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Impact of Home Confinement due to COVID-19 Outbreaks on Stress Levels and Coping Patterns of Mothers and their Children's Behaviors

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Abstract

In the fight against COVID-19, the majority of the population around the world had to stay in their homes in addition workplaces, schools, shops, and restaurants were shut down. Home confinement and social distancing strategies resulted in parenting stress and changes in children's behaviors during the covid pandemic. Aim: assess the impact of home confinement due to COVID-19 outbreaks on stress levels and coping patterns of mothers and their children's behaviors. Method and design: a descriptive research design was carried out at the maternal and child health center at Kafrelsheikh Governorate, Egypt, on (194) mothers and their accompanied children (194). An interview questionnaire sheet was used to collect data about the characteristics of mothers and their children. As well as, mothers' stress levels and coping patterns and children's behaviors due to home confinement created by COVID-19 outbreaks. Results: more than two-thirds of the mothers had a high-stress level and the most common stressors that mothers faced were psychological. In addition, about two-thirds of the mothers had a low coping level toward their stressors and affective-oriented coping was used by mothers more than problem-oriented coping. Also, most of the children had abnormal moods and behavior. Furthermore, statistically significant differences were found between mothers' work, family income, total stressors facing them, and total coping scores. Conclusion: home confinement created by COVID-19 outbreaks has a negative effect on mothers' stress levels and children's behavior. Recommendation: educational interventions for families and children to enable them to cope and adjust to emergency health hazards.

Keywords: Children's behavior, coping level, COVID-19 outbreaks, home confinement, mothers' stress levels

1. Introduction

The World Health Organization (WHO) stated that the 2019 Corona Virus Disease (COVID-19) epidemic is considered an international health emergency disease that first appeared in China in December 2019 and continues to spread throughout the world. The unpredictable and rapid dissemination of this contagious disease along with its high contagious and mortality rates resulted in worldwide distress, anxiety, financial losses, and worldwide economic problems **(Pradhan et al., 2020)**.

In the fight against the COVID-19, the majority of the population around the world had to stay in their homes in addition workplaces, schools, shops, and restaurants were shut down. These restriction measures were applied in many countries as national-wide strategies to prevent the further spreading of this disease**.** Numerous restrictions on daily living had been enforced by Public health recommendations during the COVID-19 pandemic including social distancing, isolation, and home confinement. **(Roux et al., 2020)**

Home confinement was imposed within the framework of social distancing strategies. While these strategies were essential to prevent the spreading of COVID-19, they had an impact on health behaviors and had a threat to the physical, psychological, and financial health of all family members. In addition, parents' daily routines and lifestyles were also interrupted due to restrictions on transportation and outdoor leisure time**(Sang et al., 2020).**

Parenting stress was defined as the psychological burden derived from the discrepancy perceived by parents between the needs related to parenting and the parental resources **(Morelli et al., 2020).** As a result of the shut down of schools and facilities childcare as a social distancing measure caused by the COVID-19 outbreak, many working parents had to take on full-time responsibility for the care and education of their children at home, and at the same time adapt the daily structure and new lifestyle of online working from home**(Adalja et al., 2020; Spinelli et al., 2020)**. Therefore, during home confinement, parents had to organize their time. This situation has put a lot of personal distress on parents which interferes with their ability to cope effectively with all parenting-related difficulties **(Capitano & Greenhaus, 2018)**.

Researchers defined coping as an adaptation process conducted to help restoring and supporting a stability in the family unit by lessening the effect of stressful events **(Risnawaty, 2021).** Lazarus and Folkman categorize the strategies of coping into two types. First, problem-focused coping means the effort made by the person to modify existing stressors and therefore overcome the problems experienced. Second, emotion-focused coping means the effort is made to regulate and reduce the emotional state caused by the stressor **(Trougakos et al., 2020).**

As known children's psychological status and behaviors are highly influenced by family and social environment. As a result of the COVID-19 pandemic, children cannot come back to their schools and cannot join face-to-face with peers **(Shorer & Leibovich, 2020)**. In addition, children are liable to have negative practices such as reduced duration of academic education time, increased use of electronic devices, and changes in quality of sleep. In addition, parents' emotional strain during the epidemic will also have a great effect on the behavior of their children which in turn affects their overall development **(Araújo et al., 2021).**

