

The impact of the Covid-19 social and physical restrictive measures on Cypriot parents' and children's' well-being

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Abstract

The present study examines how Covid-19 and the imposed social/physical protection measures and restrictions are related to parents' personal and social challenges in the Cyprus population. Furthermore, the study examines how these difficulties affect the psychosocial and behavioral well-being of parents and their offspring. Our sample included 296 parents of minors from six to seventeen years. Parents completed the Covid Impact Scale, the Depression Anxiety Stress Scale, and the Strengths and Difficulties Questionnaire. Data analysis revealed that the Covid-19 perceived parental difficulties negatively impacted their personal and emotional well-being and affected children's emotions and conduct. When the Covid-19 perceived challenges affect parental well-being, then parents' communication with their children may become ineffective thus, increasing the possibility for children to develop emotional issues. Our findings reinforce the need to develop prevention programs to enhance children's and parents' psycho-emotional status.

Keywords: Children's well-being, parents' well-being Covid-19, Covid perceived difficulties

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Introduction

March 2020 signalled the decisive moment in which the WHO declared the new coronavirus Sars-V-2 (also known as Covid-19) a pandemic. Following this drastic development, and to curb the further transmission of the virus, governments, mostly in the western world, began the implementation of austere physical- and social-distancing measures, in the hope of flattening the epidemic curve. For example, the Cyprus government-imposed lockdowns and suspended school operations for different time periods since March 2020, resulting in students attending classes from home with modern synchronous and asynchronous teaching methods. Also, businesses closed (such as restaurants, shops, and gyms), whereas numerous people lost their jobs or saw a sudden decrease in their income. Many employees had to switch to telework and work from home (Demetriou et al., 2021; Hadjicharalambous et al., 2021). Research data shows that the pandemic, and the resulting restrictive measures implemented around the world, have impacted the mental health of millions of people globally. The resulting psychological consequences, may also be explained by the long duration of the pandemic (over 30 months). So far, several studies have examined the psychosocial implications of the Sars-Cov-2 lockdown measures on the general public, but also on specific social groups globally (e.g., college students, medical staff, working mothers, and the relatives of people who perished from the disease (Demetriou et al., 2021; Hadjicharalambous et al., 2021). Most of the data demonstrates that the repeated lockdowns and the prolonged social

distancing measures impacted people's mental health negatively, recording a rise in negative emotions (fear, depressive symptoms), somatic symptoms (sleep problems, panic attacks) and social dysfunction in populations across the world (Brooks et al., 2020; Cao et al., 2020; Demetriou et al., 2020; Holmes et al., 2020; Pfefferbaum & North, 2020; Rajkumar, 2020; Shah et al., 2020; Wang et al., 2020). Furthermore, studies indicated that anxiety, stress, depression, somatization, loneliness, and poor sleep either appeared for the first time or increased due to the pandemic (Bao et al., 2020; Bhuiyan et al., 2020; Çiçek et al., Demetriou et al., 2021; 2020; Gunnell et al., 2020; Loades et al., 2020; Satıcı et al., 2020; Zandifar & Badrfam, 2020). Such psycho-somatic symptoms may be overwhelming and detrimental for people's well-being, particularly if the individual has previous experiences of anxiety and depression (Fiorillo & Gorwood, 2020; Hadjicharalambous et al., 2020; Huang and Zhao, 2020; Ivchenko et al., 2020; Shigemura et al., 2020; Zandifar & Badrfam, 2020; Zhang & Ma, 2020).

