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ORIGINAL RESEARCH

# The Effect of a Telehealth Intervention on Mother–Child's Feeding Interactions During the COVID-19 Pandemic

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**Purpose:** This study evaluated the outcomes of a telehealth intervention aimed at enhancing exchanges in mother–child dyads who showed an impoverishment of the quality of their feeding interactions and a worsening of their psychopathological symptoms during the COVID-19 pandemic.

**Methods:** N=334 mothers and their three-year-old children were recruited to assess their feeding interactions through an observational tool administered via a web platform, and maternal and offspring psychopathological symptoms were measured through the SCL/90-R and the CBCL 1.5–5. This study constitutes the third wave (T3) of a longitudinal research.

**Results:** Our results showed that the intervention significantly improved the quality of mother–child feeding interactions. Moreover, mothers' psychopathological symptoms reduced after the intervention, especially in the interpersonal sensitivity, hostility, depression, anxiety, and obsessive-compulsive-compulsive subscales; offspring emotional/behavioral functioning and dysregulation symptoms also decreased, particularly in the subscales of withdrawn anxious/depressed attention problems and aggressive behavior.

**Conclusion:** This study adds knowledge to the literature on COVID-19 pandemic effects on psychological health of parents and young children, proposing a method of intervention that had been effectively adopted previously but whose effectiveness had not been investigated during the pandemic.

**Keywords:** mother–child interactions, psychopathological symptoms, COVID-19 pandemic, telehealth intervention, early childhood

## Introduction

COVID-19 is an extremely contagious disease that has claimed the lives of almost six million people worldwide.[1] Beginning in February 2020, the Sars-Cov-2 virus spread around the world, and it continues to have an influence on people's lives in a variety of ways, including interpersonal and social interactions, work and school routines, freedom of movement and travel, family home and caring practices.[2] Due to the lockdowns and the difficulties in community assistance, parents have had to reorganize daily habits and reassign duties in most affected countries.[3,4] The time between the 9th of March and the 3rd of May 2020 in Italy has been marked by a global lockdown of non-essential services and significant rates of fatalities among the population, particularly among the elderly.[5]

These stressors have been significantly suffered by individuals caring for children, according to recent family research.[6] Some research focused specifically on the effects of the lockdown and quarantine (and the pandemic in general) on parents and their children.[7,8] However, little is known about how and where this increased stress may affect interactions between children and parents. These negative effects may pertain to the parents' and children's individual emotional well-being, as well as the diminished quality of their relationships.[9,10] Studies conducted on adults during the pandemic have shown increased symptoms of anxiety, sleeplessness, loneliness, sadness, and poor cognitive focus.[11] Even more severe symptoms, such as trauma-related mental health problems and emotional instability, have been recorded in confined persons and those who have lost a relative.[12] Children, on the other hand, are suggested to have

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suffered the pandemic and the lockdowns especially due to the lack of predictability and consistency of the environment, which instead have been identified as essential elements in safeguarding children from both physical and psychological damage.[13,14]

The findings of previous recent studies revealed that maternal psychopathological risk and caregiver distress, as well as children's psychological difficulties, had grown significantly throughout the pandemic and that the quality of dyadic interactions decreased significantly from the pre-pandemic period to the current period.[15] Specifically, levels of maternal depressive and anxiety symptoms amplified and children's difficulties worsened, with offspring suffering emotional/behavioral dysregulation, anxiety and aggressiveness. From a relational standpoint, maternal dyadic interactions with children in their first years of life and, in particular, feeding exchanges have been impacted by the noticeable change in the family habits and the lack of social support brought by the pandemic; some studies have indeed shown that several dyads shifted from a good-enough quality of their exchanges before the pandemic to mildly or even severely impaired interactions.[16] It can be hypothesized that the increased maternal psychopathological symptoms may have decreased parental sensitivity to children,[17] augmenting the inability to interpret hunger and satiety cues from their children and the difficulty in regulating offspring emotions and behaviors. Importantly, it has been posited that the early dyadic capacity of mutually attuning and sharing sensitive interactions, especially during feeding, are crucial for the child to learn affect self-regulation;[18] failing in this reciprocal attunement may result in offspring maladaptive emotional and behavioral symptoms over time.[19–21]

