



CLINICAL PSYCHOLOGY IN EUROPE

The Official Academic Journal of the
European Association of Clinical Psychology
and Psychological Treatment

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Meaningful and Lasting Change – Psychotherapy in the Light of Evolutionary Processes

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Keywords

psychotherapy, evolution, processes of change

Highlights

- Psychotherapies can lead to meaningful and lasting change.
- Evolutionary theory is relevant for understanding psychotherapy.
- Process-based approaches to conceptualizing psychotherapy can help organize clinical knowledge.
- Process-based approaches may be more useful than competitions between psychotherapy schools.

All psychotherapies aim to exact change. This basic tenant holds true as much for therapies that explicitly work with clients to alter the way they behave as it does for psychotherapies that try to help clients accept what is, stop trying to change, and thus manage to adapt. This much, we believe, is agreeable to all clients, practitioners, and researchers.

All psychotherapies also aim to exact change that is useful in clients' lives. Whereas one can argue about how to define benefit (e.g., symptom reduction, increase in well-being, social integration, behavioral performance, etc.), a plethora of empirical evidence across many types of psychotherapies demonstrates that psychotherapy “works” (e.g., [Gloster et al., 2020](#); [Hofmann et al., 2012](#)). Absent such data, it would nevertheless be logical that, by and large, clients must benefit in some way, lest they would not



come back and healthcare systems would not spend capital on and regulate access to psychotherapy without a return on investment.

Similarly, all psychotherapies aim to exact lasting change. That is, clients and psychotherapists are working to establish meaningful changes that last beyond the psychotherapy itself. Here, large differences exist across psychotherapies: some explicitly address maintenance and generalization, whereas others are silent as how to help achieved gains “stick”. Nevertheless, research shows that change for many can be maintained for years following treatment.

As such, we believe it is uncontroversial that the basic tenants of evolution can be brought to bear on all psychotherapies: variation (change), selection (utility), and retention (lasting change). Developments in evolutionary science demonstrate that evolutionary processes are not limited to genetics, that they include processes that shape behavior and symbolic language (the bread and butter of psychotherapy), and can play out in much faster time spans than previously believed (Wilson et al., 2014).

One such attempt to conceptualize and organize empirically verified change processes in psychotherapy around evolutionary concepts is the process-based approach to psychotherapy (Hayes et al., 2019; Hofmann et al., 2022). Although its implications are not yet established, the theoretical groundwork is now ready to guide the next steps of empirical examination of candidate processes of change (Hayes et al., 2022). We believe this type of thinking is more promising than our fields’ history of fighting about which psychotherapy is better. It is also closer to clinical reality of the multi-method and multi-dimensional approach of most clinicians. The upshot here is that with concerted effort, clinical wisdom could be organized around evolutionary concepts (e.g., “meaningful variation was achieved for this client using the empirically established procedure of X”, etc.). Furthermore, this perspective is egalitarian and open to all psychotherapies, theories, and even our field’s favorite animal, the dodo bird. It may take time before the field concludes that nothing in psychotherapy makes sense except in the light of evolution – to borrow a famous phrase – but such a step could be meaningful change in itself.

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Shame Mediates the Relationship Between Negative Trauma Attributions and Posttraumatic Stress Disorder (PTSD) Symptoms in a Trauma Exposed Sample

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Supplementary Materials: Materials [see [Index of Supplementary Materials](#)]



Abstract

Background: Theoretical models of self-conscious emotions indicate that shame is elicited through internal, stable, and global causal attributions of the precipitating event. The current study aimed to investigate whether these negative attributions are related to trauma-related shame and PTSD symptom severity.

Method: A total of 658 participants aged 18 to 89 ($M = 33.42$; $SD = 12.17$) with a history of trauma exposure completed a range of self-report measures assessing trauma exposure, negative trauma-related attributions, shame, and PTSD symptoms.

Results: Higher levels of internal, stable, and global trauma-related attributions were significantly associated with shame and PTSD. Shame mediated the association between trauma-related attributions and PTSD symptom severity, even after controlling for the effects of number of trauma exposures, worst index trauma and depression.

Conclusions: The present results suggest that negative attributions are a critical cognitive component related to shame and in turn, PTSD symptom severity. Future research should aim to replicate these findings in a clinical sample and extend these findings using prospective designs.

Keywords

shame, Posttraumatic Stress Disorder, PTSD, negative attributions, trauma



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Highlights

- Cognitive antecedents of shame were investigated in a large trauma-exposed sample.
- Internal, stable, and global trauma attributions were associated with shame severity.
- Trauma-related shame mediated the association between trauma-related attributions and PTSD symptoms.
- Specific attributions may be an important predictor of trauma-related shame.

The exposure to a potentially traumatic event (PTE) often elicits a myriad of emotional responses that intensify traumatic stress reactions. Moreover, these reactions are thought to contribute to the development and maintenance of current threat characteristic of posttraumatic stress disorder (PTSD). Recently, there has been a growing interest in the role of shame as an important emotional trauma sequelae linked to poorer adjustment and maladaptive coping and predictive of the development of PTSD symptoms (e.g., intrusive recollections, hyperarousal and avoidance) (Saraiya & Lopez-Castro, 2016).

The cognitive model of PTSD offers a framework for understanding how shame may emerge following exposure to PTEs (Ehlers & Clark, 2000; Elwood et al., 2009). According to the model, the nature of the emotional responses in persistent PTSD varies according to appraisals of the trauma and its sequelae (Ehlers & Clark, 2000). For example, the model posits that appraisals concerning attributions of responsibility and perceived violation of internal and societal standards may evoke feelings of shame.

In line with this, theoretical models of shame classify it as a self-conscious emotion, as it arises when the self is implicated by a negative and aversive event that violates internal and/or external standards and evokes judgement from others (Gilbert, 1997; Lewis, 1971; Tangney & Dearing, 2002). Specifically, shame is said to arise through a cognitive-evaluative process, where the eliciting event is attributed to internal, stable, and global attributions; causes that relate to aspects of the individual that are present across all situations and likely to affect situations across one's life (e.g., one's character) (Lewis, 1971; Tangney & Dearing, 2002; Tracy & Robins, 2004). Guilt, which also arises from internal attributions, is distinct from shame in that the attribution pertains to a specific action (unstable) which does not affect all situations (Specific) (e.g., one's behaviour). This subtle difference in cognitive attributions is important as guilt and shame prompt distinct responses. The phenomenological experience of shame is the desire to withdraw and hide due to perceived judgement from others and threat of being exposed (Gilbert, 2000). In contrast, guilt tends to prompt behavioural responses that are motivated by reparative efforts.

Indeed, higher levels of internal, stable and global attributions has been associated with higher levels of PTSD. While, these studies have focused on negative attributional style, which is the tendency to attribute events to internal, stable and global causes to common negative and/or hypothetical life events (Elwood et al., 2009), PTEs can be

considered phenomenologically distinct to general negative life events and exert greater influence on current PTSD symptoms (Gray & Lombardo, 2004; Reiland et al., 2014).

Following exposure to a traumatic event, posttraumatic shame may arise through this appraisal process, where the individual erroneously blames themselves for having caused the event. Consequently, the self is implicated in an unwanted event, and the trauma and its effects are appraised as having occurred due to the individual being inadequate or worthless in some way. Even in the absence of an external threat, the individual may still feel a sense of impending threat due to fear of rejection and stigmatisation but also an internal threat due to ongoing negative self-evaluation. Consequently, feelings of trauma related shame are likely to be painful, prompting avoidance that inhibits trauma processing, which impedes recovery (Leonard et al., 2020). For example, in their conceptual model of shame and adjustment in child sexual abuse survivors, Feiring et al. (1996) proposed that shame arises from sexual abuse through the mediation of cognitive attributions and that such shame in turn leads to poorer overall adjustment. A number of studies of child sexual abuse survivors have reported findings consistent with this model as well as the possibility that shame may mediate the relationship between negative attributions and PTSD symptom severity (Alix et al., 2017; Feiring et al., 2002; Uji et al., 2007). Although promising, these studies utilised abuse specific attributions and shame measures which limit their generalisability to other trauma exposed populations. Further, the attribution measure did not explicitly assess the dimensions of internal, stable and global attributions which is considered a necessary component of the attribution-emotion link to shame (Lewis, 1971; Tangney & Dearing, 2002; Tracy & Robins, 2004).

Although negative attributions are purported to be a cognitive antecedent to shame, there are several trauma characteristics that may impact the severity of posttraumatic cognitions and emotions. Firstly, although trauma exposure is insufficient to elicit trauma related shame, the nature of the traumatic event may function as a diathesis toward making more negative appraisals and higher levels of shame. For example, individuals with interpersonal trauma exposure, defined as an event that involves deliberate perpetration of harm to another individual (e.g., sexual assault, armed robbery, physical threats etc.) (Forbes et al., 2014) have reported increased levels of shame and PTSD (La Bash & Papa, 2014). In a recent study, Zerach and Levi-Belz (2018) found that experiencing a morally injurious event may contribute to an increased tendency to make internal, stable and global attributions, trauma related shame and more severe posttraumatic stress symptoms (PTSS). Their findings indicate that it is possible that certain trauma types may increase one's tendency to make negative attributions, subsequently eliciting higher levels of shame.

Secondly, routine self-report PTSD screening measures require a single designated trauma event to be used in assessing the severity of symptoms. However, the exposure to multiple potentially traumatic events can be considered a rule not the exception. There is robust evidence indicating that, with an increased number of PTE exposures, PTSD

risk increases in a dose-dependent manner (Tortella-Feliu et al., 2019). Also, the severity of PTSD symptoms increases when participants are asked to rate symptoms across their trauma history (Simpson et al., 2011). Furthermore, the potential effect of time elapsed since the indexed trauma event may also impact endorsement of self-conscious cognitions and emotions (Bryant et al., 2017). Thus, consideration of the cumulative impacts of PTEs along with time since trauma exposure is pertinent.

Regardless of overall trauma exposure, it is expected that individuals will seek to assign meaning and provide causal attributions to explain their experiences. Thus, the current study sought to extend previous findings in two ways. Firstly, it aimed to investigate the relationships between trauma specific negative attributions (higher internal, stable, and global attributions) shame and PTSD symptom severity in a broad sample of trauma exposed survivors. Based on previous findings, it was hypothesised there would be significant associations between negative attributions, shame, and PTSD symptoms. Secondly, it explored whether trauma-related shame would mediate the relationship between higher levels of internal, stable, and global attributions on the one hand, and PTSD symptoms on the other.

To examine the unique contributions of trauma related attributions and shame in relation to PTSD, the current study controlled for the effects of the various trauma characteristics mentioned. This included cumulative lifetime exposure to PTEs, reference trauma type (interpersonal vs. non-interpersonal) and time elapsed since reference trauma. Symptoms of depression were also controlled for due to depression's significant comorbidity with PTSD (Flory & Yehuda, 2015). It was hypothesised that even after controlling for these covariates, trauma-related shame would mediate the relationship between attributions and PTSD symptom severity.

Method

Participants

Six hundred and sixty-seven participants consented to participate in the study, however nine participants failed the attention checks, and were excluded from the analyses. The final sample consisted of 658 participants between the ages of 18 to 89 ($M = 33.42$; $SD = 12.17$) who consented to participate in the study. A majority ($n = 257$; 39.1%) of the sample resided in the United States, with a similar proportion from the United Kingdom ($n = 249$; 37.8%). The sample consisted of 346 women (52.6%), 300 men (45.6%) and 12 (1.9%) preferring to self-describe. Just over half the participants ($n = 371$; 56.4%) reported being in a relationship or were married, 258 (39.2%) had never been married and 29 (4.4%) were either separated or divorced. Slightly under half ($n = 206$; 31.3%) of participants disclosed at least one mental health disorder diagnosis from a professional. Among those who chose to specify, 223 ($n = 33.9%$) reported a current diagnosis of depression and/or

anxiety. 80 participants reported currently seeking mental health support from a health-care professional. Just over half of participants' (58.7%) self-reported PTSD symptoms placed them within the clinical range for a provisional PTSD diagnosis (PCL-5 total scores ≥ 31) (Bovin et al., 2016).

Participants endorsed exposure to an average of 6.3 ($SD = 2.2$) potentially traumatic events (PTE) across their lifetime. In terms of type of trauma exposure, transportation accidents ($n = 406$; 61.7%), severe life-threatening illnesses ($n = 227$; 34.5%), and unwanted/uncomfortable sexual experiences, including sexual assault ($n = 209$; 31.8%) were the most common trauma categories endorsed. The most common reference trauma endorsed was some form of direct exposure (personally experienced and/or witnessed it happening to a close family member/friend) to an interpersonal trauma (e.g., physical and/or sexual assault and psychological abuse) ($n = 219$; 33.3%), followed by some form of transport accident ($n = 154$; 23%), and various forms of illnesses and/or physical injury ($n = 109$; 16.7%). The mean elapsed time since the reference trauma was 11.6 years ($SD = 10.7$).

Measures

The Lifetime Events Checklist (LEC)

The LEC (Weathers, Blake, et al., 2013b) is a 17-item self-report measure used to screen for exposure to potentially traumatic events (PTE) in a respondent's lifetime. It consists of 16 known events and an additional item assessing any stressful life events not listed. Respondents indicate their level of exposure for each PTE on a 6-point nominal scale. Following this, participants are asked to identify and briefly describe the worst event they experienced, specifically the event that they classify as the most distressing. This event was used as the reference trauma for assessing current symptoms of PTSD. The LEC does not yield a total composite score. The LEC demonstrated adequate psychometric properties as a stand-alone measure for trauma exposure (Gray et al., 2004). In the current study, a total lifetime trauma load was calculated by summing the number of traumatic experiences across each type of trauma endorsed by the individual.

The PTSD Checklist for DSM-5 (PCL-5)

The PCL-5 (Weathers, Litz, et al., 2013) a 20-item self-report questionnaire which was administered to assess PTSD symptoms. Participants endorse the extent to which they were bothered by PTSD symptoms in relation to their reference trauma in the past month (e.g., "Repeated disturbing and unwanted memories of the stressful experience") on a 5-point Likert Scale, 0 (*Not at all*) to 4 (*Extremely*). A total symptom severity score was obtained by summing each item, with a score higher than 31 indicating the presence of probable PTSD (Bovin et al., 2016). The PCL-5 has demonstrated strong reliability and validity and is psychometrically sound instrument for quantifying PTSD symptom severity (Bovin et al., 2016).

The Expanded Attributional Style Questionnaire - Trauma (EASQ-T)

The EASQ (Peterson & Villanova, 1988) is a measure used to assess a respondent's tendency to generate specific attributions for hypothetical aversive events. Participants are asked to rate the cause of each event. On this scale, respondents are asked to rate the cause of each event on 7-point Likert scale for three dimensions; 1) Internal or External ("Is the cause something about you or about other people and/or circumstances"), 2) Stable or Unstable ("In the future, will this cause be present?") and 3) Specific or Global ("Is this cause something that affects just this type of situation or does it influence other aspects of your life?"). The EASQ has previously demonstrated adequate to good internal consistencies (Peterson & Villanova, 1988).

The EASQ was adapted by Reiland et al. (2014) to assess trauma related attributions. On the EASQ-Trauma, participants rate the cause of each traumatic event they were exposed to according to the LEC (Weathers, Blake, et al., 2013b) on the EASQ dimensions of Internal-External, Stable-Unstable and Specific-Global. The score on each attribution dimension ranged between 1 and 7. An overall attribution score or negative trauma score was calculated by averaging the sum of each dimension. Higher overall scores on the scale indicate higher levels of internal, stable and global attributions.

The Trauma Related Shame Inventory (TRSI)

The TRSI (Øktedalen et al., 2014) is a 24-item measure of trauma related shame. Respondents rate the extent that they experience thoughts and feelings associated with shame in relation to their traumatic experiences over the past week on a 4-point Likert Scale, 0 (*Not true of me*) to 4 (*Completely true of me*). Sample items include "Because of what happened, I am disgusted with myself", "If others knew what happened to me, they would be ashamed". A total trauma-related shame score was computed by summing all items on the TRSI. The TRSI has demonstrated strong content and construct validity and discriminate validity from the Trauma Related Guilt Inventory (Kubany et al., 1996).

The Depression Anxiety and Stress Short Form Scale (DASS-21)

The DASS-21 (Lovibond & Lovibond, 1995) is a widely used screening measure of distress in both clinical and non-clinical settings. It consists of 21 items comprised of three self-report scales of depression, anxiety, and stress symptoms. In the current study, only the 7-item depression subscale was used to yield a total depression score. Respondents endorse the extent to which they experienced symptoms over the past week on a 4-point Likert scale, 0 (*Did not apply to me at all*) to 4 (*Applied to me very much, or most of the time*). A total depression score was computed by summing all the items on the depression subscale. The DASS-21 has demonstrated good discriminant validity relative to other depression measures and high internal consistency (Henry & Crawford, 2005).

Procedure

Participants were recruited from Australia, Canada, Ireland, The United Kingdom and United States via Prolific Academic (ProA), an online crowdsourcing platform. Only participants over the age of 18 and who endorsed being exposed to at least one potentially traumatic event (PTE) within their lifetime according to the LEC (Weathers, Blake, et al., 2013b) were included in the study. Participants were administered a battery of self-report questionnaires which assessed their lifetime exposure to PTEs, along with their attributions for these events, trauma related shame, PTSD symptoms and symptoms of depression and anxiety.

Statistical Analyses

Spearman's rank order correlations were calculated given the non-normal positively skewed distributions of depression, PTSD, and trauma-related shame. Bootstrapping (5,000) iterations were performed to test the indirect effects of shame and negative attributions in relation to PTSD symptom severity using conditional process analysis (Hayes, 2017). Trauma exposure, depression symptoms, worst reference trauma type, and time since worst reference trauma were entered as covariates.

The use of bootstrapping, a non-parametric resampling method offers an advantage over the traditional Sobel Test as it does not require the assumption of normality to be met for the product of co-efficients. Further, the resampling methods minimises bias that arises from non-normal sampling distributions (Hayes, 2017). Indirect effects are significant when the 95% Confidence Interval (CI) does not contain zero.

Results

Univariate and Bivariate Statistics

Mean, standard deviation and range of all self-reported measures are reported in Table 1. The internal consistency for all scales was excellent. All measures were significantly and positively correlated with each other and small to moderate in magnitude (Table 2).

Mediation Analysis

Figure 1 reports the results of the bootstrapped mediation analysis. Together, after controlling for lifetime trauma exposure, depression symptoms, worst trauma type, and time since worst trauma, negative attributions and trauma-related shame accounted for significant variance in PTSD symptom severity, $F(6,652) = 107.53$, $R^2 = .50$, $p < .001$. Trauma related negative attributions exhibited significant direct effects on shame, $b = 1.47$, $p < .001$, 95% CI [.56, 2.38], and shame also had a significant direct effect on PTSD

symptoms, $b = .57, p < .001, 95\% \text{ CI } [.48, .66]$. Trauma related attributions exhibited a significant indirect effect on PTSD symptoms via shame, $95\% \text{ CI } [.35, 1.34]$.

Table 1

Means, Standard Deviations, and Reliability of Measures

Variable	M	SD	Range	Cronbach's α
Exposure (LEC)	6.31	2.16	2-16	–
Depression (DASS-21)	6.67	6.26	0-21	.94
Internal attributions (EASQ-T Internal)	2.45	1.43	1-7	–
Stable attributions (EASQ-T Stable)	3.73	1.63	1-7	–
Global attributions (EASQ-T Global)	3.34	1.56	1-7	–
Attributions (EASQ-T Total)	3.17	1.07	1-6.58	–
Shame (TRSI)	14.33	15.94	0-70	.97
PTSD (PCL-5)	27.78	19.59	0-80	.95

Note. Exposure = Total lifetime trauma exposure to distinct trauma types; Depression = Depression symptoms; Internal, stable and global = internal, stable and global trauma-related attributions; Attributions = Total trauma related attributions; Shame = Trauma Related Shame; PTSD = PTSD symptoms.

Table 2

Spearman's Rank Order Correlations Between Trauma Exposure, Depression Symptoms Trauma-Related Attributions, Trauma Related Shame, PTSD Symptoms

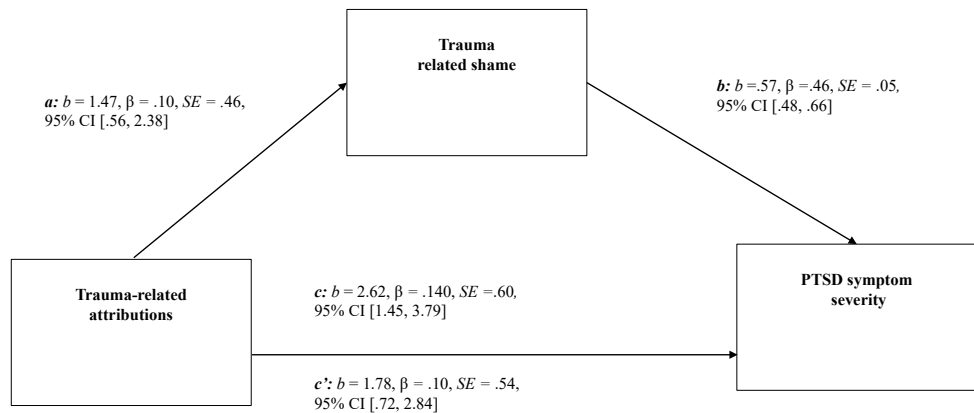
Variable	1	2	3	4	5	6	7	8
1. Exposure	–	.16**	.10**	.10**	.08	.13**	.30**	.19**
2. Depression		–	.27**	.16**	.14**	.31**	.59**	.56**
3. Attributions			–	.54**	.73**	.79**	.27**	.29**
4. Internal				–	.04	.23**	.25**	.20**
5. Stable					–	.42**	.04	.08*
6. Global						–	.35**	.37**
7. Shame							–	.66**
8. PTSD								–

Note. $N = 587$. Exposure = Total lifetime trauma exposure to distinct trauma types (LEC); Depression = Depression symptoms (DASS-21); Attributions = Total trauma related attributions (EASQ-T Total); Internal, stable, and global = internal, stable and global trauma-related attributions (EASQ-T subscales); Shame = Trauma Related Shame (TRSI); PTSD = PTSD symptoms (PCL-5).