While the impact of Sars-Cov-2 and the confining measures on the well-being of the general population has been the focus of several studies, only a few have investigated their effects on the mental health conditions of parents, children, and the family as a functioning system (Brooks et al., 2020). Recent, relevant studies have shown associations between the Covid-19 with psychological difficulties in children, adolescents, and parents (Garbe et al., 2020; Marchelli et al., 2020; Ollivier et al., 2021; Patrick et al., 2020). Their findings demonstrated how Covid-19 and the physical/social

distancing measures are significantly associated with children's negative feelings of fear, clinging, inattention, and irritability (Jiao et al., 2020). Xie et al., (2020) showed that during the Covid-19 lockdowns in China, almost one-fourth (23%) of school-aged children experienced depressive symptoms, and about one-fifth (19%) showed anxiety-related symptomatology. In line with these results are the study findings by Zhang et al. (2020), illustrating that junior-high and high school students experienced depression, trauma-related distress symptoms, anxiety, and stress symptoms. Orgiles et al. (2020) indicated that the vast majority (85.7%) of the participating Italian and Spanish parents reported that their children showed changes in their emotions and behavior during the lockdowns, i.e., children developed concentration difficulties, boredom, irritability, restlessness, nervousness, feelings of loneliness, and stress. Other studies have highlighted that the strains of quarantine are associated with parents' distress, anxiety, and irritability (Spinelli et al., 2020). Subsequently, parents' stress resulted in difficulty understanding their children's needs and responding sensitively to them, significantly impacting children's well-being (Spinelli et al., 2020). However, other studies have highlighted the need to identify those protective and risk factors resulting from the coronavirus restrictive measures that may impact children's mental health so that the well-being of children and their families can be enhanced in these difficult times (Wang et al., 2020).

Methodology

Research Purpose

In reviewing the relevant literature, it becomes obvious that the implications of the Covid-19 outbreak are related to negative psychological consequences for the general population, parents, and children. Hence, the study aimed to investigate how Covid-19, and the imposed social/physical distancing measures impact parents' and children's social, emotional, and behavioral well-being in the Cyprus population. More specifically, the study explored how the Covid-19 pandemic? measures are associated with risk factors (such as effects on functionality, daily routine, personal relationships, emotion, and behavior) and how these affect the well-being of parents and children. Furthermore, identifying the risk factors associated with the Covid-19 imposed measures and their impact on parents and children's well-being will contribute to developing prevention and intervention programs. Such programs will enhance parents' and children's emotional and social conditions and create better relationships. The research questions of the study were as following:

1. Will the Covid-19 financial difficulties, due to the lockdown and other restrictive measures, negatively impact parents and their children's well-being?
2. Are there any differences between parents and their children's emotional and behavioral well-being during the pandemic according to the parent's and children's demographic characteristics (parent's gender, age, educational level, marital

- status, types of employees, children's gender, and age)?
3. Will the Covid perceived difficulties caused by the implications of the Covid-19 outbreak, and the protection measures negatively impact parents and their children's emotional and behavioral well-being?
 4. Will Covid-19 perceived difficulties negatively impact parents' psychological state and, subsequently, their children's well-being?

mothers (84.1%), and 15.9% were fathers. 52.4% of participants were 28-40 years old, and 47.6% were 41-60 years old. Most of the respondents were married (90.2%). The majority of the sample had achieved higher education (mothers 86.1% and fathers 66.6%), and 82.4% had a full-time job. 51% of parents had a son, and 49% had a daughter. 64.2% of children were 6-11 years old, and 25.8% were 12-17 years old.

Participants

The study participants were 296 parents of children aged six to seventeen years, permanently residing in Cyprus. As shown in Table 1, most of the sample were

Table 1.

Participants' distribution and socio-demographic variables (in percentage).

Demographic variables	N	%	Demographic variables	n	%
Gender			Age		
Father	47	15.9%	28-40	155	52.4%
Mother	249	84.1%	41-60	141	47.6%
Marital status			Mothers' educational level		
Married (two parents)	267	90.2%	Secondary level	41	13.9%
Not married	29	9.8%	University level	255	86.1%
Mothers' type of employment			Fathers' educational level		
Full-time job	244	82.4%	Secondary level	99	33.4%
Part-time job	26	8.8%	University level	197	66.6%
Unemployment	26	8.8%	Children's gender		
Fathers' type of employment			Boy	145	49%
Full-time job	275	92.9%	Girl	151	51%
Part-time job	12	4.1%	Children's age		
Unemployment	9	3%	6-11	190	64.2%
			12-17	106	35.8%

Procedure

The University Research Committee and the Department of Psychological and Social Sciences approved the study. Parents filled out an anonymous online survey. We shared the survey's link via social media for a limited time; the Covid-19 lockdown and the state's physical and social distancing measures made face-to-face interaction with the participants impossible. Before participants completed the survey, researchers provided written information about the study's objectives and requested the participants' informed consent.