These potential negative outcomes urge researchers and clinicians to put renewed effort into prevention and intervention practices, adapted to the circumstance of the current pandemic. The impossibility to administer evaluation measures and treatment in person due to the COVID-19 restrictions has stimulated professionals to employ web-based platform practices for psycho-educational sessions.[22] Even before the pandemic, these tools had been used for the assessment and treatment of psychopathological symptoms with mixed but overall positive results.[23] However, literature is scarce on the use of remote administration of measures tapping parent–child interactions. Even more limited is the literature focusing on the use of technologically mediated instruments for the intervention on low-quality dyadic interactions during the pandemic. This study aims to fill this gap in literature by proposing the online use of an observational measure usually administered at the home of the families. The Feeding Scale[24] in its Italian version (SVIA[25]) has been used for more than two decades to monitor and evaluate the quality of dyadic exchanges between parents and their children during feeding and it began to be tested it in remote administration, with positive results.[15] The rate of compliance with follow-up visits was generally high; the ability for the family to have direct (albeit remote) contact with the clinicians seemed to be related to an improvement in the quality of dyadic interactions during feeding and, as a result, to children's emotional-behavioral functioning during feeding. Furthermore, parents appeared to value the opportunity to participate actively in the prevention and intervention process.

Based on the results of a previous pilot study, which compared the quality of mother–child interactions during feeding before and during the pandemic, here we propose new findings of a telehealth intervention aimed at enhancing exchanges in dyads who showed an impoverishment of the quality of their feeding interactions during the COVID-19 outbreak. We also assessed the levels of psychopathological symptoms in mothers and children before and after the intervention.

# Materials and Methods

## Participants and Procedure

Three hundred and thirty-four (N = 334) mothers and their children were re-contacted during the COVID-19 (not during lockdowns) and recruited from a prior study sample[15] (possible selection bias was controlled following previous literature).[16] Inclusion criteria were as follows: 1) no referred psychiatric diagnosis in the mothers or their children; 2) no medical condition present in the subjects at the time of recruitment; 3) no current medical and/or psychological treatment; d) no COVID-19 current contagion in any member of the family and no death of any close relative associated with COVID-19.

The previous study evaluated psychopathological risk of mothers and children and the quality of their feeding interactions over two assessment points (T1=18 months of the child; T2=36 months of the child). As the study had shown

an increased impairment in the evaluated psychopathological symptoms and feeding interactions from T1 to T2 both in mothers and offspring, they were offered a clinical intervention, and accepted to follow it (all mothers who were offered the treatment accepted). Therefore, in the present study, we present findings based on data gathered on a T3 assessment point (one week after the intervention), confronting maternal and children's levels of psychopathological symptoms and the quality of feeding interactions with T2 evaluation wave. All mothers agreed to take part in this study and signed the written informed consent, consistent with the Declaration of Helsinki. Before its start, the present study was authorized by the Ethical Committee (n. 0000809–2020). The intervention took place following Tissot et al's model through an online videoconferencing platform;[26] it was conducted by expert psychologists and psychotherapists and lasted for 8 weeks (2 sessions a week) at 36 months of the children; it started contemporary for all dyads and, in all cases, ended within the 36th month of the child. The mean age of mothers and children at T3 was, respectively, 36.65 years (SD=1.8) and 36.84 months (SD=0.21). A 51% of children were females. All subjects lived in Italy and the majority of mothers were married (81.1%). Most of them had high school or more than high school (50.3%) level of education, with a household income between 55,000 and 75,000 euros per year (43.2%).

