
Barbara Poletti, Sofia Tagini, Agostino Brugnera, Laura Parolin, Luca Pievani, Roberta Ferrucci, Angelo Compare & Vincenzo Silani

To cite this article: Barbara Poletti, Sofia Tagini, Agostino Brugnera, Laura Parolin, Luca Pievani, Roberta Ferrucci, Angelo Compare & Vincenzo Silani (2020): Telepsychotherapy: a leaflet for psychotherapists in the age of COVID-19. A review of the evidence, Counselling Psychology Quarterly, DOI: 10.1080/09515070.2020.1769557

To link to this article: https://doi.org/10.1080/09515070.2020.1769557

Published online: 27 May 2020.
ARTICLE


Barbara Poletti a,*, Sofia Tagini a,*, Agostino Brugnera b, Laura Parolin c, Luca Pievani b, Roberta Ferrucci d,e,f, Angelo Compare b and Vincenzo Silani a,g

Istituto Auxologico Italiano, IRCCS, Department of Neurology and Laboratory of Neuroscience, Istituto Auxologico Italiano, IRCCS, Milan, Italy; cDepartment of Human and Social Sciences, University of Bergamo, Bergamo, Italy; dDepartment of Psychology, University Milano Bicocca, Milan, Italy; eAldo Ravelli Center for Neurotechnology and Experimental Brain Therapeutics, Department of Health Sciences International Medical School, University of Milan, Milan, Italy; fASST Santi Paolo e Carlo, Neurology Clinic III, Milan, Italy; gIRCCS Ca’ Granda Foundation Maggiore Policlinico Hospital, Milan, Italy; gDepartment of Pathophysiology and Transplantation, “Dino Ferrari” Center, University of Milano, Milan, Italy

ABSTRACT
COVID-19 outbreak imposes the adoption of extraordinary containment measures, including the strict necessity to limit interpersonal contact. Face-to-face psychotherapy collides with this requirement and, above all, it might endanger both therapists and patients’ safety. Telepsychotherapy might come to the aid, ensuring therapeutic continuity and the possibility to reach people who might benefit of extra psychological support. Infectious outbreaks have been indeed associated with major psychopathological outcomes. The aim of the present work is to review the most recent experimental evidence about telepsychotherapy, focusing on its effectiveness, possible determinants of efficacy and therapists/patients’ attitudes, to rapidly inform psychotherapists. Out of the 857 records found, 18 studies have been included in the review. Our results show that, despite therapists and public’s skepticism, telepsychotherapy is a trustworthy alternative to be adopted, which can be used efficaciously to treat common mental-health disorders such as anxiety, depression and post-traumatic distress. As well as in the traditional setting, a higher number of sessions and the proper management of patients’ expectations seem to be associated with better outcomes. On the contrary, low familiarity with web-based means of communication and technical issues might reduce specifically the effectiveness of telepsychotherapy.

ARTICLE HISTORY
Received 19 April 2020
Accepted 12 May 2020

KEYWORDS
Telepsychotherapy; distance psychotherapy; on-line psychotherapy; COVID-19; coronavirus

Introduction
On December 2019, a pneumonia of unknown cause was first reported to the World Health Organization (WHO) in China. Lately, this disease was found to be caused by a new coronavirus (SARS-Cov-2) and was named COVID-19 (World Health Organization, 2020). Since then, the new coronavirus rapidly spread worldwide and on 11 March 2020 the WHO declared COVID-19 outbreak a pandemic. Accordingly, extraordinary containment measures were adopted and the outbreak required immediate action. This research is aimed to provide a review of the most recent evidence about telepsychotherapy, focusing on its effectiveness, possible determinants of efficacy and therapists/patients’ attitudes, to rapidly inform psychotherapists.
measures have been adopted all over the World, including the obligation for any citizen to avoid unnecessary person-to-person interactions and social gatherings, as well as limiting movements only to mandatory necessities. Total isolation of individuals infected (or possibly infected) by SARS-Cov-2 was also imposed (e.g. Italian Ministerial Decree 8 March, 2020). The COVID-19 outbreak, thus, dramatically impacts on individuals’ daily routine, including the possibility to carry out certain working-activities. When applicable, smart working from home was in fact encouraged.

Health-care professionals, including psychologists and psychotherapists, have been recognized to provide an essential service to the community, therefore allowed to continue their practice. However, in-person sessions endanger both therapists and patients’ safety and collide with the requirement to minimize interpersonal contacts. On the other hand, the outbreak of an infectious disease has been associated with major psychological outcomes (Brooks et al., 2020; DiGiovanni, Conley, Chiu, & Zaborski, 2004; Hawryluck et al., 2004), not mentioning the need to support people in grieving. Ensuring therapeutic continuity and reaching vulnerable people who might benefit of extra psychological support seems, thus, mandatory in the present moment.