Measures/Instruments

Demographic and General Information related to the Covid-19 Pandemic

Parents completed information about

1. the socio-demographics of parents and children: age, gender, grade, marital status, occupation, and education level of parents,
2. the Covid-19: whether parents were confirmed cases, whether their family or friends were confirmed cases, and how Covid-19 affected parents' work and financial status.

Parents' Perceived Difficulties during the Covid-19 Pandemic

We developed the Covid-19 Impact Scale to investigate parents' perceived difficulties during the peak of the Covid-19 pandemic and the duration of the state-imposed lockdown measures. Using a five-point Likert scale, parents assessed how the efforts to restrain the spread of the virus impacted personal lives, social

relationships (with children, friends, and partners), work, habits, and emotional and behavioral status. Some examples of the Covid-19 Impact Scale are: "How much has the Covid-19 pandemic and lockdown measures affected your daily life?" In the same line of thought, the questionnaire asks parents to assess their relationship with their child or their difficulties in engaging in activities of their interest (e.g., cooking, reading, gardening, or other). The internal consistency of scale was $\alpha = .89$.

Parents' Emotional and Behavioral Wellbeing

The aim of the Depression Anxiety Stress Scale (DASS-21) is to evaluate the emotional and behavioral well-being of parents (Lovibond & Lovibond, 1995). Its short version encompasses three subscales to appraise the person's states of stress, anxiety and depression. Parents indicated how much the Covid-19 pandemic and lockdown measures had affected their emotions and behavior over the past two months on a four-point Likert scale. Some examples of the scale questions are: "I found it hard to wind down," "I felt that I was using much nervous energy," and "I felt that life was meaningless." The internal consistency was $\alpha = .95$.

Children's Emotional and Behavioral Wellbeing

Our third instrument was The Strengths and Difficulties Questionnaire (SDQ) where parents evaluate their child's psychosocial and behavioral states (Goodman, 2001). The questionnaire consists of 25 questions assessing children's emotional states, hyperactivity-inattention, behavioral and peer

relationship issues but also, their prosocial behavior. Additionally, parents use a three-point Likert scale to indicate how the COVID-19 pandemic and lockdown measures have affected their children's behavior and mood over the past two months. Some examples of the questionnaire items are: "Many worries or often seems worried," "Often loses temper". The internal consistency was $\alpha=.65$.

Results

Statistical Analysis

We processed and analysed our data using the SPSS (version 26) software. We initially extracted the descriptive statistics, correlations, and internal consistencies among study variables before the primary analyses. We then conducted Factor Analysis, T-test, Anova, Manova, Multivariate Regression Analysis, and Mediation Model Analysis to examine our main research questions.

Factor Analysis

We performed Factor Analysis only for the Covid Impact Scale, which we developed for the study's purpose. We applied The Principal Components Analysis with Varimax rotation for the scale's data analysis. The Kaiser-Meyer-Olkin indication confirmed the adequacy of the sample for analysis, $KMO = .89$. Bartlett's test for sphericity, $\chi^2(45) = 1391.489$, $p < .001$, was statistically significant. Regarding the export of components, based on the Kaiser criterion, we exported two components, which explain 61% of the variation. However, in this study, we used only one element/variable (containing all ten items

of the scale), called "Covid perceived difficulties."

Lovibond's Depression Anxiety Stress Scale (DASS-21, short version) is a set of three subscales aiming to assess the individual's experience of stress, anxiety, and depression (Lovibond & Lovibond, 1995). For the study, we used the three variables of depression, anxiety, and stress to examine the 1st, 2nd, and 3rd research questions. For the 4th and 5th research questions, we used the whole scale as one variable (containing all the 21 items of the scale), and we called it "Parents' wellbeing."