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

Figure 1

The Relationship Between Trauma-Related Attributions and PTSD Symptom Severity Mediated by Trauma-Related Shame



Note. *c* = total effect; *c'* = direct effect; *b* = non-standardised regression coefficient; β = standardised regression coefficient; *SE* = standard error; *CI* = confidence interval. Indirect effect = 95% *CI* = [.35, 1.34].

However, when trauma related shame was included in the model, the direct effect of trauma-related attributions remained significant, $b = 1.78, p < .001, 95\% \text{ CI } [.72, 2.84]$, indicating that trauma-related shame partially explains the relationship between trauma-related casual attributions. Thus, it is likely that there are additional mediators that could contribute to the understanding the effect of negative trauma attributions and PTSD symptoms.

As a secondary exploratory analysis, we repeated the mediation analyses for each separate attribution dimension. The results of these are presented in Figures 1-3 in the [Supplementary Materials](#). In brief, both internal, 95% *CI* [.53, 1.30] and global, 95% *CI* [.32, 1.10] attributions exhibited significant indirect effects on PTSD symptoms via shame. In contrast, there was no significant indirect effect for stable attributions, 95% *CI* [-.65, .03].

Discussion

To our knowledge, this is the first study that examines the role of internal, stable and global trauma-related attributions in relation to shame and PTSD symptoms in a broad trauma exposed sample. The purpose of the study was two-fold. Firstly, it aimed to investigate the relationship between negative attributions (higher levels of internal, stable, and global attributions), trauma-related shame and PTSD. Secondly, it investigated whether

trauma-related shame would mediate the relationship between negative trauma-related attributions and PTSD symptoms.

As predicted, negative attributions, that is, higher levels of internal, stable, and global attributions and trauma-related shame both had significant direct effects on PTSD symptom severity. Interestingly, although cumulative trauma exposure is an important risk factor for PTSD (Tortella-Feliu et al., 2019), correlation analysis of the present data indicated that the relationship between trauma load and PTSD is negligible. These findings are consistent with both empirical and theoretical evidence implicating maladaptive cognitive appraisals and subsequent emotional reactions as important predictors of PTSD beyond trauma exposure (Cromer & Smyth, 2010; Ehlers & Clark, 2000).

The finding that internal, stable and global attributions are significantly associated with higher levels of PTSD is consistent with previous research indicating strong associations between negative causal attributions and PTSD symptoms (Gómez de La Cuesta et al., 2019). The attribution that one's experiences are due to internal causes that are unchanging, and pervasive in all domains of life is likely to increase expectancy that future events would reoccur and engender feelings of helplessness and loss of control over life events and one's future (Mikulincer & Solomon, 1988). Indeed, a sense of helplessness has been associated with a perception of ongoing threat and perceived lack of safety among domestic violence survivors (Salcioglu et al., 2017). Moreover, findings from neuroimaging studies have indicated that cognitive distortions are linked to PTSD through intense re-experiencing of the trauma memory elicited by trauma related cues (Berman et al., 2018; Daniels et al., 2011).

As our findings indicate, negative attributions of the traumatic event were associated with higher levels of trauma-related shame which in turn, were associated with more severe PTSD symptoms. Thus, the appraisal that negative events are due to internal, stable and global attributions may lead to the focus of evaluation being directed inward where the self and its entirety is judged negatively, prompting feelings of intense shame. The cross-sectional nature of our study precludes causal inferences; however, further prospective studies of these variables should seek to confirm this possibility.

The phenomenological experience of shame is painful, motivating the desire to withdraw and hide due to the fear of rejection or stigmatisation. In this way, feelings of shame may increase the intensity of PTSD symptoms through responses such as avoidance (Feiring et al., 2002; Leonard et al., 2020), a core symptom of PTSD that maintains overgeneralised fear and inhibits new learning (Craske et al., 2008). Indeed, a recent study indicates that experiential avoidance may be one of the key mechanisms that explains the relationship between shame and PTSD symptoms (Leonard et al., 2020). However, future research will be needed to bolster such findings. In addition, current theoretical models of shame indicate that feelings of shame are also avoided due to their association with the event and trauma related cues (Lee et al., 2001; Wilson et al., 2006).

Consequently, the inability to process shame is likely to intensify these feelings where, in the absence of physical danger, feelings of shame become a source of internal threat.

Although the current results support our second hypothesis, there may be other variables that influence and explain the relationship between shame and PTSD. Following trauma exposure, shame is typically accompanied by other emotional responses such as fear, guilt, alienation, and betrayal that also promote avoidance and intense reliving of trauma memories (Dewey et al., 2014; Held et al., 2015). Moreover, there may be other attributional processes such as perceived controllability and importance of events (Tracy & Robins, 2006) that may be relevant to shame worth investigating.

Overall, the findings support the assertion that individual variability in trauma attributions and reactions are linked to not only an increase in PTSD symptom severity, but this relationship can also be explained by emotional and behavioural reactions associated with shame related to one's traumatic experiences.

Some limitations of the current study should be noted as avenues for future research. First, the use of a cross-sectional design precludes any causal inferences. It is likely that both negative appraisals and trauma related shame have a bi-directional relationship, however the extent to which they reinforce each other remains an empirical question. Thus, longitudinal research is needed to assess the directionality of these constructs. Second, although the use of self-report questionnaires is common in clinical psychology research, responses may be influenced by participants' introspective ability and other response biases. Third, additional demographic data was not obtained with respect to ethnicity, or employment status which may be important risk factors for PTSD (Tortella-Feliu et al., 2019). Also, not all participants in our sample were in the clinical range for PTSD, limiting the generalizability of our results to clinical populations.

Fourth, the construct validity of the "global" dimension of the EASQ may be imperfect in that the global dimension items appeared to assess attributions about the perceived consequences of traumas, rather than attributions about the cause itself ("Is this cause something that affects just this type of situation, or does it also influence other areas of your life"). This may have contributed to the relatively stronger associations observed between global attributions and PTSD symptoms when compared with the internal-external and stable-variable dimensions. Future studies should ideally use interviewer-based approaches to allow careful distinctions between attributions about the causes versus the consequences of trauma events.

Further, although the PCL-5 is widely accepted and utilised within trauma research as a PTSD symptom screening tool, it does not examine trauma relatedness of symptoms and significant overlap between PTSD and other psychiatric symptoms may inadvertently inflate PTSD symptom severity scores (Monson et al., 2008). It is worth noting that an individual can make multiple attributions for a single event, especially when the event consists of multiple, closely related events. In the attempt to account for multiple lifetime exposures, we assessed attributions for all PTE exposures. However, an individual can

have multiple exposures to the same type of traumatic event, complicating the identification of the particular event that a given attribution corresponds to. Thus, assessment of the index trauma event to assess event specific attributions using a clinician administered diagnostic assessment tool is warranted. For example, the Clinician-Administered PTSD Scale for DSM-5 (CAPS5; Weathers, Blake, et al., 2013a) could be used to identify the index trauma and assess specific attributions in accordance with the event. Further, the use of a diagnostic interview can provide a more accurate diagnostic picture of PTSD symptoms and increase the generalizability of current findings to clinical samples.

Although specific attribution dimensions may exert greater influence on shame and PTSD symptoms than others, the results indicate that, together, internal, stable and global attributions for lifetime exposure to PTEs functions as a potential cognitive vulnerability toward trauma related shame. Thus, targeting these cognitions may constitute an important mechanism for trauma recovery. Cognitive based interventions that utilise attribution retraining such as Cognitive Processing Therapy (CPT; Resick & Schnicke, 1992) has been found to be useful in modifying self-blaming attributions and PTSD (Resick et al., 2002). Moreover, there is some indication that gradual exposure to and processing of trauma memories can significantly reduce shame based cognitive distortions (Cohen et al., 2004). More recently, there has been increasing interest and empirical support for the use of compassion-based therapies as a potential adjunct to existing cognitive interventions for PTSD in facilitating the effectiveness of cognitive reappraisal strategies (Au et al., 2017).

Overall, the present study indicates that following exposure to a PTE, negative attributions are associated with shame, which in turn is associated with higher levels of PTSD symptoms. The findings underscore the potential clinical utility of assessing negative attributions as a potential antecedent of shame. In doing so, clinicians can seek to target these processes and potentially change the trajectory of shame responses and reduce the emotional impact of the trauma and the severity of PTSD symptoms.

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Data Availability: Participants in the present study did not consent for their data to be shared publicly, so supporting data for the present study is not available.

Supplementary Materials

The Supplementary Materials contain the following items (for access see [Index of Supplementary Materials](#) below):

- Figure 1 – The relationship between Internal Attributions and PTSD Symptom Severity mediated by Trauma-Related Shame.
- Figure 2 – The relationship between Stable Attributions and PTSD Symptom Severity mediated by Trauma-Related Shame.
- Figure 3 – The relationship between Global Attributions and PTSD Symptom Severity mediated by Trauma-Related Shame.

Index of Supplementary Materials

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Implicit Attitudes Toward Psychotherapy and Explicit Barriers to Accessing Psychotherapy in Youths and Parent–Youth Dyads

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Abstract

Background: Few studies have investigated implicit and explicit attitudes toward psychotherapy in youths (Study 1), although information about attitudes would improve interventions that aim to decrease barriers to accessing psychotherapy including parents (Study 2), who facilitate the help-seeking process of youths.

Method: The Study 1 sample comprised 96 youths (14–21 years) and the Study 2 sample 38 parent–youth dyads. Differences in implicit attitudes regarding psychotherapy and a medical treatment were measured with the Implicit Association Test, and psychotherapy knowledge and self-reported barriers to psychotherapy were assessed with questionnaires. The actor-partner interdependence model was used to test the dyadic effects of implicit attitudes on explicit attitudes in parents and youths.

Results: We did not find evidence for an implicit bias toward psychotherapy compared to a medical treatment, neither in youths, nor in parents. Self-reported barriers were a predictor for lower help-seeking intentions. Deficits in psychotherapy knowledge were more relevant in younger participants. Having a prior or current experience with psychotherapy and having a friend or family member with a prior or current experience with psychotherapy were predictors for better psychotherapy knowledge, but was not for lower barriers to accessing psychotherapy. Partner effects (degree to which the individual’s implicit attitudes are associated with explicit attitudes of the other dyad’s member) were not found.



Conclusion: Specific deficits in psychotherapy knowledge should be addressed in interventions to lower barriers accessing psychotherapy. Parents should be included in interventions as a valuable resource to support youths in seeking psychotherapy for mental disorders.

Keywords

Implicit Association Test, psychotherapy, barriers, mental disorders, stigma, youths

Highlights

- Implicit attitudes toward psychotherapy were comparable with attitudes toward a medical treatment.
- Youths reported explicit barriers to accessing psychotherapy and exhibited deficits in psychotherapy knowledge.
- Interventions aiming to reduce barriers to accessing psychotherapy should address specific knowledge deficits in youths.
- Parents should be included in interventions as a valuable resource to support youths in seeking psychotherapy for mental health problems.

Stigmatizing attitudes toward people with mental disorders as a barrier of help-seeking have been widely studied (Aguirre Velasco et al., 2020; Gulliver et al., 2010; Radez et al., 2021), however, there is a lack of studies investigating attitudes toward mental health care, especially psychotherapy, in youths. In their Mental Illness Stigma Framework, Fox and colleagues (2018) distinguish between experienced stigma and internalized stigma as a consequence of self-disclosure and anticipated stigma toward psychotherapy (the extent to which a person with a mental disorder expects to be the target of stereotypes, prejudice, or discrimination in the future), which is the focus of our study. In adult samples, negative attitudes toward mental health care use, especially the presence of stigma, low perceived efficacy of treatments, or the desire to handle the problem on their own, are the most common barriers to seek treatment for mental disorders (Andrade et al., 2014; Mojtabai et al., 2011; Van Voorhees et al., 2006). When asked specifically about psychotherapy, adults have reported mainly positive attitudes (Petrowski et al., 2014) yet also that they would be ashamed if neighbors and friends knew about the use of psychotherapy (Albani et al., 2013).

Most of those studies use explicit measures to assess attitudes toward mental health care, implicit measures however can elicit more spontaneous responses than explicit measures, whereas explicit measures are related to deliberative decisions about the confirmation or rejection of attitudes. There is evidence that the assessment of implicit and explicit attitudes are distinct measures with a rather weak relationship and the need to consider (negative) attitudes as a multifaceted construct (Brauer et al., 2000). The combination of implicit and explicit measures to assess barriers toward psychotherapy might be promising in capturing the complexity of attitudes toward psychotherapy.

Studies investigating implicit attitudes toward mental disorders using the Implicit Association Test (IAT) found that adults reported a more negative implicit attitude toward people with mental disorders than toward people with a physical illness (González-Sanguino et al., 2020; Teachman et al., 2006). O'Driscoll et al. (2012) found higher stigmatization for a vignette describing an individual with depression compared to an individual with attention-deficit/hyperactivity disorder in boys, but not in girls. In a sample of young adults, depression was associated with more implicit, but not explicit, negative attitudes compared to a physical illness (Monteith & Pettit, 2011). Little is known about the effects of implicit attitudes toward psychotherapy with regard to low treatment rates for mental disorders in youths and negative attitudes toward people with mental disorders.

Negative attitudes are influenced by gender, age, and personal experience with mental disorders and help seeking. In men compared to women, there is evidence of lower help-seeking intentions for mental health problems (Addis & Mahalik, 2003; Oliver et al., 2005; Petrowski et al., 2014) and less mental health knowledge (Farrer et al., 2008). Boys compared to girls have reported higher mental health stigma and less willingness to use mental health services (Calear et al., 2011; Chandra & Minkovitz, 2006; Gonzalez et al., 2005). Further, there is evidence that higher age is associated with higher mental health knowledge and a less stigmatizing attitude (Farrer et al., 2008; Swords et al., 2011) and more acceptance of peers with mental disorders (Swords et al., 2011).

A prior experience with a mental disorder or psychotherapy, or familiarity with someone who has a mental disorder, which is associated with less stigmatizing attitudes in children, youths, and adults (Bellanca & Pote, 2013; Griffiths et al., 2008; Sandhu et al., 2019) may be seen as protective factors for stigmatizing attitudes. The identification of possible risk factors (e.g., gender, specific age group) might enable to develop age- or gender- tailored interventions to reduce barriers toward psychotherapy or interventions, which include contact to a person with a prior experience of psychotherapy.

Parental Role in Attitudes Toward Psychotherapy

Children and youths often prefer informal sources of help for mental disorders, such as parents (Rickwood et al., 2005). When assessing attitudes toward psychotherapy in youths, it is important to include parental attitudes, as they are important key gatekeepers to mental health care access and as they also report negative attitudes toward mental health care (Reardon et al., 2017). Despite youths' growing autonomy, their decision to seek professional help for mental health problems is highly influenced by their parents (Gulliver et al., 2012; Rickwood et al., 2005; Ryan et al., 2015), who are often the first to recognize mental health problems in their children and the need for help. In their model for a parent-mediated pathway to mental health services for adolescents, Logan and King (2001) emphasized the important role of parent's attitudes toward mental health care in the help-seeking process of their child.

Youths' willingness to seek help is higher when they think their parents support the use of mental health services (Chandra & Minkovitz, 2006; Wahlin & Deane, 2012) and lower when they think their parents would be ashamed of them because of their mental health problems (Moses, 2009). Little is known about whether youths report similar attitudes toward mental health to those of their parents. There is evidence that youths seem to agree with their parents' evaluation of the helpfulness of mental health services (Jorm & Wright, 2007) but that parents and youth differ in their knowledge and explicit attitudes toward mental disorders, with youths showing higher stigma scores and less mental health knowledge compared to their parents (Lorona & Miller-Perrin, 2016). There is, however, a lack of research evaluating implicit and explicit attitudes toward psychotherapy and their relationship which each other in parent–youth dyads.

Aims of the Study

In Study 1, the first aim was to compare implicit attitudes toward psychotherapy with attitudes toward a medical treatment using the IAT (Greenwald et al., 1998). We decided to contrast psychotherapy with a medical treatment to control for attitudes that are generally associated with help-seeking behavior for (mental) health problems (e.g., being confronted with symptoms of [psycho]pathology). In this study, we were particularly interested if attitudes differ about consulting a pediatrician or general practitioner for health-related symptoms versus a psychotherapist for mental health problems. The second aim was to assess explicit barriers to accessing psychotherapy as well as psychotherapy knowledge in youths and their influence on help-seeking intentions, for which we used a self-report questionnaire. We hypothesized that higher positive implicit attitudes toward psychotherapy compared to a medical treatment, higher psychotherapy knowledge, and lower explicit barriers to accessing psychotherapy would be associated with higher help-seeking intentions. As there are gender and age differences in attitudes toward mental health care, we evaluated if male participants reported more negative attitudes toward psychotherapy than female participants and if negative attitudes toward psychotherapy decrease with age. The analysis of differences between different education levels were analyzed exploratively. We further expected fewer barriers to accessing psychotherapy and better psychotherapy knowledge in participants with a prior or current experience with psychotherapy and in those who had a friend or family member involved in psychotherapy. In Study 2, we investigated parents and youths' implicit and explicit attitudes (barriers) toward psychotherapy and their relationship considering the dyadic structure of the data.

Study 1

Method

Participants

A total of 96 youths between the age of 14 and 21 years participated in this study ($M = 18.4$ years, $SD = 2.1$). In this sample, 68% self-identified as female and 32% as male. In terms of education, 69% attended a secondary school, 21% a university, and 10% a vocational school. Nineteen percent had a prior or current experience with psychotherapy and 72% rated the experience as positive. In all, 72% were familiar with someone having sought or seeking psychotherapy and 78% rated that person's experience as positive. Participants were recruited online via social media and in local secondary schools. The inclusion criterion to participate in the study was being between 14 and 21 years of age. We chose the age of 14 years because youth can participate in studies without a written parental consent and 21 years as this is the age limit for child and adolescent psychotherapy in Germany.

Measures

Implicit Association Test (IAT) – The IAT (Greenwald et al., 1998) is a computerized dichotomous categorization task measuring association strengths between concepts and attributes. The outcome measure is response time (milliseconds), with shorter latencies indicating stronger automatic associations of concepts with the stimulus group. The key IAT assumption is that participants show faster reaction times when stimuli are paired in ways that are consistent versus inconsistent with well-learned automatic associations, that is, implicit biases. The IAT is a relative assessment; that is, evaluations of one group are compared with evaluations of a second group (Greenwald et al., 1998).

Regarding the concepts, psychotherapy and a medical treatment were compared using words as stimuli. Psychotherapy was primed with words *psychotherapist*, *psychotherapist's practice*, *psychological conversation*, *psychology*, and *children's and adolescents' psychotherapist*; medical treatment was primed with *general practitioner*, *general practitioner's practice*, *medical exam*, *medicine*, and *pediatrician*. We chose positive and negative attributes associated with psychotherapy (Maier et al., 2014). Positive attributes were *professional*, *effective*, *trustworthy*, *competent*, and *meaningful* and negative attributes were *unprofessional*, *ineffective*, *untrustworthy*, *incompetent*, and *meaningless*. The categorization of concepts and attributes was checked in advance with four youths that correctly assigned the priming words to the concepts and the attributes.

In our pilot study, we evaluated time-differences for concepts and attributes and did not find differences between the concept “medical treatment” and “psychotherapy”, $t(8) = 0.87$, $p = .38$ or between the attributes “positive” and “negative”, $t(8) = 0.29$, $p = .77$.

The IAT was constructed with online-survey software, a valid and reliable approach (Carpenter et al., 2019) using Sosci-Survey (Leiner, 2019). The IAT consists of seven

“blocks” (sets of trials) and in each block, participants see a stimulus (word) on the screen. Stimuli represent concepts (medical treatment or psychotherapy) or attributes (positive - negative). When stimuli appear, the participant “sorts” the stimulus as rapidly as possible by pressing with either their left or right hands on the keyboard (the “E” an “I” keys). The sides with which one should press are indicated in the upper left and right corners of the screen. If the target word was a member of the category listed on the left side of the screen, the participants were to respond with the E key. If the target word was a member of the category listed on the right side of the screen, the participants were to respond with the I key. A correct response was required before continuing to the next slide and response latencies were recorded from the presentation of the stimulus to the correct response. The initial pairing of concepts and attributes was counterbalanced across participants. The interstimulus interval was 300 ms. Block 1 is used to practice the two categories; participants distinguished between the target categories of medical treatment and psychotherapy. The priming words were presented in a random order and were distinguished by designated keys on the left or right side of the keyboard (e.g., left for medical treatment, right for psychotherapy). Block 2 is used to practice the attributes (positive vs. negative); participants distinguished positive attributes from negative attributes presented on the screen. Block 3 is the first pairing of categories and attributes; participants distinguished between medical treatment and positive attributes versus psychotherapy and negative attributes by pressing the designated keys. Block 4 repeats the Block 3 pairings. In Block 5, responses to the positive attributes and negative attributes are reversed. Both Blocks 6 and 7 are test blocks that consist of the second category and attribute pairing; participants distinguished between medical treatment and negative attributes versus psychotherapy and positive attributes. The order in which each pairing was presented and associated with the key on the right or left side of the keyboard (Blocks 3 and 4 vs. Blocks 6 and 7) was randomized.

Barriers to Accessing Psychotherapy – To assess explicit barriers to accessing psychotherapy, we developed a self-report questionnaire. First, we conducted a literature review on attitudes toward psychotherapy, from which we drew 13 statements (Table 1). In a pilot study, youths ($n = 9$) rated the comprehensibility of the statements on a 6-point Likert scale (1 = *totally disagree*, 6 = *totally agree*). To explore the factor structure, the 13 items were subjected to an exploratory analysis with oblique rotation. The Kaiser–Meyer–Olkin (KMO) measure verified the sampling adequacy for the analysis (KMO = 0.85). Bartlett’s test of sphericity, $\chi^2(78) = 406.72$, $p < .001$, indicated that the correlation structure was adequate for factor analysis. A maximum likelihood factor analysis with a cutoff point of .40 and Kaiser’s criterion of eigenvalues greater than 1 yielded a one-factor solution as the best fit for the data, with the root mean square of residuals = 0.06, the root mean square error of approximation = 0.08, and the Tucker–Lewis Index = 0.96, an acceptable value considering it is over 0.9. One item (“I would prefer other treatment

options than psychotherapy”) did not load on the factor and was excluded from further analyses. Internal consistency was good with McDonald’s omega = 0.88.

