

# Parenting-Related Exhaustion During the Italian COVID-19 Lockdown

Daniela Marchetti,<sup>1</sup> PhD, Lilybeth Fontanesi,<sup>1</sup> PhD, Cristina Mazza,<sup>2</sup> PsyD, Serena Di Giandomenico,<sup>1</sup> PsyD, Paolo Roma,<sup>3</sup> PhD, and Maria Cristina Verrocchio,<sup>1</sup> PsyD

<sup>1</sup>Department of Psychological, Health and Territorial Sciences, G. d'Annunzio University of Chieti-Pescara, <sup>2</sup>Department of Neuroscience, Imaging and Clinical Sciences, G. d'Annunzio University of Chieti-Pescara, and <sup>3</sup>Department of Human Neuroscience, Sapienza University of Rome

All correspondence concerning this article should be addressed to Lilybeth Fontanesi, PhD, Department of Psychological, Health and Territorial Sciences, G. d'Annunzio University of Chieti-Pescara, Via dei Vestini 31, 66100 Chieti (CH), Italy. E-mail: lilybeth.fontanesi@unich.it

Received 10 July 2020; revisions received 8 September 2020; accepted 12 September 2020

# **Abstract**

Objective Worldwide, the coronavirus disease 2019 (COVID-19) pandemic has generated significant worry, uncertainty, anxiety, sadness, and loneliness. In Italy, these effects have been particularly pronounced. While research on the COVID-19 outbreak has mainly focused on the clinical features of infected patients and the psychological impact on the general population and health professionals, no investigation has yet assessed the psychological impact of the pandemic on parents. In the present research, we conducted a web-based survey of Italian parents to examine the prevalence of parenting-related exhaustion—and to identify its associated risk and protective factors—4 weeks into the lockdown. **Methods** A total of 1,226 parents provided their consent to participate in the study and completed a demographic questionnaire, information relating to particular COVID-19 experiences, and measures of emotional exhaustion, parental resilience, social connections, and psychological distress during the lockdown. Results Seventeen percent of our sample experienced significant parenting-related exhaustion, with mothers more severely affected. Multiple regression analyses showed that greater parenting-related exhaustion was predicted by psychological distress, lower parental resilience, motherhood, fewer perceived social connections, and being single, as well as having a child with special needs, having a large number of children, and having younger children. Conclusion The findings add further support to the call for preventive programs to support parents throughout the COVID-19 pandemic. Mental health professionals and social workers should be warned of the effects of lockdown and social distancing on parenting and, consequently, the well-being of children.

**Key words**: parent stress; resilience; social support.

#### Introduction

The World Health Organization declared the outbreak of coronavirus disease 2019 (COVID-19) a pandemic on March 1, 2020. Prior to this, in Italy, a series of restrictions of increasing severity began on February 23, 2020, with the first lockdown initiated in the

Codogno area (Lombardy, northern Italy), which recorded the first case of COVID-19 in Italy

1 WHO. Virtual press conference on COVID-19. March 11, 2020. Retrieved from https://www.who.int/docs/default-source/coronavir-use/transcripts/who-audio-emergencies-coronavirus-press-conference-full-and-final-11mar2020.pdf?sfvrsn=cb432bb3\_2

(Lazzerini & Putoto, 2020). As the virus spread rapidly throughout the country, the Italian government gradually imposed more stringent measures, leading to the national lockdown imposed on March 11, involving the closure of schools, social and recreational venues (cinemas, theaters, cultural centers), and shops (except for those selling staple goods); a ban on sporting events, funerals, and all other assemblages (Lazzerini & Putoto, 2020); and new rules involving social distancing and home working. As a result of these measures to control the spread of the virus, the Italian public has suffered a massive burden.

Research on both historical outbreaks (e.g., of severe acute respiratory syndrome) and the current COVID-19 outbreak has demonstrated a wideranging psychological impact on noninfected community members (Huang & Zhao, 2020; Leung, 2003; Rubin et al., 2010; Sim, 2010; Van Bortel et al., 2016). Specifically, some studies have revealed an increase in parental stress and the presence of Post-Traumatic Stress Disorder (PTSD) symptoms in parents and children after a prolonged period of forced lockdown (Brooks et al., 2020; Sprang & Silman, 2013).

Worldwide, the COVID-19 epidemic is producing uncertainty about the future, anxiety, fear, sadness, and loneliness among individuals, especially with regard to health and finances. At the family level, parents are being called to cope with the additional stress and emotional difficulties caused by school closures and children's confinement at home (Fegert et al., 2020; Halvorsen et al., 2020). Furthermore, research suggests that, during the first months of the pandemic, both mothers and fathers demonstrated more safety behaviors than did nonparents; thus, parental status seems to comprise a risk factor for fear and anxiety, especially with respect to children's safety (Lauri Korajlija & Jokic-Begic, 2020). Finally, a recent investigation showed that the health risks and fear connected to COVID-19 influence parents' levels of stress and, as a consequence, children's well-being (Spinelli et al., 2020).