The Strengths and Difficulties Questionnaire (SDQ) comprises five scales: emotional, behavioral, and peer-related issues, hyperactivity, and prosocial skills (Goodman, 2001), which contain the study's five variables. We examined our 1st, 2nd, and 3rd research questions using these variables. For the 4th and 5th research questions, we used the whole scale as one variable (containing all the 25 items of the scale), and we called it "Children's wellbeing."

Correlation Analysis

Data analysis revealed significant positive correlations ($p < .001$) between the following: Symptomatology of depression and variables of anxiety ($r = .83$), stress ($r = .82$), emotional issues ($r = 0.41$, $p < .001$), conduct problems ($r = .35$), hyperactivity ($r = .43$), peer related issues ($r = 0.25$), and difficulties related to Covid-19 ($r = .58$).

Furthermore, we detected a significant positive correlation between Anxiety and stress ($r = .83$, $p < .001$), emotional problems ($r = .47$, $p < .001$), conduct problems ($r = .38$, $p < .001$),

hyperactivity ($r = .50, p < .001$), peer-related issues ($r = .27, p < .001$), and Covid-19-related difficulties ($r = .64, p < .001$). On the other hand, Anxiety showed a significant negative correlation with prosocial skills ($r = -.15, p < .05$).

Following the same data analysis, we detected positive correlations between stress and emotional problems ($r = .40, p < .001$), but also with variables of conduct problems ($r = .32, p < .001$), hyperactivity ($r = .40, p < .001$), peer problems ($r = .27, p < .001$), and Covid perceived difficulties ($r = .52, p < .001$). Further, data analysis showed a significant positive correlation between emotional problems with conduct problems ($r = .53, p < .001$), hyperactivity ($r = .60, p < .001$), peer problems ($r = .34, p < .001$), and Covid perceived difficulties ($r = .43, p < .001$). Moreover, research

results indicated a statistically significant positive correlation between the variable of conduct problems with the variables of hyperactivity ($r = .67, p < .001$), peer problems ($r = .33, p < .001$), and difficulties perceived to be related to Covid-19 ($r = .33, p < .001$). On the contrary, conduct problems showed a significant negative correlation with prosocial skills ($r = -.28, p < .001$). The dimension hyperactivity had a significant positive correlation with the variables of peer problems ($r = .28, p < .001$), Covid perceived difficulties ($r = .45, p < .001$), and a negative correlation with prosocial skills ($r = -.30, p < .001$). Finally, peer problems had a significant negative correlation with prosocial skills ($r = -.37, p < .001$).

Table 2.

Correlations between depression, anxiety, stress, emotional problems, conduct problems, hyperactivity, peer problems, prosocial, and covid perceived difficulties.

	1	2	3	4	5	6	7	8	9
1. Depression	-	.83**	.82**	.41**	.35**	.43**	.25**	-.10	.58**
2. Anxiety		-	.83**	.48**	.38**	.50**	.28**	-.15**	.64**
3. Stress			-	.40**	.32**	.40**	.27**	-.11	.52**
4. Emotional problems				-	.53**	.60**	.34**	-.08	.43**
5. Conduct problems					-	.67**	.33**	-.28**	.33**
6. Hyperactivity						-	.28**	-.30**	.45**
7. Peer problems							-	-.36**	.11
8. Prosocial								-	-.10
9. Covid perceived difficulties									-

Research Question 1. Will the Covid-19 financial difficulties, due to the lockdown and other restrictive measures, negatively impact parents and their children's well-being?

Data analysis for the exploration of our first research question, regarding financial difficulties, demonstrated that parents whose income has been affected due to the pandemic protection measures had more depression symptoms [$F(1,294) = 2.532, p < 0.001$], more anxiety [$F(1,294) = 1.640, p < .001$] and more stress [$F(1,294) = 3.795, p < .001$] than parents who have not been affected financially.

Further analysis showed that children had more emotional symptoms [$F(1,294) = 3.685, p < .001$], more conduct problems [$F(1,294) = 2.630, p < .05$], more hyperactivity [$F(1,294) = 4.330, p < .001$], and more peer problems [$F(1,294) = 1.129, p < .05$] if their parents had been affected financially due to the Covid-19 restrictive measures.