Help-Seeking Intention and Familiarity With Psychotherapy – We asked participants to rate their anticipated probability of initiating psychotherapy in the event of serious mental health problems (0–100%) and to indicate if they had current or past experience with psychotherapy themselves, and if they had a friend or family member who had current or past experience with psychotherapy. They also rated whether the experience (or reported experience) was positive (1) or negative (0) using a dichotomous item. The items were taken from a previous study (Pfeiffer & In-Albon, 2022).

Psychotherapy Knowledge – We assessed psychotherapy knowledge with a self-developed questionnaire with 11 statements based on a literature search (e.g., knowledge about the professional confidentiality, the nonpsychoanalytical setting, multifactorial causes of mental disorders), which are listed in Table 3. Six licensed psychotherapists rated the statements for correctness and we made adjustments in two steps. First, we used Fleiss’s kappa to measure interrater reliability. We found $\kappa = 1$ (perfect agreement) for nine of the items and lower kappas for Item 1 ($\kappa = .5$) and Item 5 ($\kappa = .33$). These two items were then revised and rated again, resulting in perfect interrater agreement of $\kappa = 1$ for all items. Participants were asked to indicate if the statements were true or false or to indicate that they did not know the answer (“I don’t know”). Before conducting the pilot-study, we conducted a pretest with four youths who rated the statements for sufficient feasibility, which led to the revision of one item because of the use of professional jargon.

Procedure

The local ethics committee approved the study (reference number: LEK_262). Parents and youths were informed about the content and aims of the study. Written consent in accordance with the Declaration of Helsinki from parents and youths was mandatory for participants. We conducted a pilot study in advance with $n = 9$ youths to test the feasibility of the study design.

Parents and youths received a link and a QR code to participate in the online study. Study duration was 20–25 minutes. Researchers were available to answer questions during the study. Participants did not receive compensation.

Data Processing and Statistical Analyses

Statistical analyses were conducted with R (version 4.03). For the evaluation of implicit attitudes, we used the improved D score (Greenwald et al., 2003), which measures the strength and direction of the implicit association. We included all participants who

completed the study. Reaction times faster than 300ms and slower than 10 seconds were excluded from further evaluation ($n = 1$).

Positive improved D scores suggest a stronger association between medical treatment and positive attributes than psychotherapy and negative attributes. Negative D scores suggest that the association between psychotherapy and positive attributes is higher compared to medical treatment and negative attributes.

For psychotherapy knowledge, we calculated the total score using the number of correct answers (correct answer = 1; wrong answer or “I don’t know” = 0). Exploratively, we examined if implicit attitudes toward psychotherapy and barriers to accessing psychotherapy as well as psychotherapy knowledge varied with gender, age, or education using a multivariate analysis of variance and multiple regression analysis. An a-priori power analysis was conducted with *g*Power* (Faul et al., 2007). For the MANOVA a sample size of $n = 84$ is necessary to detect a small effect, $f^2 = 0.10$, $1-\beta = 0.95$, $\alpha = 0.05$. For the multiple regression analysis, a sample size of $n = 70$ is necessary to detect a small effect, $f^2 = 0.10$, $1-\beta = 0.95$, $\alpha = 0.05$. Multiple regressions were calculated to determine if implicit attitudes toward psychotherapy and barriers to accessing psychotherapy as well as psychotherapy knowledge predict higher help-seeking intentions. Multiple regressions were also calculated to determine if a prior or current experience with psychotherapy or familiarity with someone seeking psychotherapy predicts fewer negative implicit attitudes toward psychotherapy, fewer barriers to accessing psychotherapy, and better psychotherapy knowledge. We used dummy variables with 1= prior or current experience and 0= the absence of a prior or current experience.

Results

IAT

We did not find evidence for a stronger association neither for positive nor for negative attributes with psychotherapy compared to a medical treatment with an improved D score of $M = 0.09$ ($SD = 0.41$).

Barriers to Accessing Psychotherapy

The descriptive statistics regarding explicit barriers to accessing psychotherapy indicate an overall moderate agreement with barriers (Table 1).

Help-Seeking Intention and Familiarity With Psychotherapy

The intention to seek psychotherapy in the event of mental health problems had a median of 60% (range 0–100%). Multiple linear regressions indicated an overall effect for implicit attitudes, explicit barriers and psychotherapy-knowledge as predictors for help-seeking intentions, $R^2 = .23$, $F(3, 91) = 8.91$, $p < .001$, with a significant effect in explicit barriers to accessing psychotherapy as predictor for lower help-seeking intention, $b =$

-1.20, $\beta = -0.45$, CI 95% [-1.71, -0.69], $SE_b = 0.25$, $t(91) = -4.72$, $p < .001$, whereas implicit attitudes, $b = -0.43$, CI 95% [-0.63, 1.49], $\beta = 0.08$, $SE_b = 0.53$, $t(91) = 0.81$, $p = .42$ and psychotherapy knowledge, $b = 0.07$, CI 95% [-0.11, 0.26], $\beta = 0.08$, $SE_b = 0.09$, $t(91) = 0.82$, $p = .41$ were not associated with higher or lower help-seeking intentions.

Table 1

Barriers to Accessing Psychotherapy in Study 1 (Youths) and Study 2 (Youth-Parent Dyads)

Item	Study 1	Study 2	Study 2
	Youths	Youths	Parents
	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)
1. I would be afraid that psychotherapy would make my problems worse.	2.45 (1.18)	2.79 (1.42)	2.34 (1.28)
2. I would be concerned that my problems would not be treated confidentially.	3.03 (1.57)	2.29 (1.35)	2.26 (1.37)
3. I would think that starting psychotherapy costs money and is too expensive.	2.57 (1.50)	2.71 (1.56)	2.21 (1.18)
4. I would be afraid that the psychotherapist would judge me or think something bad about me.	2.50 (1.47)	2.05 (1.14)	1.63 (0.91)
5. I would be afraid that the psychotherapist would admit me to a psychiatric facility against my will.	3.23 (1.48)	2.84 (1.41)	2.26 (1.18)
6. I would think a psychotherapist doesn't understand my problems.	2.95 (1.37)	3.45 (1.78)	3.63 (1.75)
7. I had negative previous experiences with psychologists/psychotherapists.	2.94 (1.51)	2.26 (1.41)	1.74 (0.95)
8. My parents/my environment would not support me in starting psychotherapy.	2.90 (1.41)	2.16 (1.20)	4.55 (1.35)
9. I would be concerned that starting psychotherapy would say something bad about my family.	3.28 (1.55)	2.58 (1.18)	2.34 (1.02)
10. I would be afraid of not knowing what happens during psychotherapy.	3.39 (1.52)	2.45 (1.25)	2.39 (1.20)
11. I would be afraid to talk about my problems with a psychotherapist.	3.06 (1.41)	3.05 (1.45)	3.05 (1.63)
12. I wouldn't think psychotherapy would help.	2.58 (1.47)	3.47 (1.61)	4.34 (1.65)
Total score	2.60 (0.88)	2.67 (0.84)	2.94 (0.49)

Note. Items were rated on a 6-point Likert scale (1 = *totally disagree*, 6 = *totally agree*).

Multiple regression analysis were conducted to investigate if a prior or current experience of psychotherapy or familiarity with a person seeking psychotherapy are predictors of levels in implicit attitudes (Model 1), $R^2 = .00$, $F(2, 92) = 1.08$, $p = 0.34$, barriers toward psychotherapy (Model 2), $R^2 = .00$, $F(2, 93) = 0.48$, $p = 0.61$, and psychotherapy knowledge (Model 3), $R^2 = .22$, $F(2, 93) = 14.21$, $p < .001$, and are reported in Table 2.

Table 2

Results From Multiple Regression Analysis for Prior or Current Experience of Psychotherapy and Familiarity With People Seeking Psychotherapy as Predictors for Implicit Attitudes (Model 1), Explicit Barriers (Model 2), and Psychotherapy Knowledge (Model 3)

Estimates	<i>B</i>	<i>SE</i>	<i>Beta</i> (β)	<i>t</i>	<i>p</i>
Model 1 (implicit attitudes)					
intercept	0.14	0.08	0.00	1.75	.08
experience_pt	0.15	0.71	-0.14	-1.35	.18
familiarity	-0.04	0.09	-0.04	-0.42	.67
Model 2 (explicit attitudes)					
intercept	2.70	0.17	0.00	15.65	< .001
experience_pt	-0.20	0.23	-0.09	-0.85	0.40
familiarity	-0.08	0.20	-0.04	-0.38	0.70
Model 3 (psychotherapy knowledge)					
intercept	4.33	0.43	0.00	9.98	< .001
experience_pt	2.00	0.59	0.31	3.40	< .001
familiarity	1.87	0.51	0.33	3.66	< .001

Note. experience_pt = prior or current experience with psychotherapy.

Psychotherapy Knowledge

Participants' psychotherapy knowledge is reported in [Table 3](#).

Age, Gender, and Education Differences in Implicit Attitudes, Explicit Barriers, and Psychotherapy Knowledge

Contrary to our expectations, we did not find gender differences, $F(3, 93) = 2.09$, $p = .13$, or differences between education levels, $F(3, 93) = 0.15$, $p = .87$, in implicit attitudes toward psychotherapy, explicit barriers to accessing psychotherapy, or psychotherapy knowledge as a result of a MANOVA. We conducted a single predictor regression analysis to examine if age is associated with implicit attitudes, explicit barriers, and psychotherapy knowledge and found a significant overall effect, $R^2 = .12$, $F(3, 91) = 3.99$, $p < .001$.

Higher age was associated with higher psychotherapy knowledge, $b = 0.29$, CI 95% [0.12, 0.47], $\beta = 0.35$, $SE_b = 0.09$, $t(91) = 3.42$, $p < .001$, however age was not a predictor for implicit attitudes, $b = 0.32$, CI 95% [-0.68, 1.32], $\beta = 0.06$, $SE_b = 0.50$, $t(91) = 0.63$, $p = .53$, or explicit barriers seeking psychotherapy, $b = 0.31$, CI 95% [-0.17, 0.79], $\beta = 0.13$, $SE_b = 0.24$, $t(91) = 1.30$, $p = .20$.

Table 3*Percentages of Correct, Incorrect, and “I Don’t Know” Answers for Psychotherapy Knowledge Items*

Item	Correct answer (%)	Incorrect answer (%)	I don’t know (%)
1. The costs of psychotherapy are usually covered by health insurance.	47	13	41
2. During psychotherapy, the patient is usually lying on a couch.	77	5	18
3. In a psychotherapy patients take an active part in the decision making concerning the psychotherapy process.	58	7	34
4. Mental illnesses often manifest as physical symptoms, e.g., abdominal pain and headaches.	67	14	20
5. Over 40% of all people meet the criteria of a mental disorder during their lifetime.	49	7	44
6. The origin of mental disorders is exclusively genetic.	81	4	15
7. The effectiveness of psychotherapy is proven by scientific studies.	53	6	41
8. From the age of 15, I am allowed to start psychotherapy without the consent of my parents.	17	6	77
9. A psychotherapist is allowed to speak with my parents about the content of my psychotherapy without my consent.	72	7	21
10. Health insurance pays for trial sessions to find out if I want to work with the therapist.	34	5	60
11. A therapist helps me become an expert on my own problems.	50	11	39

Note. Percentages do not sum up to 100% due to rounding.

Study 2

Method

Participants

In Study 2, 38 parent–youth dyads participated. The youths ($M_{\text{age}} = 18.5$ years, $SD = 2.0$, range: 14–21) had not participated in Study 1. Here, 68% identified themselves as female. In terms of education, 37% attended a secondary school, 57% a university, 6% a vocational school.

The parent sample had an age range of 38–62 years ($M = 49.6$ b, $SD = 5.7$) and 76% identified themselves as female. Twenty-nine percent had a prior or current experience

with psychotherapy and 64% of them rated the experience as positive. Seventy-nine percent were familiar with people having sought or seeking psychotherapy, with 77% rating the reported experience as positive.

Measures

The IAT and explicit barriers measure were identical to those in Study 1. Regarding help seeking, youths were asked if they thought they would receive support from their parents, and parents were asked if they would seek support from their close network.

Procedure

The procedure was identical to that in Study 1. Parents and youths were asked to create the same code to assign the parent-youth dyad.

Data Processing and Statistical Analysis

Statistical analyses were conducted with R (version 4.03). The data treatment was identical to Study 1. Three participants were excluded from further analysis because their codes did not match with a corresponded code. Descriptive statistics and Welch sample *t*-tests for implicit attitudes and barriers toward psychotherapy between youths and parents were calculated.

Considering the dyadic structure of the data we conducted an actor-partner-interdependence model (APIM) using the lavaan package for structural equation modelling (SEM). APIMs are useful for exploring the dynamic interplay between relational partners, in our case parents and youths (Kenny, Kashy, & Cook, 2006). This model is based on the fact that the scores within the same dyad are not independent but instead are more similar than the scores of two individuals, who are not in the same dyad. The APIM is useful to determine how parameters (explicit and implicit attitudes) among youth and parent are influenced by not only internal factors but also factors related to the other member of the dyad. Structural equation modeling simultaneously examines both paths in the APIM: two actor effects (i.e., each person's implicit attitudes regressed on his or her own explicit attitudes) and two partner effects (i.e., each person's implicit attitudes regressed on the other person's explicit attitudes).

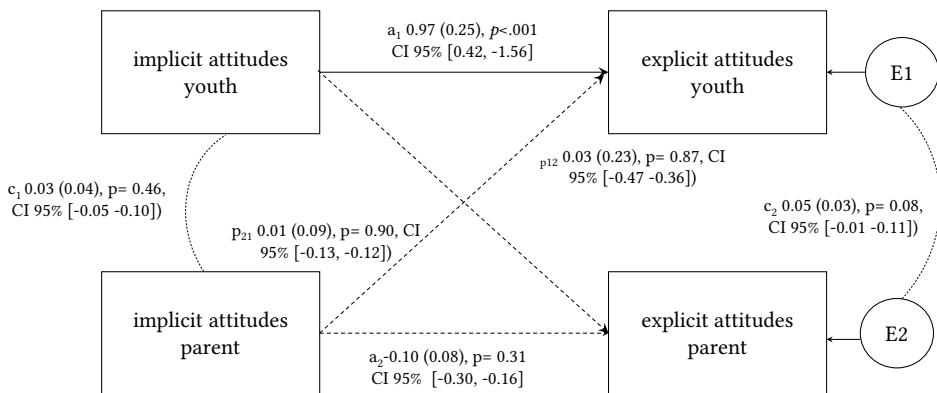
Results

Consistent with the results of Study 1, we did not find evidence for a stronger association neither for positive nor for negative attributes with psychotherapy compared to a medical treatment with an improved D score of $M = 0.04$ ($SD = 0.47$) for youths and $M = 0.12$ ($SD = 0.51$). Means and standard deviations for barriers toward psychotherapy are reported in Table 2. Analyzing mean scores, parents and youths did differ in explicit attitudes, $t(44) = 2.88$, $p = .01$, but not in their implicit attitudes, $t(73) = 0.70$, $p = .46$.

The results of the APIM analysis for explicit attitudes and implicit attitudes are set out in Figure 1. The goodness of fit measures were good with $\chi^2(N = 38, 6) = 18.68$, $p = .01$, CFI = 1.00, TLI = 1.00, RMSEA = 0.00, SRMR = 0.00 with except for the Chi-square test, which is however sensitive to sample size. The actor effect for youths was significant with implicit attitudes being a predictor for explicit attitudes in youths, which has not been the case for the parent sample. There was no evidence for a partner effect.

Figure 1

Path Diagram of the Actor-Partner-Interdependence Model (APIM) With Implicit Attitudes Being a Predictor for Explicit Attitudes



Note. a_1 , a_2 = actor effect; p_{12} , p_{21} = partner effect; c_1 = covariance of implicit attitudes between parent and youth; c_2 = residual non-independence of explicit attitudes.

*** $p < .001$.

General Discussion

In contrast to the higher stigmatization of mental disorders when compared to physical illnesses (González-Sanguino et al., 2020; Teachman et al., 2006), psychotherapy was not more stigmatized when evaluating implicit attitudes in comparison to a medical treatment. This result is in line with findings of mainly positive explicit attitudes toward psychotherapy in a general nonclinical adult sample (Petrowski et al., 2014). The youth sample in the present study did, however, agree with explicit specific barriers to accessing psychotherapy, probably reflecting more negative attitudes when confronted with

the idea of actual help seeking instead of psychotherapy in general, which is consistent with findings in adults (Albani et al., 2013). Higher barriers to accessing psychotherapy were also, as expected, associated with lower help-seeking intentions, which is consistent with findings in adult samples regarding attitudes toward mental health care (Andrade et al., 2014; Mojtabai et al., 2002; Van Voorhees et al., 2006). Regarding psychotherapy knowledge, the results were mixed (see Table 2) revealing deficits in psychotherapy-knowledge. Interventions aiming to increase mental health knowledge should include information about the setting and general framework of psychotherapy to facilitate the decision to access it. In our sample, higher psychotherapy knowledge was not associated with higher help-seeking intentions, but the interpretation of the results is limited by the high number of youths indicating knowledge deficits.

We did not find gender differences for implicit attitudes toward psychotherapy, explicit barriers to accessing psychotherapy, or psychotherapy knowledge. In contrast to other studies that found gender differences for mental health knowledge and attitudes toward mental health care use (Chandra & Minkovitz, 2006; Gonzalez et al., 2005), we focused specifically on psychotherapy, which might represent a different construct from mental health care in general that includes treatment in inpatient settings and psychopharmacotherapy. Overall, there are few studies evaluating gender differences in this field of research in youths.

The results indicate less psychotherapy knowledge in younger youths compared to participants with older youths, which is consistent with other findings (Farrer et al., 2008; Swords et al., 2011). Barriers to accessing psychotherapy seemed to increase with age and were associated with lower help-seeking intentions. More research is necessary to determine age-related factors to improve interventions aiming to lower barriers to accessing psychotherapy in specific age groups.

Having a prior or current experience with psychotherapy and being familiar with someone with a prior or current experience with psychotherapy were predictors for higher psychotherapy-knowledge, but surprisingly not with fewer implicit and explicit attitudes toward psychotherapy. However, the interpretation of this result is limited, as we had only a small sample of those seeking psychotherapy and a lack of further information (e.g., number of sessions).

When we analyzed the data from parent–youth dyads, we found evidence of similar implicit attitudes toward psychotherapy. Comparable with Study 1, psychotherapy was not more highly stigmatized than medical treatment in youths as well as in parents. The dyadic analyses for implicit and explicit attitudes based on the APIM revealed an actor effect for youths with implicit attitudes being a predictor for explicit attitudes, meaning that higher improved-d scores (a stronger association between medical treatment and positive attributes than psychotherapy and negative attributes) were predictors for more negative explicit attitudes. This might be evidence for a higher congruency in youths implicit and explicit attitudes, whereas parents' explicit attitudes were not predicted by

their implicit attitudes. We did not find partner effects for parents' implicit attitudes being a predictor for youths' explicit attitudes and vice versa. The covariance between youths and parent implicit and explicit attitudes were also non-significant. To sum up, parental explicit and implicit attitudes toward psychotherapy seem to be independent from youths' explicit and implicit attitudes with youths reporting less explicit barriers than parents. This might be due to a higher awareness of mental disorders and their treatment by exposure to interventions (e.g., in schools) aiming to increase mental health knowledge and decrease stigmatizing attitudes toward people with mental disorders (Reavley & Jorm, 2012). These results also indicate that interventions aiming to decrease barriers of help-seeking for mental disorders are well invested in youths who build their attitudes more and more independently of their parent's attitudes when transitioning into adulthood. However, these results also emphasize the need to include parents in interventions to lower barriers to seeking psychotherapy, as they play an important role in supporting their children during the professional help-seeking process (Logan & King, 2001). Lowering barriers to accessing psychotherapy in parents might increase recognition of their child's need for help and encourage them to search for professional help in the event of mental health problems. In conclusion, the results suggest that interventions or campaigns promoting a positive image of psychotherapy might be less relevant than intervention focusing on the reduction of specific barriers toward psychotherapy and deficits in psychotherapy-knowledge. There is evidence that parents should be included in interventions as a valuable resource to support youths in the help-seeking process for a mental disorder.

Limitations

There are some limitations with regard to the use of the IAT to assess implicit attitudes toward psychotherapy (see Meissner et al., 2019). We did not assess whether a negative evaluation of psychotherapy predicts actual help-seeking behavior, as we assessed only help-seeking intentions. We also chose to contrast psychotherapy with a medical treatment, assessing the relative strength of the associations with the attributes. For this reason, we do not know if psychotherapy is perceived as positive, negative or neutral, the only knowledge we have is that psychotherapy is not perceived more negatively compared to a medical treatment. Future studies might choose different implicit measures, for example, a single IAT (Teige-Mocigemba et al., 2008) to evaluate the association of psychotherapy with attributes independent of a reference to a medical treatment.

The age differences might also pose problems as older participants may have very different needs and knowledge compared to younger participants. The gatekeeper role accessing mental health treatment might vary with age and further analyses are necessary to determine to which extent parents are still important gatekeeper for youths in their transition to adulthood. Although youths in emerging adulthood get more and more autonomous, parents still play an important role in their life might be an important

source to discuss sensitive topics (Jiang et al., 2017), for example mental health problems and treatment use. In the parent sample, we had higher participation of mothers (76%) compared to fathers. The sample size was low for dyadic data analysis with an insufficient power of 0.7 to detect an actor effect in youths and a power of 0.05 to detect a partner effect for parents, whereas the power was good with 0.8 to detect an actor effect in parents and 1.00 to detect a partner effect in youths. Therefore, analysis should be conducted with a larger sample size.

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Early Adverse Effects of Behavioural Preventive Strategies During the COVID-19 Pandemic in Germany: An Online General Population Survey

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Abstract

Background: Quarantine and physical distancing represent the two most important non-pharmaceutical actions to contain the COVID-19 pandemic. Comparatively little is known about possible adverse consequences of these behavioural measures in Germany. This study aimed at investigating potential early adverse effects associated with quarantine and physical distancing at the beginning of the countrywide lockdown in Germany in March 2020.

Method: Using a cross-sectional online survey ($N = 4,268$), adverse consequences attributed to physical distancing, symptoms of psychopathology, and sociodemographic variables were explored in the total sample as well as in high-risk groups (i.e., people with a physical or mental condition).