Telepsychotherapy might come to the aid (Van Daele, Karekla, Kassianos, Compare, & Haddouk, in press; Wind, Rijkeboer, Andersson, & Riper, 2020), especially given the unknown duration of the current containment measures. However, therapists might be unfamiliar or doubtful about the adoption of telepsychotherapy. Hence, the aim of the present work is to provide an updated review of the most recent experimental evidence about telepsychotherapy, to inform professionals in need to support people in this extraordinary moment of vulnerability. Specifically, we will focus on effectiveness, possible determinants of efficacy and therapists/patients’ attitudes of any kind of individual or group psychotherapy delivered towards synchronous web technology (i.e. videoconference or chatrooms). We purposely focused only on telepsychotherapy, excluding non-psychotherapeutic on-line treatments (e.g. psychoeducational programs) and on-line self-help tools. These web-based interventions have been previously reported to be effective (Fiorini, De Giacomo, & L’Abate, 2015; Turvey & Roberts, 2015); nevertheless, their theoretical background, methodological approaches and depth of intervention are profoundly different than psychotherapy (e.g. concerning the amount of direct interaction and the relationship with the therapist). Thus, the inclusion of two different interventions might prevent from a clear understanding of treatment effectiveness and of its determinants. Furthermore, the mentioned on-line interventions are often delivered toward specific web-based platforms or complex interactive softwares, whereas telepsychotherapy requires only basic videoconferencing tools that can be accessed easily and quickly by the therapists.

Implications of the use of telepsychotherapy in the specific time of pandemic are discussed, as well as the possible psychological issues to deal with, according to the previously reported effects of infectious outbreaks on individuals’ mental health (e.g. Brooks et al., 2020 for a review).

Methods

Research articles addressing the delivery of individual or group psychotherapy lead by a licensed psychotherapist towards synchronous web technology (i.e. videoconference or chatrooms) were considered eligible. Only studies involving adult participants (>18 years
old) were included. Works concerning non-psychotherapeutic psychological treatments, as well as on-line self-help tools were excluded. Interventions in which the interaction between the psychotherapist and the patient was asynchronous (e.g. e-mails exchange) were also excluded since too different from the traditional psychotherapeutic setting.

Studies were identified by searching PubMed and Web of Science databases. We searched the terms “telepsychotherapy” and “psychotherapy” in combination with “distance” or “on-line”/“online” words, according to the most frequent definitions. The search was limited to studies written in English and published between 2015 and 2020. Time restrictions were imposed since both the efficiency of technological devices and people’s familiarity towards web-based means of communication exponentially increase over time, possibly modifying individuals’ attitudes towards telepsychotherapy and, eventually, its effectiveness (Etzelmueller, Radkovsky, Hannig, Berking, & Ebert, 2018). The last search was run on 30 March 2020.

The selection process is reported in detail in Figure 1. One reviewer performed the search and made a preliminary eligibility check based on titles and abstracts after removing duplicates. Then, the full text of the selected papers was analyzed, and eligibility discussed with a second reviewer. The reference lists of the selected papers were screened to identify additional pertinent articles.

Data were collected by one reviewer according to an extraction sheet previously developed. The following information was collected (when applicable): i) characteristics of the sample including diagnosis and sample size, ii) type of intervention, duration and number of sessions iii) the primary outcome considered, iv) main results. All data sought were found in the original articles, no additional research was needed.

Results

The search provided 857 (PubMed: 288, Web of Science: 569) citations. Two studies were detected by manually inspecting the reference lists of the full texts considered. One study, recently published, was found in a publicly available repository. After the removal of duplicates, 683 citations remained. All of them were screened for eligibility by title and abstract. A total of 576 records were excluded since they did not meet the eligibility criteria. The full text of the remaining 107 works was analyzed. Eighty-nine studies were excluded because they did not meet the inclusion criteria (see Figure 1 for further details on the exclusion reasons). A total of 18 studies were identified for inclusion in the review (see Table 1).

Ten studies investigated a variety of aspects related to the use of telepsychotherapy in depression (Catarino et al., 2018; Egede et al., 2015, 2016; Ekberg, Barnes, Kessler, Malpass, & Shaw, 2016; Ekberg et al., 2015; Etzelmueller et al., 2018), anxiety (Catarino et al., 2018; Théberge-Lapointe, Marchand, Langlois, Gosselin, & Watts, 2015), post-traumatic stress disorder – PTSD (Wierwille, Pukay-Martin, Chard, & Klump, 2016), panic attacks (Cipolletta, Frassoni, & Faccio, 2018) and bulimia nervosa (Zerwas et al., 2016). Eight works surveyed both the attitudes towards and the use of telepsychotherapy in the general public (Apolinário-Hagen, Vehreschild, & Alkoudmani, 2017; Hantsoo, Podcasy, Sammel, Epperson, & Kim, 2017), among psychotherapists (Gilmore & Ward-Ciesielski, 2019; Gordon, Tune, & Wang, 2016; Gordon, Wang, & Tune, 2015; Pierce, Perrin, & McDonald, 2019, 2020) and comparing health-care professionals and nonprofessionals (Schulze et al., 2019).
Cognitive/behavioral approaches were the most represented, including individual (Catarino et al., 2018; Egede et al., 2015, 2016; Etzelmueller et al., 2018; Théberge-Lapointe et al., 2015) and group (Zerwas et al., 2016) cognitive behavioral therapy – CBT, the behavioral activation therapy for depression (Ekberg et al., 2016), the brief strategic approach (Cipolletta et al., 2018) and the cognitive processing and prolonged exposure therapy (Wierwille et al., 2016). One of the survey-studies focused on the psychodynamic approach (Gordon et al., 2016, 2015); the others addressed attitudes towards telepsychotherapy in general (Apolinário-Hagen et al., 2017; Gilmore & Ward-Ciesielski, 2019; Hantsoo et al., 2017; Pierce et al., 2020; Schulze et al., 2019).