Research Question 2. Are there any differences between parents and their children's emotional and behavioral well-being during the pandemic according to the parent's and children's demographic characteristics?

Research analysis of the sample's demographic characteristics showed a statistically significant difference between fathers and mothers regarding anxiety symptoms [$F(1,294) = 1.840, p < .05$], whereas mothers (7.91 ± 1.05) had more anxiety symptoms than fathers (6.31 ± 1.12). Another statistically significant difference between fathers and mothers appears regarding the stress symptoms [$F(1,294) = 1.937, p < .05$]. Mothers (5.18 ± 1.33) had more stress

symptoms than fathers (3.51 ± 0.88). Additionally, research revealed that there is a difference between fathers and mothers regarding Covid's perceived difficulties [$F(1,294) = 1.771, p < .05$]. Mothers seemed to have more Covid perceived difficulties (31.47 ± 2.11) than fathers (29.00 ± 2.01). Also, mothers stated that their children had more emotional symptoms [$F(1,294) = 3.685, p < .001$] than fathers. On the other hand, fathers stated that their children had more peer problems [$F(1,294) = 1.686, p < .05$] than mothers. Another statistically difference appeared regarding parents' marital status. Non-married parents stated that their children had more emotional symptoms [$F(1,294) = 1.534, p < .05$] (4.41 ± 1.42), more conduct problems [$F(1,294) = 12.176, p < .001$] (2.97 ± 1.01), more hyperactivity [$F(1,294) = 1.283, p < .001$] (5.72 ± 1.32), and more peer problems [$F(1,294) = 5.453, p < .01$] (2.42 ± 1.12), than married parents.

There was also a significant difference between parents' type of employment. Parents who were unemployed had more depression symptoms [$F(5,290) = 3.748, p < .01$] (7.32 ± 2.12), more anxiety [$F(5,290) = 5.508, p < .001$] (10.90 ± 3.12), and more stress [$F(5,290) = 2.427, p < .05$] (6.42 ± 1.90), than parents who had full-time or part-time job. Furthermore, fathers with lower educational level stated that their children had more depression symptoms [$F(1,294) = 2.181, p < .05$] (5.70 ± 1.22), and more hyperactivity [$F(1,294) = 2.109, p < .05$] (4.82 ± 0.87), than fathers with higher educational level. Also, fathers with lower educational level had more Covid perceived difficulties

[$F(1,294) = 2.102, p < .05$] (32.60 ± 3.55), than higher educated parents.

There was also a significant difference between children's gender as their parents stated. Girls had more stress [$F(1,294) = 4.293, p < .05$] (5.35 ± 0.92) than boys (4.45 ± 1.02). On the contrary, boys had more conduct problems [$F(1,294) = 2.748, p < .01$] (2.30 ± 0.56), and more hyperactivity [$F(1,294) = 3.030, p < .05$] (4.70 ± 0.78), than girls. Research results revealed significant difference between children's age. Younger children 6-11 years old had more conduct problems [$F(1,294) = 4.702, p < .05$] (2.20 ± 0.48),

more hyperactivity [$F(1,294) = 2.455, p < .05$] (4.65 ± 0.89), than older children 12-17 years old. On the other hand, older children had more peer problems [$F(1,294) = 4.804, p < .001$] (2.31 ± 0.52), than younger children. Finally, research results showed the effect of the pandemic on children's wellbeing. 30.4% of children had emotional problems, 14.9% had conduct problems, 21.6% had hyperactivity, and 16.6% had peer problems. There is a substantial risk of clinically significant problems in these areas (Table 3).

Table 3.
 Children's wellbeing during Covid-19 pandemic.

	Average	Slightly raided	High
Emotional problems	(153) 51.7%	(53) 17.9%	(90) 30.4%
Conduct problems	(192) 64.9%	(60) 20.3%	(44) 14.9%
Hyperactivity	(198) 66.9%	(34) 11.5%	(64) 21.6%
Peer problems	(204) 68.9%	(43) 14.5%	(49) 16.6%

Research Question 3. Will the Covid perceived difficulties caused by the implications of the Covid-19 outbreak, and the protection measures negatively impact parents and their children's emotional and behavioral well-being?