Also, changes in daily routines, home confinement, physical distance, and parental stress affect parenting rearing practices which altered during the COVID-19 period, physical and psychological punishments had constantly been stated as frequently used methods in children's discipline which lead to changes in the development of children, especially behavioral changes (e.g. aggressive, frustration), emotional, and mood changes **(Spinelli et al., 2021).**

Pediatric nurses have an important role in educating the mothers on how to manage their level of stress, depression, and anxiety resulting from home conferment **(Rodríguez-Rey et al., 2020)** So, this study aims to assess the impact of home confinement created by COVID-19 outbreaks on stress levels and coping patterns of mothers and their children's behaviors.

Significant of problem

Few publications have been conducted in Egypt about the effect of the COVID-19 outbreak on the stress levels, coping pattern of parents and their rearing practices as well as on their children's behaviors. However, researchers from other countries illustrated that majority of mothers have reported enlarged maternal responsibilities with their children's care and their commitment during the early stages of the pandemic.

Aim of the study:

This study aimed to assess the impact of home confinement due to COVID-19 outbreaks on stress levels and coping patterns of mothers and their children's behaviors

Research question:

What is the impact of home confinement due to COVID-19 outbreaks on stress levels and coping patterns of mothers and their children's behaviors?

2. Subjects and Methods

Research design:

A descriptive research design was used to accomplish this study.

Setting:

The study was carried out at the maternal and child health center at Kafrelsheikh Governorate, Egypt. It introduces health facilities and services to children from all the nearby areas in the Kafrelsheikh governorate.

Subjects:

A convenience sample of 194 mothers who attended in the previously stated setting and were interested to contribute to the research, free from physical, chronic disease, cognitive disease, and had no history of mental illness. In addition, 194 children accompanied by the previously stated mothers aged from 3 to 12 years and free from any cognitive disease or mental illness.

Sample Size:

Based on data from the literature to calculate the sample size with precision/absolute error of 5% and type 1 error of 5%, Sample size = $[(Z_{1-\alpha/2})^2.P(1-P)]/d^2$, where, $Z_{1-\alpha/2}$ at 5% type 1 error ($p<0.05$) is 1.96, P is the expected proportion in population-based on previous studies and d is the absolute error or precision. Therefore, sample size = $[(1.96)^2.(0.732).(1-0.732]/(0.0624)^2$ =193.5. Based on the formula, the sample size required for the study is 194.

Tools of data collection:

The interview questionnaire sheet was developed by the researchers after reviewing relevant scientific literature and articles in periodicals to collect the required data. Then, the survey was reviewed and edited by three experts in pediatric nursing. The subsequent four tools were utilized:

Tool I: Socio-demographic characteristics of mothers and their children: This tool was developed by the researcher to assess the basic data of the study subjects and included:

Part (1): Socio-demographic characteristics of mothers (7 items) such as age, educational level, residence and working status …etc.

Part (2): Socio-demographic characteristics of children (4 items) such as age, gender, child order in the family, and any health problems.

Tool II: Stressors of mothers due to home confinement created by COVID-19 Outbreaks.

It was developed by the researcher in closed-end questions form based on the reviewing of related literature to assess the impact of home confinement due to COVID-19 outbreaks on mothers' stress levels **(Hyseni Duraku et al., 2020)**. It consisted of **22 items** and measures four domains:

1. Physical stressors (7 items): such as Mother's engagement in housework is increased (cleaning, food preparation…… etc.)
2. Psychological stressors (11 items): such as Anxiety and fear constantly and without reason.
3. Social stressors (2 items): such as Lack of social visits to relatives and friends.
4. Financial and community resources-related stressors (2 items): lack of recourses and information.

The items for all subscales were written in three Likert scales as **always (2), sometimes (1), and rarely (0).**

The mothers had low stressors if the percent score was < 50% of the total score, moderate stressors when the percent score ranged from 50% to less than 65% of the total score, and high stressors when the percent score is> 65% of the total score.