Effectiveness

A significant clinical improvement and symptom reduction were reported in patients affected by anxiety and depression following 6/8 weekly sessions of individual on-line CBT: a similar clinical improvement was observed in a severity-matched sample of
Table 1. The table illustrates the disorder treated, sample size, type of psychotherapy adopted, duration and frequency of sessions, and primary outcomes evaluated.

<table>
<thead>
<tr>
<th>Disorder Treated</th>
<th>Sample</th>
<th>Psychotherapeutic Approach</th>
<th>Duration</th>
<th>Primary Outcome Considered</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ekberg et al., 2015</strong></td>
<td>Depression</td>
<td>TP: 183</td>
<td>CBT</td>
<td>55 min, up to 10 sessions</td>
</tr>
<tr>
<td><strong>Egede et al., 2015</strong></td>
<td>Depression</td>
<td>TP: 120, FFP: 121</td>
<td>Behavioral activation psychotherapy</td>
<td>8 x 60 min weekly sessions</td>
</tr>
<tr>
<td><strong>Théberge-Lapointe et al., 2015</strong></td>
<td>Anxiety</td>
<td>TP: 5</td>
<td>CBT</td>
<td>14 x 60 min weekly sessions</td>
</tr>
<tr>
<td><strong>Ekberg et al., 2016</strong></td>
<td>Depression</td>
<td>TP: 183</td>
<td>CBT</td>
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</tr>
<tr>
<td><strong>Egede et al., 2016</strong></td>
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<td>TP: 120, FFP: 121</td>
<td>Behavioral activation psychotherapy</td>
<td>8 x 60 min weekly sessions</td>
</tr>
<tr>
<td><strong>Wierwille et al., 2016</strong></td>
<td>PTSD</td>
<td>TP: 85, FFP: 136</td>
<td>Cognitive processing and prolonged exposure therapy</td>
<td>Not specified</td>
</tr>
<tr>
<td><strong>Cipolletta et al., 2018</strong></td>
<td>Panic attacks</td>
<td>TP: 5</td>
<td>Brief strategic approach</td>
<td>3 x 50 min sessions</td>
</tr>
<tr>
<td><strong>Zerwas et al., 2016</strong></td>
<td>Bulimia nervosa</td>
<td>TP: 16, FFP: 16</td>
<td>Group CBT</td>
<td>16 x 90 min weekly sessions</td>
</tr>
<tr>
<td><strong>Catarino et al., 2018</strong></td>
<td>Anxiety Depression</td>
<td>TP: 2211</td>
<td>CBT</td>
<td>6/8 weekly sessions</td>
</tr>
<tr>
<td><strong>Etzelmueller et al., 2018</strong></td>
<td>Depression</td>
<td>TP: 15</td>
<td>CBT</td>
<td>50 min, up to 25 sessions</td>
</tr>
<tr>
<td><strong>Gordon et al., 2015</strong></td>
<td>-</td>
<td>176 therapists</td>
<td>Survey on TP</td>
<td>-</td>
</tr>
<tr>
<td><strong>Gordon et al., 2016</strong></td>
<td>-</td>
<td>94 therapists</td>
<td>Survey on TP</td>
<td>-</td>
</tr>
<tr>
<td><strong>Apolinário-Hagen et al., 2017</strong></td>
<td>-</td>
<td>1558 general public</td>
<td>Survey on TP</td>
<td>-</td>
</tr>
</tbody>
</table>

(Continued)
Table 1. (Continued).