At T1, T2 and T3 mothers' and children's feeding interactions were video-recorded through an online platform and mothers filled out a self-report measure to describe their psychopathological symptoms and a report-form questionnaire to illustrate children's emotional/behavioral characteristics. Specifically, the SVIA (Scala di Valutazione delle Interazioni Alimentari, Italian version of the Feeding Scale) was used to assess the quality of the dyadic feeding interactions (lunch or dinner depending on the family possibilities; if the family chose lunch at T1, the video-recording took place at lunch also at T2 and T3; if the family chose dinner at T1, the video-recording took place at dinner also at T2 and T3); the interactions were videotaped remotely using web-based videoconferencing tool. The mothers were given preliminary instructions on how to set up the room so that both the mother and the infant could be seen during feeding. The Symptom Check-List/90-R was used to assess the mothers' psychopathological risk. The Child-Behavior Check-Lists 1.5–5 were used to assess mothers' perceptions of their children's emotional/behavioral functioning.

## Intervention Model

The clinical intervention used in this study is based on video-feedback, within the model proposed by Tissot et al.[26] This treatment is usually brief, with good results obtained within weeks from its start.[27] It encompasses elements from the psychodynamic mother-infant psychotherapy and the interaction guidance frameworks and it is based on Selma Fraiberg's pioneering work.[28] While remaining attentive to the observation of the dyadic relationship, the therapist listens to the mothers' complaints, anxieties and narratives about her child, focusing on her representations and projective distortions and verbalizing them to lessen their negative influence on parent–offspring interactions. Selections of these exchanges are video-recorded and re-watched together with the therapist through a videoconferencing platform to empower the parent in its caregiving function, suggesting alternative interpretations of the child's problematic behavior and possible actions to take to improve the quality of the interactions.[29] While the core of the intervention is on the mother–child patterns of interaction, Cramer et al demonstrated an improvement also in maternal and offspring psychopathological symptoms subsequent to the treatment, with diminished maternal depressive and anxiety symptoms and less intense children's internalizing/externalizing problems.[30] A detailed description of the technique is presented in Cramer and Palacio-Espasa's seminal work.[30]

## Measures

The SVIA is an Italian version[25] of the Feeding Scale[24] that may be used on children aged 1 to 36 months. It assesses interactive behaviors and identifies typical and/or dysfunctional relational patterns in feeding exchanges between parents and children. Parent–infant interactions during feeding are recorded for at least 20 minutes, and then a wide range of interactive mother–infant behaviors is coded and assessed. The SVIA consists of 41 items distributed among four subscales: 1) Parent's Affective State (index of the parent's affective states; eg, the parent appears sad during feeding); 2) Interactive Conflict (index of interactions characterized by conflictual, non-collaborative, and non-empathetic communication; eg, the parent forces food into the child's mouth); 3) Food Refusal Behavior (habits associated with challenged status regulation during meals and with limited food consumption; eg, the child refuses to open his or her mouth); 4)

Dyad's Affective State (index of the extent to which the infant's feeding patterns are, or are not, the result of an interactive regulation to which both partners contribute; eg, the parent and the child show joy during feeding). Scores are measured on Likert scale ranging from 0 (none) to 4 (a lot). Higher scores indicate more dysfunctional interactive patterns. A general score can be used to differentiate adaptive from maladaptive parent–child interaction considering the sum of the four scores. A cut-off >54 indicates clinical scores.[31] The inter-evaluator agreement for SVIA items for this sample was excellent (Pearson r = 0.8). Moreover, the instrument showed good reliability in terms of internal consistency, Cronbach's α = 0.91.