Results: The most frequently reported adverse effects were impairment of spare time activities, job-related impairment, and adverse emotional effects (e.g., worries, sadness). Participants with a mental disorder reported the highest levels of adverse consequences (across all domains) compared to participants with a physical disease or participants without any mental or physical condition. No significant association between the duration of the behavioural protective measures and the severity of adverse mental health effects was observed.

Conclusion: Results showed that non-pharmaceutical actions were associated with adverse effects, particularly in people with mental disorders. The findings are of relevance for tailoring support to special at-risk groups in times of behavioural preventive strategies.



Keywords

quarantine, social, physical distancing, anxiety, depression, somatic symptoms

Highlights

- Physical distancing and quarantine were associated with negative psychological effects.
- The most frequently affected areas were spare time activities, job, and emotional condition.
- Participants with a mental disorder reported the highest levels of adverse consequences.
- No significant relation between duration of the protective measures and severity of adverse effects.

Background

Behavioural non-pharmaceutical interventions and preventive strategies (i.e., isolation, quarantine, and physical distancing) represent the most important first-line interventions to counteract novel pandemics such as COVID-19. Despite its effectiveness, already findings from earlier pandemics suggest that behavioural preventive strategies have psychological costs (e.g., Brooks et al., 2020; Henssler et al., 2021). Similar findings were observed in meta-analyses related to COVID-19 which found small positive associations between the implementation, duration, and stringency of behavioural measures and symptoms of mental disorders (e.g. Jin et al., 2021; O'Hara et al., 2020; Wang et al., 2021). However, another meta-analysis using longitudinal data suggests that the psychological impact of behavioural measures (e.g. lockdown) is weak and heterogeneous at best (Prati & Mancini, 2021), and one meta-analysis comparing countrywide point prevalences of depression and stringency levels regarding early interventions (e.g. countrywide lockdowns) found less severe adverse mental health consequences associated with more stringent early interventions (Lee et al., 2021). Due to the heterogeneity of existing findings, this study aimed at investigating possible adverse effects associated with different behavioural preventive strategies (quarantine and physical distancing), particularly during the early stage of the COVID-19 pandemic in Germany in March and April 2020.

Shortly after COVID-19 was declared a pandemic by the WHO on March 11th 2020, preventive actions were taken by the German government and the federal states. Since March 16th, federal states decided to close kindergartens and schools and the federal government restricted cross-border traffic from a number of neighboring countries. On 23rd of March, a nationwide assembly ban was established, prohibiting assemblies of more than two persons (except people and families living in the same household). Additionally, restaurants and businesses concerned with body care were immediately

closed (Robert Koch Institut [RKI], 2020a), resulting in a partial nationwide lockdown. Despite their effectiveness, comparatively little is known about possible psychological side effects of these preventive actions. Studies from Germany (Benke et al., 2020), Italy (Fornili et al., 2021), the UK (Fancourt et al., 2021), U.S. (Daly & Robinson, 2021), and China (Gan et al., 2022) suggest that government restrictions on daily life (e.g., lockdown and stay-at-home orders) result in significantly elevated levels of psychological distress (mainly increased symptoms of anxiety, depression, and higher levels of loneliness) at the beginning of the pandemic in March 2020. Longitudinal population-based studies in the UK (Fancourt et al., 2021) and U.S. (Daly & Robinson, 2021) suggest that after an initial increase in mental distress during the first wave of the pandemic in March 2020, distress levels significantly declined on the population level, despite continued behavioural restrictions and lockdown measures. It therefore remains unclear, to what extent the observed higher levels of mental distress are directly (i.e., causally) attributable to behavioural preventive strategies. Interestingly and rather unexpectedly, no direct evidence of a dose-response relationship between the intensity (i.e., duration) of the behavioural preventive strategies and levels of psychological distress could be observed, neither in a study from China (Gan et al., 2022) nor an early German study (Benke et al., 2020). Moreover, observed associations between behavioural restrictions and mental distress appear small in terms of effect sizes (Benke et al., 2020; Prati & Mancini, 2021). Gan et al. (2022) interpret this observation as a “psychological typhoon eye effect”, i.e., during an immediate threat, the negative emotional response to a disaster might appear atypically weak at first glance. Alternatively, these findings might suggest that the threat by the disease itself, rather than behavioural precautions might be responsible for the observed adverse mental health effects.

When considering adverse effects of behavioural precautions, three types of strategies have to be conceptually distinguished: (a) isolation (i.e., separation of already infected and thus potentially contagious individuals); (b) quarantine (i.e., separation of individuals with contact to potentially contagious individuals); and (c) social distancing/physical distancing (i.e., restricting social physical contacts as a primary preventive strategy to reduce the number of new infections in the population). Early reviews and meta-analyses suggest adverse mental health effects associated with isolation and quarantine in terms of increased levels of anxiety, depression, and stress (Jin et al., 2021; Wang et al., 2021) and those findings appear similar to results from earlier pandemics as e.g. SARS-CoV or MERS-CoV (e.g., Brooks et al., 2020; Henssler et al., 2021). Still, empirical evidence directly related to different behavioural measures in the COVID-19 pandemic is comparatively sparse. Moreover, earlier reviews and meta-analyses mainly focus on the effects of isolation and quarantine, rather than more general social and physical restrictions that are characteristic of the global response to the COVID-19 pandemic.

The primary aim of this study was to explore the early psychological effects of the most important behavioural non-pharmacological interventions (i.e., physical distancing and quarantine) initiated against the COVID-19 pandemic in Germany in March 2020. Furthermore, this study aimed at examining whether potential high-risk groups within the general population (i.e., people with a current mental disorder or physical disease) were more negatively affected by these actions compared to healthy people without a current mental or physical condition. Finally, it was hypothesized that significant positive dose-response relationships would exist between the duration of the respective behavioural actions (i.e., lockdown, physical distancing, and quarantine) and individual levels of psychological distress or adversities, suggesting first evidence of a causal relationship between the duration of preventive actions and psychological distress levels.

Method

Sample and Procedure

The online survey took place between 25th of March and 13th of April 2020, at an early stage of the virus outbreak in Germany, and was presented in German language. The first cases of SARS-CoV-2 infection in Germany became known at the end of January 2020. On March 25th, about 31,554 cases of SARS-CoV-2 infection, including 149 deaths (worldwide: 413,467 infections), and on April 13th about 123,016 cases, including 2,799 deaths (worldwide: 1,773,084 infections) were registered (RKI, 2020a, 2020b; WHO, 2020a, 2020b).

Participants were recruited via social media (e.g., Twitter), e-mail distribution lists of student councils at universities, and our department's website. In addition to information on the study (type, content, duration, lottery of gift vouchers as compensation for participation), the study announcements included a link to the online study. Inclusion criteria were a minimum age of 16 and informed consent. The study protocol was approved by the local ethics committee.

Altogether, 4288 persons completed the survey. Twenty persons were excluded due to the following reasons: implausible indication of age ($n = 2$), very fast completion of the questionnaire ($n = 3$), long quarantine (> 33 days) for reasons other than SARS-CoV-2 ($n = 6$), long period (> 50 days) of social distancing ($n = 9$) possibly for reasons other than SARS-CoV-2. The final sample consisted of $N = 4268$ persons (Table 1). Of the participants, 10.5% ($n = 449$) reported to be in quarantine themselves (for $M = 9.86$ days, $SD = 3.83$ [range: 2-30]), 27.1% ($n = 1156$) reported to know someone in their close social environment (family/friends) and 34.0% ($n = 1451$) in their wider social environment (e.g., acquaintances or at the same residence) who had been in quarantine. Concerning physical distancing, participants reported to practice it for an average of 11.85 days ($SD = 5.18$, range [0, 50]). While 0.6% ($n = 25$) reported not reducing their physical contacts

at all, 1.7% ($n = 71$) reported to reduce their physical contacts a little, 3.8% ($n = 161$) a medium amount, 23.5% ($n = 1005$) considerably, and 70.4% ($n = 3,006$) very strongly.

Table 1

Sample Characteristics (n = 4268)

Variable	<i>M</i>	<i>SD</i>
Age	32.89	12.07
	N	%
Sex		
Female	3389	78.9
Male	886	20.8
Diverse	13	0.3
Born in Germany	4015	94.1
Professional status		
Employed	1698	39.8
Students	1286	30.1
In school/vocational training	209	4.9
Public servants	209	4.9
Self-employed	204	4.8
Unemployed	145	3.4
Retired	134	3.1
On parental leave	132	3.1
Housewife/househusband	96	2.2
Other	158	3.7
Education		
College/university degree	1866	43.7
General qualification for university entrance	1662	39.0
General Certificate of Secondary Education	529	12.4
Basic school education	117	2.7
Still in school/dropped out of school	74	1.7
Health status		
Healthy	2877	67.4
Physical disease	817	19.1
Psychological disorder	331	7.8
Physical disease and psychological disorder	243	5.7

Measures

Somatic Symptom Reporting

The Patient Health Questionnaire Somatic Symptom Scale (PHQ-15; Kroenke et al., 2002) is a self-administered instrument that assesses the severity of fifteen common somatic symptoms on a scale from 0 (*not bothered at all*) to 2 (*bothered a lot*) covering the preceding four weeks. The PHQ-15 has shown good reliability and validity in previous studies (Gräfe et al., 2004; Kroenke et al., 2002; van Ravesteijn et al., 2009). In the current study, the internal consistency was Cronbach's $\alpha = 0.80$.

Psychosocial Stress

The Stress Module of the Patient Health Questionnaire (PHQ-Stress; Gräfe et al., 2004) assesses psychosocial stressors (including health, work/financial, social, and traumatic stress) that provide indications of potentially causing or maintaining factors of mental disorders. It is a self-report questionnaire and consists of ten questions referring to the last month, which can be answered on a scale ranging from 0 (*not bothered at all*) to 2 (*bothered a lot*). A limited number of studies suggest adequate reliability and validity of the questionnaire (Beutel et al., 2018; Klapow et al., 2002). Internal consistency in the present study was Cronbach's $\alpha = 0.69$.

Anxiety and Depression

The Patient Health Questionnaire Depression and Anxiety Screener (PHQ-4; Kroenke et al., 2009) is an ultra-brief screener for anxiety and depression. It is a composite instrument that consists of two items assessing the core criteria for depression and two items assessing core aspects of general anxiety disorder. The scale ranges from 0 (*not at all*) to 3 (*almost every day*) and refers to the last two weeks. Adequate reliability and validity have been demonstrated (Kroenke et al., 2009; Löwe et al., 2010). The internal consistency in this study was Cronbach's $\alpha = 0.84$.

Loneliness

The three-item loneliness scale (UCLA-LS-3; Hughes et al., 2004) is the short version of the UCLA-loneliness scale (Russell et al., 1980) and assesses subjective isolation. Items can be answered on a scale from 1 (*hardly ever*) to 3 (*often*). Some evidence confirms sufficient reliability and adequate validity of the questionnaire (Hughes et al., 2004). For the current study, the authors translated the three items to German. Internal consistency in the current study was Cronbach's $\alpha = 0.74$.

Strains/Changes Due to Social/Physical Isolation

In order to assess changes and strains due to the pandemic in more detail, participants were asked whether they experienced the following due to social/physical isolation:

more socially isolated/lonely, being separated from important people, lack of leisure activities (e.g., sport), occupational restrictions/job loss, increased computer/internet use, increased TV consumption, more conflicts at home, worsened mood/sadness, worries, anger, boredom, or other. Participants were also asked to indicate how much they felt distressed by the applicable changes/strains on a scale from 1 (*not distressing at all*) to 101 (*extremely distressing*).

Quantifying the Duration of Quarantine and Physical Distancing

First, the duration of current quarantine and the reduction of social (physical) contacts were assessed via two questions (i.e., with an open-ended response format: For how many days have you been in quarantine? For how many days have you been limiting your social contacts?). As an additional, objective criterion for the duration of physical distancing, we computed the number of days since the official lockdown in Germany (23rd of March 2020).

Statistical Analyses

Analyses were conducted using SPSS 23 (IBM Corp., 2015) and JASP 0.13 (JASP Team, 2022). For all tests, the alpha level was set to 5%. Eta-squared (η^2) was calculated as effect size for ANOVAs ($\eta^2 \geq 0.01$ small effect; $\eta^2 \geq 0.06$ medium effect; $\eta^2 \geq 0.14$ large effect) and Cohen's *d* for (post-hoc) *t*-tests ($d \geq 0.30$ small, $d \geq 0.50$ medium, $d \geq 0.80$ large). For correlation analyses, effect size conventions are $r \geq |.10|$ small; $r \geq |.30|$ medium, $r \geq |.50|$ large (Cohen, 1992). For the corresponding Bayes analyses, Bayes factors (BF) were used to quantify the evidence for H_1 and H_0 , respectively (e.g. Jarosz & Wiley, 2014; Nuzzo, 2017).

Results

Psychological Effects of Behavioural Actions (i.e., Lockdown, Social/Physical Distancing, Quarantine)

Strains/Changes Due to Social/Physical Distancing

Of the participants, 1.4% ($n = 59$) did not report any change or distress due to social/physical distancing, 67.4% ($n = 2875$) observed increased computer and/or internet use, 61.7% ($n = 2632$) reported a lack of leisure activities (e.g., sport), 61.5% ($n = 2624$) felt separated from important people, 48.1% ($n = 2055$) reported worries, 44.8% ($n = 1914$) observed increased TV consumption, 42.5% ($n = 1814$) reported occupational restrictions or job loss, 44.2% ($n = 1886$) perceived boredom, 40.7% ($n = 1735$) perceived decreased mood or sadness, 36.9% ($n = 1574$) felt socially isolated or lonely, 17% ($n = 726$) reported to have more conflicts at home, 13.5% ($n = 578$) felt anger, and 12.7% ($n = 544$) noticed other

changes or strains. On average, participants experienced 4.91 changes/strains ($SD = 2.20$, range [0, 12]) and they reported an average level of distress of $M = 54.70$ ($SD = 25.29$, range [1, 101]).

High-Risk Groups With Mental Disorder and/or Physical Disease

Perception of Changes/Strains Due to Social Distancing

The four subgroups (i.e., persons with a physical disease, persons with a mental disorder, persons with both a physical disease and a mental disorder, and persons without any reported physical or mental condition) differed significantly in the number of perceived changes/strains and perceived distress due to the changes/strains (Table 2). According to Bonferroni-corrected post-hoc tests, healthy individuals reported as much changes/strains as individuals with a physical disease ($t = -0.35$, $p > .999$, $d = -0.01$) and were similarly distressed ($t = 1.01$, $p > .999$, $d = 0.04$) but reported less changes/strains and were less distressed than individuals with a mental disorder ($t = -7.31$, $p < .001$, $d = -0.42$; $t = -8.45$, $p < .001$, $d = -0.50$) or both a physical disease and a mental disorder ($t = -5.30$, $p < .001$, $d = -0.35$; $t = -5.34$, $p < .001$, $d = -0.36$). Individuals with a physical disorder reported less changes/strains and were less distressed than persons with a mental disorder ($t = -6.30$, $p < .001$, $d = -0.41$; $t = -8.14$, $p < .001$, $d = -0.53$) and persons with both ($t = -4.66$, $p < .001$, $d = -0.34$; $t = -5.42$, $p < .001$, $d = -0.39$). Individuals with a mental disorder did not differ from individuals who had both a physical disease and a mental disorder ($t = -0.83$, $p > .999$, $d = 0.07$; $t = 1.59$, $p = .675$, $d = -0.14$).

PHQ-15

The subgroups differed concerning their reporting of somatic symptoms, $F(3, 680.65) = 161.49$, $p < .001$, $\eta^2 = 0.12$. Post-hoc tests indicated that all subgroups differed from each other; healthy individuals had lower scores than persons with a physical disease ($t = -11.83$, $p < .001$, $d = -0.48$), individuals with a mental disorder ($t = -15.44$, $p < .001$, $d = -0.92$), and individuals with both ($t = -17.50$, $p < .001$, $d = -1.22$). Further, individuals with a physical disease showed lower scores than individuals with a mental disorder ($t = -6.55$, $p < .001$, $d = -0.39$) and individuals with both ($t = -9.58$, $p > .001$, $d = -0.65$). Individuals with a mental disorder reported less somatic symptoms than individuals with both a physical disease and a mental disorder ($t = -3.23$, $p = .007$, $d = -0.24$).

Table 2

Means Standard Deviations, and ANOVA Results (Frequentist and Bayes) of the Number of Changes/Strains Perceived Due to Social/Physical Distancing and Psychometric Instruments Assessed for the Whole Sample and Different Subgroups

	Subgroups				F test (p); BF _{inclusion} post-hoc tests
	1	2	3	4	
	No mental or physical disease M (SD)	Physical disease M (SD)	Mental disorder M (SD)	Physical disease and mental disorder M (SD)	
Measures of psychological distress	Total sample M (SD)				
Number of changes/strains	4.91 (2.20)	4.92 (2.13)	5.71 (2.25)	5.56 (2.27)	25.64, (< .001); 1.41 *10 ¹³ 1, 2 < 3, 4
Distress due to changes/strains	53.43 (24.98)	52.43 (26.02)	65.70 (22.92)	62.34 (24.49)	37.66, (< .001); ∞ 1, 2 < 3, 4
PHQ-15	5.97 (4.19)	8.05 (4.78)	9.95 (5.16)	11.16 (4.86)	161.49, (< .001); ∞ 1 < 2 < 3 < 4
PHQ-stress	5.17 (3.37)	6.18 (3.54)	7.93 (3.92)	8.20 (3.70)	100.73, (< .001); ∞ 1 < 2 < 3, 4
PHQ-4	3.21 (2.64)	3.59 (2.62)	6.12 (3.28)	5.84 (3.19)	125.15, (< .001); ∞ 1 < 2 < 3, 4
UCLA-LS-3	6.08 (1.75)	5.98 (1.74)	7.09 (1.66)	6.81 (1.82)	60.61, (< .001); ∞ 1, 2 < 3, 4

Note. PHQ-15, Patient Health Questionnaire Somatic Symptom Scale; PHQ-stress, Patient Health Questionnaire Stress Module; PHQ-4, Patient Health Questionnaire Depression and Anxiety Screener; UCLA-LS-3, 3-item short version of the UCLA loneliness scale.

PHQ-Stress

The subgroups differed with regards to their level of psychosocial stress, $F(3, 688.77) = 100.73, p < .001, \eta^2 = 0.08$. According to post-hoc tests, healthy individuals had lower stress levels compared to individuals with a physical disease ($t = -7.34, p < .001, d = -0.30$), a mental disorder ($t = -13.69, p < .001, d = -0.80$), and both ($t = -13.06, p < .001, d = -0.89$). Individuals with a physical disease were less stressed than individuals with a mental disorder ($t = -7.73, p < .001, d = -0.48$) and both ($t = -7.96, p < .001, d = -0.56$). There was no difference between individuals with a mental disorder and both a physical disease and a mental disorder regarding psychosocial stress level ($t = -0.92, p = .793, d = -0.07$).

PHQ-4

The subgroups significantly differed in the screening for depression and anxiety, $F(3, 681.77) = 125.15, p < .001, \eta^2 = 0.11$. Healthy individuals had lower scores compared to individuals with a physical disease ($t = -3.52, p = .003, d = -0.14$), a mental disorder ($t = -18.40, p < .001, d = -1.07$), and both ($t = -14.46, p < .001, d = -0.98$). Individuals with a physical disorder scored lower than individuals with a mental disorder ($t = -14.25, p < .001, d = -0.90$) and both ($t = -11.31, p < .001, d = -0.82$). Individuals with a mental disorder did not differ significantly from individuals with both a physical disease and a mental disorder ($t = 1.21, p = .621, d = 0.09$).

UCLA-LS-3

The subgroups significantly differed in their perception of loneliness, $F(3, 4264) = 60.61, p < .001, \eta^2 = 0.04$. Post-hoc tests indicated that healthy individuals did not differ significantly from individuals with a physical disease ($t = -0.71, p = .895, d = -0.03$), but had lower scores compared to individuals with a mental disorder ($t = -11.59, p < .001, d = -0.68$) and both a physical disease and a mental disorder ($t = -7.65, p < .001, d = -0.51$). Individuals with a physical disease had lower scores than persons with a mental disorder ($t = -9.89, p < .001, d = -0.64$) and individuals with both ($t = -6.61, p < .001, d = -0.47$). No significant difference occurred between individuals with a mental disorder and both a physical disease and a mental disorder ($t = 1.91, p = .224, d = 0.16$).

Associations Between Sociodemographic Factors and Perceived Changes/Strains (Number of Strains and Perceived Distress) Due to Physical Distancing

The results of (frequentist and Bayesian) multiple regression analyses (Table 3) suggest that the number of strains attributed to physical distancing was significantly (and independently) associated with lower age, being female, lower educated, living alone, having a current mental disorder, and having a current physical disease. Similarly, perceived

distress of physical distancing was significantly (and independently) associated with the same factors, except for the presence of a current physical disease (Table 3).

Table 3

Associations (Multiple Regression) Between Sociodemographic Factors and Perceived Changes/Strains (Number of Strains and Perceived Distress) Due to Physical Distancing (N = 4171)

Predictor variables	Dependent variables							
	Number of physical distancing strains (0 – 12)				Perceived distress of physical distancing (0 – 100)			
	B	SE(B)	β	p	B	SE(B)	β	p
Age	< -0.04	< 0.01	-0.21 ^b	< .01	-0.24	0.04	-0.11 ^b	< .01
Sex (1 = female; 2 = male)	- 0.37	0.08	-0.07 ^b	< .01	-4.41	0.94	-0.07 ^b	< .01
Education (1 = low; 2 = medium; 3 = high)	-0.24	0.06	-0.06 ^b	< .01	-4.61	0.68	-0.10 ^b	< .01
Currently unemployed (1 = yes; 0 = no)	0.12	0.19	0.01 ^c	.53	0.56	2.17	< 0.01 ^c	.80
Living alone (1 = yes; 2 = no)	-0.21	0.09	-0.04 ^c	.02	-3.57	1.01	-0.06 ^b	< .01
Children (1 = yes; 0 = no)	0.09	0.08	0.02 ^c	.27	4.22	0.91	0.08 ^b	< .01
Current mental disorder (1 = yes; 0 = no)	0.72	0.10	0.11 ^b	< .01	9.74	1.15	0.13 ^b	< .01
Current physical disease (1 = yes; 0 = no)	0.22	0.08	0.04 ^a	.01	-0.26	0.92	< 0.01 ^c	.78
R^2	.07 ($p < .01$) ^b				.05 ($p < .01$) ^b			

Note. Results of independent Bayesian regression analyses: ^aBF_{inclusion} / BF₁₀ = 3 - 10 (moderate evidence for H₁), ^bBF_{inclusion} / BF₁₀ > 10 (strong evidence for H₁), ^cBF_{inclusion} / BF₁₀ = 1/10 - 1/3 (moderate evidence for H₀); ^dBF_{inclusion} 7 BF₁₀ = 1/30 - 1/10 (strong evidence for H₀); ^eweak/inconclusive evidence.