<table>
<thead>
<tr>
<th>Disorder Treated</th>
<th>Sample</th>
<th>Psychotherapeutic Approach</th>
<th>Duration</th>
<th>Primary Outcome Considered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hantsoo et al., 2017</td>
<td>111 pregnant women</td>
<td>Survey on TP and FFT</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>147 non-pregnant women</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>54 men</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Schulze et al., 2019</td>
<td>1000 non-professionals</td>
<td>Survey on TP</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>96 physicians</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>36 therapists</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pierce et al., 2019</td>
<td>1799 Psychotherapists</td>
<td>Survey on TP</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Gilmore &amp; Ward-</td>
<td>52 Psychotherapists</td>
<td>Survey on TP</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Ciesielski, 2019</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pierce et al., 2020</td>
<td>1791 Psychotherapists</td>
<td>Survey on TP</td>
<td>-</td>
<td>Demographic, organizational and clinical predictors of telepsychotherapy use</td>
</tr>
</tbody>
</table>

TP = telepsychotherapy; FFT = face-to-face therapy; CBT = Cognitive Behavioral Therapy; GDS = Geriatric Depression Scale; BDI = Beck Depression Inventory, SCID = Structured Clinical Interview for DSM-IV; SIAD-IV = Structured Diagnostic Interview for Anxiety Disorder; PSWQ = Penn State Worry Questionnaire; Why Worry II; IUS = Intolerance of Uncertainty Scale; NPOQ = Negative Problem Orientation Questionnaire; CAQ = Cognitive Avoidance Questionnaire; SF-36 = Short-Form Health Survey; CPOSS = Cognitive Avoidance Questionnaire; PCL-S = Post-Traumatic Stress Disorder Checklist – Specific; PHQ-9 = Patient Health Questionnaire; GAD-7 = General Anxiety Disorder Scale.
individuals attending the same mental-health promoting program but not involved in the study (between groups difference: depression symptoms, $d = 0.02$; anxiety symptoms, $d = 0.04$) (Catarino et al., 2018). Similarly, Théberge-Lapointe et al. (2015) reported that individual sessions of videoconferencing CBT (60-minutes weekly sessions for 14 weeks) determined a significant clinical improvement in patients with generalized anxiety disorder both at the end of the treatment and at 3-months follow-up (effect sizes for the factor time in a repeated measures ANOVA ($\eta^2$) range from 0.56 to 0.78 for the outcomes considered). Qualitatively, the effectiveness of telepsychotherapy was reported to be comparable to the overall efficacy of an in-person version of the same treatment, administered in a previous study (Dugas & Robichaud, 2007).

A significant clinical improvement in depressive symptomatology was reported during and after 8 weeks of individuals videoconferencing behavioral activation psychotherapy (60-minutes weekly sessions) (Egede et al., 2015). Notably, in this case, the effectiveness of telepsychotherapy was directly compared to a traditional in-person therapy, reporting that the two treatment modalities determined comparable clinical outcomes (between-groups differences in the percentage of patients who effectively responded to the treatment for the depressive symptomatology at 12-months follow-up were non-significant, ranging from $–5.09\%$ [90% CI – 17.13 to 6.95] to 2.06% [90% CI – 7.46 to 11.58]), despite a slightly slower rate of improvement in the web-based delivery (Egede et al., 2015).

A significant, clinically relevant, reduction in PTSD and depressive symptoms was also reported in U.S. veterans after individuals videoconferencing cognitive processing and prolonged exposure therapy (Wierwille et al., 2016). The effectiveness of telepsychotherapy in this study was reported to be slightly lower than in-person treatment (73.2% of patients receiving telepsychotherapy achieved clinically significant improvement of post-traumatic distress at post-treatment versus the 82.9% of patients receiving a traditional therapy, $x^2(1) = 0.99, p = 0.319$); however, the severity of PTSD at baseline was higher in the telepsychotherapy group, possibly explaining between-group differences at post-treatment (Wierwille et al., 2016).

Only one study (Zerwas et al., 2016) compared group psychotherapy in-person and via chatroom in a sample of individuals affected by bulimia nervosa. Both modalities were reported to be effective in terms of improved abstinence from binge eating and purging (i.e. the primary outcome); however, the improving rate was slower in the chatroom-based psychotherapy. Differences between groups in terms of abstinence from binge eating and purging were indeed reported at the end of the treatment, even though the size of the effect ($d = –0.18$) can be considered trivial (Cohen, 1988), but not at 12-months follow-up ($d = 0.07$). Furthermore, the two treatment modalities were reported to be similarly effective at both the post-treatment evaluation and follow-up also for overall symptom severity (post-treatment $d = 0.04$; follow-up $d = –0.12$), psychopathological comorbidity (depressive disorder: post-treatment $d = –0.11$, follow-up $d = –0.10$; anxiety disorder: post-treatment $d = 0.14$, follow-up $d = –0.04$), and overall quality of life (Eating Disorders Quality of Life Questionnaire: post-treatment $d = 0.01$, follow-up $d = –0.08$; Short-Form Health State Classification: post-treatment $d = 0.04$, follow-up $d = 0.14$) (Zerwas et al., 2016).

