions

We acknowledge that the study has several limitations, including the use of a very small sample size, which may result in a limited view of the experience of being an international student and, for example, limiting the opportunity to notice peculiarities related to belonging to different cultural backgrounds. Additionally, the majority of participants were enrolled in psychology-related courses, which may have biased the findings and limiting the possibility to gather information from different populations. The mortality rate and absence rate have been higher than estimated. One possible explanation could be that the time intervention was carried out overlapped for some sessions with the exam period, which participants have mentioned as one of the reasons they were unable to attend sessions. Additionally, those who left the group after the first meeting might have signed up just to observe the activities and make a decision on whether to stay for the duration of the intervention or not.

Thinking of future perspectives we can say that according to our findings, implementing targeted interventions that foster social connectedness among international students could respond in a promising way to those relevant challenges and difficulties that they are experiencing. The University of Padua and related institutions could benefit from the findings of the current study, even though it only included a small sample of international students. In fact, by collaborating to better understand the needs of international students residing in Padua, they could work in the direction of implementing services that would improve their well-being and give them the opportunity to get involved in first person as valuable members of the academic and local community.

In this sense, the research's value comes from both its examination of the first-time experiences of international students enrolled at the University of Padua and identification of their needs, as well as its provision of an intervention model that has been successful in addressing one of the population's primary needs: promoting social connections among participants.

CHAPTER 6. OVERALL DISCUSSION

This project presented an overview of the experiences of Italian professionals and clients with psychological online and offline interventions starting from the experiences and explorations resulted from the COVID-19 pandemic, aiming to elaborate potential future perspective and possibilities for psychological support.

In the past chapters, the theoretical framework and the developed and implemented studies have been presented and discussed. The next paragraphs will provide a comprehensive perspective and highlight the main key concepts resulting from the investigations carried out within the overall PhD project. Specific attention will be given to discussing the practical and clinical implications of those findings, elaborating as well the studies' strengths and limitations, and, finally, presenting the conclusions of the overall PhD project.

The systematic review carried out to construe the foundations of the overall PhD project offered a comprehensive overview regarding the global phenomenon of the forced shift to the online setting, pointing out the strategies and experiences of different countries in adapting to such a new and unprecedented situation. The key outcomes underlined that a prior experience with the online setting, was reported as a benefit influencing professionals' self-confidence when practicing online during the pandemic; and pointed out how the direct and extensive experience with the online setting positively impacted on professionals' attitudes influencing the possibility of using such modalities also in the future, in line with other findings (Aafjes-van Doorn et al., 2021; Bekes et al., 2020; Cioffi et al., 2020; Gentry et al., 2021; Jurcik et al., 2021). Moreover, the pandemic has revealed specific challenges of the online context such as its impact on the therapeutic boundaries, the "zoom fatigue", the lack of specific software and a general sense of unpreparedness connected to the forced and fast shift to the digital setting, resulting in an active request for specific tools, country specific regulations and tailored education to support professionals and clients in this transition.

Study 1 reported an in depth investigation of the Italian experiences with online interventions during the pandemic, focusing on the experiences of psychologists and psychotherapists. Many result confirmed what found in the systematic review, while others specifically underpinned the Italian experience with the forced shift to the online setting. The key outcomes resulted from this empirical study pointed out different resources and solutions that Italian professionals implemented to face the challenges and disruptions caused by the pandemic, as well as underlined how the extensive use of such practice made possible for them to imagine its future adoption in their clinical practice, a choice

connected also to a more positive attitude towards such practice derived from the pandemic experience. Moreover Italian psychologists and psychotherapists underlined the importance of creating and making available software and hardware to support them and their clients, requested specific education and trainings regarding the online practice, as well as underlined the importance of updating the Italian guidelines for the online practice to solve doubts, legal and ethical concerns. A very interesting outcome resides in the exploration and deepening of the personal meanings and resources that they developed and used to create and maintain a satisfactory therapeutic relationship online. Such possibility in fact was not obvious, as one of the major concerns regarding practicing online reported by Italian and international professionals (Cipolletta & Mocellin, 2018; Germain et al., 2010; Williams et al., 2015) before the pandemic, was related to the loss of relational aspects and communication resources due to the characteristics of the online setting.

Study 2 moved the attention to the actual challenges in psychological care, exploring the impact of the COVID-19 pandemic on the vulnerable population of college students, that during such unprecedented times were facing major disruptions in their everyday life activities, mental health and well-being. The key outcomes that resulted from this empirical study showed that the pandemic had a significant impact on college students' mental health and wellbeing, especially in terms of anxiety and depressive symptoms, in line with other findings (Hari et al., 2021; Kivelä et al., 2022). The results showed that higher perceived social support was associated with lower loneliness, anxiety, depression and perceived impact of the pandemic on life quality and higher levels of life satisfaction, in line with other studies (Clair et al., 2021; Lee et al., 2020). This aspect underlined that social support could play an important role in supporting college students' wellbeing as its presence is associated with lower loneliness, anxiety, and depression.

Those results underlined the importance of responding to actual challenges by developing and implementing tailored interventions, and made possible to identify significant elements for the development and implementation of the following steps of the PhD project.

Study 3, moved the focus to the clients' perspectives, enabling the exploration of those participating in the interaction from "the other side of the screen". In fact, empirical study 3 presents two simultaneous investigations (study 3.1 and 3.2) involving international students that took part in an intervention to support their social connectedness with peers and well-being, comprising three conditions (blended, online self-help materials and peer-to-peer) and lasting 2 months, aimed at exploring the relevance and impact of those interventions and qualitatively deepening their experiences.

Results of the intervention study (study 3.1), reported that in-person group activities (blended and peer-to-peer) were preferred by participants, perceived as more relevant and useful in addressing their challenges and difficulties, supporting useful reflections and new points of view. In line with other findings, results showed that the in-person group activities increased perceived social contacts and enhanced interaction skills, promoting well-being, creating new social connections, overcoming linguistic barriers and reducing loneliness (Carr et al., 2003; Dipeolu et al., 2007). Meanwhile, the online self-help materials were still reported as useful and practical in supporting well-being and personal resources, but lacking in supporting socialization and the creation of social connections; in this sense participants who only received online self-help materials underlined the importance of combining it with in-presence activities. Last but not least reflections on the pilot intervention itself and on the high drop-out rate with its specificities, made possible to critically reflect on the implications of such blended pilot intervention, the specific population and aim, as well as the modality, looking towards the future of online psychological interventions taking into account the context, period and specific variables.

In line with concurrent studies on the topic (Bekes et al., 2020; Bekes et al., 2021; Thome et al., 2021), the overall results of the present PhD project, pointed out that the pandemic, with its unprecedented and unanticipated impact, determined a global turning point for the use and advancement of online psychological interventions. Interestingly, the experiences reported by professionals all over the world and, more specifically for this PhD work, in Italy, made possible to identify with precision and speed the areas mainly lacking or underdeveloped that were limiting its use in the everyday clinical practice.

Another interesting outcome stands in extending beyond research and reflections on the therapeutic relationship online, a topic that was already gaining much attention in the international panorama (Simpson et al., 2020; Socala et al., 2013; Watts et al., 2016). Italian professionals in fact (Study 1), reported that to feel and be present with their clients in the online setting it is fundamental to elaborate and negotiate with their clients new forms of interactions “through the screen” that differ from in presence ones not only in terms of transferring them to the virtual room. The awareness that the online setting determines not a simple transition of the in-presence psychological techniques and norms in the online setting, but rather a different and unique experience of being in relationship, is remarkable and draws attention to the importance of deepening such knowledge to allow further elaborations. In line with this, fostering clinical and relational reflections on the possibility of

establishing a therapeutic relationship online should be furtherly elaborated to support the dyad in the relational process.

Another transversal and interesting outcome of the overall project stands in the importance of taking into account and expanding a critical perspective over the use and suitability of online interventions in psychological care. As supported also by other authors (Dores et al., 2020; Perle et al., 2013) in fact, online psychological interventions may not be suitable and recommended for all populations of clients, for all problems and mental health issues and for all contexts. Consistently the pandemic highlighted even more how online interventions may not be the best choice or universal remedy for everyone, all conditions and all contingencies; taking into account different phenomena such as the digital divide (Mallen et al., 2005), accessibility and usability problems, privacy issues, clinical considerations and so on (Boldrini et al., 2020; Endale et al., 2020; Goldschmidt et al., 2021; Jurcik et al., 2021; Shklarski et al., 2021; Zubala & Hackett, 2020); supporting the adoption of a critical perspective that could orient professionals, services and policy makers in considering complexity when thinking of the future of psychological care.

Overall the pandemic has represented an unexpected but impressive opportunity to extensively explore the assumptions, modalities and potential outcomes of the online practice, enabling both professionals and clients all over the world to test its potentialities and limitations, as documented as well by other researches (Bekes & Aafjes-van Doorn, 2020; De Witte et al., 2021; Humer et al., 2020b; Simpson et al., 2021; Wind et al., 2020). Such experience made possible for researchers all over the world to explore and collect data on such extensive experience, with which understand the effective and potential implications for the present and future of psychological care, while providing policy makers and clinical services with many and interesting information to orient future perspectives.

Such argument appears very important especially if we take into account that the majority of professionals were forced to practice online during the pandemic, and that before that moment were not using such modalities in their clinical practice reporting a neutral or negative attitude towards it (Cipolletta & Mocellin, 2018; Thome et al., 2021), a trend that drastically changed thanks to the pandemic experience, resulting in a positive attitude towards such practice, as well in the willingness to use it in the future, in line with other findings (Bekes et al., 2020; Bekes et al., 2021; Dores et al., 2020).

Altogether the studies developed and implemented in the present thesis made interesting contributions to the Italian context in terms of drawing new trajectories of possibilities for the future

of psychological interventions online and offline, which can be extended to the international panorama. These contributions are reported and discussed below.

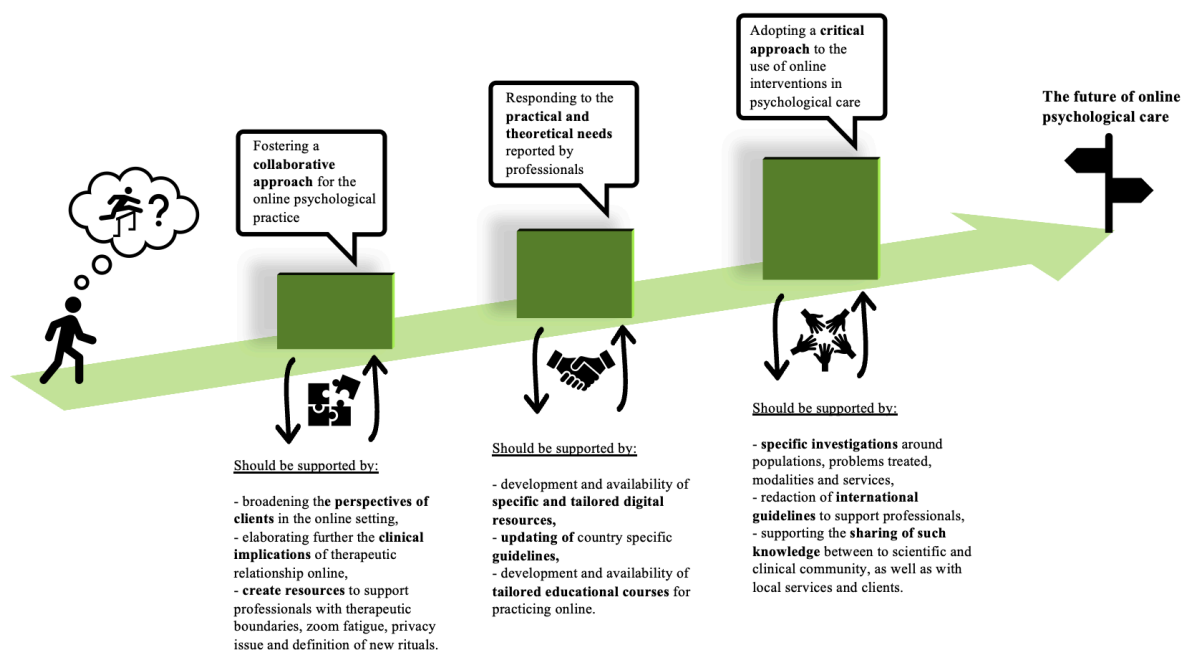
6.1 How can we support the future of online psychological practice? Transforming the lessons learnt into future perspectives

The present paragraph is aimed at elaborating and discussing those elements that are necessary to guarantee the future development of the online clinical practice, transforming the lessons learnt during the extensive experience of the pandemic in significant and useful trajectories for the future of such practice.

The elaborations will be guided by those questions arose by discussing the results we collected in our studies and confronting them with the updated literature, trying to consider its complexity and the different actors involved.

As synthesized in Figure 13 the following subparagraphs will discuss and try to elaborate further on the obstacles that, at present, needs to be addressed to support the future of online psychological care providing information, reflections and further questions.

Figure 13. A visual representation of the obstacles and possibilities to support the future of online psychological care.



a. How can we foster a collaborative approach in online psychological practice?

An interesting point of practicing online, found in all our studies is the need for a collaborative approach involving primarily professional and client, as well as institutions and local services. The online setting in fact, for its nature, redistributes agency to all the actors involved, broadening the implications of choosing such modality (Cipolletta, 2015; Simpson et al., 2021). One simple but interesting example resides in the negotiation of new rituals and rules in the therapeutic setting, in fact in the in-presence practice the professional have more control over the setting, the modality in which the client arrives, the location and the control over the environment around them and so on. Whereas, when delivering an online intervention, such control and definition meet the necessity of being redefined and reorganized in a more participated way. To guarantee such participation, it is fundamental to explore and deepen the clients' perspectives to collect their needs and opinions regarding the virtual setting, to guarantee the accessibility and usability of such practice and to support them in the creation and maintenance of a satisfactory therapeutic relationship online.

As reported in Study 3, involving clients in the evaluation of different aspects of the psychological intervention delivered online or including digital means, is fundamental to understand to what extent such modality is meeting their expectations and needs, fostering a critical evaluation and feedback collection during its implementation, allowing clinicians and/or researchers to take into account their experiences and preferences in a collaborative and successful partnership.

In line with this perspective and as supported also by other studies (Barak & Grohol, 2011; Finn & Barak, 2010; Sucala et al., 2013; Watts et al., 2016), our investigations highlighted the importance of exploring and elaborating further the specificities of therapeutic relationship in the online setting (Study 1). In fact, the specificities of such modality that characterize the possibility of feeling present with the clients "as we were in the same room" (Bouchard et. al., 2011; Grodin et al., 2019), are not obvious for all professionals and might be impeded by disruptions with digital tools, privacy issues, difficulties in managing environmental problems, interruptions etc. negatively impacting on feeling presence and in relationship with the client during a session (Geller, 2017; Oshni Alvandi, 2019). In this sense, it is of fundamental importance to furtherly explore the clinical implications that the online setting may play on the therapeutic processes, as feeling presence and in relationship with the client in the therapeutic setting has been acknowledged as a mean to sustain the client's therapeutic processes (Geller et al., 2012), fundamental aspects to determine the effectiveness of the psychological intervention itself (Geller, 2017; Hayes & Vinca, 2017; Norcross & Lambert, 2019).

b. How can we respond to the practical and theoretical needs reported by professionals?

As already discussed, the extensive experience with online interventions during the pandemic analyzed by all our studies and documented by numerous research (Wind et al., 2020; Bekes & Aafjes-van Doorn, 2020; Humer et al., 2020a; 2020b; De Witte et al., 2021; Simpson et al., 2021), determined an important and global turning point for such practice.

Remarkably, such extensive experience underlined the “grey areas” of such practice, allowing the early detection of those critical aspects needing to be addressed to guarantee the future implementation of online psychological care. As found in the systematic review and in Study 1, the pandemic period underlined the urgent need to develop and make available tailored tools, especially software, that could respond to the specific needs of the clinical practice online (GDPR policies, privacy, features etc.), a result supported by different authors (Aafjes-van Door et al., 2021; Bekes et al., 2020; Thome et al., 2021). During the pandemic period, different proposals of software to deliver online psychological interventions have been presented on the market (such as PsyCare, BetterHelp, Serenis, etc.), underlining the innovation and the coherent timing of such proposals, while at the same time pointing out the importance of addressing potential barriers such as their cost, their validation from national and international councils of psychology, as well as their easiness of use and accessibility for both professionals and clients.

In line with this, in Study 1 professionals reported the importance of updating the national guidelines for the online practice, claiming the importance of transforming the lessons experienced and learnt during the pandemic into knowledge and resources for the future of the online psychological practice.

Last but not least, professionals lamented the lack of specific educational resources and courses to support them in the digital transition, claiming for tailored courses aimed at supporting them with practical knowledge about the online setting, tools and modalities, as well as the clinical implications of practicing online and developing and maintaining a satisfactory therapeutic relationship in the virtual setting, in line with other findings (Aafjes-van Doorn et al., 2021; Bekes et al., 2020; Perrin et al., 2020). Such request should be taken into account by national and international councils with the aim of transforming the individual experience and adjustment to the virtual setting imposed by the pandemic, into an opportunity to share the resources and awareness derived from it, collectively and actively taking part in the transformation of the data collected with research into clinical guidelines and/or support materials for clinical use.

c. How can we adopt and support a critical approach to the use of online interventions in psychological care?

Before the pandemic, even though online practice was less preferred to conventional face to face one, professionals all over the world reported curiosity in such interventions and literature was already mainly underlining its potential benefits and resources (Cipolletta et al., 2018; Connolly et al., 2020; Fitzgerald et al., 2012; Godine & Barnett, 2013; Haddouk, 2015). Nevertheless, professionals and clients were reporting many and major concerns about its use in their everyday clinical activity, reporting to feel unprepared and unused to such means and modalities (Becker & Jensen-Doss, 2013; Schuster et al., 2018), as well as perceiving them as ineffective and difficult to be carried out and accepted (Schröder et al, 2017).

The forced and extensive experience with online interventions resulted from the pandemic, provoked an unexpected but remarkable change in such trend. As found in the systematic review and in Study 1, and in line with different studies, such direct and extensive experience positively influenced professionals' attitudes (Connolly et al., 2020; Payne et al., 2020; Thome et al., 2021); fostered in professionals the experience-related sense of technical and clinical competence in the online world (Bekes et al., 2020; Sammons et al., 2020a, 2020b; Zubala & Hackett, 2020); as well as a higher self-confidence when using online interventions (Connolly et al., 2020). As a confirmation of this, professionals in Study 1 expressed their willingness to continue practicing online even after the end of the impositions of the pandemic, in line with other studies (Bekes et al., 2020; Dores et al., 2020).

Despite the current trend of embracing with enthusiasm the innovations and possibilities of using and implementing online interventions in the everyday psychological practice, major concerns and practical disruptions still persist in such practice (Baumeister et al., 2020; Dores et al., 2020; Sander & Bauman, 2020), stressing the importance of not taking them for granted, fostering further elaborations.

In line with this, the experience had during the pandemic, shed light on different elements to be taken into account when thinking of using and proposing an intervention online or through digital means to clients, such as their ability and knowledge of digital means, their possibility to access and use them, their specific request and problem, their personal perspective and preference and so on.

As found in the systematic review and in Study 1, in line with other findings (Dores et al., 2020; Perle et al., 2013; Poletti et al., 2020), some populations of clients seems to benefit more from the online setting compared to others; a similar reflection connected to their age making children and

older people less treated online, something that should be important to elaborate further in order to understand its causes and implications, while addressing the possibility of preventing such patients from receiving adequate and accessible care. Also contextual factors are important to be taken into account when proposing or delivering an online intervention, as they play an important role in the therapeutic setting.