Italy is among the countries that have been most severely affected by COVID-19. Accordingly, many Italian parents are observing negative changes in their children's emotional states and routines during the lockdown. In particular, Italian families are dealing with children's increased use of technology and the effect of this on their sleeping patterns, due to their greater time spent at home; to this, they refer moderated levels of stress (Orgilés et al., 2020). Italian parents also report problems of irritability, intolerance of rules, nervousness about the pandemic, and regressive symptoms in their children (Pisano et al., 2020). Finally, parents of children with pre-existing psychological and behavioral difficulties are reporting

problems managing their children at home over this extended period, especially when also striving to fulfill daily personal/professional responsibilities (Colizzi et al., 2020; de Girolamo et al., 2020).

While flexible and adapted parents may experience the current limitations on place and time as an opportunity to spend more quality time with their family, for others, the lockdown is threatening to disrupt family cohesion and individual well-being by raising unresolved conflicts and difficulties to the surface (Fegert et al., 2020). For instance, there are mounting data that the social exclusion of the family due to COVID-19 represents an important risk for the escalation of child abuse, family violence, and neglect (Roje Đapić et al., 2020).

Social isolation, unstable finances, and psychological distress have been found to be connected to higher levels of parental stress, especially during the COVID-19 pandemic (Griffith, 2020). Parental stress is a risk factor for negative mental health outcomes among both parents and children (Bøe et al., 2018; Conger et al., 1992; Masarik & Conger, 2017; Sobolewski & Amato, 2005). Indeed, due to the COVID-19 epidemic, many national and international institutions have advised that children and their families are in a state of emergency (Cluver et al., 2020). Protracted parental stress and a lack of resilience in parents can produce overwhelming exhaustion—defined as feelings of being overextended and depleted of one's emotional and physical resources. Exhaustion is an aspect of parental burnout, which results from prolonged exposure to parental stress (Mikolajczak, et al., 2018). Parental burnout can be connected to daily tasks involving children, such as managing children's time, homework, and chores; it may also be related to critical stressors, such as child illness or adolescent law infringement, or chronic stressors, such as children's mental or behavioral disorders. It is composed of three main dimensions: the abovementioned emotional exhaustion, emotional distancing, and a sense of low/no parental achievement (Roskam et al., Parenting-related exhaustion can lead to a belief that parenting requires too much engagement; parents may feel too tired to spend time with their children and this may generate emotional distancing and/or a general lack of involvement in their children's lives (Mikolajczak et al., 2018). The literature shows that parents' stress response is more significant than stressors, themselves, in predicting parents'—and subsequently children's—psychological well-being (e.g., Crnic & Low, 2002).

Nevertheless, research on the mental health effects of the COVID-19 outbreak has focused mainly on the general population and health professionals and, to a lesser extent, parents; no investigation has explored parents' emotional exhaustion related to the COVID-

19 lockdown. In the present study, we administered a web-based cross-sectional survey of Italian parents to examine the prevalence of parenting-related exhaustion—and to identify its risk and protective factors—4 weeks into the COVID-19 lockdown.

Based on previous research on parental stress and the consequences of the COVID-19 lockdown on mental health (Griffith, 2020; Spinelli et al., 2020), we hypothesized that three main factors may contribute to the alarming levels of parenting-related exhaustion during the lockdown: (a) pre-existing conditions relating to gender, age, education, and children (e.g., number of children, children with cognitive or physical disabilities [special needs]); (b) COVID-19 experiences, which were theorized to be risk factors (i.e., living in a highly infected area, spending the lockdown with others vs. alone with children, working during the lockdown, infected loved ones, losses); and (c) psychological variables, which were theorized to be protective factors (i.e., social support, parental resilience, psychological well-being). Higher levels of parentingrelated exhaustion were hypothesized to be linked to pre-existing stress, negative COVID-19 experiences (i.e., losses, infected loved ones, isolation), and a poor psychological condition (i.e., lack of support/resilience, higher psychological distress).

#### Methods

### Participants and Procedures

The survey was completed by a sample of 2,173 Italian mothers and fathers. Of these, 219 (10.1%) were excluded from the analysis because they did not meet the inclusion criteria, while 728 (33.5%) were eliminated due to incomplete or missing information. The final sample was comprised of 1,226 caregivers (89% mothers;  $M_{\rm age}$  39.13  $\pm$  6.77). The online survey was administered on the Qualtrics platform, between April 3 and 14. Participants completed the survey only after indicating their consent on a form that described the study aims, participant rights, and data treatment procedure. Participants were recruited through social media (i.e., a survey link posted on Facebook and Instagram, with instructions), including snowball sampling via WhatsApp. The survey took approximately 20 min to complete, and participation was voluntary, anonymous, and free. The study was approved by the local ethics committee (Board of the Department of Human Neuroscience, Faculty of Medicine and Dentistry, Sapienza University of Rome, n. 6.2020). The inclusion criteria were as follows: (a) at least 18 years old and (b) parent to at least one child, aged 0-13 years, who was living with them during the lockdown. With respect to the latter criterion, we selected this age range for the children because we expected that the parents of these children would be

experiencing: (a) a higher education-related burden during the outbreak, since younger children often require more parental assistance in their lessons and homework than do adolescents; and (b) a higher emotional burden as a result of having to take care of toddlers round the clock, during a highly stressful situation. Descriptive information for the sample is reported in Table I.