Associations Between Behavioural Actions (Quarantine and Physical Distancing) and Levels of Psychological Distress

Correlation analyses (Table 4) suggest that current behavioural actions (quarantine and physical distancing) are weakly positively associated with symptoms of stress, anxiety, and depression (PHQ) as well as somatic symptoms (PHQ-15) and loneliness (UCLA-LS-3). The corresponding Bayes factors (BF) suggest moderate to strong evidence for a

positive relationship in all but one of the associations (in case of stress and physical distancing; $BF_{10} = 0.55$ indicating inconclusive evidence for a relationship).

Further correlational analyses focusing on possible associations between the duration of behavioural actions and levels of psychological distress (Table 4) suggest that the duration (in days) since the start of the lockdown is largely unrelated to symptoms of stress, anxiety and depression, somatic symptoms, and loneliness (with correlation coefficients ranging from $-.04$ to $.001$). The evidence in favour of H_0 (i.e., no association between the respective variables) is thereby moderate (somatic symptoms) to strong (anxiety and depression, loneliness), and inconclusive regarding symptoms of stress (PHQ). Using the self-reported number of days regarding physical distancing resulted in almost equivalent findings: correlation coefficients were very small in size (range: $-.03$ - $.04$) with moderate (anxiety and depression, somatic symptoms, loneliness) to strong (stress symptoms) evidence in favour of H_0 (i.e., no association between the respective variables).

Table 4

Associations Between Behavioral Actions and Measures of Psychological Distress

Measures of psychological distress	Quarantine, currently at the day of assessment (1 = no; 2 = yes)	Strength of physical distancing, (1 = no to 5 = extremely)	Days since official lockdown in Germany (23.03.2020)	Self-reported duration physical distancing (days)	Self-reported duration quarantine (days) [‡]
Stress (PHQ)	.06 ^{ab} (.06*)	.04 ^c (.03)	-.04 ^{ac} (-.04*)	.01 ^d (.02)	-.09 ^e (-.09)
Anxiety/ Depression (PHQ-4)	.06 ^{ab} (.04*)	.06 ^{ab} (.06*)	<.01 ^d (.02)	.04 ^c (.06*)	-.04 ^d (-.02)
Somatic symptoms (PHQ-15)	.09 ^{ab} (.08*)	.05 ^{ab} (.04*)	-.03 ^c (-.02)	.04 ^c (.05*)	-.08 ^c (-.05)
Loneliness (UCLA-LS3)	.07 ^{ab} (.05*)	.09 ^{ab} (.10*)	<-.01 ^d (.01)	-.03 ^c (-.02)	-.02 ^d (-.01)

Note. Coefficients represent Pearson's Rho; corresponding partial correlation coefficients conditioned on age, sex and education in parentheses ($n_{\text{partial corr}} = 4171$); results of independent Bayesian regression analyses: ^a $BF_{10} = 3 - 10$ (moderate evidence for H_1), ^b $BF_{10} > 10$ (strong evidence for H_1), ^c $BF_{10} = 1/10 - 1/3$ (moderate evidence for H_0), ^d $BF_{10} = 1/30 - 1/10$ (strong evidence for H_0), ^einconclusive evidence. PHQ = Patient Health Questionnaire; PHQ-4 = Patient Health Questionnaire-4 (brief screening for anxiety and depression). PHQ-15 = 15-item somatic symptom subscale of the Patient Health Questionnaire; UCLA-LS3 = 3-item short version of the UCLA loneliness scale; [‡]subsample of participants reporting at least 1 day of quarantine ($n = 449$; $n_{\text{partial corr}} = 431$).

* $p < .01$.

Similarly, the self-reported number of days in quarantine (for the subsample of participants $n = 449$ reporting at least 1 day of quarantine) showed consistently small negative associations (range: $-.09 - .02$) with symptoms of stress, loneliness, and psychopathology. Bayes factors were indicative of mostly moderate to strong support for H_0 (i.e., no association exists between the respective variables). In sum, support for a dose-response relationship as evidence of causality between symptom severity and behavioural measures was observed neither for the duration of physical distancing nor the duration of quarantine.

Since the day-wise subsamples differ in terms of sociodemographic variables, we additionally computed partial correlations (with statistically controlling for age, sex, and education) as a robustness check (Table 4). The pattern of correlations remained largely unchanged. Only two of the reported associations reached statistical significance (the association between self-reported days of physical distancing and symptoms of anxiety and depression in the PHQ-4: $r_{\text{partial}} = .06, p < .01$; the association between self-reported days of physical distancing and somatic symptoms in the PHQ-15: $r_{\text{partial}} = .05, p < .01$). The changes in the strength of associations are generally small and not indicative of qualitatively meaningful differences, though.

Associations Between COVID-19 Anxiety, Strength of Physical Distancing, Symptoms of Stress and Psychopathology, and Perceived Changes/Strains of Physical Distancing

Associations between COVID-19 anxiety, strength of physical distancing, number of COVID-19 cases and subjective measures of distress and psychopathology are detailed in Table 5. COVID-19 anxiety shows significant medium sized associations with symptoms of stress, anxiety, depression, and somatic symptom distress in the PHQ. Self-reported strength of physical distancing showed only small associations with loneliness, the number of strains of physical distancing and associated distress but not with any of the PHQ measures. Neither the number of days since lockdown nor the daily number of COVID-19 cases were significantly associated with symptoms of stress, psychopathology, or loneliness.

Discussion

The primary aim of this study was to investigate potential early adverse effects associated with behavioural non-pharmacological preventive strategies (i.e., quarantine and social/physical distancing) initiated at the onset of the COVID-19 pandemic in Germany in March 2020. The majority of the studied sample (98.6%) reported significant changes and adverse effects of physical distancing, with restricted spare time activities, job-related difficulties, and negative emotional consequences as the most frequent topics. Regarding

Table 5

Associations Between COVID-19 Anxiety, Strength of Physical Distancing, Symptoms of Stress and Psychopathology, and Perceived Changes/Strains Due to Physical Distancing

Predictor variables	Dependent variables					
	Stress (PHQ)	Anxiety/Depression (PHQ-4)	Somatic symptoms (PHQ-15)	Loneliness (UCLA-LS3)	Physical distancing strains (0 - 12)	Distress physical distancing (0 - 100)
COVID-19 anxiety	.34 ^{ab} (.31 ^{ab})	.30 ^{ab} (.28 ^{ab})	.33 ^{ab} (.30 ^{ab})	.19 ^{ab} (.17 ^{ab})	.14 ^{ab} (.14 ^{ab})	.23 ^{ab} (.22 ^{ab})
Strength of physical distancing (1 = no to 5 = extremely)	-.01 ^d (-.02 ^c)	.02 ^d (.02 ^c)	< -.01 ^d (<-.01 ^c)	.07 ^{ab} (.07 ^{ab})	.09 ^{ab} (.09 ^{ab})	.09 ^{ab} (.08 ^{ab})
Days since official lockdown in Germany (23.03.2020)	.15 ^c (.19 ^c)	.24 ^d (.19 ^c)	.13 ^d (.13 ^c)	.24 ^c (.22 ^c)	.04 ^e (< -.01 ^e)	.19 ^e (.18 ^e)
Daily COVID-19 cases (per million)	-.18 ^c (-.21 ^c)	-.22 ^d (-.16 ^c)	-.15 ^d (-.14 ^c)	-.23 ^c (-.19 ^c)	-.07 ^e (.01 ^e)	-.23 ^e (-.19 ^e)

Note. Table contains beta coefficients of multiple regression analyses; corresponding values after adjusting for sex, age, and education in parentheses ($n = 4171$); results of independent Bayesian regression analyses:

^aBF_{inclusion} / BF₁₀ = 3 - 10 (moderate evidence for H₁). ^bBF_{inclusion} / BF₁₀ > 10 (strong evidence for H₁). ^cBF_{inclusion} / BF₁₀ = 1/10 - 1/3 (moderate evidence for H₀). ^dBF_{inclusion} / BF₁₀ = 1/30 - 1/10 (strong evidence for H₀). ^eweak/inconclusive evidence.

* $p < .01$.

potential high-risk groups, people with a mental disorder (regardless of an additional physical health condition) reported significantly higher levels of adverse effects associated with the social restrictions resulting from physical distancing.

Early reviews on potential adverse effects of quarantine and social distancing (e.g., Brooks et al., 2020) suggest a dose-response relationship between the duration of quarantine and social distancing and the burden of adverse psychological effects. In our study, no such evidence for a dose-response relationship emerged, i.e., no meaningful association was observed between the duration of physical distancing (both at the level of self-report and objective assessment) or duration of quarantine and symptoms of psychopathology. The findings suggest that the (causal) association between the duration of behavioural preventive strategies (i.e., quarantine and social/physical distancing) and symptoms of psychopathology might be smaller than expected, although caution must be taken that these observations might be specific to the situation (and particularly the restrictiveness of the measures) in Germany between March, 25th and April, 14th. Consequently, increased levels of psychopathology observed in early stages of the pandemic (e.g., Benke et al., 2020) might be stronger related and attributable to the perceived threat

by COVID-19, rather than to the behavioural measures imposed to contain the pandemic. In line with this hypothesis, COVID-19 anxiety appears to be stronger related to measures of negative affect and psychopathology compared to the strength of behavioral measures (Table 5).

Overall, our results are in line with a recent meta-analysis focusing on longitudinal and natural-experimental data across Europe, North America, and Asia suggesting that “the psychological impact of COVID-19 lockdowns is small in magnitude and highly heterogeneous, suggesting that lockdowns do not have uniformly detrimental effects on mental health and that most people are psychologically resilient to their effects” (Prati & Mancini, 2021, p. 201). Additionally, the implementation of stringent behavioral measures might not exclusively be associated with more adverse negative mental health consequences but might also serve as a protective factor, not only in terms of physical but also for mental health (Lee et al., 2021). It appears noteworthy that our study focused primarily on physical distancing compared to quarantine. Since the restrictions associated with quarantine appear more stringent and severe, it might be possible that quarantine could have more stable adverse mental health effects compared to physical distancing (e.g. Jin et al., 2021; Wang et al., 2021).

Strengths and Limitations

The generalization of findings is restricted by the nature of the sample: The current sample represents an online convenience sample and therefore consists of a higher percentage of women, younger people, and people with higher education and socio-economic status compared to strictly population-representative samples. Therefore, two opposing biases might be existent in the data: Women and younger people have been found to report higher levels of mental distress (Bräscher et al., 2021), i.e., these groups might increase the distress levels observed in our study. On the other hand, the underrepresentation of people with lower education and socio-economic status might lower the observed distress levels in our study. It is difficult to determine, which of the two trends is stronger in size, but representative samples are needed to confirm the current results.

Because this study relied on self-reported questionnaire data only, the formation of subgroups regarding the presence of a mental disorders or a physical disorder should be interpreted cautiously, and further studies using clinical interviews are necessary to confirm our findings and to quantify the amount of additional distress associated with different kinds of mental and physical disorders.

Finally, the examination of possible dose-response associations between distress levels and the duration of the respective behavioural intervention is limited by the cross-sectional nature of our study, the comparatively short period of data assessment (over the period of 20 days), and early point in time in the pandemic situation. More extended, longitudinal studies are needed to rigorously test the question of possible dose-response

relationships that would be indicative of a causal relation between duration of non-pharmacological interventions and adverse mental health effects.

Conclusion

This study aimed at evaluating possible adverse effects associated with non-pharmacological preventive measures imposed to contain the COVID-19 pandemic in Germany. The findings suggest that most of the participants were negatively affected by the behavioural interventions with restrictions in spare time activities, occupational problems, and negative emotional reactions (e.g., worries, sadness, and loneliness). The adverse effects were highest in people with a mental disorder, suggesting that this group should receive particular attention and support in order to prevent exacerbations of mental distress levels. Significant positive association (as possible evidence of a dose-response relationship) with mental distress could neither be observed for the duration of physical distancing nor for the duration of quarantine, leaving open the question whether higher levels of mental distress observed during early stages of the first wave of COVID-19 are *causally* related to the behavioural interventions.

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Psychotherapy Under Lockdown: The Use and Experience of Teleconsultation by Psychotherapists During the First Wave of the COVID-19 Pandemic

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Supplementary Materials: Materials [see [Index of Supplementary Materials](#)]



Abstract

Background: Facing the COVID-19 pandemic, some psychotherapists had to propose remote consultations, i.e., teleconsultation. While some evidence suggests positive outcomes from teleconsultation, professionals still hold negative beliefs towards it. Additionally, no rigorous and integrative practice framework for teleconsultation has yet been developed. This article aims to explore the use and experience of teleconsultation by 1) investigating differences between psychotherapists proposing and not proposing it; 2) evaluating the impact of negative attitudes towards teleconsultation on various variables; 3) determining the perceived detrimental effect of teleconsultation, as opposed to in-person, on the therapeutic relationship and personal experience; and 4) providing insights for the development of a teleconsultation practice framework.

Method: An online survey was distributed via different professional organisations across several countries to 246 (195 women) French-speaking psychotherapists.

Results: Psychotherapists who did not propose teleconsultation believed it to be more technically challenging than psychotherapists who proposed it, but felt less constrained to propose it, and had less colleagues offering it. Attitudes towards teleconsultation showed no significant associations with therapeutic relationship, personal experience, and percentage of teleconsultation. As compared to in-person, empathy, congruence, and therapeutic alliance were perceived to significantly deteriorate online, whereas work organisation was perceived to be significantly



better. While most psychotherapists proposed remote consultations, they did not provide adaptations to such setting (e.g., ascertaining a neutral video background); nor used videoconferencing platforms meeting privacy and confidentiality criteria.

Conclusion: Training and evidenced-based information should be urgently provided to practitioners to develop rigorous guidelines and an ethically and legally safe practice framework.

Keywords

teleconsultation, COVID-19, attitudes, online psychotherapy, ethics, therapeutic relationship

Highlights

- Psychotherapists differ in their perceptions of teleconsultation as whether they propose it or not.
- Attitudes towards teleconsultation are not related to its use nor to the therapeutic relationship.
- Teleconsultation worsens perceived therapeutic relationship, but improves work organisation.
- Training is needed to improve an ethically and legally safe practice of teleconsultation.

Following the first wave of the COVID-19 pandemic, many countries imposed a lockdown, which resulted in the suspension of various healthcare practices, including face-to-face psychotherapy. Consequently, many psychotherapists had to rapidly adapt their services and propose consultations at a distance, i.e., teleconsultation. Teleconsultation refers to “interactions that happen between a clinician and a client for the purpose of providing diagnostic or therapeutic advice through electronic means” (Pan American Health Organization, 2021). This drastic change in the provision of mental health services was largely improvised as most psychotherapists and professional organisations were unprepared for this challenge.

Some evidence suggests positive outcomes from teleconsultation for the treatment of specific conditions (Acierno et al., 2016; Poletti et al., 2021; Wright & Caudill, 2020). Moreover, recent evidence from the COVID-19 pandemic also shows that most psychotherapists experience remote psychotherapy rather positively (Feijt et al., 2020; Humer et al., 2020; McBeath et al., 2020). These attitudes towards teleconsultation are influenced by a set of factors (Connolly et al., 2020), such as previous online experience, clinical experience (Békés & Aafjes-van Doorn, 2020), perceived ability to develop a strong therapeutic relationship (Aafjes-van Doorn et al., 2021; Roesler, 2017), and perceived therapeutic efficacy (Aafjes-van Doorn et al., 2021). In contrast, other evidence reports that mental health practitioners hold negative attitudes towards teleconsultation (Mendes-Santos et al., 2020; Perle et al., 2013; Varker et al., 2019). Beliefs regarding poor efficacy (Schulze et al., 2019) and ethical limitations (Stoll et al., 2020) of such practices may hamper its

use and implementation, as well as reduce clients' adhesion. Questions regarding the strengths and limitations of online therapy are known topics of discussion among mental health professionals (Rochlen et al., 2004). Therefore, it is important to further investigate current attitudes towards teleconsultation and evaluate their potential impact.

Last but not least, with the drastic transition from in-person to remote consultation, several authors underlined the importance to develop an integrative and balanced practice framework with specific guidelines to inform psychotherapists about the use of teleconsultation (Smith et al., 2020). Boldrini and colleagues (2020) provided a set of recommendations to help professionals support the implementation and use of teleconsultation. Moreover, another team of researchers listed useful evidence-based guidelines for clinicians using telepsychiatry (Smith et al., 2020). However, these recommendations are gathered from country-specific sources (Italy and England respectively), and thus do not allow for a global perspective on the matter. Finally, while a set of valuable recommendations regarding the policy and practice of telepsychotherapy was also developed in field studies (Shore et al., 2018; Van Daele et al., 2020), and suggested by professional organisations (British Association for Behavioral & Cognitive Psychotherapies, 2021), they are largely based on clinical consensus. Further empirical data are thus required to provide a rigorous, ethical, and safe framework to support the provision of remote mental healthcare in times of crisis (Ohannessian et al., 2020).

In this perspective, the present survey aims to explore the use and experience of teleconsultation among French-speaking psychotherapists in order to provide insights regarding its challenges and benefits. First, we hypothesise that there will be significant differences between psychotherapists proposing teleconsultation and those who do not, specifically in terms of attitudes towards it, previous online experience, feelings of constraint, perceived support, and colleagues' usage. Second, attitudes towards teleconsultation will have significant and negative associations with the therapeutic relationship, the personal experience of teleconsultation, and the percentage of teleconsultation proposed. Third, the therapeutic relationship and personal experience of teleconsultation will be perceived as significantly worse than in-person. Lastly, this study will explore how various elements of teleconsultations (e.g., legal and ethical questions, adaptations, etc.) may contribute to the elaboration of a practice framework. Altogether, it investigates the information, skills, and knowledge that would help psychotherapists improve their practice of teleconsultation, in terms of effectiveness, ethics, and well-being at work. Thus, it may serve as a basis for establishing psychotherapists' potential needs for training in teleconsultation, as suggested by recent studies (Van Daele et al., 2020; Wijesooriya et al., 2020).

Method

Recruitment and Procedure

The survey was developed online (on the Qualtrics platform), and distributed via different professional organisations (e.g. UPPCF, AEMTC) to 246 French-speaking psychotherapists between September 15th and October 31st of 2020 in Belgium, France, Morocco, Switzerland, and Tunisia. The study was approved by the IPSY Ethics Committee of UCLouvain (Project 2020-30; approved on June 10th, 2020).

Survey Questionnaire

The questionnaire (Appendix 1, Supplementary Materials) comprises four sections. Section 1 presents the aim of the study and provides informed consent details. If consent was given, participants were asked whether they proposed teleconsultations from the first lockdown (March 16th, 2020) onwards. Those who answered positively were directed to Section 2; others were directed to Section 3.

Section 2 includes questions pertaining to the use and experience of teleconsultation for psychotherapists proposing it. Section 3 examines the attitudes towards teleconsultation of psychotherapists not proposing it, as well as other variables that may shed light on the motives behind their non-adhesion to teleconsultation. Section 4, was given to all participants, and covers demographics, namely gender, level of education, level of psychotherapy training, psychotherapeutic orientation, work status, years of experience, percentage of teleconsultations proposed since June 2020, living situation, number of dependent children and their age, if any, the extent to which the charge of dependent children living at home impacted their psychotherapy activities during the lockdown, age, and country of residence.

Measures

To the authors' knowledge, no valid and reliable measures evaluating their questions of interest were found in the literature. Therefore, the survey's validity and reliability are limited. Survey's questions are detailed below (see Appendix 1 in the Supplementary Materials for the full survey).

Section 2 contains 20 questions inquiring on: 1) whether the number of consultations in 2020 decreased or increased (ranging from -100 to +100%) between March and June, and 2) between July and September, as compared to the same period in 2019; 3) attitudes (i.e., negative beliefs) towards teleconsultation, evaluated on a 5-point Likert scale ranging from 0 "Strongly disagree" to 4 "Strongly agree", from an 11-item ad hoc questionnaire; 4) what remote mediums were utilised (telephone, chat messaging, e-mails, and/or videoconferencing); 5) the type of platforms used (e.g., Zoom, Whatsapp, Whereby, etc.); 6) whether they had prior experience with teleconsultation (No experi-

ence; Experience as a supervisee/or as a patient; Experience as a supervisor; and/or Experience as a psychotherapist); 7) whether they felt constrained to use it (Not at all, Slightly, Moderately, or Strongly); 8) whether their colleagues used it (None; A few, Some, Most, or All); 9) whether they had specific concerns regarding data protection and confidentiality (No; “Yes, I found satisfactory answers”; or “Yes, but I still have questions (specify)”); 10) whether they received support to set up teleconsultation (No, Mild, Moderate, or Complete support); 11) whether (Yes or No), and 12) how they encouraged clients to engage in teleconsultation (selecting from a 10-item ad hoc questionnaire items such as “providing information regarding the efficacy of teleconsultation”, “providing a short free trial on the media used”, etc.); 13) whether they provided adaptations to the teleconsultation setting (“Generally, I did not have to adapt the teleconsultation setting” or “I had to do minor changes”), and 14) how they adapted their online interventions, based on the population (e.g., children, adolescents, adults, etc.), and 15) disorder (e.g., mood disorder(s), anxiety disorder(s), eating disorder(s), etc.). Question 16 investigated the percentage of clients for whom their issue was directly linked to the pandemic, aggravated by it, or independent from it. Question 17 evaluated, on a 5-point Likert scale (from 0 “Highly degraded” to 4 “Highly improved”), psychotherapists’ experience of teleconsultation as compared to in-person for the therapeutic relationship (empathy, congruence, positive regard, and therapeutic alliance). Question 18 asked whether psychotherapists will continue to propose teleconsultation after the pandemic (“Yes, based on the patient/client demand, teleconsultation will be an option”; “Yes, teleconsultation will become major in my clinical practice”; or No). Question 19, evaluated on a 5-point Likert scale (from 0 “Much worse” to 4 “Much better”), psychotherapists’ personal experience of teleconsultation (therapeutic efficacy, professional satisfaction, fatigue/exhaustion, work organisation, and ease of payment) as opposed to in-person. A final open-ended question asked about additional comments/remarks regarding teleconsultation.