In line with these reflections and as found in Study 2 and 3, considering different elements and embracing its complexity appears fundamental to guarantee a contextualized and mindful approach in psychological care. A critical approach in the elaboration and implementation of online psychological interventions appears fundamental to respond to the actual challenges and to work back-to-back with clients, colleagues and institutions, tackling the actual challenges of mental health and well-being in the general population. Tailorizing a psychological intervention, taking into account different elements of the context, of the clients, of the available resources and means, of the implications of choosing an in-presence or virtual setting, of the ethical and deontological reflections and so on, is fundamental to carry out an efficient and relevant intervention, respecting the complexity of each situation and going beyond the “one fit for all” mentality.

But how can we support professionals in cultivating and adopting a critical and mindful approach in delivering online psychological interventions?

First of all it is important that the academic community furtherly investigates the implications and characteristics of using online interventions within specific populations of patients, problems and mental health issues in different contexts of application, to allow the discussion of specific implications and outcomes, bringing forward the investigations started with the pandemic period and their outcomes.

Such knowledge in fact, investigated and generalized also in a more “typical” context, in terms of not characterized by a pandemic, its rules and restrictions, the forced choice of practicing online etc., should be used to redact specific guidelines to support professionals all over the world in the choice of practicing online and in the clinical practice itself.

It would be very interesting and preferable to maintain a strong and participative collaboration between clinicians and the academic community to guarantee the exchange of knowledge coming from research and direct experience, supporting a joint construction of possibilities for the future of online psychological practice.

Last but not least online interventions are consolidating their entrance in local, public services and stakeholders, underlining the importance of creating networks of collaboration able to take into

account the role that international and local counterparts can take in the bigger picture, shaping trajectories of possibilities for the future of psychological care.

6.2 Overall limitations and future directions

Coming to conclusions it is important to reflect upon the limitations of the present PhD project.

First, despite providing international investigation over the topic of online psychological interventions (the systematic review), the present thesis focused mainly on the Italian context (especially in Study 1), providing a detailed investigation of Italian psychologists and psychotherapists experiences with online interventions, reporting context and country specific data. Such investigation provided interesting and innovative information regarding the Italian experience with online interventions in the times of the pandemic, but those may not be generalizable to other countries even though the specificities of the COVID-19 pandemic determined similar situations and restrictions in different countries.

Second, the impact of the pandemic hasn't allowed the possibility of choosing and carrying out in-presence data collections to respect the COVID-19 restrictions (especially in Study 1) determining the choice of a data collection modality (online survey) that resulted in a high mortality rate of responses together with the involvement of professionals already familiar with the use of digital means.

Third, Study 2 pointed out the importance of identifying needs and challenges resulted from the pandemic on vulnerable populations, providing important elements for structuring and implementing psychological interventions to tackle the actual challenges. Such investigation presented major limitations, first of all the cross-sectional design that provided only a contested picture of the situation, and second the limited number of participants in the study that could not represent the student population of the University of Padua, also showing a disproportion between genres.

Fourth, in Study 3 we carried out a pilot intervention study, involving a specific vulnerable population that was facing psychological challenges at the time of the study conduction. Such experience reported interesting outcomes as well as major limitations, providing initial space for discussions and elaborations that could orient future implementations and evolution of the project. At the same time such experience supported our developing reflection over adopting a critical and mindful approach towards online interventions and modalities in addressing the actual mental health and well-being challenges.

As reported in the past paragraphs, the present work assessed and investigated a contextual phenomenon characterized by a rapid and extensive implementation of online interventions in psychological care, making the present work not generalizable to all contexts of applications. Even though, it was precisely the COVID-19 contextualized experience with online interventions that made possible to investigate and elaborate “in context experience-related outcomes and implications”, laying the foundation for future directions and possibilities.

6.3 Conclusions

The present research was an attempt to investigate and understand Italian psychologists’ and clients’ experiences with online psychological interventions, embracing the opportunity of extensively using and creatively facing the challenges that came with the COVID-19 pandemic. Such specific period in fact, made possible to identify possibilities and resources, as well as challenges and disruptions, allowing the raising of specific needs and demands that determined an important step forward in this area.

As reported in our studies in fact, the majority of professionals’ perspectives on the use of digital technologies in clinical practice have been permanently transformed by their forced experience and adaptation, resulting in their experimentation with various tools and the development of a favorable attitude toward digital interventions.

Nevertheless, such extensive experience underlined the “grey areas” and the major limitations that could negatively impact on the accessibility, quality and efficacy of the intervention, allowing the detection of those critical aspects needing to be addressed to guarantee the improvement of online psychological care.

Comprehensively discussing those arguments, we remarked the importance of adopting a critical and mindful approach towards the use of online interventions in psychological care, as a fundamental step to respond to the current challenges and to work back-to-back with clients, colleagues and institutions, tackling the contemporary challenges of mental health and well-being in the general population.

To do so, it is crucial to invite stakeholders and institutions that could play a fundamental role in this process, to take part in the conversation and in this process of knowledge creation and sharing, inviting them to take an active role in such network.

This process could foster the expansion and further elaboration of all the relevant elements that support a tailored and mindful approach to online interventions in psychological care, taking into

account its implications, the ethical and deontological aspects and the contemporary challenges, with the aim of supporting their efficacy, relevance and benefit, respecting the complexity of each situation and going beyond the “one fit for all” mentality.

By reporting and discussing the results obtained in the present PhD thesis, we have been actively involved in constructive elaborations of the future trajectories of online interventions in psychology, looking for new questions and perspectives, as well as potential opportunities to overcome the actual barriers; the results reported and discussed in the present work hopefully may guide future research on the topic delineating new trajectories and opportunities for the use of online interventions in psychological care.

REFERENCES

- Aafjes-van Doorn, K., Békés, V., & Prout, T. A. (2021). Grappling with our therapeutic relationship and professional self-doubt during COVID-19: Will we use video therapy again? *Counselling Psychology Quarterly*, 1–12. Scopus. <https://doi.org/10.1080/09515070.2020.1773404>
- Adams, R. B., & Kleck, R. E. (2005). *Effects of direct and averted gaze on the perception of facially communicated emotion*. *Emotion*, 5(1), 3–11. <https://doi.org/10.1037/1528-3542.5.1.3>
- Adler, G., Pritchett, L. R., Kauth, M. R., & Nadorff, D. (2013). A Pilot Project to Improve Access to Telepsychotherapy at Rural Clinics. *Telemedicine and e-Health*, 20(1), 83–85. <https://doi.org/10.1089/tmj.2013.0085>
- Al-Oraibi, A., Fothergill, L., Yildirim, M., Knight, H., Carlisle, S., O’connor, M., Briggs, L., Morling, J. R., Corner, J., Ball, J. K., Denning, C., Vedhara, K., & Blake, H. (2022). Exploring the Psychological Impacts of COVID-19 Social Restrictions on International University Students: A Qualitative Study. *International Journal of Environmental Research and Public Health*, 19(13). <https://doi.org/10.3390/ijerph19137631>
- Alaklabi, M., Alaklabi, J., & Almuhlaifi, A. (2021). Impacts of COVID-19 on International Students in the U.S. *Higher Education Studies*, 11(3), 37. <https://doi.org/10.5539/hes.v11n3p37>
- Alharbi, E. S., & Smith, A. P. (2019). Studying away and well-being: A comparison study between international and home students in the UK. *International Education Studies*, 12(6), 1-19. <https://doi.org/10.5539/ies.v12n6p1>
- Alshammari, M., Othman, M., Mydin, Y., & Mohammed, B. (2023). Exploring How Cultural Identity and Sense of Belonging Influence the Psychological Adjustment of International Students. *Egyptian Academic Journal of Biological Sciences. C, Physiology and Molecular Biology*, 15(1), 251–257. <https://doi.org/10.21608/eajbsc.2023.290566>
- American Psychological Association (APA), (2020, June 5). COVID-19: What the Ethics Code says about reopening your practice now. <http://www.apaservices.org/practice/news/reopening-practice-covid-19>
- Amichai-Hamburger, Y., & Hayat, Z. (2013). *Personality and the internet*. In Y. Amichai-Hamburger (Ed.), *The social net: Understanding our online behavior* (pp. 1–20). New York: Oxford University Press
- Andersson, G. (2016). Internet-Delivered Psychological Treatments. *Annual Review of Clinical Psychology*, 12, 157–179. <https://doi.org/10.1146/annurev-clinpsy-021815-093006>
- Andersson, G. (2018). Internet interventions: Past, present and future. *Internet interventions*; 12; 181-188. <https://doi.org/10.1016/j.invent.2018.03.008>

- APA Joint Task Force for the Development of Telepsychology Guidelines for Psychologists (2013). Guidelines for the practice of telepsychology. *American Psychologist* 68(9),791–800. <https://doi.org/10.1037/a0035001>
- Apolinário-Hagen, J., Fritsche, L., Bierhals, C., & Salewski, C. (2018). Improving attitudes toward e-mental health services in the general population via psychoeducational information material: a randomized controlled trial. *Internet interventions*, 12, 141-149. <https://doi.org/10.1016/j.invent.2017.12.002>
- Arslan, G., & Allen, K.-A. (2021). Exploring the association between coronavirus stress, meaning in life, psychological flexibility, and subjective well-being. *Psychology, Health, and Medicine*. doi:10.1080/13548506.2021.1876892
- Bai, J. (2016) Perceived support as a predictors of acculturative stress among international students in the United States. *Journal of International Students*, Volume 6, Issue 1, pp. 93-106. DOI: 10.32674/jis.v6i1.483
- Baker, K. D., & Ray, M. (2011). Online counseling: The good, the bad, and the possibilities. *Counselling Psychology Quarterly*, 24(4), 341–346. <https://doi.org/10.1080/09515070.2>
- Banbury, A., Nancarrow, S., Dart, J., Gray, L., & Parkinson, L. (2018). Telehealth Interventions Delivering Home-based Support Group Videoconferencing: Systematic Review. *Journal of Medical Internet Research*, 20(2), e8090. <https://doi.org/10.2196/jmir.8090>
- Barak, A., & Grohol, J. M. (2011). Current and Future Trends in Internet-Supported Mental Health Interventions. *Journal of Technology in Human Services*, 29(3), 155–196. <https://doi.org/10.1080/15228835.2011.616939>
- Barak, A., Klein, B., & Proudfoot, J. G. (2009). Defining Internet-Supported Therapeutic Interventions. *Annals of Behavioral Medicine*, 38(1), 4–17. <https://doi.org/10.1007/s12160-009-9130-7>
- Bauman, S., & Rivers, I. (2015). *Mental health in the digital age*. Palgrave Macmillan. <https://doi.org/10.1057/9781137333179>
- Baumeister, H.; Terhorst, Y.; Grässle, C.; Freudenstein, M.; Nübling, R.; Ebert, D.D. (2020). Impact of an acceptance facilitating intervention on psychotherapists' acceptance of blended therapy. *PLoS ONE*, 15, e0236995. doi: 10.1371/journal.pone.0236995
- Beam, C. R., & Kim, A. J. (2020). Psychological sequelae of social isolation and loneliness might be a larger problem in young adults than older adults. *Psychological Trauma: Theory, Research, Practice, and Policy*, 12, S58–S60. <https://doi.org/10.1037/tra0000774>
- Beard, C., Hsu, K. J., Rifkin, L. S., Busch, A. B., & Björgvinsson, T. (2016). Validation of the PHQ-9 in a psychiatric sample. *Journal of Affective Disorders*, 193, 267-273. <https://doi.org/10.1016/j.jad.2015.12.075>
- Becker, E. M., & Jensen-Doss, A.(2013). Computer-assisted therapies: examination of therapist-level barriers to their use. *Behav Ther*, 44,614–624.

- Békés, V., & Aafjes-van Doorn, K. (2020). Psychotherapists' attitudes toward online therapy during the COVID-19 Pandemic. *Journal of Psychotherapy Integration*, 30(2), 238–247. <https://doi.org/10.1037/int0000214>
- Békés, V., Aafjes-van Doorn, K., Prout, T. A., & Hoffman, L. (2020). Stretching the Analytic Frame: Analytic Therapists' Experiences with Remote Therapy During COVID-19. *Journal of the American Psychoanalytic Association*, 68(3), 437–446. <https://doi.org/10.1177/0003065120939298>
- Békés, V.; Luo, X.; Prout, T.A.; Hoffman, L. (2021). Psychotherapists' Challenges with Online Therapy During COVID-19: Concerns About Connectedness Predict Therapists' Negative View of Online Therapy and Its Perceived Efficacy Over Time. *Front. Psychol*, 12. DOI: 10.3389/fpsyg.2021.705699
- Bender, M., Osch, Y., Slegers, W., Ye, M. (2019) Social Support Benefits Psychological Adjustment of international students: evidence from a meta-analysis. *Journal of Cross-Cultural Psychology*, Volume 50, Issue 7, pp. 827-847, DOI: 10.1177/0022022119861151
- Benke, C., Autenrieth, L. K., Asselmann, E., & Pané-Farré, C. A. (2022). One year after the COVID-19 outbreak in Germany: Long-term changes in depression, anxiety, loneliness, distress and life satisfaction. *European Archives of Psychiatry and Clinical Neuroscience*, 1-11. <https://doi.org/10.1007/s00406-022-01400-0>
- Bennett, C. B., Ruggero, C. J., Sever, A. C., & Yanouri, L. (2020). eHealth to redress psychotherapy access barriers both new and old: A review of reviews and meta-analyses. *Journal of Psychotherapy Integration*, 30(2), 188–207. <https://doi.org/10.1037/int0000217>
- Berry, J.W. (2005) Acculturation: living successfully in two cultures. *International Journal of Intercultural Relations*, Volume 29, pp. 697-712, DOI: 10.1016/j.ijintrel.2005.07.013
- Bessaha, M. L., Sabbath, E. L., Morris, Z., Malik, S., Scheinfeld, L., & Saragossi, J. (2020). A Systematic Review of Loneliness Interventions Among Non-elderly Adults. *Clinical Social Work Journal*, 48(1), 110–125. <https://doi.org/10.1007/s10615-019-00724-0>
- Bhavsar, D., Johnson, P. A., Johnson, J. C., Singh, J., & Mardon, A. A. (2021). Evaluating and Mitigating the Challenges of International Students Amidst the COVID-19 Pandemic: An Overview Canadian Journal of Medicine. In *Canadian Journal of Medicine* (Vol. 3). DOI: 10.33844/CJM.2021.60597
- Bilecen, B. (2020). Commentary: COVID-19 Pandemic and Higher Education: International Mobility and Students' Social Protection. In *International Migration* (Vol. 58, Issue 4, pp. 263–266). Blackwell Publishing Ltd. <https://doi.org/10.1111/imig.12749>
- Boldrini, T., Schiano Lomoriello, A., Del Corno, F., Lingiardi, V., & Salcuni, S. (2020). Psychotherapy During COVID-19: How the Clinical Practice of Italian Psychotherapists Changed During the Pandemic. *Frontiers in Psychology*, 11, 591170. <https://doi.org/10.3389/fpsyg.2020.591170>

- Bouchard, S., Dumoulin, S., Michaud, M., & Gougeon, V. (2011). Telepresence Experienced in Videoconference Varies According to Emotions Involved in Videoconference Sessions. *Annu. Rev. Cybertherapy Telemed.* 104–107.
- Bouchard, S., et al. (2020). Videoconferencing psychotherapy for panic disorder and agoraphobia: Outcome and treatment processes. *Frontiers in psychology, 11*, 1-13. DOI: 10.3389/fpsyg.2020.02164
- Bourmistova, N. W., Solomon, T., Braude, P., Strawbridge, R., & Carter, B. (2022). Long-term effects of COVID-19 on mental health: A systematic review. *Journal of Affective Disorders*, 299, 118-125. <https://doi.org/10.1016/j.jad.2021.11.031>
- Bouwman, T. E., Aartsen, M. J., van Tilburg, T. G., & Stevens, N. L. (2017). Does stimulating various coping strategies alleviate loneliness? Results from an online friendship enrichment program. *Journal of Social and Personal Relationships*, 34(6), 793–811. <https://doi.org/10.1177/0265407516659158>
- Bozzaotra, A.; Cicconi, U.; Di Giuseppe, L.; Di Iullo, T.; Manzo, S.; Pierucci, L. (2017). Commissione Atti Tipici, Osservatorio e Tutela Della Professione: Digitalizzazione Della Professione e Dell'intervento Psicologico Mediato Dal Web. Available online: https://www.psy.it/wp-content/uploads/2015/04/Atti-Tipici_DEF_interno-LR.pdf (accessed on 2 April 2020)
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Brenes, G. A., Ingram, C. W., & Danhauer, S. C. (2011). Benefits and Challenges of Conducting Psychotherapy by Telephone. *Professional psychology, research and practice*, 42(6), 543–549. <https://doi.org/10.1037/a0026135>
- Brooks, E., Manson, S. M., Bair, B., Dailey, N., & Shore, J. H. (2011). The Diffusion of Telehealth in Rural American Indian Communities: A Retrospective Survey of Key Stakeholders. *Telemedicine and e-Health*, 18(1), 60–66. <https://doi.org/10.1089/tmj.2011.0076>
- Brooks, S. K., Webster, R. K., Smith, L. E., Woodland, L., Wessely, S., Greenberg, N., & Rubin, G. J. (2020). The psychological impact of quarantine and how to reduce it: rapid review of the evidence. *Lancet*, 395(10227), 912-920. [https://doi.org/10.1016/S0140-6736\(20\)30460-8](https://doi.org/10.1016/S0140-6736(20)30460-8)
- Bruine de Bruin, W. (2021). Age differences in COVID-19 risk perceptions and mental health: Evidence from a national U.S. survey conducted in March 2020. *Journals of Gerontology: Psychological Sciences*, 76(2), e24-e29. <https://doi:10.1093/geronb/gbaa074>
- Brunelli, A. A., Murphy, G. C., & Athanasou, J. A. (2016). Effectiveness of social support group interventions for psychosocial outcomes: A meta-analytic review. *Australian Journal of Rehabilitation Counselling*, 22(2), 104–127. <https://doi.org/10.1017/jrc.2016.9>
- Buizza, C., Bazzoli, L., & Ghilardi, A. (2022). Changes in college students mental health and lifestyle during the COVID-19 Pandemic: A Systematic review of longitudinal studies. *Adolescent Research Review*, 7(4), 537–550. <https://doi.org/10.1007/s40894-022-00192-7>