#### Measures

An ad hoc questionnaire was used to gather demographical information and information relating to particular COVID-19 experiences (Table I). The questionnaire encompasses personal information as parental role (mother/father); age; nationality; marital status (married/cohabitant or unmarried); educational level; occupation (employed or unemployed); number of children and age; presence of children with special needs (cognitive or physical disabilities). COVID-19 lockdown experiences were assessed by the following: residence during the lockdown (North, South, or Central Italy); living in the most infected areas (Lombardy, Emilia-Romagna, Piedmont, Veneto, and Marche, which were the regions with the higher infection rates); with whom they were spending the lockdown (only with children or with other family members); working (from home or at the workplace); and finally a set of yes/no questions about the COVID-19 infection(if the participant or significant others were infected, if participants suffered the loss of significant others due to COVID-19).

Parenting-related exhaustion was assessed using the Emotional Exhaustion subscale (EE) (eight items evaluated on a 7-point Likert scale) of a translated version (Fontanesi et al., 2020) of the Parental Burnout Inventory (Roskam et al., 2017). The Parental Burnout Inventory is a reliable instrument for measuring parenting-related burnout (Mikolajczak et al., 2019; Sánchez-Rodríguez et al., 2020; Van Bakel et al., 2018). Example items are "I feel tired when I get up in the morning and have to face another day with my children" and "I feel my parental role is breaking me down." In the present sample, Cronbach's  $\alpha$  was .87. Cut-off scores were calculated following Maslach et al.'s (2010) indications, as follows: low  $\leq$ 16, moderate 17–24, and high  $\geq$ 25.

To assess parents' protective factors, we used the Parental Resilience (PR) and Social Connections (SC) subscales of a translated version (Fontanesi et al., 2020) of the Parents' Assessment of Protective Factors (Kiplinger & Browne, 2014). Each of these subscales is comprised of nine items, which are evaluated on a 5-point Likert scale. Example items are "I take good care of my child even when I am sad" and "I manage the daily responsibilities of being a parent/caregiver" for the PR subscale; and "I have someone who will

Table I. Description of the Study Variables

Pre-existing conditions	N (%)	M(SD)	
Parental role			
Mother	1,095 (89)		
Father	131 (11)		
Parent age		39.13 (6.77)	
Nationality			
Italian	1,200 (98.0)		
Other	26 (2.0)		
Marital status			
Unmarried	134 (11.0)		
Married/cohabitating	1,092 (89.0)		
Education			
Primary school	6 (0.5)		
Middle school	59 (4.8)		
High school	460 (37.5)		
College/university	429 (35.0)		
Postgraduate	272 (22.2)		
Occupation	222 (12.4)		
Unemployed	238 (19.4)		
Mothers	233 (21.3)		
Fathers	5 (3.8)		
Employed	988 (80.6)		
Mothers	862 (78.7)		
Fathers	126 (91.2)	1 (0 (0 75)	
Number of children	540 (44.0)	1.69 (0.75)	
1	540 (44.0)		
2	555 (45.3)		
3	107 (8.7)		
>3 Cl:11	24 (2.0)	( 20 (2.74)	
Child age	100 (0.0)	6.39 (3.74)	
Children with special needs	108 (8.8)		
During the COVID-19 lockdown Residence			
	225 (27.5)		
Northern Italy	325 (27.5)		
Southern Italy	537 (43.8)		
Central Italy Living in the most infected areas <sup>a</sup>	364 (29.7)		
	281 (22.9)		
Living with	171 /12 0)		
Only children	171 (13.9)		
Children, partner/others Working (home/workplace)	1,055 (86.1) 619 (49.7)		
COVID-19–infected	8 (0.7)		
COVID-17-infected COVID-19-infected significant others	319 (26.0)		
COVID-19—infected significant others	111 (9.1)		
Psychological variables	111 (2.1)		<b>t</b> ( <b>p</b> )
Emotional exhaustion			$\iota(p)$
Total scores		14.86 (10.29)	
Mothers		15.52 (10.24)	6.50 (<.001)
Fathers		9.43 (8.97)	0.50 (<.001)
Low	786 (64.1)	). <del>1</del> 3 (8.27)	
Moderate	232 (18.9)		
High	208 (17.0)		
General Health Questionnaire-12	200 (17.0)		
Total scores		19.36 (5.95)	
Mothers		19.63 (5.91)	4.53 (<.001)
Fathers		17.15 (5.76)	1.33 (<.001)
rathers Cut-off ≤13	679 (15.7)	17.13 (3./0)	
Cut-off ≥14	1034 (84.3)		
	1037 (04.3)		

<sup>&</sup>lt;sup>a</sup>Lombardy, Emilia-Romagna, Piedmont, Veneto, and Marche.

COVID-19 = coronavirus disease 2019.

Table II. Multivariate Regression Analysis for Study Variables Predicting Emotional Exhaustion

	В	SEB	β	$R^2$	$\Delta R^2$
Step 1 (pre-existing conditions)				.061	
Parental role $(1 = mother; 2 = father)$	-4.053	0.858	-0.122***		
Age	-0.043	0.051	-0.028		
Education	0.408	0.324	0.035		
Marital status (1 = married/cohabitating; $0 = \text{unmarried}$ )	-1.899	0.890	-0.058*		
Occupation $(1 = \text{employed}; 0 = \text{unemployed})$	-1.313	0.746	-0.048		
Number of children	1.482	0.373	0.108***		
Child age	-0.322	0.096	-0.117**		
Children with special needs $(1 = yes; 0 = no)$	2.576	0.907	0.071**		
Step 2 (COVID-19 experiences)				.063	.003
Living in the most infected areas <sup>a</sup>	-0.597	0.614	-0.024		
Living with other(s) $(1 = yes; 0 = no)$	1.237	0.814	0.042		
Working $(1 = yes; 0 = no)$	0.179	0.582	0.009		
Infected significant other(s) $(1 = yes; 0 = no)$	0.275	0.683	0.012		
Death of significant other(s) $(1 = yes; 0 = no)$	-1.131	1.033	-0.032		
Step 3 (psychological variables)				.290	.227
SC	-1.557	0.293	-0.138***		
PR	-5.766	0.518	-0.293***		
GHQ-12	0.3401	0.045	0.232***		

Note. The tabled beta values reflect Bs after step 3.