Section 3 includes seven questions. First, a 7-item ad hoc questionnaire evaluates on a 5-point Likert scale (from 0 “Not at all important” to 4 “Very important”) psychotherapists’ motives for not providing teleconsultation (e.g., “this mode of communication does not seem appropriate for a psychotherapy”, or “people did not wish to start/continue via teleconsultation”). Then, participants were asked whether they could have received support if they proposed teleconsultation (No, Mild, Moderate, or Complete support); whether they felt constrained to offer it (Not at all, Slightly, Moderately, or Strongly); whether they had previous experience with it (No experience; Experience as a supervisee/or as a patient; Experience as a supervisor; and/or Experience as a psychotherapist); whether their colleagues were offering it (None, a Few, Some, Most, or All); and whether they intended to propose it in the future (No; “Yes, if the pandemic persists”; or “Yes, no matter what”). Finally, the same ad-hoc questionnaire from section 2 investigated their attitudes towards teleconsultation.

Data Analysis

For Hypothesis 1, an exploratory factor analysis (EFA) explored the internal structure of attitudes. The Kaiser–Meyer–Olkin index and the Bartlett sphericity test were computed to assess the robustness of the results. Then, independent *t*-tests evaluated the significant differences in attitudes between psychotherapists who did and did not propose teleconsultation, as well as for previous experiences, feelings of constraint, perceived support, and colleagues' usage. Levene's corrections were used for cases in which variances differed between groups. For Hypothesis 2, Pearson's correlations were calculated between attitudes towards teleconsultation, therapeutic relationship, personal experience, and percentage of teleconsultation. For Hypothesis 3, single sample *t*-tests determined whether teleconsultations were perceived as worse than in-person, for the therapeutic relationship and personal experience. Finally, for Hypothesis 4, single sample *t*-tests and descriptive statistics explored variables related to the use and experience of teleconsultation, and participants' demographics. Qualitative data complemented quantitative results. IBM SPSS Statistics for Windows, Version 21.0, was used for all analyses.

Results

Participants Characteristics

A total of 246 individuals (195 women; 35 men) participated in the study. 16 participants did not fill the entire survey, mainly on demographic questions. They were aged between 25 and 70 years ($M = 42.4$). Out of 230 participants, all were psychotherapists and most of them (186) had at least 3 years of postgraduate training in psychotherapy. They were mostly from Belgium (133), Switzerland (45), and France (37). The majority were self-employed (114) or part-time self-employed (59), while 94 were employees. Most participants identified themselves as CBT (156) or integrative (58) psychotherapists. The majority (158) lived as a couple and 115 had children living at home (average 1.90 children). Dependent children living at home were aged between 0 and 29 years of age ($M = 11.32$). Out of the total sample ($N = 246$), 222 psychotherapists proposed teleconsultation (173 females; 33 males; 16 did not answer), and 24 (22 females; 2 males) did not.

Hypothesis 1

The factorability of the 11 attitudes towards teleconsultation was examined for the total sample. A three-factor solution explained 58.2% of the variance for the entire set of variables, with eigenvalues greater than 1 and a minimum of 10% of variance explained by each factor. The Kaiser–Meyer–Olkin index for sampling quality was good: 0.191, and the Bartlett sphericity test was correct, $\chi^2(55) = 75.84$, $p > .04$. The scree plot also suggests a three-factor solution. The factor solution, after Oblimin rotation, is displayed in [Table](#)

1. The first factor, “attention”, pertains to the belief that teleconsultation entails attention difficulties in both the client/patient and therapist. The second factor, “technical issues”, covers beliefs that teleconsultation requires significant technical skills and infrastructure. The last factor, “interpersonal communication”, reflects the belief that teleconsultation is detrimental to the communication quality between client/patient and therapist.

Table 1

Factor Loadings, After Oblimin Rotation, for the 11 Items of Attitudes Towards Teleconsultation for Psychotherapists Proposing and not Proposing it

Items of attitudes towards teleconsultation	Factors		
	(1) Attention	(2) Technical Issues	(3) Interpersonal Communication (reversed)
I will be too distracted	.883		
I will not be engaged/present enough	.851		
The client/patient will not be engaged/present enough	.647		
There will be too many distractions in the individual	.572		
My personal infrastructure will not be adequate for teleconsultation (e.g., limited infrastructure, isolated room for the session, etc.)	.387	.328	
Teleconsultation requires a good handling of informatics tools		.838	
Technical issues will have too big of an impact on communication		.729	
The lack of non-verbal information will be too important			-.854
Teleconsultation will limit the development of a good therapeutic relationship			-.778
It will be difficult to set up some interventions		.433	-.505
Teleconsultation will increase dropout number in certain individuals (e.g., addictions)			-.357

t-tests were run to determine whether attitudes differed between psychotherapists as a function of whether they proposed teleconsultations. A significant difference was observed only for Factor 2, “technical issues”, indicating that psychotherapists who did not propose teleconsultations believed they entailed more technical issues, $t(32.247) = -3.159$,

$p = .003$, than those who proposed them. Mean differences for each attitude towards teleconsultation between psychotherapists proposing and not proposing teleconsultations are found in Appendix 2, Supplementary Materials.

Most psychotherapists had no experience with teleconsultation before the pandemic, whether they proposed it ($n = 188$) or not ($n = 19$), with no difference between these two groups, $\chi^2(1, N = 243) = 0.764, p = .382$. Most psychotherapists who proposed teleconsultation felt significantly more constrained (i.e., Strongly constrained; $M = 2.78, SD = 1.17$) to do so than those who did not (i.e., Slightly constrained; $M = 1.79, SD = .66$), $t(41.249) = 6.340, p < .001$. In addition, psychotherapists reported having received little support to set up teleconsultation, whether they offered it ($M = 1.69, SD = .88$) or not ($M = 1.75, SD = 1.07$), $t(240) = -.321, p = .749$. Qualitative data indicate that support mainly came from colleagues ($n = 55$), IT services ($n = 22$), supervisors ($n = 13$), friends and family ($n = 15$), and professional associations ($n = 11$). Finally, the majority of psychotherapists ($n = 116$) expressed that some colleagues used teleconsultation. Yet, psychotherapists proposing teleconsultation reported that most of their colleagues used it ($M = 3.24, SD = .87$) as opposed to colleagues of psychotherapists not offering it ($M = 2.38, SD = .77$), $t(241) = 4.677, p < .001$.

Hypothesis 2

No significant correlations above the coefficient .30 were found. However, for exploratory purposes, significant ($p < .001$) and positive associations were found between therapeutic relationship, personal experience, and percentage of teleconsultation (Appendix 3, Supplementary Materials).

Regarding the therapeutic relationship, empathy is correlated with congruence ($r = .389$), unconditional positive regard ($r = .411$), therapeutic alliance ($r = .417$), therapeutic efficacy ($r = .378$), and professional satisfaction ($r = .303$). Thus, the more psychotherapists perceived empathy as better online than in-person, the more the above variables were perceived similarly, and vice versa. Comparably, congruence is correlated with therapeutic alliance ($r = .394$), and therapeutic efficacy ($r = .413$), while unconditional positive regard is only correlated with therapeutic alliance ($r = .309$). Finally, therapeutic alliance is correlated with therapeutic efficacy ($r = .472$), and professional satisfaction ($r = .382$).

Regarding therapeutic experience, therapeutic efficacy is correlated with professional satisfaction ($r = .592$), such that the more psychotherapists perceived therapeutic efficacy as better online than in-person, the more they perceived professional satisfaction as better online than in-person, and vice versa. Therapeutic efficacy is also correlated with percentage of consultation ($r = .343$), meaning that the more psychotherapists perceived therapeutic efficacy as better online than in-person, the more their percentage of teleconsultation increased from June 2020, and vice versa. Similarly, professional satisfaction is correlated with strain ($r = .438$), efficiency in work organisation ($r = .352$),

and percentage of consultation ($r = .356$). Finally, strain is also correlated with efficiency in work organisation ($r = .403$).

Hypothesis 3

Single sample t -tests against 3 (neutral “no change” point) showed significant changes in three aspects of the therapeutic relationship: empathy, congruence, and therapeutic alliance. Specifically, participants perceived that these significantly degraded online as compared to in-person (Table 2).

Table 2

Perceived Effect of Teleconsultation on Therapeutic Relationship as Compared to Face-To-Face (n = 207) (1: highly degraded, 3: no change, 5: highly improved)

Aspects of therapeutic relationship	<i>M</i>	<i>SD</i>	<i>p</i>
Empathy	2.81	0.59	< .001
Congruence	2.76	0.67	< .001
Unconditional Positive Regard	2.96	0.51	.206
Therapeutic Alliance	2.86	0.70	.006

Similarly, single sample t -tests against 3 showed that all variables of personal experience of teleconsultation were perceived as significantly worse online, as compared to in-person, except ‘Organisation, time and task management, etc.’ which was perceived as significantly better (Table 3).

Table 3

Experience of Teleconsultation as Compared to Face-to-Face (n = 206) (1: much worse; 3: no difference, 5: much better)

Variables of personal experience of teleconsultation	<i>M</i>	<i>SD</i>	<i>p</i>
Organisation, time and task management, etc.	3.24	1.17	.004
Ease/Rapidity to receive payments	2.49	0.91	< .001
Therapeutic Efficacy	2.39	0.77	< .001
Professional Satisfaction	2.24	0.96	< .001
Strain, Fatigue	2.24	1.12	< .001

Hypothesis 4

Data From Psychotherapists Proposing Teleconsultation

During the first lockdown (from March to June 2020), consultations significantly dropped by almost 24% ($SD = 46.03$), $t(221) = -7.759$, $p < .001$ (single sample t -test against 0). This decrease was observed for all job status: self-employed ($n = 110$, $M = -24.81$, $SD = 58.46$); employees ($n = 83$, $M = -20.34$, $SD = 42.31$); and part-time self-employed ($n = 47$; $M = -40.28$, $SD = 44.71$). However, from June to September 2020, consultations appeared to have slightly but significantly increased by 6.3%, ($SD = 31.68$), $t(220) = 2.945$, $p = .004$, as compared to the same period in 2019. Such increase is also observed in all status: self-employed ($n = 109$, $M = 2.95$, $SD = 30.09$); employees ($n = 83$, $M = 10.72$, $SD = 30.39$); and part-time self-employed ($n = 47$, $M = 11.57$, $SD = 39.56$). Then, from June to September 2020, 19.1% of consultations, on average, occurred remotely.

Out of 115 participants with dependent children at home, 53.9% did not report a decrease in their professional activities. However, 20.0% slightly reduced (10.0% to 30.0%) their professional activities, 14.8% moderately reduced (31.0 to 60.0%), 6.1% strongly reduced (61.0 to 80.0%), and 5.2% extremely reduced them (81.0 to 100.0%). No significant gender difference was found; such that dependent children did not present more difficulties in professional activities for men, and vice versa.

Participants reported that the majority of their clients ($n = 207$, $M = 64.9\%$, $SD = 24.40$) consulted for reasons independent of the COVID-19 crisis. 12.8% ($n = 207$, $SD = 15.56$) consulted for issues mainly related to COVID-19, and 29.5% ($n = 207$, $SD = 21.23$) consulted for issues significantly aggravated by COVID-19.

Out of 222 participants, 94.1% used videoconference for teleconsultations; 67.1% used the telephone; 12.6% used e-mails; and 4.5% used chat messaging. Regarding videoconferencing platforms, 63.6% of psychotherapists reported using Skype, 42.6% used Zoom, 29.2% used Whatsapp, and 26.3% used Whereby (Appendix 4, Supplementary Materials).

More than half of the participants ($n = 116$, 52.3%) found satisfactory answers regarding data protection and deontology issues, whereas a third ($n = 61$, 27.5%) did not have questions regarding these issues. Still, a fifth ($n = 41$, 18.9%) found answers but had remaining questions, mainly concerning the confidentiality of videoconferencing platforms ($n = 32$).

The majority of practitioners ($n = 119$, 54.6%) set up actions to encourage clients' adhesion (Table 4). Most participants ($n = 128$, 57.7%) did not adapt their practice to the teleconsultation setting, while 27% ($n = 60$) provided minor changes. Some ($n = 19$, 8.6%) adapted their therapeutic procedures (e.g., screen sharing to show schemas or other visuals; printing materials to present before the camera; emailing questionnaires and other documents); others ($n = 18$, 8.1%) adapted their room, desk, and/or video background; and 12 participants (5.4%) adapted their schedules and/or consultation timing and frequency. A small portion of respondents, 12.6% ($n = 28$), adapted significantly their consultation based on the type of population (see Appendix 5, Supplementary Materials),

while 10.4% ($n = 23$) adapted significantly their consultation based on the type of disorder (see Appendix 5, Supplementary Materials). Changes pertained mainly to therapeutic procedures and interventions (e.g., shortened session, flexible schedule, adaptation of interventions, etc.).

Table 4

Actions Set up to Encourage Adherence to Teleconsultation

Actions to encourage adherence to teleconsultation	N = 222	%
Communicating with the patient/client to assess the situation (via email, telephone, or other)	97	43.7
Giving general advice to ensure optimal conditions for teleconsultations (e.g., be in a quiet space to avoid distractions and increase privacy, ensure a good internet connection, have charged devices, etc.)	79	35.6
Underlining the importance of psychotherapy continuity for the well-being of the patient/client	75	33.8
Giving information on the use of virtual platform (or other used media)	69	31.1
Being flexible regarding schedule	67	30.2
Giving information on the privacy of personal data (confidentiality regarding the session and the used media)	51	23
Doing a trial test on the used media	45	20.3
Giving information on the efficacy of teleconsultations	41	18.5
Being flexible regarding payments	29	13.1

Finally, out of 207 respondents, 65.8% ($n = 146$) intend to keep teleconsultation as an option, after the lockdown, if requested by their client. Only, 6.8% ($n = 15$) intend to rely mainly on teleconsultation in their clinical practice. In contrast, 20.7% ($n = 46$) intend to not use teleconsultation anymore after the lockdown.

Qualitative results from participants' comments ($n = 74$) provided additional useful information. Some participants ($n = 12$) underlined numerous advantages (e.g., facility to consult regardless of geographical distance, schedule flexibility), while others ($n = 17$) enumerated disadvantages and difficulties (e.g., increased fatigue, lack of warmth, difficulty to set up specific intervention and/or share therapeutic information). Few ($n = 5$) underlined that there was no important difference between teleconsultation and in-person. Some ($n = 4$) were agreeably surprised by teleconsultation and saw their attitudes improved after using it. Finally, 12 participants explained that the majority of clients refused to pursue via teleconsultation.

Data From Psychotherapists not Proposing Teleconsultation

Only 24 participants did not propose teleconsultation during the lockdown. The two main reasons behind this decision concerned personal issues, and the belief that this type of communication was not appropriate for psychotherapy (Table 5). Open answers showed that personal reasons ($n = 8$) pertained mainly to limited infrastructure ($n = 6$), such as having access to adequate IT material or a private room. More than half ($n = 14$; 58.3%) do not have the intention to use teleconsultation in the near future; over a third ($n = 9$; 37.5%) will use it if the pandemic persists; and one participant definitely intends to use it in a near future.

Table 5

Reasons for Not Proposing Teleconsultation (from 1: not at all important to 5: very important)

Reasons for not proposing teleconsultation	<i>M</i>	<i>SD</i>
Personal reasons (e.g., limited infrastructure, childcare, etc.)	3.75	1.62
This type of communication does not seem appropriate for psychotherapy	3.54	1.10
Individuals did not want to start or pursue via teleconsultation	3.54	1.38
Lack of IT support	3.46	1.44
I have doubts regarding the therapeutic efficacy in teleconsultation	3.13	1.23
The (mental) state of individuals did not require the continuity of therapy	2.42	1.21
Financial reasons (e.g., to receive governmental or other financial aid)	1.75	1.11

Discussion

This survey shows that most psychotherapists rapidly responded to the sanitary crisis by proposing teleconsultations. They did so with little support and no previous experience with teleconsultation. The important drop (24%) in consultations observed during the first lockdown might have fostered for some the rapid transition to teleconsultation.

Regarding the first hypothesis, while psychotherapists who did not propose teleconsultation believed it to be more technically challenging, received less support, and had less colleagues using it, than those proposing it, attitudes towards teleconsultation did not appear to significantly influence its use. Similar findings from a recent systematic review (Connolly et al., 2020) suggest that, overall, practitioners tend to have positive attitudes towards telemental health regardless of its disadvantages. Moreover, they suggest that previous experience as well as repetitive use of telemental health is related to positive attitudes and acceptance of such method. Comparably, our qualitative data suggest that most therapists felt reassured about these issues after gaining some experience with teleconsultation, and surprisingly pleased; a finding also expressed in Elford et al.'s study (2000). Additionally, qualitative data suggest that the main determinant for not proposing teleconsultation lied in contextual factors, rather than being a personal choice.

For example, working in an institution (e.g., hospital, prison) or at home made it difficult to set up teleconsultations due to the lack of appropriate infrastructure (e.g., IT material, stable internet connection, private room). [Connolly et al. \(2020\)](#) describe similar negative attitudes regarding the disadvantages of telepsychiatry but underline that the benefits of such methods often outweigh its costs. Nevertheless, it is important to note that the sample of psychotherapists not proposing teleconsultation in the present survey is rather small, which calls for caution in interpreting the findings.

Rejecting our second hypothesis, no significant correlations were evidenced between attitudes and teleconsultation's use and experience. A similar finding was reported by [Monthuy-Blanc and colleagues \(2013\)](#), such that intention to use telepsychotherapy was not determined by providers' attitudes towards it, neither by how difficult they expected it to be, but merely by how useful they thought it to be to First Nations clients in Australia. Nevertheless, a recent study also reported that therapists' concerns about online connectedness predicted negative attitudes towards teleconsultation and decreased perceived efficacy ([Békés et al., 2021](#)). Therefore, it would be of interest to pursue researching the impact of attitudes on the experience of teleconsultation.

In accordance to our third hypothesis, most aspects of the therapeutic relationship (empathy, congruence, and therapeutic alliance) were perceived as significantly deteriorated online, as compared to in-person, with the exception of unconditional positive regard. Moreover, participants also reported that their personal experience with teleconsultation in terms of ease of payment, work exhaustion, therapeutic efficacy, and professional satisfaction was also perceived as significantly worse online. Unexpectedly, however, work organisation was perceived as significantly better online.

Regarding our fourth hypothesis, a plethora of findings could be used to help in the development of a practice framework. First, privacy and confidentiality information and trainings should be urgently provided to professionals. In fact, in our survey, the majority of platforms used (e.g., Skype, Whatsapp, Messenger) does not reach the minimal legal criteria for privacy and confidentiality (e.g., some platforms record and sell communication data) as requested by psychotherapy. Moreover, ethical concerns are raised by the fact that many respondents (27.5%) did not seem concerned about deontology and data protection issues with respect to teleconsultation. However, current guidelines and recommendations from different countries strongly underline the importance of ensuring the privacy and confidentiality of videoconferencing platforms ([American Psychological Association, 2020](#); [British Association for Behavioral & Cognitive Psychotherapies, 2021](#); [Commission des Psychologues, 2020](#); [Shore et al., 2018](#); [Smith et al., 2020](#); [Van Daele et al., 2020](#)). As [Lustgarten et al. \(2020\)](#) explain, even if some platforms (e.g., Skype, FaceTime) may be familiar for most providers and clients, other platforms may be more secure and legally compliant. These authors also provide further recommendations regarding safe practice. Evidently, guidelines and recommendations must be made more accessible to all psychotherapists, and professional organisations should work actively

in providing recommendations and safe-to-use platforms and apps protecting clients' personal information (Ohanessian et al., 2020).

Second, psychotherapists should keep encouraging clients' adhesion to teleconsultation. In the survey, half of the psychotherapists proposing teleconsultation actively sought to motivate their clients to accept teleconsultation. They mostly kept in touch with them and provided information regarding its use, safety, and efficacy. In fact, showing informational videos discussing the benefits of internet-based mental health services increases clients' acceptance (Ebert et al., 2015). Surprisingly, however, only 20% proposed a trial on the chosen media, while theory and anecdotal evidence suggest this action to be very effective (Sasangohar et al., 2020; Smith et al., 2020).

Third, information and training should be provided regarding contextual and therapeutic adaptations to the teleconsultation setting. In the survey, most therapists did not significantly adapt their way of delivering psychotherapy beyond the switch towards teleconsultation. However, it is important to have a proper and professional setting for teleconsultation (British Association for Behavioral & Cognitive Psychotherapies, 2021; De Witte et al., 2021; Sasangohar et al., 2020; Smith et al., 2020), such as ensuring that their video background conveys a feeling of safety and intimacy, and ensuring that clients are benefiting from a quiet, secure, and undisrupted space for the therapy session. More importantly, therapists should be aware of their clients' location in order to contact them in case of communication failure (e.g., having a contact cell phone number) or emotional breakdown (e.g., having a backup person in the client's immediate surrounding who could be reached and intervene). Regarding interventions, only slight adaptations were provided. Our qualitative data and anecdotal evidence suggest that many therapists avoid interventions entailing the activation of intense or aversive emotions, such as exposure. However, recent evidence suggests that such interventions can be successfully and safely provided online (Wells et al., 2020). Furthermore, few adaptations were reported as a function of clients' age or disorder, although some authors (Smith et al., 2020; Van Daele et al., 2020) emphasise that teleconsultation be adapted to the population, its context, and the conditions they are facing. Other authors and clinicians provide recommendations on how to adapt therapeutic interventions to the teleconsultation setting for groups (Banbury et al., 2018), children (American Academy of Children and Adolescent Psychiatry, 2021; American Psychiatric Association, 2020; Becqueriaux, 2020; Landrum, 2020), as well as for people suffering from eating disorders (Waller et al., 2020) and post-traumatic stress (Kaltenbach et al., 2021; Moring et al., 2020). Nevertheless, such works are still in their infancy and more empirical evidence is needed to optimise the provision of teleconsultation.