- Cacioppo, J. T., Cacioppo, S., & Boomsma, D. I. (2014). Evolutionary mechanisms for loneliness. In *Cognition and Emotion* (Vol. 28, Issue 1, pp. 3–21). <https://doi.org/10.1080/02699931.2013.837379>
- Cantone, D., et al. (2021). A sample of Italian psychotherapists express their perception and opinions of online psychotherapy during the covid-19 pandemic. *Riv Psichiatr*; 56(4), 198-204. DOI: 10.1708/3654.36347
- Cao, W., Fang, Z., Hou, G., Han, M., Xu, X., Dong, J., & Zheng, J. (2020). The psychological impact of the COVID-19 epidemic on college students in China. *Psychiatry Research*, 287, 112934. <https://doi.org/10.1016/j.psychres.2020.112934>
- Carr, J. L., Miki Koyama, M., & Thiagarajan, M. (2003). A women's support group for asian international students. *Journal of the American College Health Association*, 52(3), 131–134. <https://doi.org/10.1080/07448480309595735>
- Carvalho, P. O., Hülsdünker, T., & Carson, F. (2021). The Impact of the COVID-19 lockdown on European Students' Negative Emotional Symptoms: A Systematic Review and Meta-Analysis. *Behavioral Sciences*, 12(1), 3. <https://doi.org/10.3390/bs12010003>
- Castelnuovo, G., Zoppis, I., Santoro, E., Ceccarini, M., Pietrabissa, G., Manzoni, G. M., Corti, S., Borrello, M., Giusti, E. M., Cattivelli, R., Melesi, A., Mauri, G., Molinari, E., & Sicurello, F. (2015). Managing chronic pathologies with a stepped mHealth-based approach in clinical psychology and medicine. *Frontiers in Psychology*, 6:407. doi: 10.3389/fpsyg.2015.00407
- Celik, E., Sarrica, M., Norton, L.S. (2023). The academic integration of international students at an italian university: exploring communication channels, feeling of belonging and social support. *Psychology Hub*, Volume 1, pp. 7-14. DOI: 10.13133/2724-2943/17975
- Chakrabarti, S. (2015). Usefulness of telepsychiatry: A critical evaluation of videoconferencing-based approaches. *World Journal of Psychiatry*, 5(3), 286–304. <https://doi.org/10.5498/wj>
- Chen, A. (2012). Exploring online support spaces: Using cluster analysis to examine breast cancer, diabetes and fibromyalgia support groups. *Patient Education and Counseling*, 87(2), 250–257. <https://doi.org/10.1016/j.pec.2011.08.017>
- Chen, J. H., Li, Y., Wu, A. M. S., & Tong, K. K. (2020). The overlooked minority: Mental health of international students worldwide under the COVID-19 pandemic and beyond. *Asian Journal of Psychiatry*, 54, 102333. <https://doi.org/10.1016/j.ajp.2020.102333>
- Chen, S., Li, F., Lin, C., Han, Y., Nie, X., Portnoy, R. N., & Qiao, Z. (2020). Challenges and recommendations for mental health providers during the COVID-19 pandemic: The experience of China's First University-based mental health team. *Globalization and Health*, 16(1), 59. <https://doi.org/10.1186/s12992-020-00591-2>
- Chester, A., & Glass, C. (2006). Online counselling: A descriptive analysis of therapy services on the Internet. *British Journal of Guidance & Counselling - BRIT J GUID COUNS*, 34, 145–160. <https://doi.org/10.1080/03069880>

- Chiauszi, E., Clayton, A., & Huh-Yoo, J. (2020). Videoconferencing-Based Telemental Health: Important Questions for the COVID-19 Era From Clinical and Patient-Centered Perspectives. *JMIR Mental Health*, 7(12), e24021. <https://doi.org/10.2196/24021>
- Chirikov, I., Soria, K. M., Horgos, B., & Jones-White, D. (2020). Undergraduate and Graduate Students' Mental Health During the COVID-19 Pandemic. *UC Berkeley: Center for Studies in Higher Education*. <https://escholarship.org/uc/item/80k5d5hw>
- Cho, J., Yu, H. (2015). Roles of university support for international students in the United States: analysis of a systematic model of university identification, university support, and psychological well-being. *Journal of Studies in International Education*, Volume 9, Issue 1, pp. 11-27. DOI: 10.1177/1028315314533606
- Christiansen, J., Qualter, P., Friis, K., Pedersen, S. S., Lund, R., Andersen, C. M., Bekker-Jepesen, M., & Lasgaard, M. (2021). Associations of loneliness and social isolation with physical and mental health among adolescents and young adults. In *Perspectives in Public Health* (Vol. 141, Issue 4, pp. 226–236). SAGE Publications Ltd. <https://doi.org/10.1177/17579139211016077>
- Cioffi, V., Cantone, D., Guerriera, C., Architravo, M., Mosca, L. L., Sperandeo, R., Moretto, E., Longobardi, T., Alfano, Y. M., Continisio, G. I., Muzii, B., & Maldonato, N. M. (2020). Satisfaction degree in the using of VideoConferencing Psychotherapy in a sample of Italian psychotherapists during Covid-19 emergency. 125–132. <https://doi.org/10.1109/CogInfoCom50765.2020.9237823>
- Cipolletta, S. (2015). When a therapeutic relationship is online: Some reflections on Skype sessions. *Costruttivismi*, 2, 88-97. <http://dx.doi.org/10.23826/2015.01.088.097>
- Cipolletta, S., (2012). *Presence in the health care relationship*. In Cipolletta, S. & Gius, E. (Eds.). *Ethics in action. Dialogue between knowledge and practice*. LED Edizioni Universitarie.
- Cipolletta, S. & Ortu, M. C. (2021) COVID-19: Common Constructions of the Pandemic and Their Implications, *Journal of Constructivist Psychology*, 34:3, 278-294, DOI: 10.1080/10720537.2020.1818653
- Cipolletta, S., & Mocellin, D. (2018). Online counseling: An exploratory survey of Italian psychologists' attitudes towards new ways of interaction. *Psychotherapy Research*, 28(6), 909–924. <https://doi.org/10.1080/10503307.2016.1259533>
- Cipolletta, S., Frassoni, E., & Faccio, E. (2018). Construing a therapeutic relationship online: an analysis of videoconference sessions. *Clinical psychologist*, 22, 220-229. doi:10.1111/cp.12117
- Cipolletta, S., Mercurio, A., & Pezzetta, R. (2022b). Perceived social support and well-being of international students at an Italian university. *Journal of International Students*, 12(3), 613-632. doi: 10.32674/jis.v12i3.3954
- Cipolletta, S., Tomaino, S. C. M., Lo Magno, E., & Faccio, E., (2020). Illness experience and attitude toward medication in online communities for people with fibromyalgia. *Int. J. Environ. Res. Public Health* 17, 8683; doi:10.3390/ijerph17228683

- Cipolletta, S., Tomaino, S. C. M., Rivest-Beauregard, M., Sapkota, R. P., Brunet, A., & Winter, D. (2022a). Narratives of the worst experiences associated with peritraumatic distress during the COVID-19 pandemic: a mixed method study in the USA and Italy. *European Journal of Psychotraumatology*, 13(2). <https://doi.org/10.1080/20008066.2022.2129359>
- Cipolletta, S., Votadoro, R., Faccio, E. (2017). Online support for transgender people: An analysis of forums and social networks. *Health and Social Care in the Community*, DOI: 10.1111/hsc.12448
- Cisneros-Donahue, T., Krentler, K.A., Reinig, B., Karey, S. (2012). Assessing the academic benefit of studying abroad, *Journal of Education and Learning*, Volume 1, Issue 2, pp. 169-178, DOI: 10.5539/jel.v1n2p169
- Clair, R., Gordon, M., Kroon, M., & Reilly, C. (2021). The effects of social isolation on well-being and life satisfaction during pandemic. *Humanities & Social Sciences Communication*, 8(1). <https://doi.org/10.1057/s41599-021-00710-3>
- Clemente-Suàrez, V. J., Dalamitros, A. A., Beltran-Velasco, A. I., Mielgo-Ayuso, J., & Tornero-Aguilera, J. F. (2020). Social and psychophysiological consequences of the COVID-19 pandemic: An extensive literature review. *Frontiers in Psychology*, 11, 580225. <https://doi.org/10.3389/fpsyg.2020.580225>
- Clough, B. A., Nazareth, S. M., & Casey, L. M. (2020). Making the grade: a pilot investigation of an e-intervention to increase mental health literacy and help-seeking intentions among international university students. *British Journal of Guidance and Counselling*, 48(3), 347–359. <https://doi.org/10.1080/03069885.2019.1673312>
- Colleluori, G., Gorla, I., Zillanti, C., Marucci, S., & Dalla Ragione, L. (2021). Eating disorders during COVID-19 pandemic: The experience of Italian healthcare providers. *Eating and Weight Disorders: EWD*. <https://doi.org/10.1007/s40519-021-01116-5>
- Connolly, S. L., Miller, C. J., Lindsay, J. A., & Bauer, M. S. (2020). A systematic review of providers' attitudes toward telemental health via videoconferencing. *Clinical Psychology: Science and Practice*, 27(2), e12311. <https://doi.org/10.1111/cpsp.12311>
- Consiglio Nazionale Ordine degli Psicologi (CNOP), (2017). Digitalizzazione della professione e dell'intervento psicologico mediato dal web. Retrieved from https://d66rp9rxjwtyw.cloudfront.net/wp-content/uploads/2015/04/Atti-Tipici_DEF_interno-LR.pdf
- Consiglio Nazionale Ordine degli Psicologi (CNOP), (2020). Linee di indirizzo CNOP per l'intervento psicologico a distanza a favore della popolazione nell'emergenza COVID-19. Retrieved from <https://www.psy.it/newsletter-n-7-linee-di-indirizzo-cnop-per-lintervento-psicologico-a-distanza-a-favore-della-popolazione-nellemergenza-covid-19.html>
- Costa, S., Canale, N., Mioni, G., & Cellini, N. (2022). Maintaining social support while social distancing: The longitudinal benefit of basic psychological needs for symptoms of anxiety during the COVID-19 outbreak. *Journal of Applied Social Psychology*, 52, 439–448. <https://doi.org/10.1111/jasp.12870>

- Cubillos, J.H., Ilvento, T. (2013) The impact of studying abroad on students' self-efficacy perceptions. *Foreign Language Annals*, Volume 45, Issue 4, pp. 494-511, DOI: 10.1111/flan.12002494WINTER 2012
- Cuijpers, P. (1997). Bibliotherapy in unipolar depression: A meta-analysis. *Journal of Behavior Therapy and Experimental Psychiatry*, 28(2), 139–147. [https://doi.org/10.1016/s0005-7916\(97\)00005-0](https://doi.org/10.1016/s0005-7916(97)00005-0)
- Cunningham, D. L., Connors, E. H., Lever, N., & Stephan, S. H. (2013). Providers' Perspectives: Utilizing Telepsychiatry in Schools. *Telemedicine and e-Health*, 19(10), 794–799. <https://doi.org/10.1089/tmj.2012.0314>
- De France, K., Hancock, G. R., Stack, D. M., Serbin, L. A., & Hollenstein, T. (2021). The Mental Health Implications of COVID-19 for Adolescents: Follow-Up of a Four-Wave Longitudinal Study During the Pandemic. *American Psychologist*, 77(1), 85–99. <https://doi.org/10.1037/amp0000838>
- De Witte, N. A. J., Carlbring, P., Etzelmueller, A., Nordgreen, T., Karekla, M., Haddouk, L., Belmont, A., Øverland, S., Abi-Habib, R., Bernaerts, S., Brugnera, A., Compare, A., Duque, A., Ebert, D. D., Eimontas, J., Kassianos, A. P., Salgado, J., Schwerdtfeger, A., Tohme, P., Van Assche, E., ... Van Daele, T. (2021). Online consultations in mental healthcare during the COVID-19 outbreak: An international survey study on professionals' motivations and perceived barriers. *Internet Interv.* 25, 100405. <https://doi.org/10.1016/j.invent.2021.100405>
- Di Fabio, A., & Gori, A. (2016). Measuring adolescent life satisfaction: Psychometric properties of the Satisfaction With Life Scale in a sample of Italian adolescents and young adults. *Journal of Psychoeducational Assessment*, 34(5), 501-506. DOI: 10.1177/0734282915621223
- Di Fabio, A., & Palazzeschi, L. (2015). Multidimensional Scale of Perceived Social Support (MSPSS): Un contributo alla validazione italiana con lavoratori adulti [Multidimensional Scale of Perceived Social Support (MSPSS): A contribution to the Italian validation]. *Counseling, Giornale Italiano di Ricerca e Applicazioni*, 8, 1-15.
- Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment*, 49(1), 71-75. https://doi.org/10.1207/s15327752jpa4901_13
- Dipeolu, A., Kang, J., & Cooper, C. (2007). Support group for international students: A counseling center's experience. *Journal of College Student Psychotherapy*, 22(1), 63–74. https://doi.org/10.1300/J035v22n01_05
- Dores, G., Geraldo, A., Carvalho, I. & Barbosa, F. (2020). The Use of New Digital Information and Communication Technologies in Psychological Counseling during the COVID-19 Pandemic. *International Journal of Environmental Research and Public Health*, 17(20), 2-24. <https://doi.org/10.3390/ijerph17207663>
- Drum, K. B., & Littleton, H. L. (2014). Therapeutic boundaries in telepsychology: Unique issues and best practice recommendations. *Professional psychology, research and practice*, 45(5), 309–315. <https://doi.org/10.1037>

- Duan, L., & Zhu, G. (2020). Psychological interventions for people affected by the COVID-19 epidemic. *Lancet psychiatry*, 7(4): 300-302. DOI: 10.1016/S2215-0366(20)30073-0
- Dwyer, A. L., & Cummings, A. L. (2007). Stress, Self-Efficacy, Social Support, and Coping Strategies in University Students. In *Canadian Journal of Counselling and Psychotherapy*, 35(3). Retrieved from <https://cjc-rcc.ucalgary.ca/article/view/58672>
- Ebert, D. D., Van Daele, T., Nordgreen, T., Karekla, M., Compare, A., Zarbo, C., Brugnera, A., Øverland, S., Trebbi, G., Jensen, K. L., Kaehlke, F., & Baumeister, H. (2018). Internet- and Mobile-Based Psychological Interventions: Applications, Efficacy, and Potential for Improving Mental Health. A Report of the EFPA E-Health Taskforce. *European Psychologist*, 23(2), 167-187. doi:10.1027/1016-9040/a000318
- Eccles, A. M., & Qualter, P. (2021). Review: Alleviating loneliness in young people – a meta-analysis of interventions. In *Child and Adolescent Mental Health* (Vol. 26, Issue 1, pp. 17–33). Blackwell Publishing Ltd. <https://doi.org/10.1111/camh.12389>
- Elharake, J. A., Akbar, F., Malik, A. A., Gilliam, W., & Omer, S. B. (2022). Mental Health Impact of COVID-19 among Children and College Students: A Systematic Review. *Child Psychiatry & Human Development*, 54(3), 913–925. <https://doi.org/10.1007/s10578-021-01297-1>
- Ernst, M., Niederer, D., Werner, A. M., Czaja, S. J., Mikton, C., Ong, A. D., Rosen, T., Brahler, E., & Beutel, M. E. (2022). Loneliness Before and During the COVID-19 Pandemic: A Systematic Review with Meta-Analysis. *American Psychologist*, 77(5), 660. <https://doi.org/10.1037/amp0001005>
- Ertelt, T. W., Crosby, R. D., Marino, J. M., Mitchell, J. E., Lancaster, K., & Crow, S. J. (2011). Therapeutic factors affecting the cognitive behavioral treatment of bulimia nervosa via telemedicine versus face-to-face delivery. *International Journal of Eating Disorders*, 44, 687–691. <http://dx.doi.org/10.1002/eat.20874>
- Esposito, G., Ribeiro, A. P., Alves, D., Gonçalves, M. M., & Freda, M. F. (2017). Meaning Coconstruction in Group Counseling: The Development of Innovative Moments. *Journal of Constructivist Psychology*, 30(4), 404–426. <https://doi.org/10.1080/10720537.2016.1238789>
- European Federation of Psychologists' Associations (EFPA). Psychologists' support Hub about COVID-19 crisis. https://efpa.magzmaker.com/covid_19 consulted on 9 July 2021.
- Faisal, R. A., Jobe, M. C., Ahmed, O., & Sharker, T. (2022). Mental health status, anxiety, and depression levels of Bangladeshi university students during the COVID-19 pandemic. *International Journal of Mental Health and Addiction*, 20, 1500-1515. <https://doi.org/10.1007/s11469-020-00458-y>
- Fantus, S., & Mishna, F. (2013). The Ethical and Clinical Implications of Utilizing Cybercommunication in Face-to-Face Therapy. *Smith College Studies in Social Work*, 83(4), 466–480. <https://doi.org/10.1080/00377317>

- Finn, J., & Barak, A. (2010). A descriptive study of e-counsellor attitudes, ethics and practice. *Counselling and psychotherapy research*, 10, 268-277. <https://doi.org/10.1080/14733140903380847>
- Firang, D. (2020). The impact of COVID-19 pandemic on international students in Canada. *International Social Work*, 63(6), 820–824. <https://doi.org/10.1177/0020872820940030>
- Fitzgerald, T. D., Hunter, P. V., Hadjistavropoulos, T., & Koocher, G. P. (2010). Ethical and Legal Considerations for Internet-Based Psychotherapy. *Cognitive Behaviour Therapy*, 39(3), 173–187. <https://doi.org/10.1080/16506071>
- Fountoulakis, K. N., Karakatsoulis, G., Abraham, S., Adorjan, K., Ahmed, H. U., Alarcón, R. D., Arai, K., Auwal, S. S., Berk, M., Bjedov, S., Bobes, J., Bobes-Bascaran, T., Bourgin-Duchesnay, J., Bredicean, C. A., Bukelskis, L., Burkadze, A., Cabrera Abud, I. I., Castilla-Puentes, R., Cetkovich, M., ... Smirnova, D. (2022). Results of the COVID-19 mental health international for the general population (COMET-G) study. *European Neuropsychopharmacology*, 54, 21-40. <https://doi.org/10.1007/s00127-023-02438-8>
- Gaebel, W.; Lukies, R.; Kerst, A.; Stricker, J.; Zielasek, J.; Diekmann, S.; Trost, N.; Gouzoulis-Mayfrank, E.; Bonroy, B.; Cullen, K.; et al. (2020). Upscaling e-mental health in Europe: A six-country qualitative analysis and policy recommendations from the eMEN project. *Eur. Arch. Psychiatry Clin. Neurosci*, 271, 1005–1016. DOI: 10.1007/s00406-020-01133-y
- Garcia-Martínez, J., Maestre-Castillo, D., Payán-Bravo, M. A., & Fernández-Navarro, P. (2021). Innovative Moments in Group Therapy: Analyzing voices of group change. *Journal of Constructivist Psychology*, 34(2), 195–206. <https://doi.org/10.1080/10720537.2020.1717143>
- Gautam, C., Lowery, C.L., Mays, C., Durant, D. (2016) Challenges for global learners: a qualitative study of the concerns and difficulties of international students. *Journal of International Students*, Volume 6, Issue 2, pp. 501-526. DOI: 10.32674/jis.v6i2.368
- Geller, S. (2020): Cultivating online therapeutic presence: strengthening therapeutic relationships in teletherapy sessions, *Counselling Psychology Quarterly*, DOI: 10.1080/09515070.2020.1787348
- Geller, S. M. (2017). *A practical guide to cultivating therapeutic presence*. Washington, DC: American Psychological Association
- Geller, S. M., Pos, A. W., & Colosimo, K. (2012). Therapeutic presence: A common factor in the provision of effective psychotherapy. *Society for Psychotherapy Integration*, 47, 6–13.
- Gentry, M. T., Puspitasari, A. J., McKean, A. J., Williams, M. D., Breitingger, S., Geske, J. R., Clark, M. M., Moore, K. M., Frye, M. A., & Hilty, D. M. (2021). Clinician Satisfaction with Rapid Adoption and Implementation of Telehealth Services During the COVID-19 Pandemic. *Telemedicine Journal and E-Health: The Official Journal of the American Telemedicine Association*. <https://doi.org/10.1089/tmj.2020.0575>