COVID-19 = coronavirus disease 2019; GHQ-12= General Health Questionnaire-12; PR = Parental Resilience subscale; SC = Social Connections subscale.

help me get through tough times" and "I am willing to ask for help from my family" for the SC subscale. Internal consistencies in our sample were .85 and .93, respectively.

The General Health Questionnaire-12 (GHQ-12)—a shorter version of Goldberg's General Health Questionnaire (Goldberg, 1978)—was employed to assess parents' psychological distress during the lockdown. Cronbach's α was .84. Cut-off scores were calculated on the basis of previous research on general and clinical populations in Italy, as follows: scores ≤13 indicated low or no significance presence of psychological distress, and scores ≥14 indicated the (clinical) presence of psychological distress (Giorgi et al., 2014; Piccinelli & Politi, 1993; Piccinelli et al., 1993).

## Statistical Analyses

Statistical analyses were run using IBM SPSS 26. Post-hoc power was calculated using G\*Power 3.1.9.7. Descriptive statistics of all study variables and prevalence rates for emotional exhaustion and distress among the surveyed parents were computed. Differences between mother and father subgroups on emotional exhaustion and stress were assessed using t-test analyses. A multivariate linear regression model was used to evaluate the influence of risk and protective factors on parental emotional exhaustion scores. Predictors comprised pre-existing conditions (i.e., parental role, employment, education, age, marital status, children age, having a child with special needs,

number of children), COVID-19-related experiences (i.e., working during lockdown, living with others during lockdown, living in a highly infected area, number of relevant others infected, losses due to COVID-19), and psychological variables (i.e., PR, SC, GHQ-12). These factors were sequentially included as predictors of total emotional exhaustion in three steps. A *post-hoc* power analysis  $(1-\beta)$  suggested that the sample size was sufficient to provide robust power  $(1-\beta=1.0)$  for multiple linear regression with an effect size of 0.41, a critical  $\alpha$  of .05, and 16 predictors.

# Results

Twenty-six percent of the sample reported that a significant other (i.e., relative or close friend) had been infected with COVID-19, and 9% of these suffered the loss of a significant other. A few respondents declared that they had been personally infected (Table I). Seventeen percent of the sample reported significant parenting-related exhaustion (with scores >25). Furthermore, most parents reported a clinically alarming level of distress (84% with scores >14 on the GHQ-12), and mothers showed higher levels of parenting-related exhaustion than did fathers (d=0.63).

The multivariate regression model is reported in Table II. Pre-existing condition in step 1 accounted for 0.6% of variance, significant variables were maternal role ( $\beta = -5.755$ , p < .001), occupation ( $\beta = -1.575$ ,

<sup>&</sup>lt;sup>a</sup>Lombardy, Emilia-Romagna, Piedmont, Veneto, and Marche.

<sup>\*</sup>p < .05; \*\*p < .01; \*\*\*p < .001.

p < .05), number of children ( $\beta = 1.662$ , p < .01), children age ( $\beta = -0.383$ , p < .001), children with special needs ( $\beta = 3.002$ , p < .01). In the second step, COVID-19-related variables were added but none of these had a significative impact in the analysis ( $\Delta R^2 =$ .003). Contrary to our expectations, in fact, COVID-19 variables were not significant in determining emotional exhaustion. For example, living in the most infected areas of Italy (i.e., the northern regions of Lombardy, Piedmont, Emilia-Romagna, Marche, and Veneto) had no effect on parenting-related exhaustion, compared to living in the least infected areas (i.e., central and southern Italy) and the loss of a loved one from COVID-19. However, the variables of the first step remain significant. In the last step, psychological variables were added and, as expected, greater parenting-related exhaustion was predominantly independently predicted by psychological distress ( $\beta$  = 0.23) and, to a lesser extent, by lower parental resilience, motherhood, having a child with special needs, being single, having fewer perceived social connections, having a large number of children, and having younger children (Table II). The final multivariate regression model accounted for 29% of the variance.

#### **Discussion**

To our knowledge, the present research was the first cross-sectional study to address parenting-related exhaustion in a large community sample of parents of children aged 0–13 during the COVID-19 lockdown. More than 80% of our sample reported high levels of psychological distress, and nearly one in five (17%) reported significant parenting-related exhaustion. Although no comparison data are available on this epidemic, we feel that the present findings are of clinical significance, suggesting that there is a high psychological burden of social isolation.