The SCL-90/R[32,33] is a 90-item self-report symptom tool that assesses psychological symptoms and distress on a Likert scale of 0 (not at all) to 4 (extremely), and asks participants to report if they have suffered from symptoms of somatization (eg, headaches), obsessive-compulsivity (eg, having to double-check what you do), interpersonal sensitivity (eg, being overly sensitive to others, feeling afraid to go out of your house alone), paranoid ideation (eg, persecutory beliefs concerning a perceived threat towards oneself), and psychoticism (eg, having thoughts that are not your own). Besides these nine primary scales, the questionnaire provides a global severity index (GSI). The SCL-90/R has shown a good internal consistency in adults in this sample (Cronbach's α = 0.86).

The CBCL 1.5/5[34] is a questionnaire filled out by caregivers to assess children's behavioral/emotional characteristics. This measure comprises eight specific subscales (Anxious/Depressed, Withdrawn/Depressed, Somatic Complaints, Social Problems, Thought Problems, Attention Problems, Rule-Breaking Behavior, and Aggressive Behavior), as well as two global scales: Internalizing Problems (consisting of Anxious/Depressed, Withdrawn/Depressed, and Somatic Complaints subscales), and Externalizing Problems (consisting of Rule-Breaking Behavior and Aggressive Behavior subscales). Summing up the scores of the anxious/depressed, attention problems and aggressive behavior scales a Dysregulation Profile (DP) is obtained.[35]

## Data Analyses

The scores at T2 and T3 on SVIA, SCL-90/R and CBCL were compared with analyses of variance for repeated measures (ANOVAs). P values are shown, with values <0.05 being accepted as significant. Mean values are shown with SDs. A power analysis was conducted following Cohen's[36] suggestions, setting α at 0.05, and a power of 0.869 was obtained with a large effect size of ($f^2 = 0.51$).

# Results

On all four SVIA subscale scores, an ANOVA indicated major effects of time point (all $p < 0.001$). SVIA ratings at T2 (before the intervention) were substantially higher (ie, more maladaptive) than T3 for all four subscales: mother's emotional state; interaction conflict; food refusal; dyad's affective state, according to Bonferroni's post hoc testing. Furthermore, from T2 to T3, the overall quality of the feeding interactions significantly increased. Table 1 shows average scores on each SVIA subscale and the general quality of feeding interactions at T2 and T3, as well as $\eta^2$ values.

**Table 1** Average Scores and Standard Deviations of the SVIA Subscales and General Quality of Mother–Child Feeding Interactions

| | T1 | T2 | T3 | $\eta^2$ |
|---|---|---|---|---|
| | M (SD) | M (SD) | M (SD) | |
| Mother's Affective state | 9.83 (4.52) | 24.16 (2.01) | 18.21 (1.65)** | 0.58 |
| Interactive conflict | 7.97 (4.30) | 22.14 (2.01) | 14.47 (2.43)** | 0.61 |
| Food refusal behavior | 5.24 (2.18) | 13.02 (1.45) | 9.77 (1.34)** | 0.56 |
| Dyad's Affective state | 4.30 (2.64) | 15.13 (1.62) | 8.91 (1.88)** | 0.72 |
| General Quality | 37.47 (0.73) | 55.30 (4.43)§ | 49.74 (2.05)§§, ** | 0.49 |

**Notes**: §At T2 52% of dyads exceeded the SVIA clinical cut-off of >54, §§At T3 no dyads exceeded the SVIA clinical cut-off of >54, $\eta^2$, eta-squared, **$p < 0.001$.

The scores at T1 are also shown in the table to convey a clearer idea of the change in the scores from the baseline (T1, before the pandemic) to T2 (during the pandemic, without intervention) to T3 (during the pandemic, after the eight-week intervention).

As for the mothers' psychopathological symptoms, an ANOVA of the SCL-90/R subscales and GSI scores indicated a significant main impact of time point ($p < 0.001$). At T3, GSI values were substantially lower than T2, with 13% of women scoring over the clinical cut-off (21% mothers exceeded the cut-off at T2). Mothers, in particular, had significantly lower scores on the interpersonal sensitivity, hostility, depression, anxiety, and obsessive-compulsive-compulsive subscales. The means and $\eta^2$ values are shown in Table 2. As above, the scores at T1 are also shown in the table to convey a clearer idea of the change in the scores from the baseline (T1, before the pandemic) to T2 (during the pandemic, without intervention) to T3 (during the pandemic, after the eight-week intervention).