- Germain, V., Marchand, A., Bouchard, S., Guay, S., & Drouin, M.S. (2010). Assessment of the therapeutic alliance in face-to-face or videoconference treatment for posttraumatic stress disorder. *Cyberpsychology, Behavior and Social Networking*, 13, 29–35. DOI: 10.1089/cyber.2009.0139
- Gilmore, A. K., & Ward-Ciesielski, E. F. (2019). Perceived risks and use of psychotherapy via telemedicine for patients at risk for suicide. *Journal of Telemedicine and Telecare*, 25(1), 59–63. DOI: 10.1177/1357633X17735559
- Glowacz, F., & Schmits, E. (2020). Psychological distress during the COVID-19 lockdown: The young adults most at risk. *Psychiatry Research*, 293, 113486. <https://doi.org/10.1016/j.psychres.2020.113486>
- Glueckauf, R. L., Maheu, M. M., Drude, K. P., Wells, B. A., Wang, Y., Gustafson, D. J., & Nelson, E. L. (2018). Survey of psychologists' telebehavioral health practices: Technology use, ethical issues, and training needs. *Professional Psychology: Research and Practice*, 49(3), 205–219. <https://doi.org/10.1037/pro0000188>
- Godine, N., & Barnett, J. E. (2013). The Use of Telepsychology in Clinical Practice: Benefits, Effectiveness, and Issues to Consider. *International Journal of Cyber Behavior, Psychology and Learning (IJCBPL)*, 3(4), 70–83. <https://doi.org/10.4018/ijcbpl.2>
- Goetter, E. M., Herbert, J. D., Forman, E. M., Yuen, E. K., & Thomas, J. G. (2014). An open trial of videoconference-mediated exposure and ritual prevention for obsessive-compulsive disorder. *Journal of Anxiety Disorders*, 28, 460–462. <http://dx.doi.org/10.1016/j.janxdis.2014.05.004>
- Gold, J. A., Bentzley, J. P., Franciscus, A. M., Forte, C., & De Golia, S. G. (2019). An Intervention in Social Connection: Medical Student Reflection Groups. *Academic Psychiatry*, 43(4), 375–380. <https://doi.org/10.1007/s40596-019-01058-2>
- Grant, A. M. (2002). The self-reflection and insight scale: A new measure of private self-consciousness. *Social Behaviour and Personality*, Volume 30, pp. 821–836.
- Grey, I., Arora, T., Thomas, J., Saneh, A., Tohme, P., & Abi-Habib, R. (2020). The role of perceived social support on depression and sleep during the COVID-19 pandemic. *Psychiatry Research*, 293, 113452. <https://doi.org/10.1016/j.psychres.2020.113452>
- Grondin, K., Lomanowska, M., & Jackson, P.L. (2019). Empathy in computer-mediated interactions: A conceptual framework for research and clinical practice. *Clinical psychology science and practice*, 26, 1-17. <https://doi.org/10.1111/cpsp.12298>
- Gun, S. Y., Titov, N., & Andrews, G. (2011). Acceptability of Internet Treatment of Anxiety and Depression. *Australasian Psychiatry*, 19(3), 259–264. <https://doi.org/10.3109/10398562.2011>
- Güneş, M., & Aydar, Ö. (2019). Being Student in a Foreign Country: Adaptation Problems and Solution Strategies. *Sakarya University Journal of Education*, 363–382. <https://doi.org/10.19126/suje.544761>
- Haas, B.W. (2018). The impact of study abroad on improved cultural awareness: a quantitative study. *Intercultural Education*, Volume 29, Issue 5-6, pp. 571-588. DOI: 10.1080/14675986.2018.1495319

- Haddouk, L. (2015). Presence in telepsychotherapy. Towards a video-interview framework. *International journal of emergency mental health and human resilience*, 17(4), 712-713. DOI: 10.4172/1522-4821.1000296
- Haikalis, M., Doucette, H., Meisel, M. K., Birch, K., & Barnett, N. P. (2022). Changes in college student anxiety and depression from pre- to during-COVID-19: Perceived stress, academic challenges, loneliness, and positive perceptions. *Emerging Adulthood*, 10(2), 534-545. doi: 10.1177/21676968211058516
- Hanley, T. (2020). Researching online counselling and psychotherapy: The past, the present and the future. *Counselling and Psychotherapy Research*. <https://doi.org/10.1002/capr.12385>
- Hari, A., Nardon, L., & Zhang, L. (2021). A transnational lens into international student experiences of the COVID-19 pandemic. *Global Networks*, 23, 14-30. DOI: 10.1111/glob.12332
- Harris, B., & Birnbaum, R. (2015). Ethical and Legal Implications on the Use of Technology in Counselling. *Clinical Social Work Journal*, 43(2), 133–141. <https://doi.org/10.1007/s10615->
- Haslam, C., Cruwys, T., Chang, M. X. L., Bentley, S. V., Alexander Haslam, S., Dingle, G. A., & Jetten, J. (2019). GROUPS 4 HEALTH reduces loneliness and social anxiety in adults with psychological distress: Findings from a randomized controlled trial. *Journal of Consulting and Clinical Psychology*, 87(9), 787–801. <https://doi.org/10.1037/ccp0000427>
- Haslam, C., Cruwys, T., Haslam, S. A., Dingle, G., & Chang, M. X. L. (2016). Groups 4 Health: Evidence that a social-identity intervention that builds and strengthens social group membership improves mental health. *Journal of Affective Disorders*, 194, 188–195. <https://doi.org/10.1016/j.jad.2016.01.010>
- Hawes, M. T., Szenczy, A. K., Klein, D. N., Hajcak, G., & Nelson, B. D. (2022). Increases in depression and anxiety symptoms in adolescents and young adults during the COVID-19 pandemic. *Psychological Medicine*, 52(14), 3222–3230. <https://doi.org/10.1017/S0033291720005358>
- Hayes, J. A., & Vinca, M. (2017). *Therapist presence, absence, and extraordinary presence*. In L. G. Castonguay & C. E. Hill (Eds.), *How and why are some therapists better than others?: Understanding therapist effects* (pp. 85–99). Washington, DC: American Psychological Association.
- Hernandez-Tejada, M. A., Zoller, J. S., Ruggiero, K. J., Kazley, A. S., & Acierno, R. (2014). Early treatment withdrawal from evidence-based psychotherapy for PTSD: telemedicine and in-person parameters. *International journal of psychiatry in medicine*, 48(1), 33–55. <https://doi.org/10.2190/PM.48.1.d>
- Hickin, N., Käll, A., Shafran, R., Sutcliffe, S., Manzotti, G., & Langan, D. (2021). The effectiveness of psychological interventions for loneliness: A systematic review and meta-analysis. *In Clinical Psychology Review* (Vol. 88). <https://doi.org/10.1016/j.cpr.2021.102066>
- Hofhuis, J., Hanke, K., & Rutten, T. (2019). Social network sites and acculturation of international sojourners in the Netherlands: The mediating role of psychological alienation and online social support.

- Hogan, L. R., Callahan, J. L., & Shelton, A. J. (2016). Una cuestión de percepción: Impacto de diferencias de valores entre paciente y terapeuta sobre alianza y resultados. *Revista Argentina de Clínica Psicológica*, 25(1), 5–16.
- Horigian, V. E., Schmidt, R. D., & Feaster, D. J. (2021). Loneliness, mental health, and substance use among US young adults during COVID-19. *Journal of Psychoactive Drugs*, 53(1), 1-9. <https://doi.org/10.1080/02791072.2020.1836435>
- Hotta, J., Ting-Toomey, S. (2013). Intercultural adjustment and friendship dialectics in international students: a qualitative study. *International Journal of Intercultural Relations*, Volume 37, Issue 5, pp. 550-566. DOI: 10.1016/j.ijintrel.2013.06.007
- Houghton, S., Kyron, M., Hunter, S. C., Lawrence, D., Hattie, J., Carroll, A., & Zadow, C. (2022). Adolescents' longitudinal trajectories of mental health and loneliness: The impact of COVID-19 school closures. *Journal of Adolescence*, 94, 191-205. <https://doi.org/10.1002/jad.12017>
- Humer, E., Pieh, C., Kuska, M., Barke, A., Doering, B. K., Gossmann, K., Trnka, R., Meier, Z., Kascakova, N., Tavel, P., & Probst, T. (2020a). Provision of Psychotherapy during the COVID-19 Pandemic among Czech, German and Slovak Psychotherapists. *International Journal of Environmental Research and Public Health*, 17(13). <https://doi.org/10.3390/ijerph17134811>
- Humer, E., Stippl, P., Pieh, C., Pryss, R., & Probst, T. (2020b). Experiences of Psychotherapists With Remote Psychotherapy During the COVID-19 Pandemic: Cross-sectional Web-Based Survey Study. *Journal of Medical Internet Research*, 22(11), e20246. <https://doi.org/10.2196/20246>
- Inchausti, F., MacBeth, A., Hasson-Ohayon, I., & Dimaggio, G. (2020). Telepsychotherapy in the Age of COVID-19: A Commentary. *Journal of Psychotherapy Integration*, 30, 394-405. <http://dx.doi.org/10.1037/int0000222>
- Interian, A., King, A. R., St. Hill, L. M., Robinson, C. H., & Damschroder, L. J. (2017). Evaluating the implementation of home-based videoconferencing for providing mental health services. *Psychiatric Services*, 69(1), 69–75. <https://doi.org/10.1176/appi.ps.201700004>
- Johnson, G. R. (2014). Toward uniform competency standards in telepsychology: A proposed framework for Canadian psychologists. *Canadian Psychology/Psychologie canadienne*, 55(4), 291–302. <https://doi.org/10.1037/>
- Johnson, S. U., Ulvenes, P. G., Øktedalen, T., & Hoffart, A. (2019). Psychometric Properties of the General Anxiety Disorder 7-Item (GAD-7) Scale in a Heterogeneous Psychiatric Sample. *Frontiers in psychology*, 10, 1713. <https://doi.org/10.3389/fpsyg.2019.01713>
- Johnstone, T., & Scherer, K. R. (2000). Vocal communication of emotion. *The Handbook of Emotion*, 1–2, 220–235. [https://doi.org/10.1016/S0167-6393\(02\)00084-5](https://doi.org/10.1016/S0167-6393(02)00084-5)

- Jurcik, T., Jarvis, G. E., Zeleskov Doric, J., Krasavtseva, Y., Yaltonskaya, A., Ogiwara, K., Sasaki, J., Dubois, S., & Grigoryan, K. (2020). Adapting mental health services to the COVID-19 pandemic: Reflections from professionals in four countries. *Counselling Psychology Quarterly*, 1–27. <https://doi.org/10.1080/09515070.2020.1785846>
- Kählke, F., Berger, T., Schulz, A., Baumeister, H., Berking, M., Auerbach, R. P., Bruffaerts, R., Cuijpers, P., Kessler, R. C., & Ebert, D. D. (2019). Efficacy of an unguided internet-based self-help intervention for social anxiety disorder in university students: A randomized controlled trial. *International Journal of Methods in Psychiatric Research*, 28(2), e1766. <https://doi.org/10.1002/mpr.1766>
- Kahwaja, N.G., Stallman, H.M. (2011) Understanding the coping strategies of international students: a qualitative approach. *Australian Journal of Guidance and Counselling*, Volume 21, Issue 2, pp. 203-224. DOI 10.1375/ajgc.21.2.203
- Kanekar, A., Sharma, M., & Atri, A. (2010). Enhancing social support, hardiness, and acculturation to improve mental health among asian indian international students. *International Quarterly of Community Health Education*, 30(1), 55–68. <https://doi.org/10.2190/IQ.30.1.e>
- Karekla, M., Kasinopoulos, O., Neto, D., Ebert, D. D., Van Daele, T., Nordgreen, T., Höfer, S., Oeverland, S., & Jensen, K. L. (2019). Best practices and recommendations for digital interventions to improve engagement and adherence in chronic illness sufferers. *European psychologist*, 24(1), 49-67. <https://doi.org/10.1027/1016-9040/a000349>
- Kelly, G.A. (1955). *The Psychology of Personal Constructs*; W. W. Norton: New York, NY, USA, Volume 1–2.
- Khanal, J., Gaulee, U. (2019) Challenges of international students from pre-departure to post-study: a literature review. *Journal of International Students*, Volume 9, Issue 2, pp. 560-581. DOI: 10.32674/jis.v9i2.673
- Khawaja, N.G., Stallman, H.M. (2011) Understanding the coping strategies of international students: a qualitative approach. *Australian Journal of Guidance and Counselling*, Volume 21, Issue 2, pp. 203-224. DOI 10.1375/ajgc.21.2.203
- Kim, Y., & Cho, J. (2020). Correlation between preventive health behaviors and psycho-social health based on the leisure activities of South Koreans in the COVID-19 crisis. *Environmental Research and Public Health*. 17, 4066. <https://doi.org/10.3390/ijerph17114066>
- Kivelä, L., Mouthaan, J., van der Does, W., & Antypa, N. (2022). Student mental health during the COVID-19 pandemic: Are international students more affected? *Journal of American College Health*, 1-9. <https://doi.org/10.1080/07448481.2022.2037616>
- Kluge (2020, March 26). Statement – Physical and mental health key to resilience during COVID-19 pandemic. World Health Organization Regional Office for Europe. Retrieved from <https://www.who.int/europe/news/item/26-03-2020-statement-physical-and-mental-health-key-to-resilience-during-covid-19-pandemic>

- Koo, K. K., Baker, I., & Yoon, J. (2021). The first year of acculturation: A longitudinal study on acculturative stress and adjustment among first-year international college students. In *Journal of International Students* (Vol. 11, Issue 2, pp. 278–298). University Printing Services. <https://doi.org/10.32674/jis.v11i2.1726>
- Korecka, N., Rabenstein, R., Pieh, C., Stippl, P., Barke, A., Doering, B., Gossmann, K., Humer, E., & Probst, T. (2020). Psychotherapy by Telephone or Internet in Austria and Germany Which CBT Psychotherapists Rate It more Comparable to Face-to-Face Psychotherapy in Personal Contact and Have more Positive Actual Experiences Compared to Previous Expectations? *International Journal of Environmental Research and Public Health*, 17(21). <https://doi.org/10.3390/ijerph17217756>
- Kotwal, A. A., Fuller, S. M., Myers, J. J., Hill, D., Tha, S. H., Smith, A. K., & M. Perissinotto, C. (2021). A peer intervention reduces loneliness and improves social well-being in low-income older adults: A mixed-methods study. *Journal of the American Geriatrics Society*, 69(12), 3365–3376. <https://doi.org/10.1111/jgs.17450>
- Kramer, G. M., Mishkind, M. C., Luxton, D. D., & Shore, J. H. (2013). Managing risk and protecting privacy in telemental health: An overview of legal, regulatory, and risk-management issues. In *Telemental health: Clinical, technical, and administrative foundations for evidence-based practice* (pagg. 83–107). <https://doi.org/10.1016/B978-0-12-416048->
- Kroenke, K., Spitzer, R. L., & Williams, J. B. (2001). The PHQ-9: Validity of a brief depression severity measure. *Journal of General Internal Medicine*, 16(9), 606-613. <https://doi.org/10.1046/j.1525-1497.2001.016009606.x>
- Krumhuber, E. G., Kappas, A., & Manstead, A. S. R. (2013). Effects of dynamic aspects of facial expressions: A review. *Emotion Review*, 5(1), 41–46. <https://doi.org/10.1177/1754073912451349>
- Labrague, L. J., Alexis, J., De Los Santos, A., & Falguera, C. (2021). Social and emotional loneliness among college students during the COVID-19 pandemic: the predictive role of coping behaviours, social support, and personal resilience. *Perspectives in Psychiatric Care*. <https://doi.org/10.21203/rs.3.rs-93878/v2>
- Lakeman, R., & Crighton, J. (2020). The Impact of Social Distancing on People with Borderline Personality Disorder: The Views of Dialectical Behavioural Therapists. *Issues in Mental Health Nursing*, 1–7. <https://doi.org/10.1080/01612840.2020.1817208>
- Lampraki, C., Hoffman, A., Roquet, A., & Jopp, D. S. (2022). Loneliness during COVID-19: Development and influencing factors. *PLOS One*, 17 (3), e0265900. <https://doi.org/10.1371/journal.pone.0265900>
- Lazuras, L., & Dokou, A. (2016). Mental health professionals' acceptance of online counselling. *Technology in Society*, 44, 10–14. <https://doi.org/10.1016/j.techsoc.2015.11.002>

- Lee, C. M., Cadigan, J. M., & Rhew, I. C. (2020). Increases in loneliness among young adults during the COVID-19 pandemic and association with increases in mental health problems. *Journal of Adolescent Health, 67*, 714-717. <https://doi.org/10.1016/j.jadohealth.2020.08.009>
- Lewis, C. E., Farewell, D., Groves, V., Kitchiner, N. J., Roberts, N. P., Vick, T., & Bisson, J. I. (2017). Internet-based guided self-help for posttraumatic stress disorder (PTSD): Randomized controlled trial. *Depression and Anxiety, 34*(6), 555–565. <https://doi.org/10.1002/da.22645>
- Li, F., Luo, S., Mu, W., Li, Y., Ye, L., Zheng, X., Xu, B., Ding, Y., Ling, P., Zhou, M., & Chen, X. (2021). Effects of sources of social support and resilience on the mental health of different age groups during the COVID-19 pandemic. *BMC Psychiatry, 21*, 1-14. <https://doi.org/10.1186/s12888-020-03012-1>
- Liberati, A., Altman, D. G., Tetzlaff, J., Mulrow, C., Gøtzsche, P. C., Clarke, M., Devereaux, P. J., Kleijnen, J., & Moher, D. (2015). PRISMA Statement per il reporting di revisioni sistematiche e meta-analisi degli studi che valutano gli interventi sanitari: Spiegazione ed elaborazione. *OPEN ACCESS, 7*(6), 36. doi: 10.4470/E1000115
- Lindsay, J. A., Hudson, S., Martin, L., Hogan, J. B., Nessim, M., Graves, L., Gabriele, J., & White, D. (2017). Implementing Video to Home to Increase Access to Evidence-Based Psychotherapy for Rural Veterans. *Journal of Technology in Behavioral Science, 2*(3), 140–148. <https://doi.org/10.1007/s41347-017-0032-4>
- Lintvedt, O. K., Griffiths, K. M., Sørensen, K., Østvik, A. R., Wang, C. E. A., Eisemann, M., & Waterloo, K. (2013). Evaluating the effectiveness and efficacy of unguided internet-based self-help intervention for the prevention of depression: A randomized controlled trial. *Clinical Psychology & Psychotherapy, 20*(1), 10–27. <https://doi.org/10.1002/cpp.770>
- Lisitsa, E., Benjamin, K. S., Chun, S. K., Skalisky, J., Hammond, L. E., & Mezulis, A. H. (2020). Loneliness among young adults during Covid-19 pandemic: The mediational roles of social media use and social support seeking. *Journal of Social and Clinical Psychology, 39* (8), 708-726. <https://doi.org/10.1521/jscp.2020.39.8.708>
- Liu, C. H., Zhang, E., Wong, G. T. F., Hyun, S., & Hahm, H. C. (2020). Factors associated with depression, anxiety, and PTSD symptomatology during the COVID-19 pandemic: Clinical implications for U.S. young adult mental health. *Psychiatric Research, 290*, 113172. <https://doi.org/10.1016/j.psychres.2020.113172>
- Lovejoy, T. I., Demireva, P. D., Grayson, J. L., & McNamara, J. R. (2009). Advancing the practice of online psychotherapy: An application of Rogers' diffusion of innovations theory. *Psychotherapy: Theory, Research, Practice, Training, 46*(1), 112–124. <https://doi.org/10.1037/a0015000>
- Ma, Z., Zhao, J., Li, Y., Chen, D., Wang, T., Zhang, Z., Chen, Z., Yu, Q., Jiang, J., Fan, F., & Liu, X. (2020). Mental health problems and correlates among 746 217 college students during the coronavirus disease