Of interest, and consistent with previous results showing gender differences in vulnerability to stress (e.g., Taylor et al., 2000), mothers showed significantly higher psychological distress than fathers; this calls for particular psychosocial attention to be paid to women. In general, the wide prevalence of high psychological distress found in the present study might be explained by the prolonged social isolation, combined with parents' feelings of general helplessness and increased care demands from their children. Such distressing factors may be particularly heightened for single parents with more than one child or parents with a special needs child. The higher psychological distress shown by mothers may also indicate that women are experiencing an additional source of stress when attempting to balance their traditional primary caregiving responsibilities with professional demands.

The main symptom of parental burnout syndrome is parenting-related exhaustion, which consists of overwhelming exhaustion related to the parental role that can lead to the belief that parenting requires too great an investment and consequently reduce the amount of time that parents spend with their children (Mikolajczak et al., 2018; Roskam et al., 2018). Parenting is a complex and stressful activity (e.g., Crnic & Low, 2002), and the unusual and prolonged engagement in parenting that is required during the COVID-19 lockdown could partially explain parents' feelings of being emotionally drained and insufficiently prepared to meet parental demands. Although more than half of our participants (64%) did not report significant levels of emotional exhaustion relating to parenting, previous research has reported that only 1.3-8.8% of parents in the general population show an alarming rate of parental burnout, of which emotional exhaustion is a specific feature (Roskam et al., 2017).

The present results also revealed a high-risk group for parenting-related exhaustion, characterized by the following factors: motherhood, being single, having younger children, having a special needs child, and having a large number of children. This finding is in line with previous studies that have highlighted risk factors for parenting stress, relating to sociodemographic characteristics (e.g., having a large number of children), child features (e.g., having a child with a disability or sleep problems), and family functioning (e.g., lacking parental support from a partner) (Mikolajczak et al., 2018). It could be argued that the present finding that mothers were at greater risk of suffering from parenting-related exhaustion was due to the female over-representation in our sample. However, because the Italian culture still holds that women should be the primary caregiver to their children, responsible for maintaining the household, and also involved in professional work, mothers may have suffered more than fathers due to the pressures of working from home, managing children's home schooling, and managing the family, more generally; for this reason, they may have felt more personally involved in the survey topic.

Furthermore, parents with higher psychological distress, lower parental resilience, and lower perceived social connections were at greater risk of experiencing higher parenting-related exhaustion. Parental resilience, which refers to the process of managing stress and functioning well in the face of stressors, challenges, and adversity, is a key element of a well-functioning family system (Gavidia-Payne et al., 2015; Kiplinger & Browne, 2014). Previous studies have shown that parental health and supportive social connections are linked to positive parental mood, parental satisfaction, well-being, a sense of competence, and

lower psychological distress (e.g., Lee et al., 2001). In other words, parental resilience and social connections seem to decrease the risk of experiencing parenting-related exhaustion.

Surprisingly, experiences related to COVID-19 did not have a direct and significant impact on emotional exhaustion in our sample. However, this finding is consistent with that of a recent study conducted with 854 Italian parents of children aged 2–14 years, which found that living in an at-risk contagion zone or being in closer contact with the virus had no significant effect on the well-being of parents and children (Spinelli et al., 2020). Thus, pre-existing conditions and psychological variables may have a greater impact on the risk for developing parenting-related exhaustion than specific COVID-19 experiences. However, further studies should examine this issue in depth.

The present findings have significant implications. First, parenting-related exhaustion may represent a threat to children's well-being. Highly psychologically distressed parents could be less available, accessible, and responsive to their children's needs, and this might increase the likelihood that their children will develop maladaptive behavior. Furthermore, the study provides additional support for the call for preventive activities and well-being programs to support parents during the COVID-19 pandemic.

Mental health professionals and social workers should be alerted to the effects of lockdown and isolation on parenting and, consequently, children's well-being. As geographical location (i.e., living in the most highly infected areas) did not emerge as a risk factor, the psychological condition of parents was found to be most significant, over and above specific COVID-19 variables (e.g., infected loved ones, losses).

The mental health literature provides robust evidence that interventions can mitigate negative outcomes in the aftermath of a disaster (e.g., Magruder et al., 2016). Governments and healthcare authorities should adopt appropriate measures to respond to this risk factor, such as an assessment of families' needs and psychological interventions to mitigate emotional exhaustion and psychological distress among at-risk families. For example, during the early phase of this global health crisis, information and tips for parents on how to explain the risks of COVID-19 to their children and how to manage daily life at home (including social distancing and home schooling) could be very useful. In this regard, the open access online parenting resources provided by the WHO and other institutional agencies are good initiatives. These resources, based on robust evidence from randomized controlled trials, provide tips for parents to build positive relationships and manage parenting stress (Cluver et al., 2020).

Research on interventions following mass disasters suggests that "psychological first aid" is a meaningful first step in ensuring basic care and support (Fox et al., 2012). Effective longer-term interventions may include mental health services within primary care settings (North & Pfefferbaum, 2013) and family-based and trauma-informed training programs for mental health professionals and school personnel (Cohen, 2002; Klingman & Cohen, 2004). Families with preexisting mental needs should be supported by the continuous delivery of their regular psychotherapeutic and psychiatric treatment (e.g., via telepsychiatry and online-delivered care) through all phases of the pandemic, and screening via helplines could be used to identify the most severe cases (Fegert et al., 2020). The efficacy of telehealth family-based interventions in enhancing parental well-being, parenting behavior, and child mental health, including in high-risk populations, has been confirmed (Harris et al., 2020; MacDonell & Prinz, 2017). Of note, telemental health services are not widely available to socially disadvantaged populations, due to their lack of access to technology (Golberstein et al., 2020). Thus, in preparation for a possible future crisis, such modalities should be expanded to reach these populations by reducing inequities in access to care. Furthermore, the clear coordination of child protection and mental health services could be helpful for families at risk of violence. Finally, mental health professionals and services should be equipped with information on the available interventions, methods to assess and treat conditions of particular risk, and toolkits to communicate essential psychosocial care principles and psychological first aid (Fontanesi et al., 2020).