The Multivariate regression analysis was used to test how much variance in parents' and children's well-being was explained by the Covid perceived difficulties. At first, the application of Pillai's trace in the Manova analysis, demonstrated a significant impact of Covid's perceived difficulties on parents' and children's well-being, $V = 0.41, F(2,293) = 99.90, p < .001$. The separate univariate ANOVAs we performed on the outcome variables also showed significant effects of Covid perceived difficulties on parental well-being, $F(1,294) = 182.61, p < .001$, and children's well-being, $F(1,294) = 70.81, p < .001$. Parameter estimates showed (Table 4) that Covid perceived difficulties positively predicted parents' well-being ($B = .44, t = 13.51, p < .001$) and children's well-being ($B = .11, t = 8.42, p < .001$).

.001). Finally, the model was statistically significant, $F(1,294) = 182.61$, $p < .001$, interpreting 38% of the total parental well-being variation ($r^2 = .383$, Adjusted $r^2 = .381$). Also, the model was statistically significant, $F(1,294) = 70.814$, $p < .001$, interpreting 19% of the total children's well-being variation ($r^2 = .194$, Adjusted $r^2 = .191$).

Table 4.
 Multivariate Regression Analysis.

	<i>B</i>	<i>SE B</i>	<i>T</i>	<i>p</i>
Parents' wellbeing	.44 [.37, .50]	.03	13.51	.000*
Children's wellbeing	.11 [.09, .14]	.01	8.42	.000*

* $p < .001$

Research question 4. Will Covid-19 perceived difficulties negatively impact parents' psychological state and, subsequently, their children's well-being?

We applied the PROCESS mediation analysis in SPSS to examine the indirect effect of Covid's perceived difficulties on children's emotional and behavioral well-being through parents' behavioral and emotional well-being. For this purpose, we used Model 4, which allows the existence of a mediator (W), mediates the relationship between the independent (X) and the dependent variable (Y), and constitutes the mechanism that links these two variables.

As shown in Graph 1, it appears that Covid perceived difficulties are a statistically significant predictor of children's and parents' well-being, ($b = .11$, $t = 8.42$, and $b = .44$, $t = 13.51$, at $p < .001$ respectively). Parents' well-being seems to also predict children's well-being in a statistically significant manner ($b = .14$, $t = 5.93$, $p < .001$). Additionally, when we considered parental well-being as a mediating factor, the predictive power of covid perceived difficulties in children's well-being was less. However, it remained statistically significant, indicating that there is partial mediation, $b = .05$, $t = 3.31$, $p = .001$. We also found a statistically significant indirect effect of covid perceived difficulties on children's well-being, mediated by parents' well-being, $b = .06$, BcaCI [.03, .09]

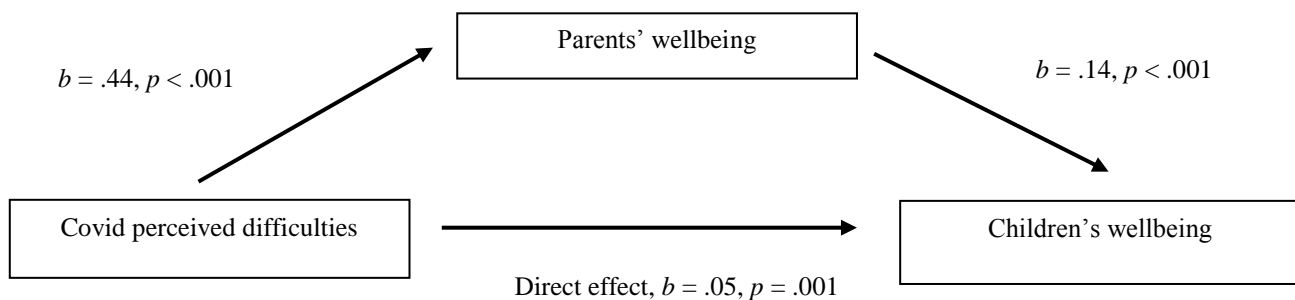


Figure 1.
 Mediation Model.