No differences in the perceived quality of life, satisfaction, credibility of the treatment and service delivery were observed between patients attending individual videoconferencing or in-person CBT (60-minutes weekly sessions for 8 weeks) at several timepoints from the
beginning of the treatment (4 weeks, 8 weeks, 3 months and 12 months) (Egede et al., 2016). In line with these results, a qualitatively study evaluating the experience of 15 patients with depression attending individual videoconferencing CBT (50-minutes weekly sessions, up to 25 times) reported that a majority of them (80%) positively rated the intervention, expressing the possibility to establish a good working alliance (67%) and a close contact with the therapist (40%) (Etzelmueller et al., 2018). Many patients also emphasized the benefit of an individualized and flexible intervention (47% and 37%, respectively) reporting an improved understanding of their condition (60%) (Etzelmueller et al., 2018). Furthermore, on-line therapy was not perceived as less effective than a traditional face-to-face treatment (53%) (Etzelmueller et al., 2018). Finally, Cipolletta and colleagues (2018) qualitatively evaluated the dynamics of the therapeutic relationship during the first three sessions of a videoconferencing brief strategic therapy in 5 patients with panic attacks, reporting that they were similar to those observed in face-to-face interventions (i.e. asymmetric semantic and strategic dominance) (Lenzi & Bercelli, 2010).

**Factors related to effectiveness**

The post-treatment outcome among patients with anxiety and depressive symptoms was reported to be clinically relevant after at least five sessions of individual on-line CBT (Catarino et al., 2018). However, a higher severity of symptoms at baseline and comorbidity with long-term physical conditions were associated with lower clinical improvement (Catarino et al., 2018). Nevertheless, the effect of previous physical conditions might be an artifact since the psychopathological scales used for the assessment might have been too sensitive to the somatic symptoms related to anxiety and depression (Catarino et al., 2018).

Technical difficulties such as brief interruptions or complete breakdown have been claimed to be the most prominent drawback of videoconferencing psychotherapy (Cipolletta et al., 2018; Etzelmueller et al., 2018) since they favor misunderstandings that might compromise the therapeutic interaction (Cipolletta et al., 2018). Familiarity with web-technology, on the contrary, was perceived as promoting patients’ compliance (67%) (Etzelmueller et al., 2018), while older age (average sample age: 36 years) was associated to a lower drop-outs rate and better clinical outcomes (Catarino et al., 2018).

Finally, an early and comprehensive management of patients’ expectations about the structure of the whole therapy (i.e., on-line CBT) and the expected benefits were reported to be crucial to increment therapy retention (Ekberg et al., 2016), and eventually treatment effectiveness. Nevertheless, few therapists were reported to adopt this approach (20.5%), whereas most of them managed patients’ expectations only concerning the first session of assessment (61.4%) or did not address patients’ expectations at all (15.3%) (Ekberg et al., 2015).

**Therapists and patients’ attitudes**

Survey-studies investigating attitudes towards telepsychotherapy reported that psychotherapists generally perceived videoconferencing treatments as possibly less effective than face-to-face therapies (Gordon et al., 2016, 2015; Schulze et al., 2019). Psychotherapists dealing with suicidal patients expressed specific worries about the impossibility of taking advantage of nonverbal and emotional cues during the patient’s assessment and to exert a direct control
over the patient if hospitalization is needed (Gilmore & Ward-Ciesielski, 2019). Similarly, psychotherapists treating conditions possibly related to acute patients’ crises (e.g. grief [Odds Ratio – OR: 0.67], bipolar disorder [OR: 0.64], antisocial personality [OR: 0.50] and addiction [OR: 1.60]) were reported to adopt telepsychotherapy to a lesser extent (Pierce et al., 2020). Possible difficulties in dealing remotely with patients’ crises were also pointed out by the psychodynamic therapists interviewed by Gordon et al. (2015). Psychodynamic therapists worried the most about the possibility of an efficacious exploration of patients’ mental life and psychodynamic constructions (Gordon et al., 2016). On the contrary, they were less concerned about the prospect of working on transference towards the web (Gordon et al., 2016).

In line with these results, most of the therapists (80%) interviewed by Pierce et al. (2019) do not usually use telepsychotherapy. Furthermore, the authors reported that other people’s attitudes and expectations about telepsychotherapy were largely associated with therapists’ own perception of usefulness and ease of use that, in turn, was associated with the actual use of telepsychotherapy.

Nevertheless, therapists recognized the possibility to reach remote patients as the main advantage of telepsychotherapy (Gordon et al., 2016, 2015). Additionally, both younger age and more years of working experience were reported to be positively associated with a higher use of telepsychotherapy (Gilmore & Ward-Ciesielski, 2019). Finally, the availability of clear institutional telepsychotherapy-supportive policies (OR: 2.25) and being specifically trained to use this treatment modality (OR: 8.74) were both predictors of a higher adoption of telepsychotherapy (Pierce et al., 2020).