The present survey suffers from some limitations. First, it has been conducted online and among French-speaking psychotherapists, thus reducing its reach to participants from other countries, and with minimal Internet literacy and/or accessibility. Second, from a lack of valid measurements in the literature, no psychometrically sound measures

could be used to evaluate our hypotheses. Third, a memory bias may have impacted our findings, as psychotherapists were asked retrospectively about their use and experience of teleconsultation. Finally, it should also be noted that while this survey addressed the first lockdown, the situation kept evolving. Further surveys, targeting the following phases of the pandemic should examine these evolutions in terms of increase in the provision of teleconsultation and professionals' exhaustion.

Conclusion

While some findings enlightened the use and experience of teleconsultation by psychotherapists during the first lockdown, many questions remain in all discussed domains: the impact of attitudes towards the use and experience of teleconsultation; the legal and ethical aspects of videoconferencing platforms; and ways to develop contextual and therapeutic adaptations to the teleconsultation setting. It is the authors' opinion that basic psychotherapy training should address these questions, and that professional organisations should provide detailed information and instructions about the use of ethically and legally safe teleconsultation platforms.

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Supplementary Materials

The Supplementary Materials include the entire survey questionnaire and additional tables related to some results (e.g., mean differences, correlations, etc.). For access see [Index of Supplementary Materials](#) below.

Index of Supplementary Materials

Notermans, J., & Philippot, P. (2022). *Supplementary materials to "Psychotherapy under lockdown: The use and experience of teleconsultation by psychotherapists during the first wave of the COVID-19 pandemic"* [Survey questionnaire, and additional tables]. PsychOpen GOLD. <https://doi.org/10.23668/psycharchives.8181>

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Blended Delivery of Imagery Rescripting for Childhood PTSD: A Case Study During the COVID-19 Pandemic

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Abstract

Background: Despite the growing evidence that trauma-focused treatments can be applied as first-line approaches for individuals with childhood trauma-related PTSD (Ch-PTSD), many therapists are still reluctant to provide trauma-focused treatments as a first-choice intervention for individuals with Ch-PTSD, especially by telehealth. The current manuscript will therefore give an overview of the evidence for the effectiveness of trauma-focused therapies for individuals with Ch-PTSD, the delivery of trauma-focused treatments via telehealth, and a case example on how a specific form of trauma focused therapy: Imagery Rescripting (ImRs) can be applied by telehealth.

Method: This article presents a clinical illustration of a blended telehealth trajectory of imagery rescripting (ImRs) Ch-PTSD delivered during the COVID-19 pandemic.

Results: The presented case shows that ImRs can be safely and effectively performed by telehealth for ch-PTSD, no stabilization phase was needed and only seven sessions were needed to drastically reduce Ch-PTSD and depressive symptoms, and to increase quality of life.

Conclusion: This case report shows the effectiveness of ImRs by telehealth for Ch-PTSD, which gives hope and additional possibilities to reach out to patients with ch-PTSD. Telehealth treatment might have some of advantages for specific patients, especially, but certainly not only, during the pandemic.

Keywords

imagery rescripting, PTSD, telehealth, childhood trauma-related PTSD



Highlights

- ImRs is an effective and highly acceptable procedure for both patients as therapists and seems a very good option for treating Ch-PTSD effectively.
- In the presented case only seven sessions were needed to reduce Ch-PTSD and depressive symptoms drastically, and increase quality of life.
- The delivery of ImRs by telehealth did not have a negative impact on the effectiveness, quality and patient satisfaction; which is in line with systematic reviews on effectiveness of psychological telehealth treatments for PTSD (not ImRs and not specifically Ch-PTSD).

Meta-analytic reviews and practice guidelines recommend Trauma-Focused Cognitive Behavior Therapy (TF-CBT) and Eye Movement Desensitization and Reprocessing (EMDR) as first-line treatments for PTSD (Lewis et al., 2020). Despite the growing evidence that trauma-focused treatments can be applied as first-line approaches for individuals with childhood trauma-related PTSD (Ch-PTSD), many therapists are still reluctant to provide trauma-focused treatments as a first-choice intervention for individuals with Ch-PTSD, especially by telehealth (Wild et al., 2020). The current manuscript will therefore give an overview of the evidence for the effectiveness of trauma-focused therapies for individuals with Ch-PTSD, the delivery of trauma-focused treatments via telehealth, and a case example on how a specific form of trauma focused therapy: Imagery Rescripting (ImRs) can be applied by telehealth.

Individuals with Ch-PTSD are characterized by more complex PTSD symptoms, such as emotional regulation problems, interpersonal difficulties and impaired self-concept (Ehring et al., 2014; Messman-Moore & Bhuptani, 2017). There is a limited number of studies investigating trauma-focused treatment among Ch-PTSD patients (Ehring et al., 2014). A meta-analysis of psychological treatments for Ch-PTSD (Ehring et al., 2014) found evidence that patients with Ch-PTSD can be treated safely with trauma-focused therapies, and that these treatments are effective (moderate to high effect sizes) in reducing PTSD symptoms as well as related symptoms, such as depression, anxiety and dissociation. Furthermore, recent randomized controlled studies show that direct applications of trauma-focused therapies such as prolonged exposure, EMDR, and Imagery Rescripting are very effective and can be performed safely with Ch-PTSD patients (Boterhoven de Haan et al., 2020; Opriel et al., 2021). These studies found large effect sizes for reducing PTSD symptoms as well as other symptoms such as depression, dissociation and trauma related cognitions with trauma-focused treatments in Ch-PTSD patients, with notably low dropout rates (7%) for EMDR and ImRs compared to Prolonged Exposure and Intensified Prolonged Exposure (27% and 29%) and low rates of serious adverse events (Boterhoven de Haan et al., 2020; Opriel et al., 2021).

ImRs as a stand-alone treatment for Ch-PTSD has been studied far less compared to other first line PTSD treatments such as EMDR, Prolonged Exposure, Cognitive Process-

ing Therapy and TF-CBT. Recent findings show that ImRs is a very effective procedure and is highly acceptable for both patients as therapists (Boterhoven de Haan et al., 2020; Boterhoven de Haan et al., 2021; Morina et al., 2017; Raabe et al., 2015). Very large treatment effects on the Clinician Administered PTSD Scale for DSM-5 between baseline and one-year follow-up (i.e., pre-post $d = 2.26$ for ImRs and $d = 1.88$ for EMDR) were found in a recent RCT in which EMDR was compared to ImRs. Moreover, the drop-out rates were low, at 7.7%, suggesting that the treatments were well tolerated by participants (Boterhoven de Haan et al., 2020). No differences in effectiveness and dropout between EMDR and ImRs for Ch-PTSD, were found. However, ImRs was superior for those with comorbid depression, which is highly prevalent in PTSD patients (70% in the IREM sample) (Assmann et al., 2021). To date, cost effectiveness studies in ImRs have not yet been performed. ImRs might be potentially more cost-effective than EMDR, because of lower training costs and shorter sessions (60 vs 90 minutes). It is also still not clear how session frequency impacts the effectiveness of PTSD treatments, whether treatment type moderates the frequency effect, and which treatment type and frequency works best for which patient (Wibbelink et al., 2021). ImRs uses a different method compared to prolonged exposure and EMDR, therefore, ImRs might additionally work for patients who do not benefit from other PTSD treatments. Research shows that ImRs compared to prolonged exposure leads to less dropout (Arntz et al., 2007) is experienced as less distressing (Siegesleitner et al., 2019) and is more effective regarding anger control, hostility and guilt. ImRs might therefore be indicated especially for a specific group of patients who experience difficulties in these areas and PTSD patients with comorbid depression (Assmann et al., 2021; Bosch & Arntz, 2021).

In ImRs for PTSD, patients are asked to vividly recall a traumatic experience whereafter patients are asked to imagine that an intervention takes place that changes the course of the original memory into an image in which the needs of the patient are fulfilled (Arntz, 2012; Arntz & Weertman, 1999). In ImRs several therapeutic steps are used to modify the content of traumatic memories into new positive images in order to change the meaning of the trauma memory representation, by adding new and corrective information about the meaning of the event. ImRs is thought to reevaluate unconditioned stimuli and thereby reduce conditioned stimuli-elicited affects (Arntz, 2012). This is done by adding new information into the memory representation of the unconditioned stimuli; by for instance adding information on the needs of little children and taking care of the patients' needs in the traumatic event. ImRs for PTSD is performed in phases. In the first phase, which usually has a duration of six sessions, patients are asked to close their eyes and imagine a concrete negative traumatic experience as vividly as possible, until enough emotional arousal is achieved usually around a specific traumatic moment in the memory representation. Prolonged exposure to the most traumatic aspect of the memory is not necessary, the therapist enters the image when arousal levels are still manageable for the patient. The therapist rescripts the image by establishing safety for the child,

and in the following steps, further needs of the child are taken care of, and the child's emotions are validated. The perpetrator is confronted and held accountable for their actions and responsibility and, if necessary, helped to do better in the future or to be punished and/or eliminated so he/she cannot cause any harm. In the second phase of treatment, usually after 6 sessions, after trauma-memory activation (from the child perspective), ImRs is performed in three steps (1) patients are asked to imagine the image as an adult in order to experience what they feel, think and are inclined to do from their present adult perspective. (2) Thereafter they are stimulated to intervene in the image and do whatever they think is needed for their own little child. (3) Patients are subsequently asked to experience the interventions by their adult self again from the perspective of the child in order to experience how it feels when needs are fulfilled (Arntz & Weertman, 1999). A recent study investigated the perspectives of patients and therapists regarding the elements of change in IMRS. Patients mention, caring for the child by the therapist when the therapist rescripts the traumatic event, speaking up to the perpetrator, the positive connection they had with the therapist and the encouragement they received from him or her as important elements of change (Bosch & Arntz, 2021).

Delivering ImRs by telehealth (e.g., delivering psychological therapy remotely via video conferencing) to patients with PTSD poses challenges to both therapist and patients (Paulik et al., 2021). The need for remote delivery of psychological treatments increased drastically due to the COVID-19 pandemic, because of closure of outpatient facilities, travel restrictions, and home confinement. Up to date, the study of delivery of ImRs via telehealth has been limited to a few cases (Paulik et al., 2021). However, several systematic reviews on effectiveness of psychological telehealth treatments for various disorders including PTSD (not ImRs and not specifically Ch-PTSD) have been performed, which in general show that the effectiveness, drop-out rates, quality and patient satisfaction, is comparable to face-to-face therapies (Berryhill et al., 2019; Bolton & Dorstyn, 2015; Finkelstein et al., 2006; Simpson, 2009; Sunjaya et al., 2020; Varker et al., 2019). Despite this ample evidence to support the use of telehealth therapy for mental health conditions, therapists and patients however may be hesitant to perform telehealth therapies targeting memories of traumatic experiences. Paulik and colleagues (2021) describe key clinical considerations and recommendations for delivering ImRs by telehealth: the importance to consider the context (living condition, level of privacy during therapy, levels of COVID-19 restrictions, voluntariness of choice for telehealth) perceived and real safety (being physically safe and having a safe place to perform ImRs); practical (travelling time, preparation structure of sessions, camera position, exhaustion levels of therapist, quiet environment) and technological issues (stable connection, type of device) therapeutic alliance (reduced level of eye contact, more difficult observation of body language); depth of emotional processing (stimulating visualization and emotionally connect to the image); and dissociation (strategies to stop dissociation). ImRs might be more easily adapted to telehealth delivery than other trauma-focused methods such

as EMDR because ImRs does not require dual stimulation tasks, and during rescripting patients have their eyes closed and are not focused on the therapist. ImRs also does not require the provision of materials in the sessions, such as handouts for completion of homework (Paulik et al., 2021). In the following a case illustration is given of the application ImRs protocol by telehealth.

Case Illustration

Presenting Problem and Client Description

The case report is presented with permission of the patient, for privacy reasons several changes were made to the report (e.g. names, dates). Larry is a 42-year-old divorced, unemployed man, who was referred by the Assertive Community Treatment team (ACT) to the trauma department of a mental health care center in the Netherlands for treatment of Ch-PTSD. ACT is a service-delivery treatment model that provides comprehensive, locally based treatment to people with serious and persistent mental illnesses (Drukker et al., 2011). During the assessment phase the following DSM-5 classification was made based on the following semi-structured clinical interviews: SCID-5-P (First et al., 2015); SCID-5-CV (First et al., 2016) and CAPS-5 (Weathers et al., 2018): antisocial personality disorder with schizoid- and borderline personality traits; depression, ADHD and chronic childhood Ch-PTSD. He suffers from low self-esteem, difficulties in aggression regulation, and difficulties with maintaining intimate relationships. He feels detached from others, is hyperalert, worries a lot and can be impulsive, experiences nightmares and sleeping problems. Larry functioned on the fringes of society for several years, but has recently found a volunteer job and now lives independently. He has a limited social network because of his distrust of others.

Larry grew up in a family in which he did not feel safe and connected. Larry was the middle child of three. Larry has few memories of his childhood and mentions that he was a hyperactive and difficult child. He felt unwanted as a child and had an emotionally detached father who worked a lot and a gentle mother who was a housewife. She died in a car accident caused by a drunken driver when Larry was 6 years old. Larry was not allowed to attend the funeral because his father did not let him attend it. After his mother passed away, his brother, grandparents, and friends looked after Larry when Larry's dad attended work. Larry was sexually abused by the father of a befriended family, who baby-sat Larry, from his seventh till tenth year of age. At school Larry experienced concentration and behavioral problems and regularly got into fights. There was very little support and attention for him at home. He went to technical secondary vocational education. He quit school after getting beaten up by a group of boys at age sixteen. He met his wife at age eighteen, they married after she got pregnant. Larry once forced his wife to have sex after which she filed a divorce. She left him with their child,

which was three years old at that time. After the divorce, Larry did not see his daughter anymore. Larry held numerous jobs and often experienced conflicts at work. He got addicted to gambling and into serious debts, he lost his house and lived on the street for three years. During this stressful period, he experienced several psychotic episodes; the first around age of thirty-two. Because of the psychotic experiences Larry sought mental help and his general practitioner referred him to a ACT team. The ACT team helped him to reduce psychotic problems, depressive complaints and helped him to live independently again. He found volunteer work and restored contact with one brother and one friend. His psychotic symptoms were resolved and he succeeded in living independently again. He now lives a tranquil and isolated life, with which he seemed satisfied. Larry drank about five beers a day and smoked weed occasionally; he received anti-psychotic-, anti-depressants-, anti-ADHD- and sleep medication. He was referred for trauma therapy by the ACT team and was offered to take part in the IREM-freq study.

The IREM-freq study design is registered in NTR7153 and approved by the ethics committee of the University Amsterdam. The design manuscript of the study was submitted recently (Wibbelink et al., 2021). Larry was randomly allocated to the two times a week ImRs condition, 90 minutes per session with a maximum of 12 sessions. In the IREM-freq ImRs protocol the therapist rescripts the traumatic situation in the first six sessions, from the seventh session till twelfth session the patient as his current self-rescripts the traumatic event (Boterhoven de Haan et al., 2020). Due to the pandemic, the face-to-face sessions had to be stopped, and treatment was continued online. Because of methodological considerations, the study participants that could not be treated vis-à-vis were excluded from the IREM-freq study (see Wibbelink et al., 2021, and trial registration). Therefore, the case of Larry could be separately presented. Larry was a friendly, quiet, reserved but cooperative man who made the impression to be at ease living an isolated life. The therapist felt sympathy and empathy for him. Larry did not show any aggressiveness to the therapist, nor did he evoke any negative or intense countertransference emotions.

Course of Treatment

The first two sessions were delivered face-to-face, after which the COVID-pandemic led to delivering the treatment online. In the first session trauma processing does not take place. In this session the therapist got acquainted with Larry and explained the rationale of ImRs. The therapist and Larry made a list of traumas that Larry wanted to address. This list included trauma's that contributed to the PTSD diagnosis as well as traumas that did not qualify for the A-criterion of PTSD in the DSM-5 definition of PTSD. The list is considered to be flexible, the patient can add trauma's during treatment and/or can change the order in which traumas are addressed. In the first session a trial ImRs intervention with a mildly negative memory, preferable before age of 12, is provided to

let patients become familiar with ImRs. In Larry's case this was getting beaten up at school.

Larry's list of traumas included the following themes:

- Sexual abuse at age seven till ten years of age
- Death of his mother at the age of six
- Getting beaten up by a group of boys at age 16
- Being threatened by a motorcycle gang at age 40
- Aggressive behavior against and sexual abuse of his ex-wife at age 22

In the second session, the first active ImRs session, the loss of his mother due to a car accident was processed. Larry was not allowed to see his mother after the accident and to attend the funeral. Larry therefore was not able to properly take part in his mother's farewell. His family members didn't talk about her death after the funeral.

Therapist: *Please close your eyes Larry, I would like you to speak in the present tense and the I-form as if the situation which we will process is happening right now. Please go back to the situation where your mother died. Where are you? What is happening?*

Larry: *I see my mom; she is crushed in the car (Crying). I'm overwhelmed and feel sad.*

Therapist: *What do you need?*

Larry: *I'm so lonely. Somebody should comfort me.*

Therapist: *I'm here. Oh Larry, this must be so sad for you. It is okay to cry, losing your mommy is a great loss. I'll take care of you. Let me comfort you. I'll put my arms around you. Is there anything else you need?*

Larry: *I feel calmer now.*

Therapist: *And the drunk driver, is something needed towards him?*

Larry: *Yes! He gets away with it. He should be punished.*

Therapist: *Okay, I'm still there, I'll confront this driver. How can you be so irresponsible? Do you realize what you have done? You just killed a mother of this friendly little boy who needs his mother. And how dare you to just leave the scene of the accident and just drive through. This is a crime; you belong in jail! Police officer please incarcerate this man.*

Larry: *I see them taking him away.*

Therapist: *What would you like to happen now?*

Larry: *I want to see my mom and tell her that I love her. I want to say goodbye.*

In the rescripting Larry felt very lonely and in need of support and comfort. He felt relieved to get comforted in the rescripting *and* experienced a reduction of feelings of revenge towards the drunken driver.

Because of the COVID-19 pandemic and the government restrictions of the lockdown Larry was not able to attend physical appointments. Larry was therefore asked if he would like to continue the ImRs by telehealth, to which he agreed. In the following session the use of telehealth by secured video call was set up, because the sound of the video call was of poor quality the audio of the videocall was delivered by phone.

The third ImRs session was performed via telehealth. Notably Larry was very much at ease at his own home, he was drinking coffee, smoked cigarettes and spontaneously interrupted the sessions by going to the toilet and was distracted by his cat who walked on his keyboard. These behaviors are not uncommon when delivering therapy by telehealth (Paulik et al., 2021). Practical agreements such as quiet environment without distractions should be made, preferably in advance, in order to perform ImRs successfully by telehealth. The therapist and Larry therefore discussed how Larry could best profit from the telehealth sessions. They agreed on Larry attending telehealth sessions similar to the face-to-face sessions (e.g. no distraction, drinks and toilet visits, the ImRs procedure could thereafter proceed in exactly the similar manner as to face-to-face ImRs. After these ground rules were set, therapist and Larry carried on with the ImRs procedure and succeeded to process the most important index trauma the sexual abuse. The (index) trauma that they worked on was memory of the first time that the sexual abuse took place. This was a situation in a car in which he had to perform oral sex The abuse always took place in this car; therefore, this situation was exemplary of the majority of the sexually abuse experiences. In the rescripting Larry felt very anxious and in need of protection.

Therapist: *I step into the image, do you see me? I take you out of the car immediately, come and stay behind me Larry. I lock the car, he cannot get out anymore. What are you doing? You are damaging Larry, that is very bad and mean. I brought police officers with me. Arrest this man! He is abusing Larry. Incarcerate this filthy man! What do you see Larry?*

Larry: *I see him being taken away.*

Therapist: *What else do you need?*

Larry: *I feel shaky and anxious. What happens when they let him go?*

Therapist: *I'll tell the police to lock him up forever. He will not be able to hurt you anymore. You are safe now Larry. Is there anything else you need?*

Larry: *I feel lonely and sad.*

Delivering safety to Larry was followed by condolence. Larry wished his dad would comfort and help him. In the rescripting it became clear that Larry's father was not able to comfort Larry, he neglected Larry. The therapist therefore confronted Larry's dad that it is his task as a parent to take care for Larry and provided safety and comfort to little Larry. Thereafter, therapist continued rescripting by giving comfort to little Larry. Little Larry was explained that he was not guilty of the abuse, but the perpetrator was, and that the man who abused him misused the vulnerability of Larry and should be punished for his actions. The therapist reassures little Larry that if needed the therapist would be there for Larry, *therapist: every time you'll need me, I'll be there for you*. At the end of the rescripting Larry wants to play soccer with a friend. Larry feels happier and less guilty at this point.

In the 4th session (second telehealth session) Larry wanted to address his own sexually aggressive behavior towards his ex-wife, which led to a divorce and loss of contact with his child. The hotspot in this situation was his sexually behavior in their bedroom.

Therapist: *Okay Larry, I'm here. What do you need right now?*

Larry: *I feel so bad, I want to stop myself. Because Larry explicitly wanted to take action himself, the therapist decided to violate the ImRs protocol by letting adult Larry rescript the situation (fourth session instead of seventh session), assuming that it would be more powerful and effective when Larry would address his own aggressive behavior.*

Therapist: *What does adult Larry want tell to the twenty-two-year-old Larry, go ahead tell him.*

Larry: *You fool, stop immediately. You should never do this; this is so wrong. Get out, you are destroying your life and that of your family.*

Therapist: *How does the twenty-two-year-old Larry react?*

Larry: *He startles, he's ashamed so badly (crying).*

Therapist: *What else would you like to do?*

Larry: *I want to tell my wife I'm sorry.*

Therapist: *Okay, tell her as current Larry what you want to say, go ahead.*

In the rescripting, current Larry acknowledges to his ex-wife that he has a deep remorse.

Therapist: *Is there anything else you feel like doing?*

Larry: *I want to tell my daughter how sorry I am. That I've been wrong. I don't want to take the father role in her life. But I want her to know I miss her.*

Therapist: *Go ahead Larry.*

Current Larry apologizes to his current daughter in the rescripting. After that he feels the need for comfort because of all his losses, the therapist offers this to him in the image by giving him a hug and by validating his feelings and speaking out comforting words. He feels relieved afterwards.