- 2019 outbreak in China. *Epidemiology and psychiatric sciences*, 29, e181. <https://doi.org/10.1017/S2045796020000931>
- Mahanta, D., & Aggarwal, M. (2013). *Effect of Perceived Social Support on Life Satisfaction of University Students* (Vol. 6). GIF. www.euacademic.org
- Maheu, M., McMenamin, J., & Pulier, M. (2013). Optimizing the use of Technology in Psychology with Best Practice Principles (pp. 695–699). <https://doi.org/10.1093/med:psych/97801998454>
- Maleku, A., Kim, Y. K., Kirsch, J., Um, M. Y., Haran, H., Yu, M., & Moon, S. S. (2022). The hidden minority: Discrimination and mental health among international students in the US during the COVID-19 pandemic. *Health and Social Care in the Community*, 30(5), e2419–e2432. <https://doi.org/10.1111/hsc.13683>
- Mallen, M. J., Vogel, D. L., & Rochlen, A. B. (2005). The Practical Aspects of Online Counseling: Ethics, Training, Technology, and Competency. *The Counseling Psychologist*, 33(6), 776–818. <https://doi.org/10.1177/0011000005278625>
- Mancuso, F. (2019). La terapia online: innovazione e integrazione tecnologica nella pratica clinica. *Cognitivismo clinico* 16 (2), 193-207. DOI: 10.36131/COGNCL20190206
- Manfrida, G., Albertini, V., & Eisenberg, E. (2017). Connected: Recommendations and Techniques in Order to Employ Internet Tools for the Enhancement of Online Therapeutic Relationships. Experiences from Italy. *Contemporary Family Therapy*, 39, 314-328. DOI 10.1007/s10591-017-9439-5
- Mann, F., Bone, J. K., Lloyd-Evans, B., Frerichs, J., Pinfold, V., Ma, R., Wang, J., & Johnson, S. (2017). A life less lonely: the state of the art in interventions to reduce loneliness in people with mental health problems. In *Social Psychiatry and Psychiatric Epidemiology* (Vol. 52, Issue 6, pp. 627–638). <https://doi.org/10.1007/s00127-017-1392-y>
- Marazziti, D., & Stahl, S. M. (2020). The relevance of COVID-19 pandemic to psychiatry. *World Psychiatry*, 19,(2):261. doi: 10.1002/wps.20764
- Martin, J. N., Millán, F., & Campbell, L. F. (2020). Telepsychology practice: Primer and first steps. *Practice Innovations*, 5(2), 114. <https://doi.org/10.1037/>
- Masi, C. M., Chen, H. Y., Hawkey, L. C., & Cacioppo, J. T. (2011). A meta-analysis of interventions to reduce loneliness. In *Personality and Social Psychology Review* (Vol. 15, Issue 3, pp. 219–266). SAGE Publications Inc. <https://doi.org/10.1177/1088868310377394>
- Mbous, Y. P. V., Mohamed, R. & Rudisill, T. M. (2022). International students challenges during the COVID-19 pandemic in a university in the United States: A focus group study. *Curr Psychol*. <https://doi.org/10.1007/s12144-022-02776-x>
- Mc Kenny, R., Galloghly, E., Porter, C. M., & Burbach, F. R. (2021). ‘Living in a Zoom world’: Survey mapping how COVID-19 is changing family therapy practice in the UK. *Journal of Family Therapy*. <https://doi.org/10.1111/1467-6427.12332>

- Megalakaki, O., & Kokou-Kpolou, C. K. (2022). Effects of biopsychosocial factors on the association between loneliness and mental health risks during the COVID-19 lockdown. *Current Psychology*, 41(11), 8224–8235. <https://doi.org/10.1007/s12144-021-02246-w>
- Mendes-Santos, C., Weiderpass, E., Santana, R. & Andersson, G. (2020). Portuguese psychologists' attitudes towards internet interventions: an exploratory cross-sectional study. *JMIR Mental Health*, 7(4):e16817. <https://doi.org/10.2196/preprints.16817>
- Milian, M., Birnbaum, M., Cardona, B., Nicholson, B. (2015). Personal and Professional Challenges and Benefits of Studying Abroad. *Journal of International Education and Leadership*, Volume 5, Issue 1. ISSN: 2161-7252
- Mohd-Yusoff, Y. (2011). International students' adjustment in higher education: relation between social support, self-efficacy and socio cultural adjustment. In *Australian Journal of Business and Management Research (AJBMR) No* (Vol. 1, Issue 1).
- Montalto, M. (2014). The ethical implications of using technology in psychological testing and treatment. Ethical Human Psychology and Psychiatry. In *International Journal of Critical Inquiry*, 16(2), 127–136. <https://doi.org/10.1891/1559-434>
- Monthuy-Blanc, J., Bouchard, S., Maïano, C., & Séguin, M. (2013). Factors influencing mental health providers' intention to use telepsychotherapy in First Nations communities. *Transcultural Psychiatry*, 50(2), 323–343. <https://doi.org/10.1177/1363461513487665>
- Mora, L., Nevid, J., & Chaplin, W. (2008). Therapist treatment recommendations for internet-based therapeutic interventions. *Computers in Human Behavior*, 24, 3052–3062. <http://dx.doi.org/10.1016/j.chb.2008.05.011>
- Morland, L. A., Poizner, J. M., Williams, K. E., Masino, T. T., & Thorp, S. R. (2015). Home-based clinical video teleconferencing care: Clinical considerations and future directions. *International Review of Psychiatry*, 27(6), 504–512. <https://doi.org/10.3109/09540261.20>
- Nabavi, R.T., Bijandi, M.S. (2018) An investigation of predictors of life satisfaction among overseas Iranian undergraduate students. *Educational Process: International Journal*, Volume 7, Issue 1, pp. 74-93. DOI:10.22521/edupij.2018.71.6
- Nakao, G. (2019). Gen NAKAO Examining culture shock from anthropological, psychoanalytic, behavioristic, and cognitivist frameworks: Acculturative stress of international students at college in the United States Examining culture shock from anthropological, psychoanalytic, behavioristic, and cognitivist frameworks: Acculturative stress of international students at college in the United States. In *Otemon Business Management Review* (Vol. 25, Issue 1).
- Nakash, O., Nagar, M., & Levav, I. (2015). Predictors of mental health care stigma and its association with the therapeutic alliance during the initial intake session. *Psychotherapy Research*, 25(2), 214–221. doi: 10.1080/10503307.2014.885147

- Nanda, S., & Ryan, J. M. (2023). The importance of culture in understanding the COVID-19 pandemic. *COVID-19. Cultural Change and Institutional Adaptations*, 29-44. DOI: 10.4324/9781003302612-3
- Neto, F. (1992). Loneliness among Portuguese adolescents. *Social Behavior and Personality*, 20(1), 15-22. <https://doi.org/10.2224/sbp.1992.20.1.15>
- Newman, L., Bidargaddi, N., & Schrader, G. (2016). Service providers' experiences of using a telehealth network 12 months after digitisation of a large Australian rural mental health service. *International Journal of Medical Informatics*, 94, 8–20. <https://doi.org/10.1016/j.ijmedinf.2016.05.006>
- Norcross, J. C., & Lambert, M. J. (Eds.). (2019). *Psychotherapy relationships that work: Volume 1: Evidence-based therapist contributions*. Oxford, United Kingdom: Oxford University Press.
- Nowland, R., Necka, E. A., & Cacioppo, J. T. (2018). Loneliness and Social Internet Use: Pathways to Reconnection in a Digital World? *Perspectives on Psychological Science*, 13(1), 70–87. <https://doi.org/10.1177/1745691617713052>
- O'Connor, R. C., Wetherall, K., Cleare, S., McClelland, H., Melson, A. J., Niedzwiedz, C. L., O'Carroll, R. E., O'Connor, D. B., Platt, S., Scowcroft, E., Watson, B., Zortea, T., Ferguson, E., & Robb, K. A. (2021). Mental health and well-being during the COVID-19 pandemic: Longitudinal analyses of adults in the UK COVID-19 Mental Health & Wellbeing study. *The British Journal of Psychiatry*, 218(6), 326-333. doi:10.1192/bjp.2020.212
- Osborn, T., Weatherburn, P., & French, R. S. (2021). Interventions to address loneliness and social isolation in young people: A systematic review of the evidence on acceptability and effectiveness. *Final Manuscript submitted to Journal of Adolescence*, 93, 53–79. <https://doi.org/10.1016/j.adolescence.2021.09.007>
- Oshni Alvandi, A. (2019). Cybertherapogy: A conceptual architecting of presence for counselling via technology. *International Journal of Psychology and Educational Studies*, 6(1), 30–45. DOI: 10.17220/ijpes.2019.01.004
- Pakrosnis, R., Cepukiene, V. (2015). Solution-focused self-help for improving university students' well-being. *Innovations in Education and Teaching International*, Volume 52, Issue 4, pp. 437-447. DOI: 10.1080/14703297.2014.930352
- Palomares, R.S.; Miller, T.W. (2018). Security and transmission of data and information. In *A Telepsychology Casebook: Using Technology Ethically and Effectively in Your Professional Practice*; Campbell, L.F., Millán, F., Martin, J.N., Eds.; American Psychological Association: Washington, DC, USA, pp. 83–98.
- Pang, H. (2020). Is active social media involvement associated with cross-culture adaption and academic integration among boundary-crossing students? *International Journal of Intercultural Relations*, 79, 71–81. <https://doi.org/10.1016/j.ijintrel.2020.08.005>
- Parola, A., Rossi, A., Tessitore, F., Troisi, G., & Mannarini, S. (2020). Mental health through the COVID-19 quarantine: A growth curve analysis on Italian young adults. *Frontiers in Psychology*, 11, 567484. doi: 10.3389/fpsyg.2020.567484

- Pavot, W., & Diener, E. (1993). Review of the satisfaction with life scale. *Psychological Assessment*, 5(2), 164-172. <https://doi.org/10.1037/1040-3590.5.2.164>
- Payne, L., Flannery, H., Kambakara Gedara, C., Daniilidi, X., Hitchcock, M., Lambert, D., Taylor, C., & Christie, D. (2020). Business as usual? Psychological support at a distance. *Clinical Child Psychology and Psychiatry*, 25(3), 672–686. <https://doi.org/10.1177/1359104520937378>
- Pek, J., Wong, O., & Wong, A. (2018). How to Address Non-normality: A Taxonomy of Approaches, reviewed, and illustrated. *Frontiers in Psychology*, 9. <https://doi.org/10.3389/fpsyg.2018.02104>
- Perle, J. G., Langsam, L. C., Randel, A., Lutchman, S., Levine, A. B., Odland, A. P. et al. (2013). Attitudes toward psychological telehealth: Current and future clinical psychologists' opinions of internet-based interventions. *Journal of Clinical Psychology*, 69, 100–113. <http://dx.doi.org/10.1002/jclp.21912>
- Petzold, M. B., Bendau, A., Plag, J., Pyrkosch, L., Maricic, L. M., Betzler, F., Rogoll, J., Grobe, J., & Strohle, A. (2020). Risk, resilience, psychological distress, and anxiety at the beginning of the COVID-19 pandemic in Germany. *Brain and Behavior*, 10(9), e01745. <https://doi.org/10.1002/brb3.1745>
- Pierce, B. S., Perrin, P. B., Tyler, C. M., McKee, G. B., & Watson, J. D. (2021). The COVID-19 telepsychology revolution: A national study of pandemic-based changes in U.S. mental health care delivery. *The American Psychologist*, 76(1), 14–25. <https://doi.org/10.1037/amp0000722>
- Poyrazli, S., Lopez, M.D. (2007) An Exploratory Study of Perceived Discrimination and Homesickness: A Comparison of International Students and American Students. *The Journal of Psychology*, Volume 141, Issue 3, pp. 263-280. DOI: 10.3200/JRLP.141.3.263-280
- Probst, T., Haid, B., Schimböck, W., Reisinger, A., Gasser, M., Eichberger-Heckmann, H., Stippl, P., Jesser, A., Humer, E., Korecka, N., & Pieh, C. (2021). Therapeutic interventions in in-person and remote psychotherapy: Survey with psychotherapists and patients experiencing in-person and remote psychotherapy during COVID-19. *Clinical Psychology & Psychotherapy*. <https://doi.org/10.1002/cpp.2553>
- Probst, T.; Humer, E.; Stippl, P.; Pieh, C. (2020). Being a Psychotherapist in Times of the Novel Coronavirus Disease: Stress-Level, Job Anxiety, and Fear of Coronavirus Disease Infection in More Than 1500 Psychotherapists in Austria. *Front. Psychol.* 11, 559100. <https://doi.org/10.3389/fpsyg.2020.559100>
- Probst, T., Stippl, P., & Pieh, C. (2020). Changes in provision of psychotherapy in the early weeks of the COVID-19 lockdown in Austria. *International Journal of Environmental Research and Public Health*, 17(11). Scopus. <https://doi.org/10.3390/ijerph17113815>
- Proudfoot, J. G. (2004). Computer-based treatment for anxiety and depression: Is it feasible? Is it effective? *Neuroscience & Biobehavioral Reviews*, 28(3), 353–363. <https://doi.org/10.1016/j.neubiorev.2>
- R Core Team (2022). R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. <https://www.R-project.org/>.

- Regueiro, V., McMartin, J., Schaefer, C., & Woody, J.M. (2016). Efficacy, efficiency, and ethics in the provision of telepsychology services: Emerging applications for international workers. *Journal of Psychology & Theology*, 44(4),290–302. <https://doi.org/10.1177/009164711604400404>
- Reinhardt, J. P., Boerner, K., & Horowitz, A. (2006). Good to have but not to use: Differential impact of perceived and received support on well-being. *Journal of Social and Personal Relationships*, Volume 23, pp. 117- 129. DOI:10.1177/0265407506060182
- Repišti, S., Jovanović, N., Kuzman, M. R., Medved, S., Jerotić, S., Ribić, E., Majstorović, T., Simoska, S. M., Novotni, L., Milutinović, M., Stoilkovska, B. B., Radojičić, T., Ristić, I., Zebić, M., Pemovska, T., & Russo, M. (2020). How to measure the impact of the COVID-19 pandemic on quality of life: COVID-19-QoL – the development, reliability and validity of a new scale. *Global Psychiatry*, 3(2). <https://doi.org/10.2478/gp-2020-0016>
- Reynolds, A. J., Stiles, W. B., Bailer, A. J., & Hughes, M. R. (2013). Impact of exchanges and client-therapist alliance in online-text psychotherapy. *CyberPsychology, Behavior and Social Networking*, 16, 370–377. <http://dx.doi.org/10.1089/cyber.2012.0195>
- Richards, D., & Richardson, T. (2012). Computer-based psychological treatments for depression: A systematic review and meta-analysis. *Clinical Psychology Review*, 32(4), 329–342. <https://doi.org/10.1016/j.cpr.2012.02.004>
- Richards, D., & Viganó, N. (2013). Online Counseling: A Narrative and Critical Review of the Literature. *Journal of Clinical Psychology*, 69(9), 994–1011. <https://doi.org/10.100>
- Rochlen, A.B., Zack, J.S., & Speyer, C. (2004). Online therapy: Review of relevant definitions, debates, and current empirical support. *Journal of Clinical Psychology*, 60(3), 269–283. <https://doi.org/10.1002/jclp.10263>
- Rodríguez-Romero, R., Herranz-Rodríguez, C., Kostov, B., Gené-Badia, J., & Sisó-Almirall, A. (2021). Intervention to reduce perceived loneliness in community-dwelling older people. *Scandinavian journal of caring sciences*, 35(2), 366-374. <https://doi.org/10.1111/scs.12852>
- Rossi, R., Succi, V., Talevi, D., Mensi, S., Niolu, C., Pacitti, F., Di Marco, A., Rossi, A., Siracusano, A., & Di Lorenzo, G. (2020). COVID-19 pandemic and lockdown measures impact on mental health among the general population in Italy. *Frontiers in Psychiatry*, 11, 790. <https://doi.org/10.3389/fpsy.2020.00790>
- Russell, D., Peplau, L. A., & Ferguson, M. L. (1978). Developing a measure of loneliness. *Journal of Personality Assessment*, 42(3), 290-294. https://doi.org/10.1207/s15327752jpa4203_11
- Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, Volume 57, Issue 6, pp. 1069–1081. DOI: 10.1037/0022-3514.57.6.1069
- Salari, N., Hosseini-Far, A., Jalali, R., Vaisi-Raygani, A., Rasoulpoor, S., Mohammadi, M., Rasoulpoor, S., & Khaledi-Paveh, B. (2020). Prevalence of stress, anxiety, depression among the general population

- during the COVID-19 pandemic: A systematic review and meta-analysis. *Globalization and Health*, 16(1), 1-11. <https://doi.org/10.1186/s12992-020-00589-w>
- Sammons, M. T., VandenBos, G. R., & Martin, J. N. (2020a). Psychological Practice and the COVID-19 Crisis: A Rapid Response Survey. *Journal of Health Service Psychology*, 1–7. <https://doi.org/10.1007/s42843-020-00013-2>
- Sammons, M. T., VandenBos, G. R., Martin, J. N., & Elchert, D. M. (2020b). Psychological Practice at Six Months of COVID-19: A Follow-Up to the First National Survey of Psychologists During the Pandemic. *Journal of Health Service Psychology*, 1–10. <https://doi.org/10.1007/s42843-020-00024-z>
- Sampaio, M., Haro, M. V. N., De Sousa, B., Melo, W. V., & Hoffman, H. G. (2021). Therapists Make the Switch to Telepsychology to Safely Continue Treating Their Patients During the COVID-19 Pandemic. Virtual Reality Telepsychology May Be Next. *Frontiers in Virtual Reality*, 1. <https://doi.org/10.3389/frvir.2020.576421>
- Sander, L.; Bauman, O. Zoom Fatigue Is Real—Here’s Why Video Calls Are So Draining; Ideas.Ted.Com. 2020. Available online: <https://ideas.ted.com/zoom-fatigue-is-real-heres-why-video-calls-are-so-draining/> (accessed on 18 October 2020).
- Savarese, G., Curcio, L., D’Elia, D., Fasano, O., & Pecoraro, N. (2020). Online university student counselling services and psychological problems among Italian students in lockdown due to Covid-19. *Healthcare*, 8(4), 440. doi:10.3390/healthcare8040440
- Sawir, E., Marginson, S., Deumert, A., Nyland, C., & Ramia, G. (2008). Loneliness and international students: An Australian study. *Journal of Studies in International Education*, 12(2), 148-180. DOI: 10.1177/1028315307299699
- Schotanus-Dijkstra, M., Drossaert, C. H., Pieterse, M. E., Walburg, J. A., & Bohlmeijer, E. T. (2015). Efficacy of a Multicomponent Positive Psychology Self-Help Intervention: Study Protocol of a Randomized Controlled Trial. *JMIR Research Protocols*, 4(3), e105. <https://doi.org/10.2196/resprot.4162>
- Schröder, J., Berger, T., Meyer, B., Lutz, W., Hautzinger, M., Späth, C., Eichenberg, C., Klein, J. P., & Moritz, S. (2017). Attitudes towards internet interventions among psychotherapists and individuals with mild to moderate depression symptoms. *Cognitive Therapy and Research*, 41(5), 745–756. <https://doi.org/10.1007/s10608-017-9850-0>
- Schuster, R., Pokorny, R., Berger, T., Topooco, N., & Laireiter, A.-R. (2018). The Advantages and Disadvantages of Online and Blended Therapy: Survey Study Amongst Licensed Psychotherapists in Austria. *Journal of Medical Internet Research*, 20(12), e11007. <https://doi.org/10.2196/11007>
- Seewer, N., Skoko, A., Käll, A., Andersson, G., Luhmann, M., Berger, T., & Krieger, T. (2023). Efficacy of an Internet-based Self-help Intervention with Human Guidance or Automated Messages to Alleviate Loneliness: A Three-Armed Randomized Controlled Trial. <https://doi.org/10.21203/rs.3.rs-3005279/v1>