Tool III: Jalowiec Coping Scale (JCS):

It was developed by (Jalowiec & Powers, 1981) based on Lazarus and Folkman's theory of stress and coping. It has been designed to measure how people cope with various types of physical, emotional, and social stressors. It consisted of 30 statements divided into two groups. The first group is belonging to **affective-oriented coping** which consists of **19 items**. The second group is belonging to **problem-oriented coping** which includes **11 items**. Each of the two groups is divided into three subcategories as a compromise, fighting, and escaping. The items for all subscales were written in three Likert scales as always (2), sometimes (1), and rarely (0).

Tool IV: Changes in children's moods and behaviors It was developed by the researcher in closed-end questions form based on the review of related literature to assess the impact of home confinement due to COVID-19 outbreaks on children's behavior**. It consisted of (11) questions such as** time spent on electronic products, changes in sleeping pattern, rest time, activity practice, eating habits, concentration and temper, motivation for learning and studying……etc. The items for all subscales were written in three Likert scales as always (2), sometimes (1), and rarely (0).

Scoring system:

The mothers' responses were scored using a three Likert-type rating scale ranging from rare: 0 points, sometimes: 1 point, and always: 2 points.

Validity and reliability of the tool:

Content validity of the study tools was ascertained by a jury of 5 professors in the field of pediatric nursing and the required modifications were carried out according to their suggestions. Reliability was done by Cronbach's alpha coefficient test; The Cronbach's alpha value for the reliability (internal consistency) of the stressors questionnaire was 0.984, of the coping questionnaire was 0.905 while of the Children's Moods and Behaviors was 0.872.

A pilot study:

After the development of the tool, a pilot study was conducted on 10% of the mothers (20 mothers) and their accompanied children (20 children), it was excluded from the total sample. It was done to test if any ambiguity in the tools is found, to ensure transparency of its items, as well as, to determine the time needed for data collection. The needed modifications were carried out based on the results of the pilot study to develop the final form of the tools.

Ethical considerations:

The researcher explained the aim of the research to mothers and their children and obtained informed consent from each participant. The obtained Informed consent includes their right to refuse participation or withdraw at any time, without giving any reason. The participants were assured that all obtained information will be treated confidentially; and will only be used for research. They were also informed that the research maneuvers did not entail any harmful effects on them.

Fieldwork

The study consumed 3 months began from March 2021 to May 2021, through 2 phases as follows:

Preparatory phase:

- The researchers review the relevant literature for preparing the tools for the study.
- An official written approval letter clarifying the title, purpose, and setting of the study was obtained
- The researchers interviewed each mother and his/ her child individually and explained the aim of the study and also obtain informed consent before the data collection process.

Implementation phase:

- The researchers went to the predetermined settings three days per week (Saturday, Monday, and Wednesday) until the data collection process was completed.
- Data was obtained individually from each mother and his/ her child.
- The study researchers spent about 20-30 minutes with each mother and his/ her child to obtain the necessary information.
- The researchers followed the recommended protective measures for COVID-19 during the data collection process.

Statistical data analysis:

All statistical analyses were carried out using SPSS for windows version 20.0 (SPSS, Chicago, IL). All continuous data were normally distributed and were stated in mean ±standard deviation (SD). Categorical data were stated in number and percentage. One-way analysis of variance (ANOVA) test was used for comparison among more than two groups for variables with continuous data. The Chi-square test was used for the comparison of variables with categorical data. Statistical significance was set at $p<0.05$.

3. Results

Table (1) reveals that 42.8% ofmothers were <25 years with a mean age of 25.9 ±5.5, 64.9% of them were married, and 56.2% of them had secondary school education. As for the residents, 64.9% of mothers were from rural areas, and 59.8% of mothers were housewives. Moreover, 70.1% of them had sufficient income and 60.8% lived with extended family.

Table (2) shows that the majority of children were aged from 6 to 12 years with a mean age of 8.9 ±1.9 and 78.9% of children were male. Regarding birth order, it was found that 43.3% of studied children were the second and 86.1% of them did not have any health problems.

Table (3): reveals that the mean score of psychological stressors for studied mothers was 11.1 ±3.0 while the mean score of social stressors for them was 2.0 ±1.1. Regarding the mean score of total stressors for mothers was 22.3 ±4.5.