In interpreting the present findings, balanced consideration should be given to the study's limitations and strengths. At the time of the investigation, no data on the effects of the COVID-19 epidemic were available. Thus, we used a cross-sectional online survey to recruit as wide and representative a sample of the Italian population as possible, in order to capture a timely picture of the national situation. The strengths of our study (i.e., its contribution to the literature, its large sample size, and its use of validated psychological assessment measures) should be considered in light of its limitations, which include: the use of only parent self-report measures, the inability to detect the direction of causality, due to the cross-sectional study design; the potential for social desirability bias; the inconsistent availability of Internet connectivity in the general public; respondents' particular motivations to participate in the online assessment; and the low number of fathers enrolled. With respect to this latter limitation, the gender imbalance in the present study has been consistently demonstrated, reported, and addressed in previous research (Saleh & Bista, 2017;

Slauson-Blevins & Johnson, 2016; Yetter & Capaccioli, 2010). Further longitudinal research in different countries affected by the COVID-19 pandemic is needed.

In conclusion, the present findings highlight how the COVID-19 crisis has contributed to heightening parents' emotional fatigue, especially amongst parents with pre-existing conditions of vulnerability. The results also raise serious concerns about the need for specific social and psychological support programs for parents and families, both during and after the pandemic, over and above national economic interventions to help families.

## Conflicts of interest:

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest. *Funding*:

No funding source to discolse.

#### References

- Bøe, T., Serlachius, A. S., Sivertsen, B., Petrie, K. J., & Hysing, M. (2018). Cumulative effects of negative life events and family stress on children's mental health: The Bergen Child Study. *Social Psychiatry and Psychiatric Epidemiology*, *53*(1), 1–9. https://doi.org/10.1007/s00127-017-1451-4
- Brooks, S. K., Webster, R. K., Smith, L. E., Woodland, L., Wessely, S., Greenberg, N., & Rubin, G. J. (2020). The psychological impact of quarantine and how to reduce it: Rapid review of the evidence. *The Lancet*, 395, 912–920. https://doi.org/10.1016/S0140-6736(20)30460-8
- Cluver, L., Lachman, J. M., Sherr, L., Wessels, I., Krug, E., Rakotomalala, S., Blight, S., Hillis, S., Bachman, G., Green, O., Butchart, A., Tomlinson, M., Ward, C. L., Doubt, J., & McDonald, K. (2020). Parenting in a time of COVID-19. *The Lancet*, 395, e64.https://doi.org/10.1016/S0140-6736(20)30736-4
- Cohen, R. E. (2002). Mental health services for victims of disasters. *World Psychiatry*, 1, 149–152.
- Colizzi, M., Sironi, E., Antonini, F., Ciceri, M. L., Bovo, C., & Zoccante, L. (2020). Psychosocial and behavioral impact of COVID-19 in autism spectrum disorder: An online parent survey. *Brain Sciences*, *10*, 341.https://doi.org/10.3390/brainsci10060341
- Conger, R. D., Conger, K. J., Elder, G. H., Jr., Lorenz, F. O., Simons, R. L., & Whitbeck, L. B. (1992). A family process model of economic hardship and adjustment of early adolescent boys. *Child Development*, 63, 526–541. https://doi.org/10.1111/j.1467-8624.1992.tb01644.x
- Crnic, K., & Low, C. (2002). Everyday stresses and parenting. In M. H. Bornstein (Ed.), *Handbook of parenting: Practical issues in parenting* (pp. 243–267). Lawrence Erlbaum Associates Publishers.
- de Girolamo, G., Cerveri, G., Clerici, M., Monzani, E., Spinogatti, F., Starace, F., Tura, G., & Vita, A. (2020). Mental health in the coronavirus disease 2019 emergency—The Italian response. *JAMA Psychiatry*, 77, 974.https://doi.org/10.1001/jamapsychiatry.2020.1276