- Sewall, C. J. R., Goldstein, T. R., Wright, A. G. C., & Rosen, D. (2022). Does Objectively Measured Social-Media or Smartphone Use Predict Depression, Anxiety, or Social Isolation Among Young Adults? *Clinical Psychological Science*, 10(5), 997–1014. <https://doi.org/10.1177/21677026221078309>
- Shen, X., MacDonald, M., Logan, S. W., Parkinson, C., Gorrell, L., & Hatfield, B. E. (2022). Leisure engagement during COVID-19 and its association with mental health and wellbeing in U.S. adults. *International Journal of Environmental Research and Public Health*, 19, 1081. <https://doi.org/10.3390/ijerph19031081>
- Sherry, M., Thomas, P., Chui, W.H. (2010). International students: a Vulnerable Student Population. *Higher Education*, Volume 60, pp. 33-46. DOI 10.1007/s10734-009-9284-z
- Shevlin, M., McBride, O., Murphy, J., Miller, J. G., Hartman, T. K., Levita, L., Mason, L., Martinez, A. P., McKay, R., Stocks, T. V. A., Bennett, K. M., Hyland, P., Karatzias, T., & Bentall, R. P. (2020). Anxiety, depression, traumatic stress and COVID-19-related anxiety in the UK general population during the COVID-19 pandemic. *BJPsych open*, 6(6), e125. <https://doi.org/10.1192/bjo.2020.109>
- Shulman, M., John, M., & Kane, J. M. (2017). Home-Based Outpatient Telepsychiatry to Improve Adherence With Treatment Appointments: A Pilot Study. *Psychiatric Services*, 68(7), 743–746. <https://doi.org/10.1176/appi.ps.201600244>
- Simoni, J. M., Franks, J. C., Lehavot, K., & Yard, S. S. (2011). Peer interventions to promote health: Conceptual considerations. *American Journal of Orthopsychiatry*, 81(3), 351–359. <https://doi.org/10.1111/j.1939-0025.2011.01103.x>
- Simpson, S. (2001). The provision of a telepsychology service to Shetland: Client. and therapist satisfaction and the ability to develop a therapeutic alliance. *Journal of Telemedicine and Telecare*, 7(1), 34–36. DOI: 10.1177/1357633X010070S114
- Simpson, S.; Richardson, L.; Pietrabissa, G.; Catelnuovo, G.; Reid, C. (2021). Videotherapy and therapeutic alliance in the age of COVID-19. *Clin. Psychol. Psychother*, 28(2), 409–421. <https://doi.org/10.1002/cpp.2521>
- Singh, J. K. N. (2018). What are the factors that contribute to postgraduate international students' academic success? A Malaysian qualitative study. *Higher Education Research & Development*, Volume 37, Issue 5, pp. 1035-1049, DOI: 10.1080/07294360.2018.1467383
- Singh, S., Roy, D., Sinha, K., Parveen, S., Sharma, G., & Joshi, G. (2020). Impact of COVID-19 and lockdown on mental health of children and adolescents: A narrative review with recommendations. *Psychiatry research*, 293, 113429. <https://doi.org/10.1016/j.psychres.2020.113429>
- Sisavath, S. (2021). Benefits of studying abroad for graduate employability: perspectives of exchange students from Lao universities. *Journal of International Students*, Volume 11, Issue 3, pp. 547-566. DOI: 10.32674/jis.v11i3.2779

- Skromanis, S., Cooling, N., Rodgers, B., Purton, T., Fan, F., Bridgman, H., Harris, K., Presser, J., & Mond, J. (2018). Health and well-being of international university students, and comparison with domestic students, in Tasmania, Australia. *International Journal of Environmental Research and Public Health*, 15(6), 1147. <https://doi.org/10.3390/ijerph15061147>
- Smith, R. A., Khawaja, N. G. (2011). A review of the acculturation experiences of international students. *Journal of Intercultural Relations*, Volume 35, pp. 699-713. DOI:10.1016/j.ijintrel.2011.08.004
- Sobkowiak, P. (2019) The impact of studying abroad on students' intercultural competence. *Studies in Second Language Learning and Teaching*, Volume 9, Issue 4, pp. 681-710. DOI: 10.14746/ssl.2019.9.4.6
- Solomou, I., Constantinidou, F., Karekla, M., Psaltis, C., & Chatzittofis, A. (2021). The COVID-19 International Student Well-Being Study (C-19 ISWS): The Case of Cyprus. *European Journal of Psychology Open*, 80(3), 99–110. <https://doi.org/10.1024/2673-8627/a000014>
- Son, C., Hegde, S., Smith, A., Wang, X., & Sasangohar, F. (2020). Effects of COVID-19 on College Students' Mental Health in the United States: Interview Survey Study. *Journal of medical Internet research*, 22(9), e21279. <https://doi.org/10.2196/21279>
- Son, J. B., & Park, S. S. (2014). Academic experiences of international PhD students in Australian higher education: From an EAP program to a PhD program. *International Journal of Pedagogies and Learning*, 9(1), 26–37. <https://doi.org/10.1080/18334105.2014.11082017>
- Spitzer, R. L., Kroenke, K., Williams, J. B., & Lowe, B. (2006). A brief measure for assessing generalized anxiety disorder: The GAD-7. *Archives of Internal Medicine*, 166(10), 1092-1097. doi:10.1001/archinte.166.10.1092
- Sproch, L. E., & Anderson, K. P. (2019). Clinician-delivered teletherapy for eating disorders. *Psychiatric Clinics of North America*, 42(2), 243–252. <https://doi.org/10.1016/j.psc.2019.01.008>
- Steger, M. F., Frazier, P., Kaler, M., & Oishi, S. (2006). The meaning in life questionnaire: Assessing the presence of and search for meaning in life. *Journal of Counseling Psychology*, 53(1), 80–93. <https://doi.org/10.1037/0022-0167.53.1.80>
- Stoll, J., Müller, J. A., & Trachsel, M. (2020). Ethical Issues in Online Psychotherapy: A Narrative Review. *Frontiers in Psychiatry*, 10. <https://doi.org/10.3389/fpsy.2019.00993>
- Stubbings, D. R., Rees, C. S., Roberts, L. D., & Kane, R. T. (2013). Comparing in-person to videoconference-based cognitive behavioral therapy for mood and anxiety disorders: Randomized controlled trial. *Journal of Medical Internet Research*, 15(11), 1-17. <http://dx.doi.org/10.2196/jmir.2564>
- Sucala, M., Schnur, J. B., Brackman, E. H., Constantino, M. J., & Montgomery, G. H. (2013). Clinicians' attitudes toward therapeutic alliance in ETherapy. *J Gen Psychology*, 140(4), 282–293. doi:10.1080/00221309.2013.830590

- Sumer, S., Poyrazli, S., Grahme, K. (2011). Predictors of depression and anxiety among international students. *Journal of Counseling & Development*, Volume 86, Issue 4, pp. 429-437. DOI: 10.1002/j.1556-6678.2008.tb00531.x
- Takács, J., Katona, Z. B., & Ihász, F. (2023). A large sample cross-sectional study on mental health challenges among adolescents and young adults during the COVID-19 pandemic at-risk group for loneliness and hopelessness during the COVID-19 pandemic. *Journal of Affective Disorders*, 325, 770–777. <https://doi.org/10.1016/j.jad.2023.01.067>
- Thabane, L., Ma, J., Chu, R., Cheng, J., Ismaila, A., Rios, L. P., Robson, R., Thabane, M., Giangregorio, L., & Goldsmith, C. H. (2010). A tutorial on pilot studies: the what, why and how. *BMC medical research methodology*, 10, 1. <https://doi.org/10.1186/1471-2288-10-1>
- The Jamovi Project, version 1.6; jamovi; Computer Software. 2021. Available online: <https://www.jamovi.org> (accessed on 15 October 2021).
- The Qualitative Data Analysis & Research Software, version 8.3; Computer Software. Available online: <https://atlasti.com> (accessed on 15 December 2021).
- Thorp, S. R., Fidler, J., Moreno, L., Floto, E., Agha, Z. (2012). Lessons learned from studies of psychotherapy for posttraumatic stress disorder via video teleconferencing. *Psychol. Serv.* 9, 197–199. <https://doi.org/10.1037/a0027057>
- Thorpe, K., & Barsky, J. (2001). Healing through self-reflection. *Journal of Advanced Nursing*, Volume 35, pp. 760–768
- Tohme, P., De Witte, N. A. J., Van Daele, T., & Abi-Habib, R. (2021). Telepsychotherapy During the COVID-19 Pandemic: The Experience of Lebanese Mental Health Professionals. *Journal of contemporary psychotherapy*, 51(4), 349–355. <https://doi.org/10.1007/s10879-021-09503-w>
- Tomaino, S. C. M., Cipolletta, S., Kostova, Z., & Todorova, I. (2021). Stories of life during the first wave of the COVID-19 pandemic in Italy: A qualitative study. *Environmental Research and Public Health*, 18, 7630. <https://doi.org/10.3390/ijerph18147630>
- Tomaino, S. C. M., Viganò, G., & Cipolletta, S. (2022). The COVID-19 Crisis as an Evolutionary Catalyst of Online Psychological Interventions. A Systematic Review and Qualitative Synthesis, *International Journal of Human–Computer Interaction*, DOI: 10.1080/10447318.2022.2111047
- Tomaino, S.C.M., Manzoni, G.M., Brotto, G., & Cipolletta, S. (2023). Breaking down the screen: Italian psychologists' and psychotherapists' experiences of the therapeutic relationship in online interventions during the COVID-19 pandemic. *International Journal of Environmental Research and Public Health*, 20, 1037. <https://doi.org/10.3390/ijerph20021037>
- Umberson, D., & Karas Montez, J. (2010). Social Relationships and Health: A Flashpoint for Health Policy. *Journal of Health and Social Behavior*, 51(1_suppl), S54–S66. <https://doi.org/10.1177/0022146510383501>

- Vallario, L. (2020). Il trasferimento delle terapie dall'offline all'online: una questione di setting e relazione. *Journal of Psychosocial Systems*, 41, 6-19. <https://doi.org/10.23823/jps.v4i1.65>
- Van Daele, T., Karekla, M., Kassianos, A. P., Compare, A., Haddouk, L., Salgado, J., Ebert, D. D., Trebbi, G., Bernaerts, S., Van Assche, E., & De Witte, N. A. J. (2020). Recommendations for policy and practice of telepsychotherapy and e-mental health in Europe and beyond. *Journal of Psychotherapy Integration*, 30(2), 160–173. Scopus. <https://doi.org/10.1037/int0000218>
- van der Houwen, K., Schut, H., van den Bout, J., Stroebe, M., & Stroebe, W. (2010). The efficacy of a brief internet-based self-help intervention for the bereaved. *Behaviour Research and Therapy*, 48(5), 359–367. <https://doi.org/10.1016/j.brat.2009.12.009>
- Van der Vaart, R.; Witting, M.; Riper, H.; Kooistra, L.; Bohlmejer, E.T.; van Gemert-Pijnen, L.J. (2014). Blending online therapy into regular face-to-face therapy for depression: Content, ratio and preconditions according to patients and therapists using a Delphi study. *BMC Psychiatry* 14, 1–10. <https://doi.org/10.1186/s12888-014-0355-z>
- Varma, P., Junge, M., Meaklim, H., & Jackson, M. L. (2021). Younger people are more vulnerable to stress, anxiety and depression during COVID-19 pandemic: A global cross-sectional survey. *Progress in Neuro-Psychopharmacology and Biological Psychiatry*, 109, 110236. <https://doi.org/10.1016/j.pnpbp.2020.110236>
- Vigerland, S., Ljótsson, B., Bergdahl Gustafsson, F., Hagert, S., Thulin, U., Andersson, G., & Serlachius, E. (2014). Attitudes towards the use of computerized cognitive behavior therapy (cCBT) with children and adolescents: A survey among Swedish mental health professionals. *Internet Interventions*, 1(3), 111–117. <https://doi.org/10.1016/j.invent.2014.06.002>
- Walsh, S., Szymczynska, P., Taylor, S. J., & Priebe, S. (2018). The acceptability of an online intervention using positive psychology for depression: A qualitative study. *Internet interventions*, 13, 60-66.
- Wang, J. (2009) A study of resiliency characteristics in the adjustment of international graduate students at American universities. *Journal of Studies in International Education*, Volume 13, Issue 1, pp. 22–45. <https://doi.org/10.1177/1028315307308139>
- Wang, J., Mann, F., Lloyd-Evans, B., Ma, R., & Johnson, S. (2018). Associations between loneliness and perceived social support and outcomes of mental health problems: A systematic review. *BMC Psychiatry*, 18(1), 1-16. <https://doi.org/10.1186/s12888-018-1736-5>
- Wang, X., Gordon, R. M., & Snyder, E. W. (2020). Comparing Chinese and US practitioners' attitudes towards teletherapy during the COVID-19 pandemic. *Asia-Pacific Psychiatry: Official Journal of the Pacific Rim College of Psychiatrists*, 13(1), e12440. <https://doi.org/10.1111/appy.12440>
- Wangberg, S. C., Gammon, D., & Spitznogle, K. (2007). In the Eyes of the Beholder: Exploring Psychologists' Attitudes towards and Use of e-Therapy in Norway. *CyberPsychology & Behavior*, 10(3), 418–423. <https://doi.org/10.1089/cpb.2006.9937>

- Watts, S., Marchand, A., Bouchard, S., & Bombardier, M. (2016). Therapeutic alliance in videoconferencing during telepsychotherapy for anxiety disorder spectrum: Systematic literature review. *Revue Québécoise De Psychologie*, 37(3), 277–302. <https://doi.org/10.7202/1040171ar>
- Watts, S., Marchand, A., Bouchard, S., Gosselin, P., Langlois, F., Belleville, G., & Dugas, M. J. (2020). Telepsychotherapy for generalized anxiety disorder: Impact on the working alliance. *Journal of Psychotherapy Integration*, 30(2), 208–225. <https://doi.org/10.1037/int0000223>
- Weinberg, H. (2020). Online group psychotherapy: Challenges and possibilities during COVID-19-A practice review. *Group Dynamics*, 24(3), 201–211. <https://doi.org/10.1037/gdn0000140>
- Weinert, C., Cudney, S., Comstock, B., & Bansal, A. (2011). Computer intervention impact on psychosocial adaptation of rural women with chronic conditions. *Nursing Research*, 60(2), 82–91. <https://doi.org/10.1097/NNR.0b013e3181ffbcf2>
- Wenjuan, G., Siqing, P., & Xinqiao, L. (2020). Gender differences in depression, anxiety, and stress among college students: A longitudinal study from China. *Journal of Affective Disorders*, 263, 292-300. <https://doi.org/10.1016/j.jad.2019.11.121>
- Wigfield, A., Turner, R., Alden, S., Green, M., & Karania, V. K. (2022). Developing a New Conceptual Framework of Meaningful Interaction for Understanding Social Isolation and Loneliness. *Social Policy and Society*, 21(2), 172–193. <https://doi.org/10.1017/S147474642000055X>
- Williams, J. L., Tuerk, P. W., & Acierno, R. (2015). Common elements of the expert consensus guidelines for clinical videoconferencing. In P. W. Tuerk, & P. Shore (Eds.), *Clinical videoconferencing in telehealth* (pp. 55–67). Cham, Switzerland: Springer
- Williams, C., & Whitfield, G. (2001). *Written and computer-based self-help treatments for depression*. British Medical Bulletin, Volume 57, pp. 133–144.
- Wind, T. R., Rijkeboer, M., Andersson, G., & Riper, H. (2020). The COVID-19 pandemic: The ‘black swan’ for mental health care and a turning point for e-health. *Internet Interventions*. 20: 100317 doi: 10.1016/j.invent.2020.100317
- Worae, J., Edgerton, J. D. (2023). A descriptive survey study of international students’ experiences at a Canadian university: challenges, support and suggested improvements. *Comparative and International Education*, Volume 5, Issue 2, pp. 16-67. DOI: 10.5206/cie-eci.v5i2.14223
- Worrall, H., Schweizer, R., Marks, E., Yuan, L., Lloyd, C., & Ramjan, R. (2018). The effectiveness of support groups: A literature review. *Mental Health and Social Inclusion*, 22(2), 85–93. <https://doi.org/10.1108/MHSI-12-2017-0055>
- Yakunina, E. S., Weigold, I. K., & McCarthy, A. S. (2011). Group counseling with international students: Practical, ethical, and cultural considerations. *Journal of College Student Psychotherapy*, 25(1), 67–78. <https://doi.org/10.1080/87568225.2011.532672>
- Yalom, I.D. (1975). *The Theory and Practice of Group Psychotherapy* (2nd ed.). New York: Basic Books.

- Ying, Y., & Han, M. (2006). The contribution of personality, acculturative stressors, and social affiliation to adjustment: A longitudinal study of Taiwanese students in the United States. *International Journal of Intercultural Relations*, 30, 623-635. <https://doi.org/10.1016/j.ijintrel.2006.02.001>
- Yuen, E. K. Et al. (2013). Acceptance based behavior therapy for social anxiety disorder through videoconferencing. *Journal of Anxiety Disorders*, 27, 389–397. <http://dx.doi.org/10.1016/j.janxdis.2013.03.002>
- Zagic, D., Wuthrich, V. M., Rapee, R. M., & Wolters, N. (2022). Interventions to improve social connections: a systematic review and meta-analysis. In *Social Psychiatry and Psychiatric Epidemiology* (Vol. 57, Issue 5, pp. 885–906). <https://doi.org/10.1007/s00127-021-02191-w>
- Zhao, J., Houghton, S., & Glasgow, K. (2022). International Students' Mental Health Amidst COVID-19-A Systematic Review Based on Current Evidence. *Education Research & Perspectives*, 9, 29-62.
- Zhou, G., Zhang, Z. (2014). A study of the first year international students at a Canadian university: challenges and experiences with social integration. *Canadian and International Education*, Volume 43, Issue 2, Article 7. <http://ir.lib.uwo.ca/cie-eci/vol43/iss2/7>
- Zimet, G. D., Dahlem, N. W., Zimet, S. G., & Farley, G. K. (1988). The multidimensional scale of perceived social support. *Journal of Personality Assessment*, 52(1), 30-41. https://doi.org/10.1207/s15327752jpa5201_2
- Zubala, A., & Hackett, S. (2020). Online art therapy practice and client safety: A UK-wide survey in times of COVID-19. *International Journal of Art Therapy: Inscape*, 25(4), 161–171. <https://doi.org/10.1080/17454832.2020.1845221>
- Zur, O. (2007). Telehealth and the Technology for Delivering Care. In *Boundaries in Psychotherapy: Ethical and Clinical Explorations* (pp. 133–146). *American Psychological Association*. <https://doi.org/10.1037/>

APPENDIX

Appendix A

The structure and items of the survey of Study 1

1. Socio-demographic information:

- Gender
- Age
- Origin
- Professional Title (Psychologist, Psychotherapist, Medical Doctor and Psychotherapist)
- Theoretical Orientation
- Professional experience (in years)
- Employment situation (Self-employed, Employee of the national healthcare system, Employee in a private organization, Other)
- Main areas of intervention (Eating disorders, anxiety, depression, relational problems, sexual problems, neuropsychology, cognitive rehabilitation, etc.)
- Age ranges of the clients/patients treated (Children, Adolescents, Adults, Old people)
- Regional order of registration
- Region/s where you practice

2. Attitudes and education before the COVID-19 pandemic:

- Did you deliver psychological interventions via telephone?
- If yes, for how many years, for what purposes/ If not, why?
- Did you deliver psychological interventions online (video/chat)?
- If not, why?
- If yes, for how many years?, for what purposes?, using what modality/ies? have you received any education for online psychological interventions? To what extent have you felt comfortable with online psychological interventions?

3. Professional experience during the COVID-19 pandemic:

- From march 2020, did you deliver psychological interventions via telephone?
- From march 2020, did you deliver psychological interventions online (video/chat)?
- If not, please tell us why
- If yes, what were the reasons to choosing online practice from march 2020?
- Out of the total number of patients/clients treated before the pandemic, how many did you start treating online?
- Out of the total number of patients/clients treated before the pandemic, to how many have you proposed to move online?
- What age group are the patients/clients you treat online? For what reason/problems are they treated?