Table (4) illustrates that the mean score of total affective-oriented coping used by studied mothers was 19.1 ±3.9. In addition, the mean score of problem affective-oriented coping used by them was 10.9 ±3.0. Furthermore, the mean score for total coping used by mothers was 30.0 ±4.9.

Table (5) reveals that 44.8% of the children always spent more time on electronic products and 40.7% & 44.3% of them always had decreased sleeping time and appetite respectively due to home

confinement. In addition, the change in concentration and temper always had occurred in more than half of the children (50.5%). Moreover, about half of them (47.4%) had always decreased their motivation for learning and studying. Furthermore, more than two-thirds of children 39.2% &33.5% sometimes and always complained about limited space in the home respectively with a total mean score of 11.7 ±2.1.

Table (6) represents the relationship between mothers' socio-demographic characteristics, total stressors facing them, and total coping scores. It's observed from the table that statistically significant differences were found between the educational level of the mothers, total stressors facing them, and total coping scores where p= 0.014&0.038 respectively. In addition, statistically significant differences were found between mothers' work, total stressors facing them, and total coping scores where p=0.007&0.027 respectively. Regarding family income, statistically significant differences were found between total stressors facing mothers and their total coping scores where p=0.019&0.018.

Figure (1) illustrates that more than two-thirds of the mothers (66%) had a high-stress level while the minority of them (13.4%) had a low-stress level.

Figure (2) shows that about two-thirds of the mothers (58.2%) had a low coping level toward their stressors compared to 41.8% of them who had high coping levels.

Figure (3) reveals that most of the children (71.6%) had abnormal moods and behavior while 28.4% of them had normal moods and behavior during home confinement due to COVID 19.

Table (1) Socio-demographic characteristics of studied mothers (N=194)

Mother socio-demographic data	No	%
Age (years)		
<25	83	42.8
25-	71	36.6
30-	26	13.4
≥35	14	7.2
Mean ±SD	25.9 ±5.5	
Marital status		
Married	126	64.9
Divorced	23	11.9
Widow	45	23.2
Educational level		
Illiterate	9	4.6
Can read and write	16	8.2
Preparatory school	37	19.1
Secondary school/diploma	109	56.2
University	23	11.9
Mothers work		
Housewife	116	59.8
Employee	78	40.2
Residence		
Urban	68	35.1
Rural	126	64.9

Family income		
Sufficient	136	70.1
Insufficient	58	29.9
Type of family of mother		
Nuclear	76	39.2
Extended	118	60.8

Table (2) Socio-demographic characteristics of children (n=194)

Child socio-demographic data	No	%
Age of the child in years		
▪ 3-	16	8.2
▪ 6-	92	47.5
▪ 9-12	86	44.3
Mean± SD	**8.9 ±1.9**	
Gender		
▪ Male	153	78.9
▪ Female	41	21.1
Child order in the family		
▪ 1–	67	34.5
▪ 2–	84	43.3
▪ 3-4	43	22.2
Have any health problems		
▪ Yes	27	13.9
▪ No	167	86.1

Table (3) Mean Percent Scores of Types of Stressors Facing Mothers

Types of maternal stressors	No. of items	Range	Mean ±SD
Physical stressors	7	2 – 13	7.2 ±2.3
Psychological stressors	11	5 – 18	11.1 ±3.0
Social stressors	2	0 – 4	2.0 ±1.1
Financial and community-related stressors	2	0 – 4	2.1 ±1.2
Total stressors score	22	7 – 39	22.3 ±4.5