The general public also seems doubtful about telepsychotherapy effectiveness (Apolinário-Hagen et al., 2017; Schulze et al., 2019), the quality of the therapeutic support delivered and the compatibility with every-day life conditions (Apolinário-Hagen et al., 2017). As a result, common people expressed a low willingness to use telepsychotherapy (Apolinário-Hagen et al., 2017; Hantsoo et al., 2017), though, people with no previous history of psychotherapy were generally more opened towards the use of telepsychotherapy (Hantsoo et al., 2017). On the contrary, accessibility and the possibility to reduce waiting-lists were recognized as main advantages, especially among those individuals who reported a higher perceived stress (Apolinário-Hagen et al., 2017). Similarly, pregnant women showed a high acceptability of internet-based psychotherapy (77.5% of the sample), and 30.6% of the sample also reported that they would prefer this type of therapy instead of in-person treatments (Hantsoo et al., 2017).

Discussion

The present work aims to summarize the most recent experimental evidence about telepsychotherapy to provide useful guidance for psychotherapists facing the challenge of COVID-19 outbreak. Overall, our results show that telepsychotherapy can be used to treat successfully common mental-health disorders. Telepsychotherapy effectiveness was indeed reported to be comparable to in-person treatment (Catarino et al., 2018; Egede et al., 2015; Zerwas et al., 2016) despite the rate of improvement might be slightly slower (Egede et al., 2015; Zerwas et al., 2016). Importantly, the experimental evidence specifically points to the possibility to treat efficaciously anxiety (Catarino et al., 2018), depressive (Catarino et al., 2018; Egede et al., 2015), and post-traumatic symptoms (Wierwille
et al., 2016), which are the most frequent psychopathological outcomes associated to an infectious outbreak (Brooks et al., 2020).

Additionally, patients who were enrolled in telepsychotherapy treatments reported similar perceived quality of life, satisfaction, credibility of the treatment and service delivery opinions than patients attending in-person psychotherapy (Egede et al., 2016). In line with these results, patients receiving telepsychotherapy did not perceive the treatment as less effective than a traditional one (Etzelmueller et al., 2018). On the contrary, they reported good working alliance and close contact with the therapist, emphasizing the benefits of an individualized and flexible intervention in improving the understanding of their condition (Etzelmueller et al., 2018).

Different factors have been associated with telepsychotherapy effectiveness. Specifically, the length of the treatment was reported to be a crucial issue: more positive outcomes were indeed observed as the number of sessions increased (Catarino et al., 2018). This result might not be surprising and it mirrors the overall evidence of a positive relationship between the length of face-to-face interventions and the treatment effectiveness (Howard, Kopta, Krause, & Orlinsky, 1986; Knekt et al., 2008; Knekt, Lindfors, Sares-Jäske, Virtala, & Härkänen, 2013; Knekt et al., 2016; Lindfors, Knekt, Heinonen, Härkänen, & Virtala, 2015).

In this regard, a proper and comprehensive management of patients’ expectations about the structure of the therapy and the benefits expected might encourage treatment retention (Ekberg et al., 2016). Additionally, in one study (Catarino et al., 2018) older age was associated with lower drop-outs rate, though the participants in that study were indeed quite young on average (i.e. 36 years old). Conversely, comorbidity with long-term physical conditions and higher severity of symptoms at baseline were reported to be related to lower clinical outcomes (Catarino et al., 2018). Notably, all these factors might conceivably affect also in-person psychotherapy. On the contrary, the experience of technical difficulties and low familiarity with the use of information technologies seem to affect specifically telepsychotherapy efficacy (Cipolletta et al., 2018; Etzelmueller et al., 2018).

Thus, the experimental evidence points to a reasonable telepsychotherapy effectiveness. In sharp contrast, both the general public and psychotherapists were reported to be doubtful about telepsychotherapy use and effectiveness (Apolinário-Hagen et al., 2017; Gordon et al., 2015; Schulze et al., 2019). In turn, they declared they would hardly choose it (Apolinário-Hagen et al., 2017; Hantsso et al., 2017; Pierce et al., 2019). Nevertheless, this scenario was depicted when telepsychotherapy was an option. Now, it might be the only alternative. Attitudes and willingness to use telepsychotherapy seem indeed to be influenced by incidental needs. For instance, pregnant women who encountered mobility issues reported higher acceptability of telepsychotherapy than their non-pregnant counterparts (Hantsso et al., 2017). Similarly, individuals with a higher level of perceived stress and, thus, possibly seeking treatments were more likely to adopt telepsychotherapy (Apolinário-Hagen et al., 2017). Accordingly, telepsychotherapy acceptability might be significantly shaped, and conceivably favored, by the ongoing COVID-19 outbreak. After all, the higher accessibility and the possibility to reach remote patients have been considered the main advantages of telepsychotherapy, even back when no one would have imagined a similar scenario (Apolinário-Hagen et al., 2017; Gordon et al., 2015).