At T3, mothers reported children's emotional/behavioral functioning and as more adaptive and less dysregulation symptoms, particularly in the subscales of Withdrawn, Anxious/Depressed, Attention Problems, and Aggressive Behavior. Moreover, children showed significantly lower scores in the Internalizing/Externalizing subscales and at the Dysregulation Profile. The means and $\eta^2$ values are shown in Table 3.

**Table 2** Maternal Scores at SCL-90/R

| | T1 | T2 | T3 | $\eta^2$ |
|---|---|---|---|---|
| | M (SD) | M (SD) | M (SD) | |
| SOM | 0.18 (0.54) | 0.30 (0.45) | 0.27 (0.31) | 0.16 |
| O-C | 0.15 (0.52) | 0.69 (0.55) | 0.43 (0.42)** | 0.64 |
| I-S | 0.16 (0.49) | 0.34 (0.23) | 0.23 (0.26)** | 0.08 |
| DEP | 0.18 (0.34) | 0.73 (0.89) | 0.57 (0.71)** | 0.82 |
| ANX | 0.13 (0.52) | 0.66 (0.78) | 0.34 (0.32)** | 0.96 |
| HOS | 0.18 (0.43) | 0.31 (0.24) | 0.21 (0.51)** | 0.10 |
| PHOB | 0.24 (0.61) | 0.22 (0.11) | 0.25 (0.18) | 0.14 |
| PAR | 0.13 (0.52) | 0.43 (0.24) | 0.28 (0.23) | 0.11 |
| PSY | 0.21 (0.53) | 0.13 (0.43) | 0.16 (0.24) | 0.15 |
| GSI | 0.54 (0.41) | 0.84 (0.54)§ | 0.61 (0.75)§§ | 0.64 |

**Notes**: §At T2 21% of mothers exceeded the clinical cut-off of >1 at the SCL-90/R Global Severity Index (GSI), §§At T3 13% of mothers exceeded the clinical cut-off of >1 at the SCL-90/R Global Severity Index (GSI), $\eta^2$, eta-squared, $^{**}p < 0.001$.
**Abbreviations**: SOM, somatization; O-C, obsessive-compulsive; I-S, interpersonal sensitivity; DEP, depression; ANX, anxiety; HOS, hostility; PHOB, phobic anxiety; PAR, paranoid ideation; PSY, psychoticism; BSFC, Burden Scale for Family Caregivers.

**Table 3** Means (Standard Deviation) of Child's CBCL Subscales

| | T1 | T2 | T3 | $\eta^2$ |
|---|---|---|---|---|
| E-R | 2.55 (1.68) | 3.67 (2.17) | 3.21 (1.55) | 0.22 |
| A-D | 2.20 (1.75) | 7.52 (1.95) | 5.31 (1.48)** | 0.75 |
| S-C | 3.38 (1.37) | 4.32 (2.12) | 3.98 (1.67) | 0.16 |
| WIT | 2.78 (1.43) | 6.72 (1.59) | 3.72 (1.64)** | 0.69 |
| A-P | 1.67 (1.40) | 5.07 (1.02) | 2.61 (1.49)** | 0.24 |
| A-B | 9.66 (5.18) | 21.10 (5.07) | 15.21 (3.45)** | 0.65 |
| INT | 10.45 (3.55) | 27.53 (4.32) | 20.24 (2.61)** | 0.62 |
| EXT | 10.61 (2.43) | 26.42 (3.54) | 19.72 (1.49)** | 0.71 |
| DP | 8.21 (2.51) | 15.32 (1.89) | 10.44 (2.12)** | 0.64 |

**Notes**: $\eta^2$, eta-squared, $^{**}p < 0.001$.
**Abbreviations**: E-R, emotionally reactive; A-D, anxious/depressed; S-C, somatic complaints; WIT, withdrawn; A-P, attention problems; A-B, aggressive behavior; INT, internalizing problems; EXT, externalizing problems; DP, dysregulation profile.