- Please express your degree of accordance to the following statements (1 completely disagree to 5 completely agree): I am willing to use the online modality in my clinical practice, Clients/patients ask me to be treated online, I think that online tools are useful in the clinical practice, Using online interventions will make my work easier, I feel competent in using hardware and software, I have participated in courses to deliver online interventions, Using online interventions will make me save time, Using online interventions will make me save money, Using online interventions will impact negatively on my income, My clients/patients think that online interventions are different from in-presence ones, I think the online setting is not the same as the in-presence one, If I could choose I would not practice online, If I could I would practice online more, I would suggest to a colleague to practice online.
- Once the pandemic will be over do you think you will continue practicing online?
- If yes, please tell us why
- From your point of view what could be done to support professionals in using online interventions?

4. User experience with online practice:

- Which digital tools have you used to deliver online interventions during the pandemic?
- Which software have you used to deliver video-conference consultations?
- Regarding the software you are mainly using, do you think is safe for your patients/clients?
- Have you faced technical difficulties during the sessions? If yes, regarding what feature (audio, video, internet, other)?
- How much are you satisfied with the software and hardware used for the online interventions?
- From your point of view, is there something that the digital tools are lacking to be suitable for online interventions in psychology?
- Are you aware of the guidelines for online psychological practice published by the CNOP in 2017?
- Do you have any doubts or concerns about the legal and ethical aspects of online psychological practice?

5. The online therapeutic relationship:

- Has it been more difficult to manage the speaking turns during the online sessions compared to the in-person sessions?
- Has it been difficult to control the volume of the voice during online sessions compared to in-person sessions?
- Compared to in-person sessions, are online sessions more fatiguing?
- Do you feel a greater level of intimacy with your patients/clients during online sessions compared to in-person sessions?
- Do you feel a stronger emotional closeness to your patients/clients during online sessions compared to in-person sessions?
- What are the elements that, from your point of view, help you and your patient/client feeling connected during the session online?
- Do you feel that the online modality allows to you and your patient/client to feel a shared purpose in therapy?
- Do you feel that the online modality impacts the client/patient's trust in the professional?
- Do you feel that the online modality impacts the client/patient's trust in the psychological intervention?

- Does the virtual setting require you to change your typical modality of conducting sessions or interventions?
- What does it mean for you “being present” in the online setting?
- Thanks to what elements do you feel you are present with your client/patient in the online setting?
- From what elements you can say that your patient/client is present with you?
- How important is it for you to feel like being present with the other in the online sessions?
- Are there any features of digital tools (hardware or software) that, in your opinion, enhance the sense of presence during an online session? If yes, which and how?

Appendix B

The structure and items of the survey of Study 2

(here will be presented as an example the version of the survey completed by the Italian group)

- Gender
- Age
- Degree programme enrolled in Bachelor's degree, Master's degree, Single-cycle degree (e.g. Medicine, Veterinary, etc.), PhD, Short specialization course, other; please specify the course and year of attendance
- City of residence
- Please describe your current living situation
- How many people are in you apartment besides you?
- How many people do you share your bedroom with?

With the following questions we would like to know your attendance to the university lessons in the present academic year (2021-2022):

- In what percentage have you attended lessons in presence?
- In what percentage have you attended lessons online?

With the following questions we would like to know what are the everyday life activities that you are used to engage in a typical week:

- Please choose all the activities you participate WITH OTHERS during the week (studying, sport activities, leisure activities), for each chosen please indicate how many times per week referring to nowadays (on average).
- Please choose all the activities you carry out ALONE during the week (studying, sport activities, leisure activities), for each chosen please indicate how many times per week referring to nowadays (on average).
- Thinking about your home management (cleaning, tidying, cooking, etc.) how much do you feel you are handling it? (1 not at all, to 7 completely)
- Thinking about your ability to study (attending lectures, studying, focusing, etc.) how much do you feel you are handling it? (1 not at all, to 7 completely)
- At the present moment are you receiving professional psychological support? If yes, it is provided by? For what reason? For how long now?
- Have you received professional psychological support in the past? If yes, it is provided by? For what reason?
- When have you received it?

• **UCLA Loneliness Scale (ULS–6) Neto, (2014)**

Indicate how often each of the statements below is descriptive of you.

	Never	Rarely	Sometimes	Often
1. I lack companionship	0	1	2	3
2. I feel part of a group of friends	0	1	2	3
3. I feel left out	0	1	2	3
4. I feel isolated from others	0	1	2	3
5. I am unhappy being so withdrawn	0	1	2	3
6. People are around me but not with me	0	1	2	3

• **Multidimensional Scale of Perceived Social Support (MSPSS) Zimet, Dahlem, Zime & Farley (1988)**

We are interested in how you feel about the following statements. Read each statement carefully. Indicate how you feel about each statement.

	Very Strongly Disagree	Strongly Disagree	Midly Disagree	Neutral	Midly Agree	Strongly Agree	Very Strongly Agree
1. There is a special person who is around when I am in need.	1	2	3	4	5	6	7
2. There is a special person with whom I can share joys and sorrows.	1	2	3	4	5	6	7
3. My family really tries to help me.	1	2	3	4	5	6	7
4. I get the emotional help & support I need from my family.	1	2	3	4	5	6	7
5. I have a special person who is a real source of comfort to me.	1	2	3	4	5	6	7
6. My friends really try to help me.	1	2	3	4	5	6	7
7. I can count on my friends when things go wrong.	1	2	3	4	5	6	7
8. I can talk about my problems with my family.	1	2	3	4	5	6	7
9. I have friends with whom I can share my joys and sorrows.	1	2	3	4	5	6	7
10. There is a special person in my life who cares about my feelings.	1	2	3	4	5	6	7
11. My family is willing to help me make decisions.	1	2	3	4	5	6	7
12. I can talk about my problems with my friends.	1	2	3	4	5	6	7

- **General Anxiety Disorder (GAD-7)** Spitzer et al., (2006)

Over the last two weeks, how often have you been bothered by the following problems?

	Not at all	Several days	More than half the days	Nearly every day
1. Feeling nervous, anxious, or on edge	0	1	2	3
2. Not being able to stop or control worrying	0	1	2	3
3. Worrying too much about different things	0	1	2	3
4. Trouble relaxing	0	1	2	3
5. Being so restless that it is hard to sit still	0	1	2	3
6. Becoming easily annoyed or irritable	0	1	2	3
7. Feeling afraid, as if something awful might happen	0	1	2	3

- **Patient Health Questionnaire (PHQ-9)** Kroenke, Spitzer, & Williams, (2001)

Over the last two weeks, how often have you been bothered by the following problems?

	Not at all	Several days	More than half the days	Nearly every day
1. Little interest or pleasure in doing things	0	1	2	3
2. Feeling down, depressed or hopeless	0	1	2	3
3. Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4. Feeling tired or having little energy	0	1	2	3
5. Poor appetite or over eating	0	1	2	3
6. Feeling bad about yourself - or that you are a failure or have let yourself or your family down	0	1	2	3
7. Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8. Moving or speaking so slowly that other people could have noticed. Or the opposite - being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
9. Thoughts that you would be better off dead, or of hurting yourself	0	1	2	3

- **The Satisfaction with Life Scale (SWL)** Diener et al., (1985)

Below are five statements that you may agree or disagree with.

Using the 1 - 7 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and honest in your responding.

	Strongly Disagree	Disagree	Slightly Disagree	Neither agree nor disagree	Slightly Agree	Agree	Strongly Agree
1. In most ways my life is close to my ideal.	1	2	3	4	5	6	7
2. The conditions of my life are excellent.	1	2	3	4	5	6	7
3. I am satisfied with my life.	1	2	3	4	5	6	7
4. So far I have gotten the important things I want in my life.	1	2	3	4	5	6	7
5. If I could live my life over, I would change almost nothing.	1	2	3	4	5	6	7

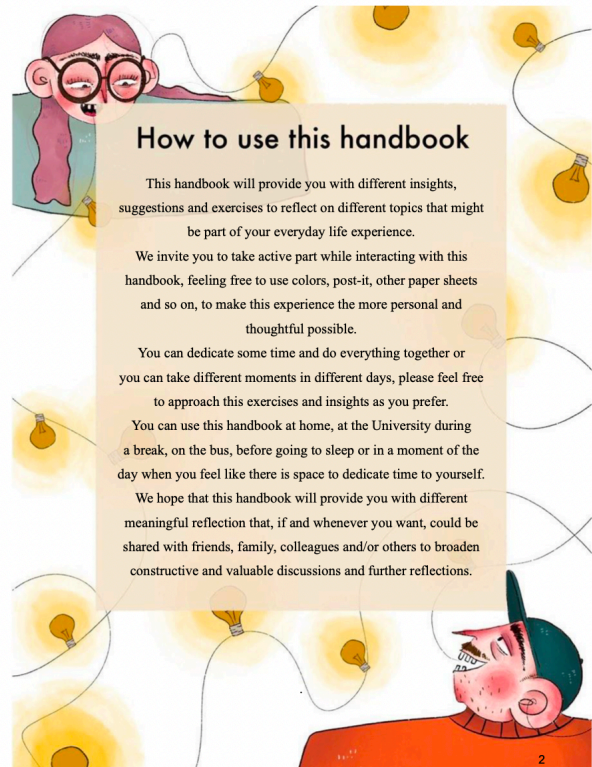
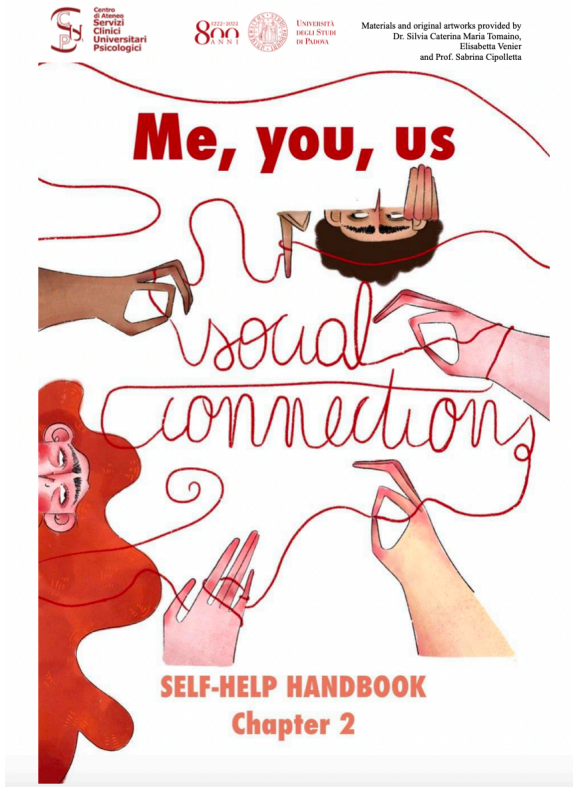
- **The impact of the COVID-19 pandemic on quality of life (COV19-QoL)** Repišti et al., (2020)

Please, choose the number that best represents the degree of your agreement with the statements provided below. Due to the spread of the Coronavirus...

	Completely disagree	Disagree	Neither agree nor disagree	Agree	Completely agree
1. I think my quality of life is lower than before	1	2	3	4	5
2. I think my mental health has deteriorated	1	2	3	4	5
3. I think my physical health may deteriorate	1	2	3	4	5
4. I feel more tense than before	1	2	3	4	5
5. I feel more depressed than before	1	2	3	4	5
6. I feel that my personal safety is at risk	1	2	3	4	5

Appendix C

The self-help handbook (Study 3), some examples of the structure, contents and activities proposed



Further reflections

*"Think about this, every single person in your life was once a stranger to you!
And you knew nothing about them until you had that first conversation. [...]
Ever since little we are told to not talk to strangers, but I am here to tell you something different...
Talk to strangers! Every stranger comes with an opportunity, an opportunity to learn something new, an opportunity to have an experience you've never had or hear a story that you've never heard before."*

7 Ways to Make a Conversation With Anyone | Malavika Varadan | TEDxBITSPilaniDubai

<https://www.youtube.com/watch?v=F4Zu5ZZAG7I>



Remember you can **share with us** your reflections and activities by sending us an e-mail with a copy of this chapter completed by you.

In this case please contact:
silviacaterinamaria.tomaino@phd.unipd.it

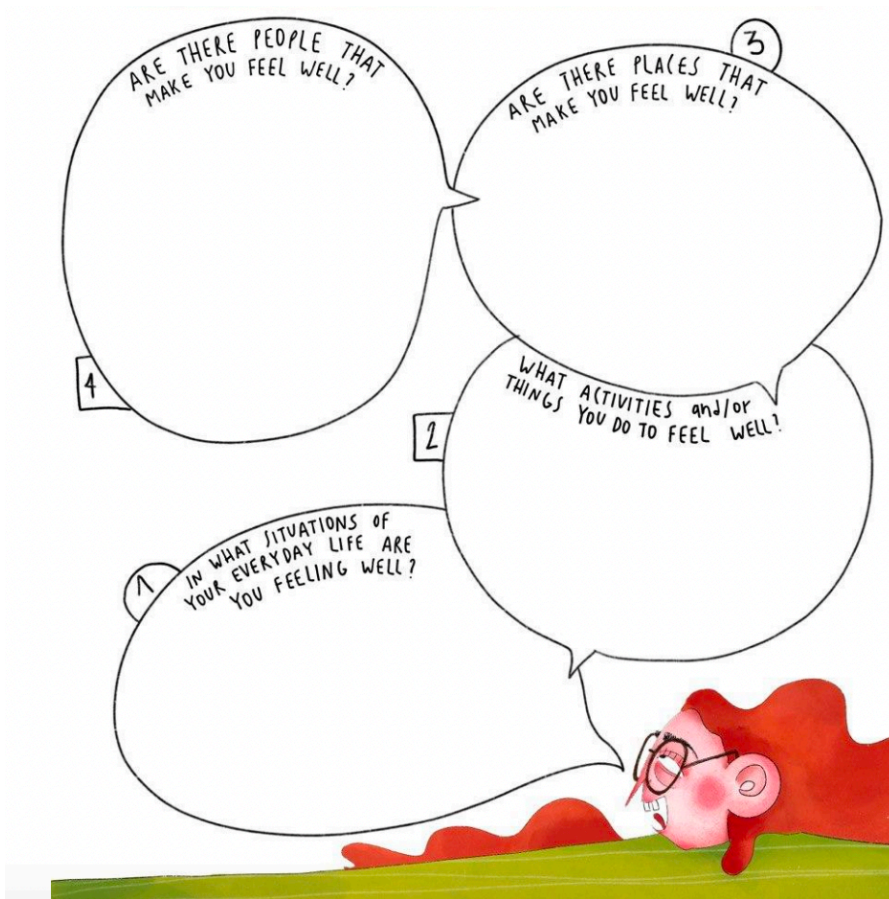
Considering your cultural background, what are the main "do and don't of well-being"?

DO	DON'T
1 _____	• _____
2 _____	• _____
3 _____	• _____
1 _____	• _____

Thinking of the media contents you see scrolling on social media (such as Instagram, Facebook, Tik-Tok etc.), what are the main "do and don't of well-being"?

DO	DON'T
1 _____	• _____
2 _____	• _____
3 _____	• _____
1 _____	• _____

Things I do	People
_____	• _____
_____	• _____
_____	• _____
_____	• _____
_____	• _____
Other	Everyday Routine
_____	<input type="checkbox"/> _____
_____	<input type="checkbox"/> _____
_____	<input type="checkbox"/> _____
_____	<input type="checkbox"/> _____
_____	<input type="checkbox"/> _____
_____	<input type="checkbox"/> ...



Appendix D

The structure and items of the surveys of Study 3.1 (assessment survey and satisfaction survey)

1. Survey to collect data at baseline (T0) and after the intervention (T1)

- personal CODE: made of the first letter of your mother's name and surname, then first letter of your father's name and surname, then your year of birth. Here an example: My name is Marco Rossi, my mother is Olga Byrne, my father is James Rossi and I was born in 1995. My code will be OBJR1995. (if some information are missing please provide data of your choice (eg. name and surname of a friend, partner and/or relative) that will be easy for you to remember for the next times!)
- Gender
- Born on the (date: day/month/year)
- Nationality
- Degree programme enrolled in Bachelor's degree, Master's degree, Single-cycle degree (e.g. Medicine, Veterinary, etc.), PhD, Short specialization course, other; please specify the course and year of attendance
- **UCLA Loneliness Scale (ULS-6)** Neto, (2014)*
- **Multidimensional Scale of Perceived Social Support (MSPSS)** Zimet, Dahlem, Zime & Farley (1988)*
- **General Anxiety Disorder (GAD-7)** Spitzer et al., (2006)*
- **Patient Health Questionnaire (PHQ-9)** Kroenke, Spitzer, & Williams, (2001)*
- **The Satisfaction with Life Scale (SWL)** Diener et al., (1985)*

**(the complete text of the questionnaires is reported in Appendix B)*

2. Survey to evaluate the satisfaction with the intervention

(here will be presented as an example the version of the survey completed by the blended group)

1. Your experience with the activity you have participated in:

Please answer the following question thinking of your personal experience, (from 1 not at all, to 5 completely):

- Overall, how much are you satisfied for participating in the activity that included group sessions and self-help materials?
- Overall, has the activity that includes group sessions and self-help materials met my expectations?

Focusing on your participation to the group activities, please answer the following questions, (from 1 not at all, to 5 completely):

- I am satisfied with the group activity including 8 in presence group sessions at the SCUP
- Were the group sessions' contents relevant to you overall?
- Was the organization of the group sessions (time, place) functional to you?

From your point of view, please rate the relevance of the themes of the group sessions (from 1: completely irrelevant to 7: completely relevant):

- Session 1 – “Creating the group by presenting each other, sharing fears and expectations”
- Session 2 – “Being an international student, exchanging personal experiences and feelings”

- Session 3 – “Defining my idea of well-being, exchanging perspective and personal strategies”
- Session 4 – “Empowering my well-being, what do I do? What can I do? What can we do together?”
- Session 5 – “Digital tools and social media, what user am I? What is their role for me as an international student? Are they helping getting in touch with others or isolating me?”
- Session 6 – “Mapping our everyday life in Padua, exchanging favourite places, bars, most useful offices and services... navigating the city map and exchanging tips and suggestions”
- Session 7 “Get in the game! Facing different -being an international student challenges and situations- by putting into practice tools and ideas shared during the group sessions”
- Session 8 “Drawing conclusions of our group activity together. Reflecting and sharing on what we have learnt from this experience and especially what we have learnt from the group’s relationships”

Focusing the self-help online materials you have received, please answer the following questions, (from 1 not at all, to 5 completely):

- I am satisfied with the self-help online materials I received that included 8 chapters of the self-help handbook sent via email
- Were the contents of the self-help online materials relevant to you?
- Was the organization of the self-help online materials (pdf format, sent via email) functional to you?