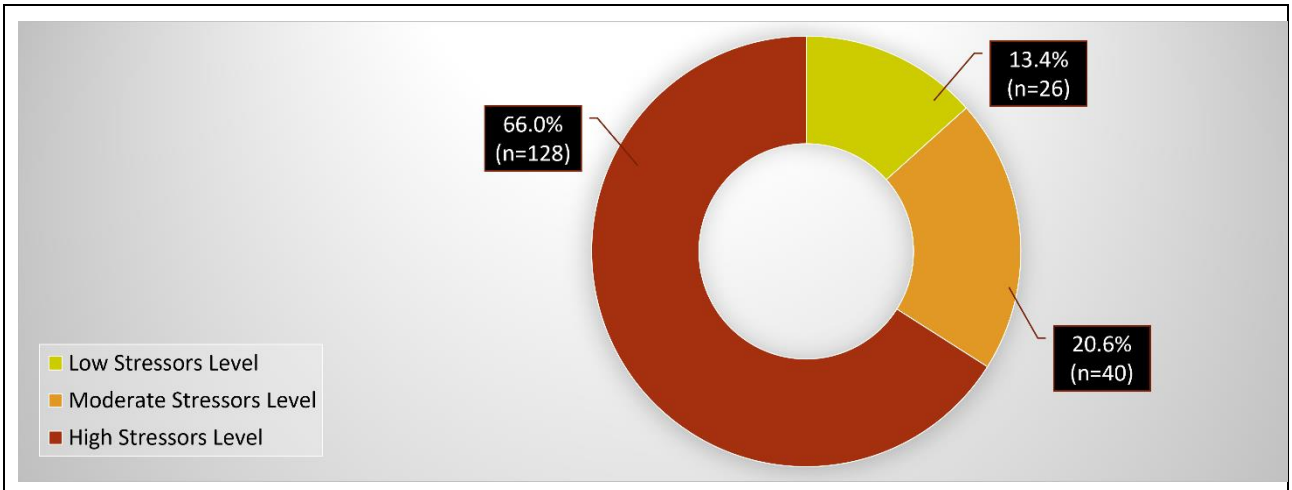

Figure 1. Distribution of Total stressors score

Table (4) Mean scores percent of coping patterns used by mothers

Mothers coping scale	No. of items	Range	Mean ±SD
Affective-oriented coping			
Affective compromise	8	1 – 15	8.2 ±2.3
Affective Fighting	2	0 – 4	1.9 ±0.9
Affective Escape	9	3 – 17	9.0 ±2.7
Total	19	4 – 36	19.1 ±3.9
Problem-oriented coping			
Problem compromise	3	0 – 6	3.0 ±1.5
Problem Fighting	5	0 – 9	4.9 ±1.9
Problem Escaping	3	0 – 6	3.0 ±1.5
Total	11	0 – 21	10.9 ±3.0
Total coping score	30	4 – 57	30.0 ±4.9