Discussion

The Covid-19 outbreak presented an unexpected situation affecting many countries worldwide. The imposed lockdown measures affected peoples' personal lives and functionality. While the effects of school and business closures and physical/social distancing between people, children, and families were evident early on, the consequences for families' well-being were barely considered. Studies conducted worldwide focused on emotional and behavioral issues of parents and children during the pandemic, highlighting the negative impact of quarantine and social isolation on children's behavior and families' functionality (Almeida et al., 2020; Azhari et al., 2020; Brown et al., 2020; Demetriou et al., 2020, Griffith, 2020; Hadjicharalambous et al., 2020; Jiao et al., 2020; Oliveira et al., 2021; Orgilés et al., 2020; Roos et al., 2021; Wang et al., 2020; Westrupp et al., 2021).

Our present study investigated Covid-19 and the imposed social/physical protection measures related to parents' personal and social difficulties. Furthermore, the study examined how these difficulties affect parents' and children's social, emotional, and behavioral well-being. First, research results showed that financial challenges due to Covid-19 and the lockdown measures negatively impact parents and their children's well-being. Parents who faced financial difficulties during the pandemic appeared to have more depression symptoms, anxiety, stress, and Covid perceived complications. Their children had more emotional symptoms, conduct problems, hyperactivity, and peer problems. Similar findings have been

concluded by the studies of Hadjicharalambous et al. (2020), Nguyen et al. (2020), Nguyen et al. (2017), and Ha et al. (2014), showing that family income is an essential factor in people's mental health and quality of life. Researchers revealed that participants whose family income was affected by pandemic and lockdown measures had more depression, insomnia, and anxiety symptoms.

The study also examined differences in parents and their children's emotional and behavioral well-being during the pandemic according to their demographic characteristics. The findings revealed that (a) the participating Cypriot mothers had more anxiety symptoms, more stress symptoms, and more Covid perceived difficulties, (b) unemployed parents had more depression symptoms, more anxiety, and more stress, and (c) fathers with lower education had more Covid perceived difficulties. These results are similar to other studies revealing that mothers had more anxiety, stress, and nervousness, during the pandemic (Richaud et al., 2022), leading to children's negative behaviors, such as nervousness, screaming, disobedience, and anxiety (Behrendt et al., 2020; Gibler et al., 2018; Luo et al., 2020; Mazza et al., 2020; Richaud et al., 2022; Saddik et al., 2020). Fathers experienced higher rates of mental health problems and parenting irritability and demonstrated lower positive family expressiveness (Richaud et al., 2022).

Regarding children's emotional and behavioral well-being, findings showed that 30.4% of children had emotional problems, 14.9% experienced behavioral issues, 21.6% had hyperactivity symptoms, and 16.6% had problems in their peer relationships. Wang et al. (2020) revealed

similar findings reporting that the pandemic and isolation negatively impacted children's mental health. Children developed symptoms of loneliness, boredom, nervousness, uneasiness, anxiety, frustration, low tolerance, hyperactivity, irritability, sadness, aggression, and low interest (Feinberg et al., 2021; Garfin, Silver, & Holman, 2020; Jiao et al., 2020; Liu et al., 2020; Orgilés et al., 2020; Romero et al., 2020; Xie et al., 2020).

Research results also revealed that parents' depression, anxiety, stress symptoms, and Covid perceived difficulties were positively associated with children's emotional, behavioral, and social problems and hyperactivity. Research results align with other studies supporting that while parents experienced high anxiety and stress during the pandemic, their children developed psychological issues, such as anxiety and emotional overload (Almeida et al., 2020; Brown et al., 2020; Griffith, 2020; Roos et al., 2021).