## Discussion

International literature on the negative psychological outcomes of the pandemic outbreak in caregivers and children has given very limited attention to its possible effects on the characteristics of dyadic exchanges, mostly focusing on individual psychopathological risk.[15] Thus, a large amount of research addressed adults' depression,[37] anxiety[38] and obsessive-compulsive[39] symptoms and children's internalizing/externalizing problems,[40] almost completely overlooking a relational standpoint. However, in a transactional clinical and theoretical framework,[41] the caregiver's individual psychopathological risk and the child's psychological problems reciprocally influence and are frequently associated with a low quality of their interactions, which constitute a fundamental proxy of the overall family well-being.[42] During the pandemic, individual mental health (caregivers' and children's mental health) has been (and still is) challenged by the subversion of long consolidated habits in every realm of life, uncertainty for the future, and concern for one's own and relatives' physical safety. In several families, the pandemic period has been shown to be associated with a worsening of the combination of caregivers' individual psychopathological symptoms, offspring psychological difficulties and poor quality of dyadic exchanges.[43] Bearing in mind these findings from previous research, this study reported the results of a brief psychodynamically oriented intervention aimed at increasing the quality of mother–child feeding interactions during the COVID-19 pandemic. It also described the results of the intervention with regard to the levels of mothers' and children's psychopathological symptoms.

Our results showed that the eight-week intervention helped to significantly improve mother–child interactions. In particular, maternal and dyadic affective state enhanced, conflictual, non-collaborative, and non-empathetic communication during the exchanges becomes less intense and less frequent; child's food refusal behavior decreased. Interactions changed by becoming more harmonious, with mothers becoming more sensitive and less intrusive, and offspring being more cooperative. These results were not unexpected because they confirm previous and consolidated literature that described short-term treatments with mother-infant dyads as an effective way to treat a variety of infant problems and perhaps avoid the development of long-term mother–child conflict.[44] However, we did not anticipate the extent to which this intervention was successful. Instead, this treatment allowed important and positive changes in dyadic interactions. It must be said that the mother-infant system has shown to be extremely responsive to external stimuli in early infancy, both negative (ie, psychosocial stressors, such as the COVID-19 pandemic) and positive (ie, therapeutic interventions).[45] It can be speculated that the unique environmental situation of the pandemic puts mothers and their children in an even higher condition of activation and responsiveness (definable as a sort of *emotional transparency*, similarly to what happens in traumatized subjects).[46]

With regard to the mothers' psychopathological symptoms, our results showed a significant reduction of their symptoms after the intervention, especially in the interpersonal sensitivity, hostility, depression, anxiety, and obsessive-compulsive-compulsive subscales. Moreover, the percentage of mothers exceeded the SCL-90/R clinical cut-off also reduced (from the 21% mothers that exceeded the cut-off before the intervention to a 13% of women scoring over the clinical cut-off after completing the treatment). Comparably with the results related to the positive modifications in the quality of dyadic interactions, the effectiveness of the intervention was conspicuous. However, while the usefulness of brief intervention on parent–child interactions is well documented,[47] less recognized is its efficiency on individual psychopathological symptoms.[48] We can hypothesize that the upsurge of psychological problems in mothers from T1 (before the pandemic) to T2 (during the pandemic) had been specifically reactive to the outbreak and constituted an acute manifestation of distress so that the intervention had to tackle *state* symptoms rather than *trait* problems (hence, its effectiveness). In this regard, the lack of a control sample without intervention limits the possibility of excluding a *history effect*, with symptoms decreasing regardless the treatment. This aspect should be clarified in future studies.