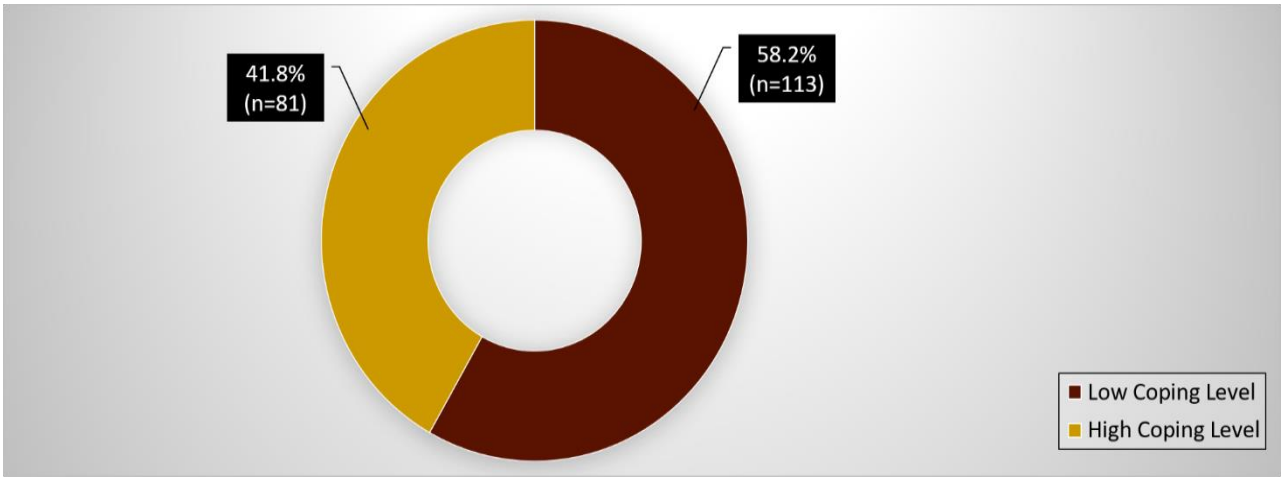

Figure 2. Distribution of Total coping score

Table (5) Changes in children's moods and behaviors

Children's Moods and Behaviors	Rare (score 0)		Sometimes (score1)		Always (score 2)	
	n	%	n	%	n	%
Time spent on electronic products is increased	42	21.6	65	33.5	87	44.8
Sleep condition of children is decreased	49	25.3	67	34.5	79	40.7
Activity that children practice increased	32	16.5	97	50.0	65	33.5
Children's eating habits is decreased	44	22.7	64	33.0	86	44.3
Change in concentration and temper of children	29	14.9	67	34.5	98	50.5
Motivation of learning and studying is decreased	36	18.6	66	34.0	92	47.4
The children have aggressive behavior	62	32.0	66	34.0	66	34.0
The children become nervous	46	23.7	88	45.4	60	30.9
The children have boring feeling	60	30.9	70	36.1	64	33.0
Complaints about limited space in the home	53	27.3	76	39.2	65	33.5
The children have a good mood, they enjoy staying at home	53	27.3	71	36.6	70	36.1
Total **children's moods and behaviors score**	11.7 ±2.1					

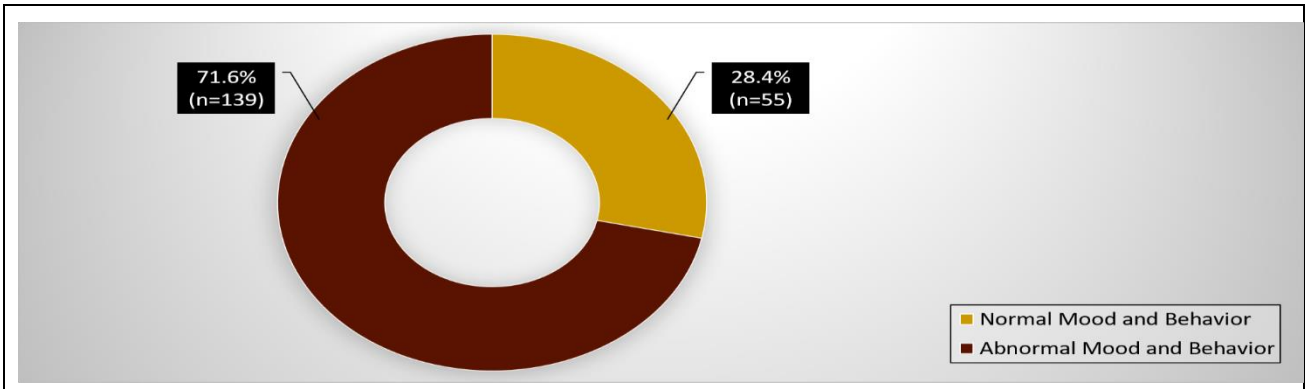

Figure 3. Distribution of children's moods and behaviors score

Table (6)The relationship between mothers' socio-demographic characteristics and total stressors facing them and total coping scores

	Total stressors score	**Total coping scores**
	Mean ±SD	**Mean ±SD**
Age (years)		
<25	23.1 ±10.1	31.7 ±14.7
25-	22.9 ±10.3	29.7 ±14.2
30-	26.4 ±8.9	30.3 ±14.6
≥35	24.1 ±10.6	28.1 ±13.4
ANOVA test	F=0.870, P=0.458	F= 0.395, P= 0.756
Marital status		
Married	22.8 ±10.1	31.1 ±14.7
Divorced	24.0 ±10.2	30.4 ±14.7
Widow	25.2 ±9.7	29.1 ±14.0
ANOVA test	F=1.000, P=0.370	F=0.315, P=0.730
Educational level		
Illiterate	23.1 ±8.5	30.9 ±14.6
Can read and write	23.3 ±11.7	28.0 ±14.0
Preparatory school	22.5 ±10.4	36.5 ±12.8
Secondary school/diploma	26.8 ±9.9	28.6 ±13.4
University	19.7 ±9.3	32.6 ±15.5
ANOVA test	F=3.203, P=0.014*	F=2.581, P=0.038*
Mothers work		
Housewife	25.7 ±10.2	27.9 ±13.4
Employee	21.7 ±9.7	32.6 ±15.8
T test	F=7.458, P=0.007*	F=4.961, P=0.027*
Residence		
Urban	22.7 ±10.4	32.4 ±14.5
Rural	24.0 ±9.8	29.5 ±15.3
T test	F=0.861, P=0.391	F=1.268, P=0.206
Family income		
Sufficient	21.9 ±10.2	33.3 ±14.8