However, the adoption of telepsychotherapy during a pandemic might also have some drawbacks, which need to be discussed. First, in the studies reviewed telepsychotherapy was adopted since the beginning of the therapeutic process. Conversely, the upsurge of an
emergency forces the transition from face-to-face therapy to telepsychotherapy. An optimal use of telepsychotherapy implies the availability of appropriate equipment (including an efficient internet connection, suitable technological devices and videoconferencing tools) and of proper location where to conduct the therapy (Van Daele et al., in press). Because of the sudden shift to telepsychotherapy, both patients and therapists might not have immediate availability of the equipment needed; more importantly, if they have no access to dedicated and private space at home, it might be challenging to recreate that intimate, reassuring and safeguarded setting experienced in face-to-face sessions.

To the best of our knowledge, no previous study investigated the effect of this setting transition; however, both patients and therapists might experience it as destabilizing. Consequently, patients’ adherence to the treatment and the therapeutic alliance might be endangered, as well as the therapy efficacy might be compromised. However, a solid pre-existing therapeutic alliance might work as protective factor, favoring a smooth transition.

Furthermore, therapists might not be specifically trained to deliver telepsychotherapy: this might threaten their perceived professional self-efficacy and self-confidence. Therapists who received a specific training on how to deliver telepsychotherapy are indeed more likely to adopt this treatment modality (Pierce et al., 2020). Therefore, training programs should take into high consideration the possibility of addressing these skills, at least briefly. Not surprisingly, younger and more expert therapists were reported to be more motivated to adopt telepsychotherapy (Gilmore & Ward-Ciesielski, 2019), possibly because they felt more confident in dealing with videoconferencing and about their professional capabilities, respectively.

Moreover, lack of clear policies and regulations about the delivery of telepsychotherapy (e.g. about how to protect the patients’ privacy over the internet) has been reported to be a deterrent that may further discourage psychotherapists (Pierce et al., 2020). In this regard, therapists may refer to the guidelines provided by the European Federation of Psychologists’ Associations (2001) and by the American Psychological Association (2013), as well as by the International Society for Mental Health Online (2000).

Last, but not least, also therapists must face the challenge of a pandemic, meaning that they might experience a significant level of distress too. As a result, therapists might struggle to accomplish adequately their professional duties towards telepsychotherapy. Thus, supervision might be even more crucial than usual. Interestingly, telesupervision was reported to be as much effective as in-person (Inman, Soheilian, & Luu, 2019; Jordan & Shearer, 2019; Martin, Lizarondo, & Kumar, 2018), even when switching the supervision modality in course (Tarlow, McCord, Nelon, & Bernhard, in press).

According to the previous considerations, we suggest that the effectiveness of telepsychotherapy during a pandemic should be further explored: the present moment represents indeed a unique opportunity of investigation. Specifically, the implications of the setting transition, of the possible difficulties to interact over the internet and of the therapists’ professional preparedness should be addressed.

Finally, although most of studies focused on cognitive-behavioral approaches, many other kinds of therapy might be successfully implemented towards videoconferencing. Furthermore, many studies in literature reported successful on-line interventions other than psychotherapy, such as self-help tools or psychoeducational interventions (Manfrida, Albertini, & Eisenberg, 2017). These techniques might indeed be helpful to face the psychological consequences of COVID-19 outbreak; however, we decided to focus on
psychotherapy as a more powerful form of psychological support, which can be easily and rapidly implemented by the therapists.

To conclude, telepsychotherapy represents a **trustworthy alternative** to be adopted, especially given the current necessity to limit face-to-face contact and, at the same time, the urgent need to provide effective support. As mentioned, infective outbreak might have a significant and specific impact on people’s well-being and mental health, including increased emotional difficulties, depressive symptoms, anxiety, irritability, insomnia, post-traumatic stress symptoms, fear and anger (e.g. Brooks et al., 2020; DiGiovanni et al., 2004), as well as sense of isolation (e.g. Hawryluck et al., 2004) and possibly grieving. Thus, all these issues should be specifically considered by (tele)psychotherapists currently delivering treatments. Additionally, certain individuals might be at higher risks than others to develop mental-health disorders, requiring extra care (Jiang et al., 2020). Above all, health-care professionals have been reported to be more affected by infectious outbreaks since their greater exposure to the disease and the higher risk of being infected (Reynolds et al., 2008). Furthermore, people who survived the infection or who experienced a bereavement conceivably represent higher-risk individuals.

Future studies should further address the investigation of telepsychotherapy effectiveness: the possibility to implement efficacious on-line treatments represents indeed an extraordinary opportunity to support most vulnerable individuals even in emergency circumstances, when face-to-face contact might be prevented.

**Disclosure statement**

No potential conflict of interest was reported by the authors.

**Notes on contributors**

**Barbara Poletti**  Senior Researcher and Head of the Neuropsychology and Clinical Psychology Unit at IRCCS Istituto Auxologico Italiano of Milan. She is Chief of the Center for Relational Integrative Psychotherapy of Bergamo. She has a broad background in cognitive psychology, with specific training and expertise in neuropsychology, cognitive psychotherapy and the use of new technologies in neuropsychology and cognitive psychology fields. Her research activity is focused on psychological and cognitive correlates of main neurodegenerative disorders, elderly psychotherapy and psychotherapy of cognitive and motor neurodegenerative disorders.