With regard to offspring emotional/behavioral functioning, our results showed more adaptive and less dysregulation symptoms, particularly in the subscales of Withdrawn, Anxious/Depressed, Attention Problems, and Aggressive Behavior. Moreover, children showed significantly lower scores in the Internalizing and Externalizing subscales and Dysregulation Profile. Interestingly, we did not see the emergence of *replacement symptoms* substituting those receding. In fact, the symptomatic levels on all the above subscales decreased without any other clinical manifestation arising. We assume that the main effect of the intervention was on the children's affective regulation capacity, enhanced by the

improving quality of mother–child interactions. More effective regulation competence, in turn, could have positively influenced internalizing and externalizing symptoms. Indeed, effective regulation processes are posited at the basis of offspring mental health, although the link between these variables in this sample has not been demonstrated. Moreover, as children's symptoms were reported by mothers, it may be that the data on the decrease in offspring problems was biased by the (although for the better) modified maternal symptomatology, leading to a change in their representation of their children and in their capacity to describe them. Besides, a sense of maternal competence allowed by the intervention on the dyadic interactions and "positive" feelings in the mothers could have been induced by the treatment, allowing the mother to see her child in a new, less problematic, way. Other studies using (non report-form) observational measures for the assessment of children's emotional and behavioral functioning could clarify this point.

This study has limitations. First, although it intended to evaluate the effect of the intervention on mothers' and children individual and relational difficulties, it did so descriptively and it is therefore unable to draw causal conclusions. The aim of this study was indeed to propose preliminary, descriptive results that must be confirmed by further research. Second, we did not test the reciprocal influence of the variables and their complex effect on the intervention outcome. Future studies should construct a conceptual model for the links between the variables. Third, considering the enormous complexity of the pandemic period, this study focused on a few (although important) factors that cannot represent the composite experience of mothers and children during the COVID-19 outbreak. For instance, this study did not consider the lack or presence of familial and social support to the dyads, the nature of couple adjustment between parents, maternal and offspring attachment models, and the role of fathers as protective or adjunct risk factors for mothers' and children's psychopathology. Finally, the lack of untreated controls restricts the degree of generalization possible.

Notwithstanding these limitations, this study has several strengths. We used a consolidated intervention method adapting it to the restrictions imposed by the pandemic. Thus, we achieved the double-fold result of contributing to the implementation of technology-mediated assessment and treatment practices, and of reaching and supporting families who were experiencing psychological problems bypassing the limits of the social distancing imposed by the COVID-19. Moreover, this study adds knowledge to the literature on COVID-19 pandemic effects on psychological health of parents and young children, proposing a method of intervention that had been effectively adopted previously but whose effectiveness had not been investigated during the pandemic. Lastly, while most of current literature focuses on psychiatric symptoms emerged during the outbreak, this study concentrated on subjects with psychopathological risk giving attention to clinically relevant but not diagnosed situations, which are often overlooked by research.

## Conclusions

This study showed the results of a telehealth intervention aimed at improving mothers' and children's interactions and their psychopathological symptoms during the COVID-19 pandemic when in-person evaluation and treatment were hampered by the governments' recommendations of maintaining interpersonal distance and avoiding travel. The eight-week intervention improved mother–child interactions significantly. Mothers showed more sensitive and less intrusive behaviors, and offspring were more cooperative. Maternal psychopathological symptoms significantly reduced and offspring presented fewer dysregulation symptoms. The findings of this study demonstrated that it is possible to employ this web-based strategy to obtain considerable beneficial outcomes while reducing intervention costs.

## Data Sharing Statement

Data are available at request to the authors at https://data.mendeley.com/datasets/bx62rd3tc2/2.

## Ethics Approval Statement

This study was authorized by the Ethical Committee of Sapienza (n. 0000809–2020).

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## Disclosure

No potential conflict of interest is reported by the authors.

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