

# The Impact of Switching from Face-to-Face to Remote Psychological Therapy during the COVID-19 Pandemic

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Due to the COVID-19 pandemic, social contacts, including direct contact in psychological therapy, had to be restricted worldwide. As a result, many patients needed to switch from face-to-face (f2f) to video therapy (VT) [1]. Previous meta-analyses of randomized controlled trials comparing VT with f2f have shown no differences in symptom reduction [2, 3]. However, so far, not much is known about the effect of being forced to switch from f2f to VT under the conditions of a pandemic, which has been shown to worsen mental health [4]. Therefore, the aim of this study was to evaluate the effect of switching from f2f to VT on treatment progress in psychological therapy.

Due to the COVID-19 pandemic,  $N = 250$  patients treated with cognitive behavioral therapy in an outpatient clinic had to switch from f2f to VT during a 2-week period (starting from March 18, 2020). Within this group, the clinical outcomes of  $n = 227$  patients with DSM-IV affective and anxiety disorders (based on the structured clinical interview, SCID-I) were examined. As a control group, an archival dataset of  $n = 227$  patients treated before the pandemic were propensity score matched using nearest neighbor one-to-one matching based on symptom improvement in the 3 sessions before the switch.

Symptom severity was assessed at each session using the Hopkins Symptom Checklist-11 (HSCL-11) [5]. The mean of the 11 items is correlated with the Brief Symptom Inventory Global Severity Index (BSI-GSI) ( $r = 0.91$ ) and has good internal consistency ( $\alpha = 0.92$ ) [5]. Patients who switched to VT were asked about their distress due to the COVID-19 pandemic (“How are you feeling about the COVID-19 pandemic?”), which was assessed on a visual analog scale ranging from 0 (“everything is fine”) to 100 (“it’s a nightmare”). They were also asked about their well-being due to COVID-19 (“Compared to how I felt before the COVID-19 pandemic, my general well-being is...”), which was assessed on a Likert scale from 1 (“much better”) to 5 (“much worse”). Additionally, therapists rated VT sessions to indicate whether they were less effective than f2f sessions, and patients indicated whether they perceived VT to be as effective as f2f therapy.

To evaluate the effect of switching to VT, a longitudinal piecewise multilevel model for symptom severity on session was fitted with a slope for the 3 sessions before switching to VT and a slope for up to 6 VT sessions afterwards. Effects were adjusted for initial impairment and the session number of the switch. HSCL changes during VT were compared to the matched control group based

on the interaction between session and group. Furthermore, in a second model, the moderating effects of distress and well-being due to the pandemic on symptom improvement were examined in VT patients, additionally adjusted for patient- and therapist-rated effectiveness of VT sessions.

Overall symptom severity significantly decreased during the 6 sessions after the switch to VT in the pandemic group and during the matched sessions in the control group ( $b = -0.017, t = -4.662, p < 0.001$ ), whereby the two groups did not differ significantly ( $b = 0.012, t = 1.658, p = 0.098$ ). Patients who switched to VT and matched control cases improved to a comparable extent. In the group of patients who switched to VT, more distress due to the pandemic was associated with a greater symptom severity ( $b = 0.004, t = 2.305, p = 0.023$ ). Furthermore, the moderator analysis found that distress ( $b = 0.001, t = 2.338, p = 0.022$ ) and well-being due to the pandemic ( $b = 0.022, t = 2.540, p = 0.013$ ) significantly moderated the session–symptom severity association. Patients whose distress and well-being were more affected by events related to the pandemic showed less improvement in VT. For patients who reported a decrease in well-being and distress due to the pandemic of one standard deviation above the sample mean, symptom improvement during VT was almost zero and no longer significant. Initial impairment neither correlated significantly with the moderators nor therapist- or patient-rated effectiveness of the VT sessions.

These findings address the recent call to examine the usefulness and limitations of remote healthcare using continuous outcomes assessments [1, 6, 7]. As the results are based on naturalistic data, no causal conclusions can be drawn. Nevertheless, these findings suggest that patients improve from VT in general. However, patients who are more negatively affected by COVID-19 may benefit less from VT. This may be due to coping deficits or

contextual issues that make VT stressful for some patients (e.g., poor internet, a noisy neighborhood, kids or family members in the house or other privacy and confidentiality issues). The results imply that patients should not pause their treatment due to lockdown measures. However, therapists also need to be aware of patients' perception of the crisis in order to help them cope with a sudden switch to VT as well as the burden of the pandemic.

### Statement of Ethics

The authors assert that all procedures contributing to this work comply with the ethical standards of the relevant national and institutional committees on human experimentation and with the Helsinki Declaration of 1975, as revised in 2008.

### Conflict of Interest Statement

The authors have no conflicts of interest to declare.

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### Author Contributions

W.L. conceptualized the research question. W.L. and B.S. conducted the statistical analyses, while all authors contributed to data acquisition, analysis, or interpretation. W.L., S.E., A.-K.D., and B.S. drafted the manuscript and all authors critically revised the manuscript. The final version of the manuscript was approved by all authors prior to submission.

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