Insufficient	25.9 ±9.6	27.9 ±13.7
T test	F=5.537, P=0.019*	F=5.653, P=0.018*
Type of family of mother		
Nuclear	23.1 ±10.2	31.4 ±14.7
Extended	23.8 ±9.9	29.9 ±14.3
T test	t=0.506, P=0.614	t= 0.497, P=0.481

4. Discussion

In March of 2020, as a result of the COVID-19 pandemic, schools and workplaces throughout the world were shut down and this caused a significant intensification in stress for parents. Such parental stress was attributed to pandemic-specific changes to education, safety, care of children, and family financial stability. Examples of parents' stressors during the COVID-19 pandemic were, the sudden closure of schools and childcare centers which lead to, leaving parents suddenly without suitable childcare choices, and they immediately had to take on increased responsibilities related to their children's care **(Yoshikawa et al., 2020).**

Regarding socio-demographic characteristics of the study sample, the present study revealed that nearly half of the mothers were less than twenty-five years and more than half of them had secondary school education. This finding was consistent with **(Hyseni Duraku et al., 2020)** who conducted a study about "the effects of COVID-19, traumatic experiences and children's characteristics on parental stress, parenting practices, and behavioral changes in children". This highlights the importance of involving the high qualified nursing to support mothers during epidemics through the proper assessment of their needs and offering high-quality nursing care and provision of useful guidance on children's care for managing their stress and improving their coping skills to deal with different types of stressors.

The results of the current study showed that mothers faced many stressors during covid outbreaks. The current study highlighted that the most common stressors that mothers faced were psychological stressors (**Table 3**). **(Wang et al., 2020)** were in the same line with the results of the present study. He discussed the negative effect of the pandemic on the psychological status of parents and further highlighted that most of the mothers in their study suffered from moderate to severe anxiety symptoms during the home confinement. Also, **(Wang et al., 2020)** conducted a study about the impact of the COVID-19 outbreak on the behavior of children and the mental health of the parent in China agreed with the present findings. They stated that the changes produced by the COVID-19 pandemic on daily routines, work activities, and socio-economic conditions have been found to be associated with psychological distress. From the researchers' point of view, the present findings may be related to the governmental confinement activities which forced during COVID-19 pandemic acted as an undefined and threatening situation for parents that could activate anxiety symptoms and restrict their self-control.

The second highly perceived stressors among mothers were physical stressors followed by Financial and community-related stressors **(Table 3)**. Large proportions of mothers were always stressed due to increased physical effort and energy to care for their children. This finding was consistent with **(Lee & Ward, 2020)** who conducted a study about stress and parenting during

the coronavirus pandemic and found that intensification in stress levels of parents due to increases in their responsibilities around childcare, and children's education, and housework. Similarly, **(Wang et al., 2020)** reported that the living condition of families abruptly and intensely altered in the home setting during the COVID-19 outbreak, in addition, their responsibility regarding children's education was crucially increased than before the pandemic. Therefore, children had only their parents around them, endorse positive developmental and new learning skills and give the needed support with homework. Also, **(Yolanda & Risnawaty, 2021)** stated that the restrictive measures used to manage the pandemic had a substantial economic impact. In the researchers' opinion, the present findings may be due to the closure of schools, and parents were the only persons responsible for their children's learning, and education, and interactively arranged their online courses with their teachers as possible. Also, increasing unemployment and financial insecurity lead to financial stressors.