Furthermore, similar studies demonstrated that parental anxiety symptoms were associated with children's emotional, behavioral, and hyperactivity problems (Adams et al., 2021; Hanetz-Gamliel et al., 2021; Raffagnato et al., 2021; Romero et al., 2020). Other studies have come to associate the impact of the Sars-Cov-2 pandemic with family stress and negative parenting practices, which may, in turn, affect children's development (Hutchison et al., 2016; Lee et al., 2021; Liu and Merritt, 2018; Ramaswamy and Seshadri, 2020; Westrupp et al., 2021; Yang, 2015). Furthermore, study results showed that parents' covid perceived difficulties predict parents' and children's

emotional problems. Parents who reported that finding space and time for themselves, their partner, the children, and the activities they used to do before the lockdown complex, are having more emotional problems, such as stress, anxiety, and depression symptoms (Brown et al., 2020; Orgiles et al., 2020; Spinelli et al., 2020). In addition, their children are facing more behavioral and emotional problems, such as anxiety, hyperactivity, conduct problems, and peer relationship problems. The covid restrictions affect the children's routine and the family's coexistence. Children have lower personal resources and coping strategies to deal with the many changes the pandemic is imposing on their life. As a result, they develop emotional and behavioral problems (Liu et al., 2020). These results are consistent with other studies showing that quarantine and its related factors affect adults, parents (Brooks et al., 2020; Griffith, (2020), and children's well-being (Spinelli et al., 2020).

Finally, the study results confirmed that the Covid-19 perceived difficulties indirectly impacted children's behavioral and emotional problems through the mediating role of parents' emotional problems. These results suggest that when parents perceive challenges in dealing with the stresses, the quarantine, and the Covid-19 social distancing measures imposed, they develop emotional problems, leading to subsequent children's behavioral and emotional issues. The strains and stressors of the Covid-19 protection measures affected parental well-being. Due to the Covid-19 extraordinary situation, parents felt more stressed and depressed. These negative feelings may influence the parent-child relational experience. Parents may

fail to provide their children with the appropriate attention, interest, and care, leading to an unsafe family environment (Ioannidou & Georgiou, 2021; Scaramella et al., 2008). Furthermore, this parental attitude toward their children may have a consequential negative impact on their well-being. Thus, children in these families may feel less understood by their parents and develop behavioral and emotional problems (Ioannidou & Zafiropoulou, 2021a, b; Jiao et al., 2020; Pinquart, 2017).

Limitations and Future Research

There may be some limitations to the present study. For example, the results may not be generalized to other cultural contexts and cultures, as the sample comes only from the Greek-Cypriot population. Another limitation worth mentioning is the cross-sectional design of the study. Due to the study's cross-sectional nature, we could not make any causal inferences about the direction of the relation of variables studied. Furthermore, all measurements used in this study came from questionnaires completed by parents. Future studies should use various measurement methods and multiple sources of information, such as teacher reports, children reports, and interviews. Further, longitudinal studies would also provide more detail on the consequences of Covid on parents' and children's wellbeing over time and would help in a better understanding of the phenomenon. Finally, for future studies, it would be helpful to examine the protective factors for parents' and children's wellbeing during this difficult time.

Conclusions

The present study investigated the effects of the Covid-19 outbreak and its

imposed physical/social measures on parents' and children's well-being. The effects of the Covid-19 pandemic seem dramatic for the mental health of parents and their children, as they are associated with the occurrence of emotional problems in both parents and children. Parents perceive as a stressor the situation that prevails due to Covid-19. As a result, they experience stress, which affects their behavior and relationship with their children, resulting in emotional and behavioral problems.

Findings represent novel insight into the existing literature and advance our understanding of how Covid-19 negatively affects parents' and children's well-being. Moreover, the project's innovation lies in the fact that there is no other similar research conducted in Cyprus regarding the impact of the physical and social distancing measures of Covid-19 on parents' and children's social, emotional, and behavioral wellbeing. Furthermore, identifying the risk factors associated with the COVID-19 measures and their impact on parents and children's wellbeing will contribute to the development of prevention and intervention programs. The development of such programs will enhance parents' and children's emotional and social conditions and contribute to developing a better relationship between them.

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