From your point of view, please rate the relevance of the themes of the self-help materials (from 1: completely irrelevant to 7: completely relevant):

- Chapter 1 – “Nice to meet you”, presenting myself to others, can I try my own way?
- Chapter 2 “Me, you, us”, social connections and the relationships with others while being and international student
- Chapter 3 “Exploring the idea of well-being”, exploring places, people, activities and resources that could empower my well-being
- Chapter 4 “Creating my idea of well-being”, exploring the directions to explore and the steps to take to move in the direction of feeling well starting from what I can do today
- Chapter 5 “Caught in the net or surfing?”, exploring and reflecting on our personal use of digital tools and social media to find resources and limitations to our well-being and connection with others
- Chapter 6 “Construing my network of resources”, exploring the places, services, tools, people and more around me (in a foreigner country) to construe my map of resources to orient during this experience
- Chapter 7 “Can we start to see a way?”, putting together the resources and information gained with the past chapters to see if we can foresee a way by using our compass, map, travel companions, pace and destinations
- Chapter 8 “Moving forward one step at a time”, construing a toolbox of the things gained with this experience by looking back to each chapter’s theme and highlighting take home messages
- Why did you choose to attend this event? (open)
- What did you enjoy most about the overall activity? (open)
- What is your biggest takeaway from this experience? (open)

Thinking of your experience in participating to the activity including group sessions and self-help materials, please answer the following questions, (from 1 not at all, to 5 completely):

- As a result of participating to this activity I feel my personal skills have improved/ are enhanced

- As a result of participating to this activity I feel my ability to connect with others has improved
- As a result of participating to this activity I feel my number of friends increased
- As a result of participating to this activity I have more resources to improve my well-being
- As a result of participating to this activity I have more resources to improve my mental health
- What are the strengths of this experience? (open)
- What are the weaknesses of this experience? (open)
- Please give us one or two practical suggestions for how we could improve this experience (open)
- Other comments? (open)

2. Please tell us something about you, by answering to the following questions:

- Personal CODE,
- Please describe your current living situation
- How many people are in you apartment besides you?
- How many people do you share your bedroom with?

With the following questions we would like to know your preferences regarding the use of digital tools (1 not at all, to 7 completely):

- How much would you describe yourself as a person familiar with digital tools (smartphone, pc, tablet ecc.)?
- How much do you appreciate using digital tools to connect with others (using chats, video calls, other)?
- How much do you appreciate using digital tools to take time for yourself (relax, reflect, other)?

With the following questions we would like to know what are the everyday life activities that you are used to engage in a typical week:

- Please choose all the activities you participate WITH OTHERS during the week (Studying, sport activities, leisure activities), for each chosen please indicate how many times per week referring to nowadays (on average).
- Please choose all the activities you carry out ALONE during the week (Studying, sport activities, leisure activities), for each chosen please indicate how many times per week referring to nowadays (on average).
- Thinking about your home management (cleaning, tidying, cooking, etc.) how much do you feel you are handling it? (1 not at all, to 7 completely)
- Thinking about your ability to study (attending lectures, studying, focusing, etc.) how much do you feel you are handling it? (1 not at all, to 7 completely)
- At the present moment are you receiving professional psychological support? If yes, it is provided by? For what reason?
- For how long now?
- Have you received professional psychological support in the past? If yes, it is provided by? For what reason?
- When have you received it?

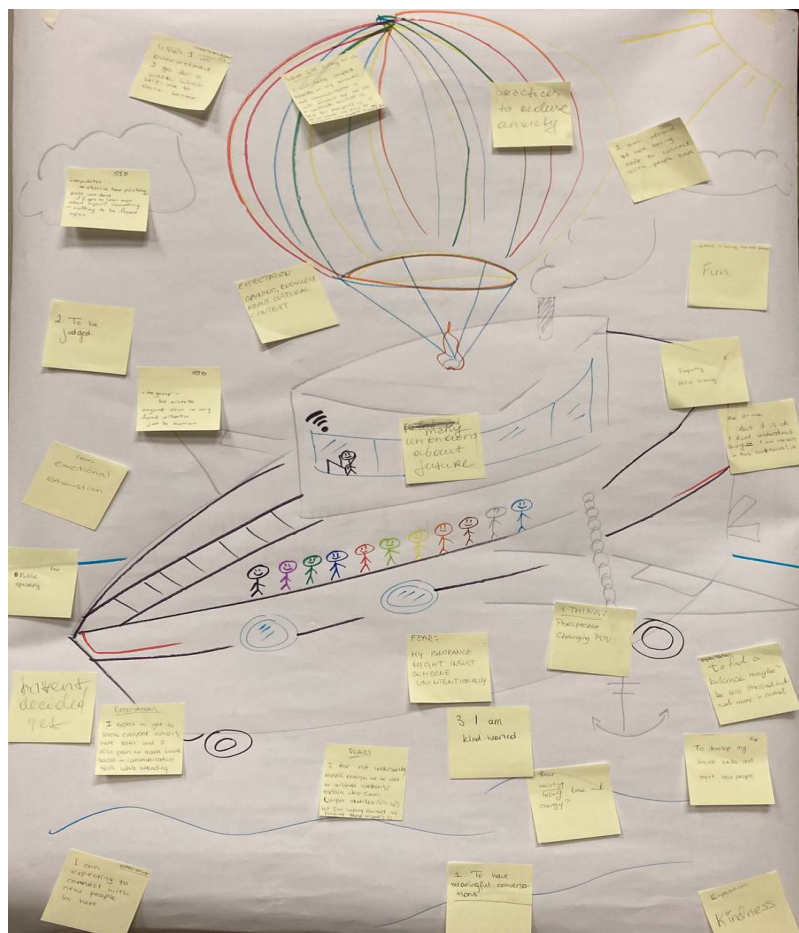
Appendix E

A commentary on participants interaction in the group sessions and artworks (Study 3.2)

Interactions among participants in the in-person group intervention have also been considered as a qualitative index capable of enriching qualitative data collected through thematic analysis and accounting for the intervention's goal of constituting itself as a relational space where participants could meet other international students and share common experiences. Observations of participants' interactions will be provided for each meeting and linked with artworks created by participants in the same session, following the chronological order. The choice to pair observations of participant interactions with artworks reflects the process of a group elaboration that participants used to create the artwork by sharing and construing shared meanings on the meeting's topic.

- The first session:

The first session was dedicated to the creation of the group, getting to know each other, presenting the structure of the sessions and reflecting, sharing and discussing together about one's expectations on the group activities, personal resources that they wanted to share with the group and setting together as well the rules of the group. During the first meeting participants tended to talk more when asked rather than speaking and intervening independently and the moderator had a central role in driving conversations. The first artwork created by the group represents a metaphor that the group decided about the group activities, in terms of a journey in their selves where everyone is together “on the same boat”. In regards to the expectations, different things were shared such as having fun, learning practices to reduce anxiety, gaining knowledge about cultural content and getting to know new people and more.



- *The second session:*

The second session invited participants to reflect on their personal experiences regarding their choice of being an international student abroad as well as about the process of preparation. Regarding the interaction between participants, still several moments of silence have been registered, decreasing reaching the end of the session when the main role covered by the moderator consisted in facilitating participants further elaboration. On a general level each participant was able to share their personal experiences, but mostly engaging with the moderator rather than with other participants. The artwork created by the group consisted in the shared preparation of the “ideal luggage” for starting the experience of studying abroad. The process of joint creation was lively and participated by all, confronting their experiences and reflections, asking the others if they agreed with that specific idea before adding anything to the drawing. Some of the things added to the luggage were the sun, a camera, thick clothes, traditional food, willpower, patience, humility, strength, friends, one’s room, frustration with communication problems.



- The third session:

The third session involved participants in personal reflections about their definition of well-being, sharing and discussing with others elements fostering it or at contrary impacting it. Difficulties in interacting with each other were still registered, as the conversation was mainly driven by two participants and for others seemed difficult to jump in the conversation especially in the first part of the session. The artwork created by the group, rather than being a shared construction of personal meanings, came out as a common space where were put together individual meanings, combining personal perspectives rather than reflecting and creating a common view. The artwork represents “the room of well-being” with elements impacting well-being such as lack of initiative, guilt, relationships drama, overthinking, etc. (outside the room) and those supporting it such as taking time for oneself, social support, the ability to trust oneself and rest (inside the room).



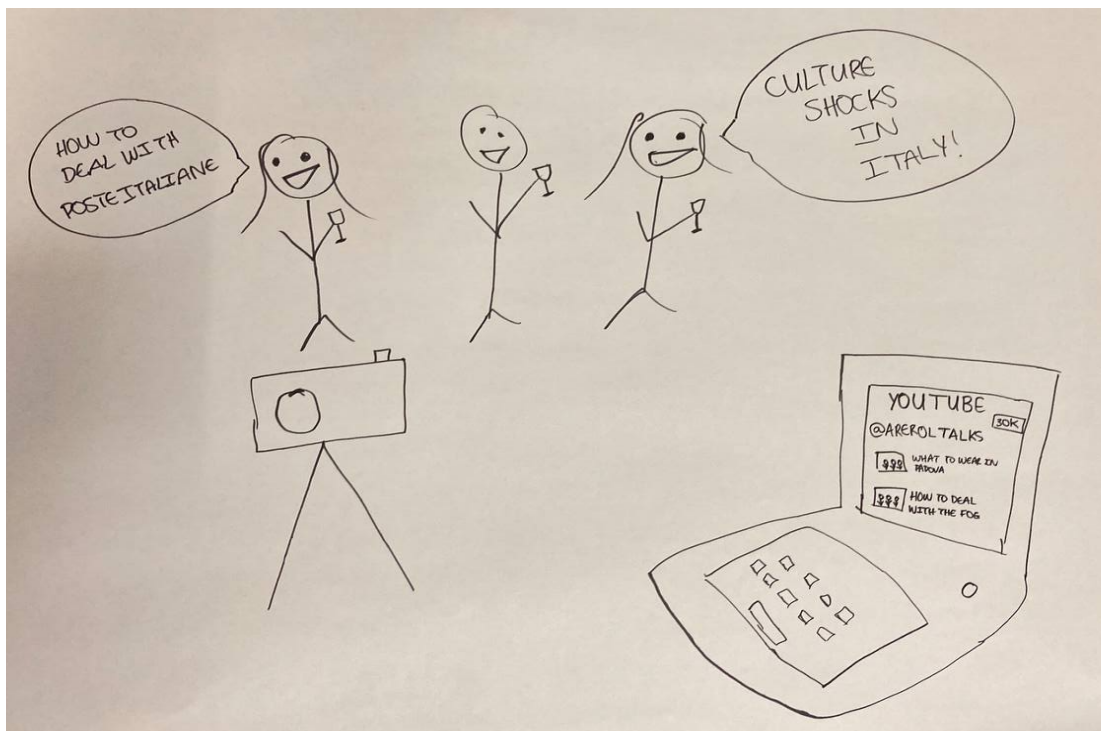
- *The fourth session:*

The fourth session involved participants in reflecting and sharing the activities they carry out alone or with others to support their well-being. From the very beginning participants were very engaged in the conversation, laughing more often and starting to talk directly to each other when sharing their personal experiences, asking each other directly questions and replying to them rather than to the moderator. Such change was visible as well in the artwork creation as participants decided to draw personal activities, while at the same time creating an activity that they could possibly carry out together to support their well-being taking into account each participant point of view, moreover, differently from previous artwork creations in which one person did the work while group participated in the discussion, this time each participant took part in the drawing process in a form of sharing and doing together. The artwork represents one activity participants could do all together to support their well-being, consisting in watching Friends, eating brownies, while having a face mask on and sitting on a comfortable couch.



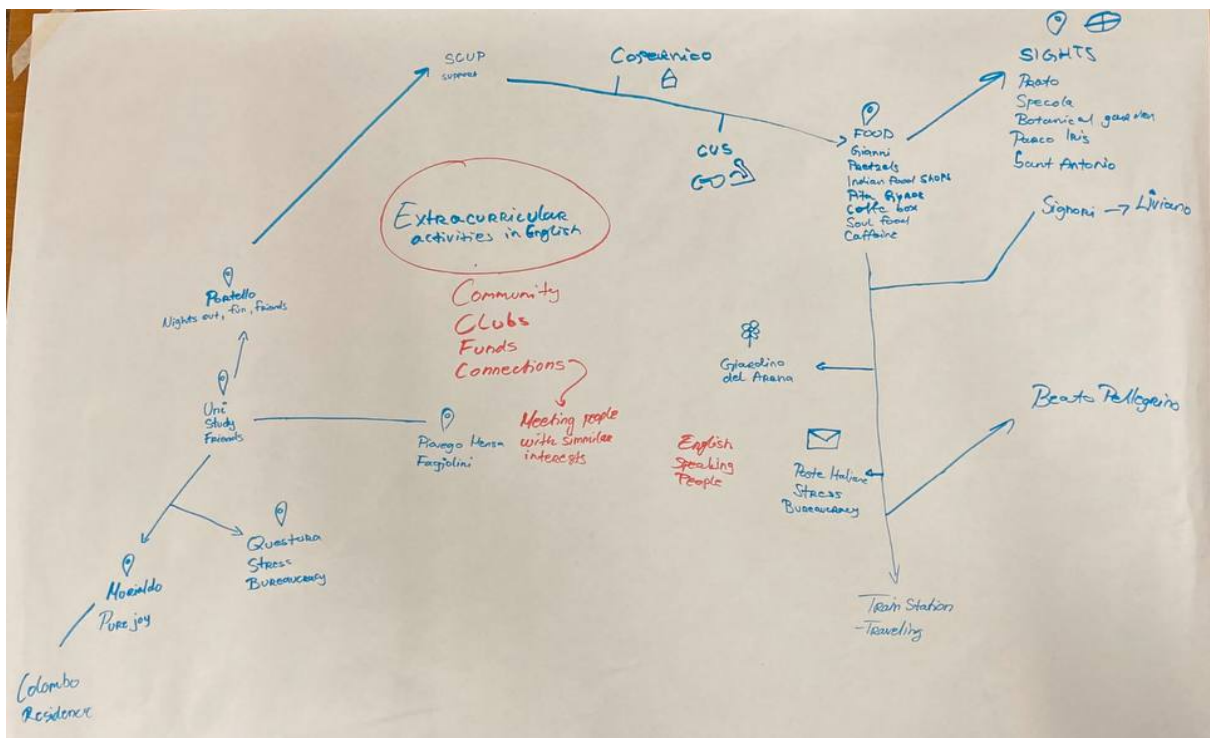
- *The fifth session:*

The fifth session involved participants in discussing and sharing their personal experiences with social media and digital tools as young people and more specifically as international students living a specific life situation. Each participant actively participated in the session, often laughing and actively engaging with all the members of the group, the interventions of the moderator were few and mostly aimed at summarizing what participants had shared, introducing the following topic or activity. Participants imagined and construed together a digital resource that could be helpful for international students, especially in terms of getting correct and useful information before living for such an experience, as well as to adapt to the new cultural context. The artwork represents participants' idea of a YouTube channel called AperolTalks where participants share information and curiosities they gained while studying abroad, giving useful tips such as how to deal with Poste Italiane, culture shocks in Italy, what to wear in Padova and how to deal with the fog and more. During the artwork creation process participants talked to each other, laughing and joking, taking every decision together, also daydreaming about the possibility of creating such a digital tools for real together.



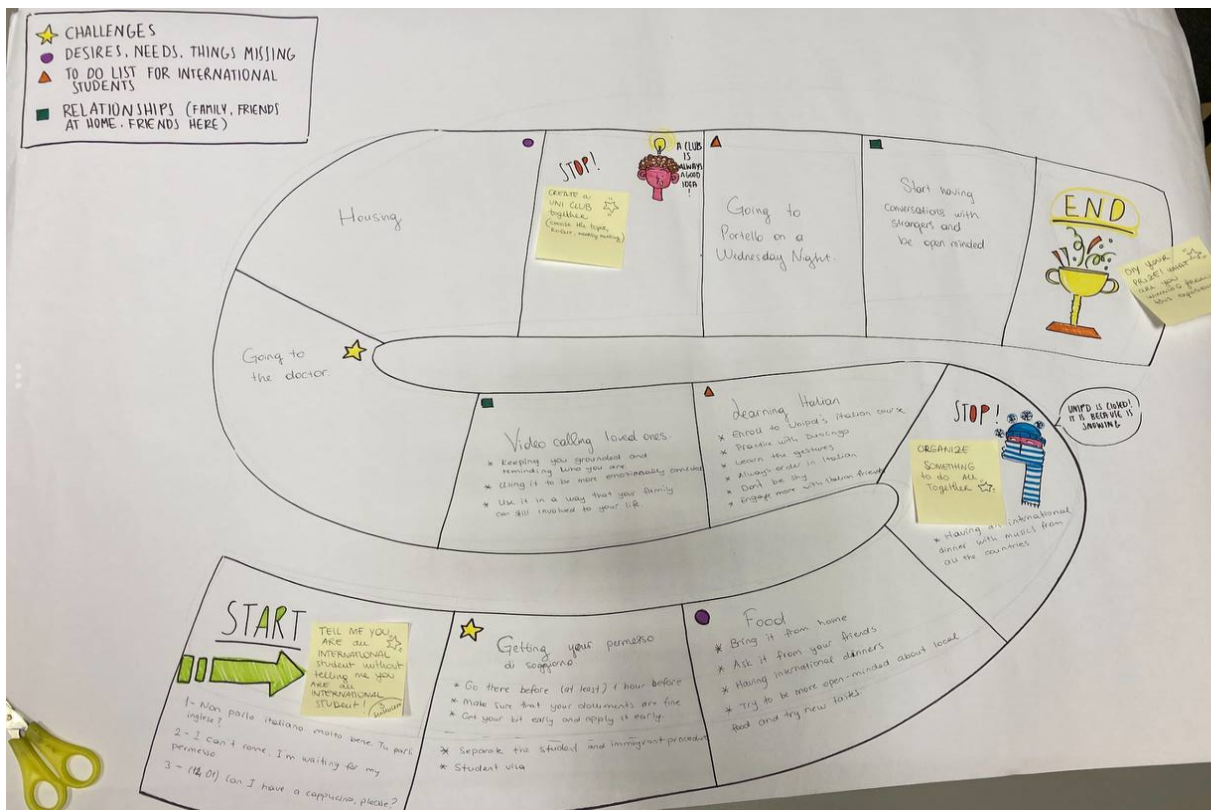
- The sixth session:

The sixth session involved participants in sharing and discussing about the available resources and important places for them in the city of Padua. All participants elaborated the questions proposed going beyond the topics, sharing suggestions and curiosities with the group, and asking questions. During the meeting participants interacted often with each other laughing and, compared to previous meetings, those who had participated less in the conversation started actively taking independently. The artwork created consisted in the creation of a map of Padua that comprehended important places for participants as international students, in terms of practical, psychological and relational resources that have been important for them and could be useful for other international students as well.



- The seventh session:

The seventh session involved participants in a construed ad hoc board game, to start summing up all the topics explored during the group sessions. For this reason the artwork has been created step by step during the whole meeting as participants played the game. In this session participants were all involved in the conversation, joking and laughing, sharing personal experiences and telling funny stories related to their experiences in Italy; the main role of the moderator consisted in managing the timing of the session, as participants were very engaged with each other. During the game each decision was taken after discussing among each other, taking into consideration every opinion and experience and, towards the end of the meeting participants expressed their regret as the experience was about to end: "So will next time be our last? [...] That's sad, actually I adore coming here, I really enjoy it, so that's gonna be sad" (Lisa, F, 22, Turkey).



- The eighth session:

The eighth session involved participants in final reflections in the direction of closing the group experience shared together, by inviting them to think and draw a metaphor of the group at the end of this experience. On a general level, participants engaged with each other from the beginning of the session, during which the moderator did not have many occasions to talk but just help the group manage times in order to complete activities. Through previous meetings interaction with participants constantly increased, reaching its peak in this last sessions. During the metaphor definition and the artwork creation process, participants were all actively involved in the discussion and each opinion was taken into consideration by others. They were invited to answer three questions (1) find three words to describe this experience, (2) one take-home message and (3) one thing gained from the group relationships during this experience. After sharing their thoughts and creating the artwork, participants told us that they were happy with the experience in the group as they have found friendships and had the opportunity to have a space to share experiences with other international students, making them feel comforted, connected and relieved as reported also in the following quotations: “And what I get from the relationship here is great friendships because I feel like it’s the start of something, you know...”(Sarah, F, 20, Trinidad e Tobago)

“...but now, by talking to other people I find that everyone is going through most of the same things...and the words I wrote are comfort because I felt very comfortable to talk about it, everything I mean and connected and the other thing is relieved. [...] And if we continue to be friends out of here, thank you for this.”

(Mark, M, 25, India)