Regarding the total stressors level, the current study revealed that more than two-thirds of the mothers had a high-stressor level during the COVID pandemic **(figure1).** This finding was consistent with **(Taubman–Ben-Ari et al., 2021)** who mentioned that fathers stated that they had a higher parenting stress during the pandemic than before. This may be due to multiple parental commitments that they had during the COVID outbreak. In addition, decreased physical activities ,the needed support and direct social contact with their peers had a negative impact on their psychological status, sleeping, and appetite.

Concerning total coping score, the present study showed that - affective-oriented coping was used by mothers more than problem-oriented coping **(Table 4)**. From the researchers' point of view, It may be a realistic option when the source of stress is outside the individual`s control. This result was in difference with **(Shigemura et al., 2020)** who carried out a study that discussed coping and stress levels among mothers who attended with their children the online learning courses during the COVID outbreak and found that parents tend to use problem-focused coping strategies.

Regarding children's moods and behaviors, the present study revealed that more than half of children always had a change in concentration and temper **(Table 5)**. Also, more than two-thirds of them always and sometimes had aggressive behavior **(Table 5)**. From the authors' point of view, mothers are intensively stressed because of their multiple responsibilities such as housework, children care, children's education, and their personal life and if there were work from home. In fact, a very challenging duty that the mothers faced, when they become more stressed, they find it problematic to comprehend their children's needs or reply in an appropriate way. Stressful situations are often accompanied by rough behaviors and problems in illustrating restrictions and discipline. So, children may have a feeling that they are less understood by their mothers and may respond in more undesirable and aggressive behaviors. **(Dalton et al., 2020)** who conduct a study about protecting the psychological health of children through effective communication about COVID-19 were in the same line with the current study.

The present study illustrated that nearly half of children always had decreased sleeping and eating habits while nearly half of them had increased time spent on electronic products **(Table 5)**. The present finding is congruent with **(Z. Moustafa et al., 2021)** who conducted a study about the effects of home confinement due to COVID-19 on the physical, social and psychological status of children and adolescents. They found that the covid pandemic had a bad effect on the children as more than three-quarters of the studied subjects suffered from irregular sleeping, the majority of them suffered from increasing body weight, and watching TV and using social media were significantly disseminated among them.

Also, these results agreed with the study by **(Altena et al., 2020)** titled dealing with sleep problems during home confinement due to the COVID-19 outbreak, who found that home confinement had a negative effect on the study sample's sleeping status. From the researchers' point of view, online learning itself has a unique impact on the physical status of children, such as making them less physically active, their sleep and eating habits changed, and having more time on smart devices such as mobiles. In addition, the children were psychologically frustrated and had boredom.

Regarding the relationship between mothers' socio-demographic characteristics and total stressors facing them and total coping scores, the current study showed statistically significant differences were found between mothers' work, family income, total stressors facing them, and total coping scores. **(Frankel et al., 2021)** who conducted a study about the relationship between COVID-related parenting stress, nonresponsive feeding behaviors, and parent mental health was congruent with the present finding. From the researchers' point of view, parents will experience a higher stress level if they were working during the pandemic, which may best be explained by the need to juggle multiple roles, such as being a caregiver, educator, and employee, simultaneous. In addition, mothers with higher education have a wide range of knowledge about the COVID preventive practices and how to handle multiple stressors inappropriate way and thus they will have lower stress levels compared to non-educated or those who have secondary education mothers.

5. Conclusion

Based on the findings of the current study, it can be concluded that more than two-thirds of the mothers had a high-stress level and the most common stressors that mothers faced were psychological. In addition, about two-thirds of the mothers had a low coping level toward their stressors and affective-oriented coping was used by mothers more than problem-oriented coping. Also, most of the children had abnormal moods and behavior. furthermore, statistically significant differences were found between mothers' work, family income, total stressors facing them, and total coping scores.

6. Recommendation

- Ministries of Health should use mass media, such as television, and online social media, for encouraging families and their children to enforce healthy practices such as home physical activity and exercise to overcome the negative effects of home confinement.
- Families should restrict the viewing time of television and media that disseminate negative and horror news regarding COVERED 19.
- Implement an educational program for mothers and their children to enable them to adapt to emergency health disasters.
- Provide strategies to decrease potential risks during future pandemics.

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