In the 5th session (third via telehealth) Larry addresses a situation in which he was beaten up by a group of boys. The sudden confrontation appeared to be the most traumatic point of the memory of this situation. Little Larry felt in need of safety and wanted to escape the boys.

Therapist: *I want you to know that it is not your fault. This must have been very scary for you. They should be ashamed that they're threatening you and beat you up while they're with so many. How do you feel now? What do you need?*

Larry: *I'm very angry. They should be punished. They should experience the same as what they did to me.*

Therapist: *You guys are so bloody mean; you should feel ashamed of yourselves. I'll hit you and kick you wherever I can. If you'll do this again, you'll meet me once again. How do they react? Did I punish them enough or is more needed?*

Larry: *I don't know. It feels bad to see them beaten up. I rather have the police take them into custody, let them be scared.*

Therapist: *Very well, we rewind the film.*

Therapist: *You have no right to be so cruel to this boy. I have brought police officers with me. Police officers take care of this scum, make sure they'll never harm Larry again and to inform their parents about their gratuitous violence.*

Once Larry felt safe he felt that the boys needed to be punished for their deeds and he wanted to be sure that they would never harm him again. The therapist informed the police who took the boys into custody.

Therapist: *Does it feel okay for you now, or are you in need of something else?*

Larry: *It is okay, I feel calm now.*

Therapist: *Shall we do something nice?*

Larry: *Let's play soccer.*

Therapist: *Let's go to the square and have some fun. Feel the sun, smell the grass. Enjoy playing soccer for a while..... open your eyes and return to the here and now.*

Larry felt relieved and at ease after the ImRs.

In the 6th session Larry chose a situation in which he was threatened by a motorcycle gang whereby he felt very unsafe for several days. At the start of the threats, he didn't dare to go to sleep for days which resulted in sleep deprivation and subsequently a psychotic episode. The most traumatic moment of the memory in this situation was the moment he was told that he was dating a former girlfriend of a member of the motor cycle gang and he realizes he is in trouble. In the rescripting Larry feels anxious and is in need of safety. Therapist rescripts the situation by rescuing Larry by taking him out of the situation. After Larry is safe, he wants to be sure they'll never harm him again. The motor gang is incarcerated by the police and they get locked up. Larry feels relieved and at ease after the rescripting.

From the 7th session (fifth telehealth session), following the protocol, the patient rescripts the traumatic event as his current self and therapist coaches the adult-self when necessary, to do what is needed. At the start of the session Larry shares that he no longer feels anxious when he hears the sounds of motor bikes. In this session Larry wants to address the sexual abuse because it is still bothering him, the same traumatic situation in which Larry got abused again was processed for a second time. At first Larry was asked to step into the situation as little Larry. The most traumatic aspect of the memory of the situation was the moment at which the sexual abuse was going to take place.

Therapist: *What do you need right now?*

Larry: *I want to get out of the car, I want to get away.*

Therapist: *Okay, keep your eyes closed and step into the situation as adult Larry. What is happening? What do you see?*

Larry: *I see little Larry, he is so scared. It makes me angry.*

Therapist: *What would you like to do right now?*

Larry: *I want to beat the man up and to have the police lock him up forever. He is not allowed to abuse little Larry.*

Therapist: *Okay. Go ahead, do what you want to do.*

Adult Larry confronts the abuser.

Larry: *I tell him he is not worth living, that he is really disgusting and that everybody should know what he has done, you're a fucking loser. I beat the hell out of him.*

Therapist: *How does little Larry react?*

Larry: *He feels that justice is done. He is peaceful now.*

Therapist: *Larry what inclination do you have now?*

Larry: *I want to tell little Larry that he can't help it, he is innocent and a good boy. I am always there for him.*

Therapist: *Very well, just say that directly to little Larry.*

Larry: *[speaks directly to little Larry]*

Therapist: *Is there anything else that's needs to be done?*

Larry: *No, it is okay now.*

Therapist: *What about your father, does he need to know?*

Larry: *Maybe. I don't know, we can try.*

Therapist: *Let's go to your father, what do you want to tell him?*

Larry: *I tell him what happened.*

Therapist: *How does your father react?*

Larry: *He startles. He feels uncomfortable. He doesn't know how to react.*

Therapist: *Is there anything else you want to tell him?*

Larry: *You should have been more careful, and looked after little Larry; he needs you to be there for him.*

Therapist: *How does little Larry react?*

Larry: *He is sad. He needs a hug. My father is never going to give him that.*

Therapist: *Is there anything you can do for little Larry?*

Larry: *I'll hug him till he is calm.*

When adult Larry feels satisfied the therapist tells Larry: *Ok, keep your eyes shut. Go back to the situation, but now as little Larry and start the film from beginning and tell me what happens when adult Larry intervenes?* In the end the therapist asks little Larry: *What would you want to happen right now?*

Little Larry: *It feels awkward that my father doesn't know how to react. I want adult Larry to tell it is not my fault.*

Therapist: *Go ahead, ask adult Larry what you need. What does adult Larry do?*

Little Larry: *He tells me I'm a good boy, that it is not my fault that father is clumsy. A father shouldn't be that neglective but should be giving his son attention and see his need for comfort after having lost his mother and after what he went through during the abuse. He tells me that father is not capable of giving that to me. He gives me a hug.*

After which they leave the house to play soccer together, they have fun and the little Larry feels relaxed.

In the eight session (sixth telehealth session) Larry states that he is no longer experiencing nightmares and flashbacks and feels that he has progressed enormously in treatment; he does not have any situations anymore which he wants to address. Larry also feels at ease that there currently is no contact with his daughter and grandchildren, he feels resignation about this situation. Larry wished that he received ImRs much earlier in his life. After PTSD treatment, Larry was able to reduce his antidepressant (90%) and sleep medication (50%). Larry was inclined to stop with the ACT treatment which he received for several years.

Therapy Outcome and Prognosis

Larry was considered an early completer because he only needed seven out of twelve sessions. Therapy outcome and prognosis for Larry, were very good. The follow-up assessment of self-reported and clinician administered PTSD symptoms, quality of life, general psychiatric symptoms and trauma related cognitions about self and others showed dramatic, significant and clinical improvements (see [Table 1](#)). The prognosis of Larry is expected to be very good based on the follow up results after 1 year.

Table 1*Results on Outcome Measures at Baseline, After Completion of ImRs and Follow up*

Measure	After completion		
	Baseline	of ImRs	1 year follow up
Clinician Administered PTSD Scale for DSM-5 (Weathers et al., 2018)	33	9	3
PCL-5 index trauma (Weathers et al., 2013)	51	10	15
PCL-5 other traumatic events	51	9	15
WHODAS 2.0 (Üstün et al., 2010)	47.92	16.67	12.50
Symptom Check List-90 Hostility (Derogatis & Unger, 2010)	6	6	6
PTCI (Foa et al., 1999)			
Negative cognitions about self	4.48	2.14	1.86
Negative cognitions about world	5.57	2.86	1.71
Self-blame	5.40	2.40	4.40
EuroQol EQ-5D-5L Quality of life VAS (Busschbach et al., 2016).	0.43	0.77	0.85
Average of general Dutch population age group 40-49 = .85, SD = .20)			
Beck Depression Inventory BDI-II (Beck et al., 1996).	28	6	7
Happiness (Abdel-Khalek, 2006).	Fairly unhappy	Fairly happy	Entirely happy

Discussion

Larry's case is unfortunately exemplary for patients with Ch-PTSD in which underdiagnosis and undertreatment is common. PTSD is often not diagnosed; only 2% to 11% of the patients with PTSD actually have their diagnosis noted in the medical record in primary care and 18-35% in mental health care centers (Kantor et al., 2017; Meltzer et al., 2012). Unfortunately, less than half of the patients with PTSD diagnosed, or even fewer, actually receive treatment for PTSD (Kantor et al., 2017; Meltzer et al., 2012). This creates a major risk for escalation of clinical disorders (such as psychosis in Larry's case), chronicity and long treatments, poor quality of life and high societal costs. Early detection and treatment of PTSD urgently is needed in order to counter these negative effects. ImRs has proven to be an effective and highly acceptable procedure for both patients as therapists and seems a very good option for treating Ch-PTSD effectively (Boterhoven de Haan et al., 2020; Morina et al., 2017; Raabe et al., 2015). In Larry's case,

which at forehand seemed to be a very complex case, only seven sessions were needed to reduce PTSD and depressive symptoms drastically, and increase his quality of life. By just following the treatment protocol, the application of ImRs could be performed by telehealth in a regular manner in quiet a complex case. This is in line with research previous findings which show that trauma focused therapy (e.g., EMDR and imaginal exposure) is effective, safe, and feasible in patients with PTSD and complex symptoms such as severe psychotic disorder (van den Berg et al., 2015). The delivery of ImRs by telehealth did not seem to have a negative impact on the effectiveness, quality and patient satisfaction; which is in line with systematic reviews on effectiveness of psychological telehealth treatments for PTSD (not ImRs and not specifically Ch-PTSD) (Berryhill et al., 2019; Bolton & Dorstyn, 2015; Finkelstein et al., 2006; Simpson, 2009; Sunjaya et al., 2020; Varker et al., 2019). In Larry's case the delivery of ImRs by telehealth proceeded similar to face-to-face sessions. It might have helped that the initial start of the trajectory was face-to-face due to which patient and therapist got acquainted before switching to telehealth. Larry's context might be favorably to telehealth, he had had a good internet connection, lived by himself –privacy was guaranteed - and was motivated to continue treatment by telehealth. It however might be helpful if basic agreements on how ImRs by telehealth is delivered and in which manner patients can take care for privacy, quiet environment, good stable internet connection, focus during sessions and how to deal with possible dissociation, were discussed in advance (Paulik et al., 2021). It is important to investigate the effectiveness of delivering ImRs by telehealth in an adequately designed and powered study. Furthermore, it is unlikely that telehealth is applicable to all patients; some patients might respond better to face-to-face ImRs compared to ImRs delivered by telehealth. It is important to investigate patient and context characteristics in order to improve treatment selection. It is important to note that application of telehealth and effectivity of telehealth might also depend on therapists' attitudes towards telehealth applications. Therapists might be reluctant to perform PTSD treatments online, which might interfere with outcomes and extensive application of telehealth. However, several systematic reviews on effectiveness of psychological telehealth treatments for various disorders including PTSD show that the effectiveness, drop-out rates, quality and patient satisfaction, is comparable to face-to-face therapies (Berryhill et al., 2019; Bolton & Dorstyn, 2015; Finkelstein et al., 2006; Simpson, 2009; Sunjaya et al., 2020; Varker, Brand et al., 2019). Which might indicate that this reluctance and attitudes towards telehealth might not be justified. In conclusion, Larry's case illustrates that ImRs can be safely and effectively performed by telehealth for ch-PTSD, no stabilization phase was needed and only seven sessions were needed to drastically reduce Ch-PTSD and depressive symptoms, and to increase quality of life. This gives hope and additional possibilities to reach out to patients with ch-PTSD due to the fact that telehealth might have some of advantages for patients, especially, but certainly not only, during the pandemic. This

patient group is so often undertreated for their PTSD, this case report shows that the reluctance for direct PTSD treatment through telehealth is not rightfully.

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Title of “Ambassador of Clinical Psychology and Psychological Treatment” Awarded to Danutė Gailienė

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Abstract

The paper presents professional activities and the major works of an ambassador of the European Association of Clinical Psychology and Psychological Treatment (EACLIPT), Prof. Danutė Gailienė. Prof. Gailienė is among the most influential European clinical psychologists who contributed to clinical psychology training, research, and practice in former post-communist East European countries. Her entire career was dedicated to the development of clinical psychology, and through her work, Prof. Gailienė demonstrated how even in an oppressive and politically difficult environment, it is possible to keep the integrity and work up to higher standards.

Keywords

Danutė Gailienė, psychotraumatology, suicidology, societal impact

Ambassador of the European Association of Clinical Psychology and Psychological Treatment (EACLIPT) Prof. Danutė Gailienė was born in 1951 in Lithuania which was occupied by the Soviet Union at a time. In 1969 the first psychology training program was launched at Vilnius University in Lithuania, and she enrolled at the university to study psychology that year. Due to ideological reasons of refusal of any individuality, clinical psychology and psychotherapy were not approved by the Communist Regime (Gailienė, 2000), and the psychology study program was focused on industrial and engineering psychology (Bagdonas et al., 2008) at the time.



However, Danutė Gailienė was very interested in clinical psychology, and since the beginning of her psychology studies, she has aimed to pursue a career as a clinical psychologist. Danutė Gailienė, against the odds, managed to get the position of the first clinical psychologist in a clinical setting in the country during Soviet Regime. Thus, she began to make an outstanding contribution to clinical psychology in the region. She has been the first professor of clinical psychology in the country and was the founder and chair of the clinical psychology program.



Prof. Danutė Gailienė – Lithuanian psychologist and pioneer of clinical psychology behind 'Iron Curtain.'

Early Career During Soviet Occupation

Danutė Gailienė graduated from Vilnius University in Lithuania in 1974. The Head of the Psychology Department was Prof. Alfonsas Gučas, who was very supportive of young professionals. Prof. Gučas managed to include a small number of special courses related to clinical or health psychology, even in a very restrictive political situation where political officials in Moscow fully controlled the curriculum. Danutė Gailienė was very interested in clinical psychology during her studies and insistently searched for possibilities to work as a clinical psychologist after obtaining her diploma. However, such positions were not available due to the critical attitude of the Soviet regime towards clinical psychology. Due to her persistence, Danutė Gailienė managed to get a position as a psychologist in one of the psychiatric hospitals in Vilnius and was the first psychologist to work in a psychiatric hospital in the country and the Baltic republics.

Danutė Gailienė was searching for advanced training; however, the possibility of receiving a Ph.D. degree in her preferred area in psychology was not possible due to the mentioned ideological reasons. It required a lot of dedication and hard work, especially to somebody not loyal to the communist party, to receive a Ph.D. Danutė Gailienė worked on her Ph.D. thesis (called 'candidate of sciences' at the time) on cognitive processes in schizophrenia supervised by the internationally famous experimental psychologist, Prof. Bluma Zeigarnik (herself born in Lithuania; discoverer of a psychological cliffhanger effect named after her) from Moscow. At the same time, she was working in Vilnius in a clinical setting, was invited to teach at the university, and raised her three children. Dr. Gailienė received her Ph.D. in psychology from Moscow State University in 1985.

During that time, psychology was highly affected by communist ideology (e.g., the primacy of the ruling party, the material sphere was to be given precedence over the subjective sphere) in the Soviet Union, and the regime was highly oppressive. The psychologist had very restricted or no access to international journals or books. So active and eager to get knowledge, professionals had to find ways for their professional development. A very significant impact on the development of Danutė Gailienė was a visit of Prof. Vytautas Bieliauskas from USA in 1977 (Bieliauskas, 1977), and following his visits. Prof. Bieliauskas was a Lithuanian professor of clinical psychology in the US who managed to come to Lithuania during Soviet occupation and provided training and supervision for a selected group of professionals. The other ways of getting knowledge were Poland and East Germany, which had slightly less restrictive regimes and more access to international professional literature (Leuenberger, 2001). It was also possible to visit Poland and the East German Democratic Republic for training and conferences, and Danutė Gailienė used this opportunity to travel and meet professionals and achieve more specialized knowledge on clinical psychology and psychological treatments.

Not a communist party member and critical of communist party ideology Danutė Gailienė in the 1980s had limited possibilities for an academic or professional career as such professionals were under constant surveillance by the KGB. Having to start her career during Soviet times, which was marked by betrayal, opportunistic loyalty to the communist regime by some of her colleagues who wanted to have a faster and safe career, she has always understood the importance of integrity, a robust value system, and ethical behavior which guided all her professional career.

The Collapse of the Soviet Union and Career Breakthrough

In the late 1980s, "perestroika" emerged, which was the first signal for the eventual collapse of the Soviet Union. The years of 1988–1990 was a turning point in society in Lithuania and globally. Brave intellectuals, and Danutė Gailienė, among them, participated in peaceful demonstrations against the Soviet Regime and Soviet Occupation. On March 11, 1990, the Lithuanian Parliament declared independence from the Soviet Union.

Almost immediately after the collapse of the Soviet Union, Danutė Gailienė with colleagues interested in clinical psychology (R. Bieliauskaitė, G. Gudaitė, R. Kočiūnas) established the first Department of Clinical and Social Psychology, and the first clinical psychology program was launched in Lithuania (Kazlauskas & Grigutyte, 2020). In the again independent country, Danutė Gailienė could be promoted to a full professor in clinical psychology (2001), was chair of the Department of Clinical (and Social) Psychology (2000–2017). Over the years, she supervised many Ph.D. students who conducted research in clinical psychology and could write their dissertations in Lithuanian.

Prof. Gailienė has been teaching a Clinical Psychology course for undergraduate students, Trauma and Crisis Psychology course in a clinical psychology program (since 2000), and delivering post-diploma training in clinical psychology. Without restrictions to travel abroad, she was a visiting researcher at Munster University in Germany (2003), Antwerp and Gent Universities (2004). Prof. Gailienė was frequently participating in international conferences. Since the start of her career, Prof. Gailienė maintained her clinical practice with at least one day per week meeting clients over decades of her professional activities, and expected her staff at the Department of Clinical Psychology to have an active clinical practice, as an integral part of their professional life.

One of her pioneering works in Lithuania and the region was the first systematic study on suicide prevalence in her country (e.g., Gailienė, 2004a; Gailienė et al., 1995; Gailienė & Ružyte, 1997). Furthermore, she was among the first to study the effects of the communist regime's political oppression in former post-communist countries.

The Major Works by Danutė Gailienė

Taken together, Danutė Gailienė has been particularly interested in the impact of societal and cultural factors on mental health processes. Her groundbreaking research in suicide prevention was published in her monograph *"They should not have died. Suicide in Lithuania [Jie neturėjo mirti. Savižudybės Lietuvoje]"* (Gailienė, 1998). This book is fundamental for its first comprehensive analysis of epidemiological data on suicide rates in Lithuania. It analyzes social and cultural factors of a steep increase in around 10 times of suicide rates from the beginning of the 20th century to the last decade of the 20th century in Lithuania, resulting in among the highest in Europe and the World. Prof. Gailienė draws parallels in an increase in suicide rates as an indicator of the public mental health status in response to the social transitions and transformations, primarily associated with devastating effects of long-term political violence and oppression of the Soviet regime. Following an analysis of the suicidal behavior in the country, Prof. Gailienė edited a volume *"Ideas of suicide prevention [Savižudybių prevencijos idėjos]"* published in 2001. This influential volume included other leading suicidology experts working from Lithuania, Norway, Canada, Slovenia, and Germany on effective suicide prevention programs. She became a widely known suicide researcher in Europe as a result of this research, representing clinical psychology at many expert meetings and congresses across disciplines.

After demonstrating the importance of societal and cultural factors on self-destructive behaviors, Prof. Gailienė made a profound impact in the area of research of political oppression by initiating the first large scale study of survivors of political violence in the country during the Nazi and Communist regimes in particular, former political prisoners and displaced population to the remote areas of Siberia and other areas. The project was initiated in 2000 and was conducted in collaboration with the Lithuanian Genocide

and Resistance Research Center. In the course of the research project, a much-acclaimed conference was organized in Vilnius, which focused on the effects of political oppression (Kazlauskas & Zelviene, 2016). As a result of the conference, an important book, *"The Psychology of Extreme Traumatization: The Aftermath of Political Repression"* was published in Lithuanian in 2004 and English in 2005 (Gailienė, 2004b, 2005). This volume was among the first fundamental works exploring the effects of political violence and oppression in the region of the former Soviet hemisphere by showing how Lithuanian historical trauma and psychotraumatology research should be included in the global agenda of traumatic stress studies.

The next important monograph by Prof. Gailienė was published in Lithuanian *"What they did to us. Lithuanian life in the view of trauma psychology [Ką jie mums padarė: Lietuvos gyvenimas trauma psichologijos žvilgsniu]"* (Gailienė, 2008). This book provided a deeper view of the impact of the Soviet regime occupation on Lithuanian mental health and is an important contribution to how the general population and professionals could use the theoretical conceptualization and empirical data from a psychotraumatology perspective to discuss complex social issues. The book was published in the context of some nostalgia of the Soviet period in the population and attempts from former communist party leaders and their associates to clean their reputation in stating that they were doing their best in people's interest during the Soviet regime. Prof. Gailienė's book had a significant impact of showing how the communist regime had negative long-term consequences on society (Gailienė, 2008). This work resonated in other countries such as the Baltic countries and Poland, where her name thus became recognized.

A further larger project by a major grant from the European Social Fund resulted in another book both in Lithuanian and in English *"Lithuanian Faces After Translation" Psychological Consequences of Cultural Trauma"* (Gailienė, 2015a, 2015b). It reveals the diversity of the effects of political trauma and the multigenerational impact of prolonged traumatization. A chapter on cultural trauma is the highlight of this book which explores differences and similarities of psychological and cultural trauma based on the Lithuanian historical context (Gailienė, 2015c).

Final Thoughts

Prof. Danutė Gailienė dedicated her life to the advancement of clinical psychology. Her efforts in pursuing training in clinical psychology and psychological treatments, dissemination of clinical psychology knowledge, assisting patients, teaching clinical psychology at university, training other professionals, establishing a department and clinical psychology program is a clear manifestation of how even under the conditions of an oppressive political regime it was possible to overcome barriers. As an excellent educator, over the years, Prof. Gailienė developed a much praised style of teaching. She received numerous

awards for her outstanding work in Lithuania and frequently appeared in national media, commenting on various social and public health issues.

Moreover, Prof. Gailienė has always stressed the importance of the social responsibility of clinical psychologists as professionals. From the perspective of Prof. Gailienė, clinical psychologists must use their knowledge not only to help and treat individual clients but also should be active in social and political life in the country, join professional networks, participate in legislation relevant to psychology and mental health, and be active in the dissemination of knowledge for general population via media. We can conclude that Prof. Gailienė is an outstanding European psychologist. Her personal and professional integrity and dedication to establish the discipline of clinical psychology out of a hostile societal environment can as an ambassador of EACLIP inspire the future generation of psychologists worldwide.

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