- Fegert, J. M., Vitiello, B., Plener, P. L., & Clemens, V. (2020). Challenges and burden of the coronavirus 2019 (COVID-19) pandemic for child and adolescent mental health: A narrative review to highlight clinical and research needs in the acute phase and the long return to normality. Child and Adolescent Psychiatry and Mental Health, 14, 20.10.1186/s13034-020-00329-3
- Fontanesi, L., Marchetti, D., Mazza, C., Di Giandomenico, S., Roma, P., & Verrocchio, M. C. (2020). The effect of the COVID-19 lockdown on parents: A call to adopt urgent measures. *Psychological Trauma: Theory, Research, Practice, and Policy*, 12(S1), S79–S81. Advance online publication. http://doi.org/10.1037/tra0000672
- Fox, J. H., Burkle, F. M., Bass, J., Pia, F. A., Epstein, J. L., & Markenson, D. (2012). The effectiveness of psychological first aid as a disaster intervention tool: Research analysis of peer-reviewed literature from 1990–2010. *Disaster Medicine and Public Health Preparedness*, 6, 247–252. https://doi.org/10.1001/dmp.2012.39
- Gavidia-Payne, S., Denny, B., Davis, K., Francis, A., & Jackson, M. (2015). Parental resilience: a neglected construct in resilience research. *Clinical Psychologist*, 19, 111–121. https://doi.org/10.1111/cp.12053
- Giorgi, G., Leon-Perez, J. M., Castiello D'Antonio, A., Fiz Perez, F. J., Arcangeli, G., Cupelli, V., & Mucci, N. (2014). The General Health Questionnaire (GHQ-12) in a sample of Italian workers: Mental health at individual and organizational level. World Journal of Medical Sciences, 11, 47–56. 10.5829/idosi.wjms.2014.11.1.83295
- Goldberg, D. P. (1978). Manual of the General Health Questionnaire. NEFR Publishing.
- Golberstein, E., Wen, H., & Miller, B. F. (2020). Coronavirus disease 2019 (COVID-19) and mental health for children and adolescents. *JAMA Pediatrics*, 174, 819.https://doi.org/10.1001/jamapediatrics.2020.1456
- Griffith, A. K. (2020). Parental burnout and child maltreatment during the COVID-19 pandemic. *Journal of Family Violence*, 1–7. Advance online publication. https://doi.org/10.1007/s10896-020-00172-2
- Halvorsen, E., Stamu-O'Brien, C., Carniciu, S., & Jafferany, M. (2020). Psychological effects of COVID-19 on parenting and maternal–fetal mental health. *Dermatologic Therapy*, 33, e13579. Advance online publication. https://doi.org/10.1111/dth.13579
- Harris, M., Andrews, K., Gonzalez, A., Prime, H., & Atkinson, L. (2020). Technology-assisted parenting interventions for families experiencing social disadvantage: A meta-analysis. *Prevention Science*, 21, 714–727. https:// doi.org/10.1007/s11121-020-01128-0
- Huang, Y., & Zhao, N. (2020). Mental health burden for the public affected by the COVID-19 outbreak in China: Who will be the high-risk group? *Psychology. Health & Medicine*, 1–12. Advance online publication. 10.1080/13548506.2020.1754438
- Kiplinger, V. L., & Browne, C. H. (2014). Parents' assessment of protective factors: User's guide and technical report. Center for the Study of Social Policy.
- Klingman, A., & Cohen, E. (2004). School-based multisystemic interventions for mass trauma. Springer Science & Business Media.

- Lauri Korajlija, A., & Jokic-Begic, N. (2020). COVID-19: Concerns and behaviours in Croatia. *British Journal of Health Psychology*, https://doi.org/10.1111/bjhp.12425
- Lazzerini, M., & Putoto, G. (2020). COVID-19 in Italy: Momentous decisions and many uncertainties. *The Lancet Global Health*, 8, e641–e642. 10.1016/S2214-109X(20)30110-8
- Lee, R. M., Draper, M., & Lee, S. (2001). Social connectedness, dysfunctional interpersonal behaviors and psychological distress: Testing a mediator model. *Journal of Counseling Psychology*, 48, 310–318. https://doi.org/10.1037/0022-0167.48.3.310
- Leung, G. M. (2003). The impact of community psychological responses on outbreak control for severe acute respiratory syndrome in Hong Kong. *Journal of Epidemiology & Community Health*, 57, 857–863. https://doi.org/10.1136/jech.57.11.857
- MacDonell, K. W., & Prinz, R. J. (2017). A review of technology-based youth and family-focused interventions. *Clinical Child and Family Psychology Review*, 20, 185–200. https://doi.org/10.1007/s10567-016-0218-x
- Masarik, A. S., & Conger, R. D. (2017). Stress and child development: A review of the Family Stress Model. *Current Opinion in Psychology*, 13, 85–90. https://doi.org/10.1016/j.copsyc.2016.05.008
- Maslach, C., Jackson, S. E., & Leiter, M. P. (2010). *Maslach burnout inventory manual*. Mind Garden.
- Mikolajczak, M., Brianda, M. E., Avalosse, H., & Roskam, I. (2018). Consequences of parental burnout: Its specific effect on child neglect and violence. *Child Abuse & Neglect*, 80, 134–145. https://doi.org/10.1016/j.chiabu.2018.03.025
- Mikolajczak, M., Gross, J. J., & Roskam, I. (2019). Parental burnout: What is it, and why does it matter? *Clinical Psychological Science*, 7, 1319–1329. https://doi.org/10.1177/2167702619858430
- Mikolajczak, M., Raes, M. E., Avalosse, H., & Roskam, I. (2018). Exhausted parents: Sociodemographic, childrelated, parent-related, parenting and family-functioning correlates of parental burnout. *Journal of Child and Family Studies*, 27, 602–614. https://doi.org/10.1007/s10826-017-0892-4
- North, C. S., & Pfefferbaum, B. (2013). Mental health response to community disasters: A systematic review. *JAMA*, 310, 507–518. https://doi.org/10.1001/jama.2013. 107799
- Orgilés, M., Morales, A., Delvecchio, E., Mazzeschi, C., & Espada, J. P. (2020). Immediate psychological effects of the COVID-19 quarantine in youth from Italy and Spain. *PsyArXiv*, https://doi.org/10.31234/osf.io/5bpfz
- Piccinelli, M., Bisoffi, G., Bon, M. G., Cunico, L., & Tansella, M. (1993). Validity and test–retest reliability of the Italian version of the 12-item General Health Questionnaire in general practice: A comparison between three scoring methods. *Comprehensive Psychiatry*, 34, 198–205. https://doi.org/10.1016/0010-440x(93)90048-9
- Piccinelli, M., & Politi, P. (1993). Struttura fattoriale della versione a 12 domande del General Health Questionnaire in un campione di giovani maschi adulti. *Epidemiologia e Psichiatria Sociale*, 2, 173–181. https://doi.org/10.1017/S1121189X00006990

