

# Impact of Preventive Measures upon Children's Emotional Behaviors during COVID-19 Pandemic in Mosul City

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## ABSTRACT

The study aimed to evaluate children's emotional behaviors during COVID-19 pandemic in Mosul city and to find out the relationship between children behavior and their socio-demographic characteristics. A quantitative research (descriptive study design) was carried out from the 11th of May until the 2nd of November 2021. A non-probability (Purposive) sample technique is chosen for the current study. The sample involved of (620) children selected from the pediatric consultation clinics in the three of Mosul Hospitals. Scale was used called strengths and difficulties questionnaire (SDQ) for children behavioral screening. The data analyzed by the use of both descriptive and inferential statistical analysis procedures by SPSS version 26. The results of the study reflects abnormal emotional behavior represent by highest percentage (79.4%), and then this percentage was followed by (19.5%) with normal behaviors, while represent (1.1%) by borderline. children emotional behavior shows that is more affected by preventive measures (lockdown and social separation) during the COVID-19 pandemic outbreak. The result of the present study revealed that is only a high significant association between children emotional behaviors with their gender of child's (0.015) and residence (0.000) at P. value  $\leq 0.05$  levels. The study concluded that there is a clear impact upon children's behavior due to the preventive measures (lockdown and social separation) that were imposed due to the COVID-19 pandemic. Emotional behavior is more affected than other types of behaviors. Child's gender and residence of living shows high significant effects with total difficult score of behaviors. The study recommendation the following: detecting on children who have abnormal behavior and refer the suspected cases of having behavioral problems to psychological counseling clinics, that's because a long-term of disorderly behavior leads to mental disorders and may accompany children at puberty. Work on developing plans and programs for entertainment and dealing with children during the home confinement in the future when other pandemics occur or recurrent. Establishing psychiatric medical and Nursing consultations for children by communication with parents, or allocating a phone number for this purpose in the event of a lockdown when parents notice any changes in children behavior.

**Keyword:** Impact, Preventive Measures, Children's Behaviors, Emotional Behaviors, COVID-19 Pandemic.

## INTRODUCTION

COVID-19, a coronavirus infection that causes severe acute respiratory syndrome, has been spreading since the end of December 2019 in Wuhan, China, and has gradually expanded throughout the country (She, Liu, & Liu, 2020). The incident drew the attention of governments all over the world, and the World Health Organization (WHO) declared it a public health emergency of global importance on February 11, 2020. COVID-19 began to spread over the world in early March 2020. (Wei et al., 2020). The COVID-19 not only endangers the physical and emotional health of patients and their families, but it also causes public mental health issues <sup>(1)</sup>.

Pandemic of COVID-19 put the people in many countries around the world is in a state of emergency and the cause of a malfunction in the health system <sup>(2)</sup>. Not only have children and their families been denied educational, professional and sporting opportunities, but also of all family and social interactions. After their children went back to school, parents found themselves juggling the demands of caring for their children around the clock with the needs of their children's education <sup>(3)</sup>.

Long-term of lockdown and social separation from COVID-19 is a major breeding ground for increased psychological and behavioral instability in children <sup>(4)</sup>. Social connections were strictly limited to immediate family members. In many circumstances, peer communication was banned or severely restricted. Despite the importance of social interaction for well-being, this will have a negative impact on children and teenagers. Furthermore, infected individuals and families may be stigmatized in some societies <sup>(5)</sup>.

## METHODOLOGY

A quantitative research (descriptive study design) was carried out from the period of 11th of May until the 2nd of November 2021 to identify the Impact of lockdown and social separation upon the behavior of Children during COVID-19 pandemic at the Pediatric Consultation Clinics in Hospitals of the Mosul City. A non-probability (Purposive) sample technique is chosen for the current study. The sample involved of (620) children selected from the pediatric consultation clinics the hospitals. Strengths and Difficulties Questionnaire (SDQ) scale for children behavioral

screening, is a commonly used report form for parents to identify issue behavior. The SDQ is consists of 25 statements categorized into five subscales: Emotional behaviors symptoms, peer difficulties, conduct problems, hyperactivity, and prosocial behavior. Each subscale comprises from 0 - 10 scale. (SDQ) scale uses a three-point Likert response format and is built on the Baseline version: Parent Report Measure for Children 2002 developed by Mental Health National Outcomes.