**Sofia Tagini**  Registered Psychologists at the Order of Psychologists of Piemonte, Italy (n°9182) since October 2019. In December 2019 she got her PhD in Cognitive and Brain Sciences at the Center for Mind/Brain Sciences (CIMeC), University of Trento, Rovereto, Italy. Currently, she works as post-doctoral researcher at the Department of Neurology and Laboratory of Neuroscience, Istituto Auxologico Italiano, IRCCS, Milan, Italy. In-training psychotherapists at the Person-Centered Approach Institute in Milan, Italy.

**Agostino Brugnera**  Post-doctoral researcher at the University of Bergamo (Italy). His work focuses on research methodology, interventions for the treatment of eating disorders and on cardiovascular stress responses.

**Laura Parolin**  Associate Professor of Psychodynamic Psychology at the University of Milano-Bicocca, where she teaches Psychodiagnostic Assessment. She is also vice-president of the Italian Association of Psychologists and president of the Lombardy Association of Psychologists. She received her MSc in Psychology and her PhD in Clinical Psychology from the University of Padua. Her doctoral and
postdoctoral research career was dedicated mainly on clinical assessment and personality performance-based measures. In particular, her interest was oriented on Rorschach test, in collaboration with the research group of the University of Toledo (USA). More broadly, Laura Parolin research – which has been published in various international scientific journals - focuses on clinical assessment, testing, process and outcome psychotherapy research, mentalization and attachment in childhood, adolescence and parenthood. This research activity led her to join different national and international research groups.

**Luca Pievani** Lecturer and Director of the School of Integrative Psychotherapy, Bergamo, Italy. Psychologist, Cognitive-Relational Psychotherapists. Registered at the professional Order of Psychologists of Lombardia (n°7533). Chairman of the Psychology Association “Liberamente”. Head of the Centre of Psychology and Psychotherapy “Liberamente”. Subject expert in Clinical Psychology (M-PSI/08) at the Department of Human and Social Sciences, University of Bergamo, Bergamo, Italy.

**Roberta Ferrucci** Senior Researcher at University of Milan and Clinical Psychologist at “ASST Santi Paolo and Carlo” Hospital of Milan. She has a broad background in psychology, with specific training and expertise in neuropsychology, cognitive psychotherapy and neuromodulation. Research interests are in the field of the cognitive neurosciences, clinical neuropsychology and experimental psychopathology. She is interested in studying brain mechanisms and the neural activity underlying behaviour, emotion, memory, language and decisional processes.

**Angelo Compare** Associate Professor in Clinical Psychology at University of Bergamo, Italy. Moreover, he is Italian reference of SEPI (Society for Exploration for Psychotherapy Integration) and Italian member of eHealth working group of EFPA (European Federation of Psychology Association). He has a broad background and research interest in clinical and health psychology and process in psychotherapy.

**Vincenzo Silani** Professor of Neurology at the University of Milan Medical School, Director of the Department of Neurology-Stroke Unit and Laboratory of Neuroscience at the IRCCS Istituto Auxologico Italiano, Director of the “Dino Ferrari” Centre, and Director of the Residency program in Neurology. He graduated in 1977, obtained the Specialties of Neurology (1981) and Neurosurgery (1989). Post-doctoral Fellow at the Department of Neurology-Baylor College of Medicine in Houston (1979-81), he was Visiting Professor in Neurology (1999), Chairman of the European ALS Consortium (EALSC) (2005-2007), Director of the European Neurological Society (ENS) - Subcommittee for Motor Neuron Disease (2008-2013), Co-Director of the European Academy of Neurology (EAN) Subspeciality Panel ALS and FTD (2013-2019). He is Member of the American Academy of Neurology (AAN), European Academy of Neurology (EAN) (FEAN in 2016), Society of Neuroscience USA, and Italian Society of Neurology and of Dementia (SinDEM). He is Chairman of the Italian Consortium for Genetics in ALS (SLAGEN) and Member of the USA NEALS Consortium (2017). Prof. Silani is internationally recognized as a leading scientist in neurodegenerative diseases and, more specifically, ALS, FTD, and PD. He is author of more than 300 papers with an H-index (Scopus) of 57.

**ORCID**

Barbara Poletti [http://orcid.org/0000-0003-4398-2051]
Sofia Tagini [http://orcid.org/0000-0001-9888-7911]
Agostino Brugnera [http://orcid.org/0000-0002-4066-4552]
Roberta Ferrucci [http://orcid.org/0000-0001-5109-9483]
Angelo Compare [http://orcid.org/0000-0002-3336-7920]
Vincenzo Silani [http://orcid.org/0000-0002-7698-3854]
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