- Pisano, L., Galimi, D., & Cerniglia, L. (2020). A qualitative report on exploratory data on the possible emotional/behavioral correlates of Covid-19 lockdown in 10 years children in Italy. *PsyArXiv*, 4 https://doi.org/10.31234/osf.io/stwbn
- Roje Đapić, M., Buljan Flander, G., & Prijatelj, K. (2020). Children behind closed doors due to COVID-19 isolation: Abuse, neglect and domestic violence. *Archives of Psychiatry Research*, *56*, 181–192. https://doi.org/10.20471/dec.2020.56.02.06
- Roskam, I., Brianda, M. E., & Mikolajczak, M. (2018). A step forward in the conceptualization and measurement of parental burnout: the Parental Burnout Assessment (PBA). *Frontiers in Psychology*, 9, 758.https://doi.org/10.3389/fpsyg.2018.00758
- Roskam, I., Raes, M. E., & Mikolajczak, M. (2017). Exhausted parents: Development and preliminary validation of the parental burnout inventory. *Frontiers in Psychology*, 8, 163.https://doi.org/10.3389/fpsyg.2017. 00163
- Rubin, G. J., Potts, H. W. W., & Michie, S. (2010). The impact of communications about swine flu (influenza A H1N1v) on public responses to the outbreak: Results from 36 national telephone surveys in the UK. *Health Technology Assessment*, 14, 183–266. https://doi.org/10.3310/hta14340-03
- Saleh, A., & Bista, K. (2017). Examining factors impacting online survey response rates in educational research: Perceptions of graduate students. *Journal of Multidisciplinary Evaluation*, 13, 63–74. https://journals.sfu.ca/jmde/index.php/jmde\_1/article/view/487
- Sánchez-Rodríguez, R., Callahan, S., & Séjourné, N. (2020). Development and preliminary validation of the Maternal Burnout Scale (MBS) in a French sample of mothers: Bifactorial structure, reliability, and validity. *Archives of Women's Mental Health*, 23, 573–583. https://doi.org/10.1007/s00737-019-00993-1
- Sim, K., Huak Chan, Y., Chong, P. N., Chua, H. C., & Wen Soon, S. (2010). Psychosocial and coping responses within the community health care setting towards a national outbreak of an infectious disease. *Journal of Psychosomatic Research*, 68, 195–202. https://doi.org/10.1016/j.jpsychores.2009.04.004
- Slauson-Blevins, K., & Johnson, K. M. (2016). Doing gender, doing surveys? Women's gatekeeping and men's nonparticipation in multi-actor reproductive surveys. Sociological Inquiry, 86, 427–449. https://doi.org/10. 1111/soin.12122
- Sobolewski, J. M., & Amato, P. R. (2005). Economic hardship in the family of origin and children's psychological well-being in adulthood. *Journal of Marriage and Family*, 67, 141–156. https://doi.org/10.1111/j.0022-2445.2005.00011.x
- Spinelli, M., Lionetti, F., Pastore, M., & Fasolo, M. (2020). Parents' stress and children's psychological problems in families facing the COVID-19 outbreak in Italy. Frontiers in Psychology, 11, 1713.https://doi.org/10.3389/fpsyg. 2020.01713
- Sprang, G., & Silman, M. (2013). Posttraumatic stress disorder in parents and youth after health-related disasters.

Disaster Medicine and Public Health Preparedness, 7, 105–110. https://doi.org/10.1017/dmp.2013.22

- Taylor, S. E., Klein, L. C., Lewis, B. P., Gruenewald, T. L., Gurung, R. A. R., & Updegraff, J. A. (2000). Biobehavioral responses to stress in females: Tend-and-befriend, not fight-or-flight. *Psychological Review*, 107, 411–429. https://doi.org/10.1037/0033-295x.107.3.411
- Van Bakel, H. J., Van Engen, M. L., & Peters, P. (2018). Validity of the parental burnout inventory among Dutch employees. *Frontiers in Psychology*, *9*, 697.https://doi.org/10.3389/fpsyg.2018.00697
- Van Bortel, T., Basnayake, A., Wurie, F., Jambai, M., Koroma, A. S., Muana, A. T., Hann, K., Eaton, J., Martin, S., & Nellums, L. B. (2016). Psychosocial effects of an Ebola outbreak at individual, community and international levels. *Bulletin of the World Health Organization*, 94, 210–214. https://doi.org/10.2471/BLT.15.158543
- Yetter, G., & Capaccioli, K. (2010). Differences in responses to Web and paper surveys among school professionals. *Behavior Research Methods*, 42, 266–272. https://doi.org/10.3758/BRM.42.1.266