## RESULTS

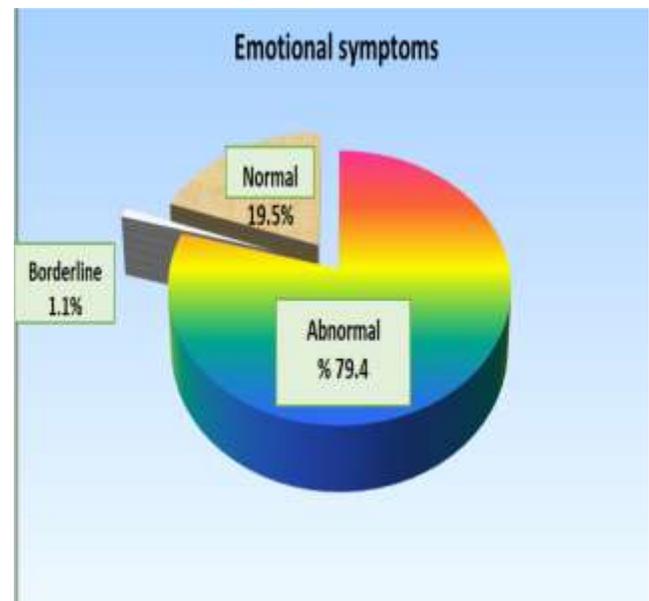


Figure (1): Distribution of children sample size according emotional behavioral symptoms

The results in figure (1) indicate that (79.4%) of the study sample present an abnormal behavior.

Table (1): Association between Emotional Behaviors of Children, Families with their Socio-demographical Variables

Levels Variables	Emotional Behaviors			C.C.	Sig.	
	Normal F	Borderline F	Abnormal F			
Gender of child's	male	34	3	280	0.116	0.015
	female	57	4	242		
Age of child in years	6-7	32	2	182	0.041	0.901
	8-9	31	2	193		
	10-12	28	3	147		
Age of mother in years	<30	50	4	295	0.038	0.988
	30-39	28	2	149		
	40-49	13	1	74		
	50 and above	0	0	4		
Age of father in years	<30	4	0	58	0.103	0.360
	30-39	51	4	280		
	40-49	32	3	151		
	50 and above	4	0	33		
Family's residence	urban	34	7	499	0.524	0.000
	rural	57	0	23		
Sides of Mosul city	right	39	4	268	0.062	0.306
	left	52	3	254		
Number of family members	<5	53	4	280	0.103	0.759
	6	13	1	82		
	7	17	1	77		
	8	5	1	32		
	9	2	0	43		
	10 and above	1	0	8		
Child birth order	first	18	2	109	0.118	0.367
	second	33	3	233		
	third	34	2	127		
	fourth	2	0	27		
	fifth and above	4	0	26		
Educational level of (child mother)	illiterate	9	1	59	0.106	0.716
	reads and writes	36	5	200		
	elementary school	36	1	173		
	secondary school	9	0	78		
	university or institute	1	0	10		
	postgraduate certificate	0	0	2		
Educational level of (child father)	illiterate	0	0	4	0.123	0.489
	reads and writes	14	0	96		
	elementary school	47	5	222		
	secondary school	21	2	163		
	university or institute	9	0	33		
	postgraduate certificate	0	0	4		
Family socio-economic status levels	low	43	5	285	0.067	0.590
	middle	41	2	201		
	high	7	0	36		

Significant at  $P \leq 0.05$ ; NS: Non significant at  $P > 0.05$ ; Testing based on Contingency Coefficients (C.C.).

Table (1) presents the statistical relationships between the children and their family's demographic variables with child's emotional behaviors. The table shows is only high significant association between children emotional behaviors with their gender of child's (0.015) and residence (0.000) at P. value  $\leq 0.05$  levels.

**DISCUSSION OF THE RESULTS**

Figure (1): shows the distribution of children sample size according emotional behavioral symptoms, abnormal emotional behavior represent by highest percentage (79.4%), and then this percentage was followed by (19.5%) with normal behaviors, while represent (1.1%) by borderline, children emotional behavior shows that is more affected by preventive measures (lockdown and social separation) during the COVID-19 pandemic outbreak, the results of the present study agree with the survey study done by Orgiles et al., (2020) about the emotional impact of the COVID-19 upon children behaviors and adolescents in Italy and Spain, the study reveals that (85.7%) of parents said their children's emotions behaviors changed during the lockdown and social isolation<sup>(6)</sup>.

Table (1): which explains the distribution and the relationship between socio-demographic variables with the emotional behavior

of children, the table reveals that classifying behaviors into three levels: Normal, Borderline, and abnormal behavior.

The result of the present study revealed a significant relationships between the gender and their children emotional behaviors score, the present results agrees with the study of Waite et al., (2020) study find out a relationship between the male gender variable with emotional behaviors score. Also, agree with the study of Vallejo-Slocker, Fresneda, & Vallejo, (2020) about the mental and behaviors health of children during the corona viruses outbreak) their study confirmed that there is a difference between males and females' gender<sup>(7)</sup>.

The results of study indicated a high significant differences in residence area with their children emotional behaviors score, that is might be related to the difference is the rural area population is less affected by the COVID-19 pandemic, the environment of rural area is open, non-crowded, less restriction, in addition to that they do not have mobile devices or video games such as urban children and they sleep get up early morning. These results agree with the study by Bates et al., (2020) they mentioned that there is a difference in the environment of the urban area from the environment of the rural area, as there are large areas outside the house and few restrictions imposed on the rural population, they were less likely to change in behavior of children<sup>(8)</sup>.

The present study results related to age of child, mother and father, sides of the Mosul city, number of family members, child birth order, educational level for both fathers and mothers and family socio-economic status level all these variables is not show any significant relationship with emotional behavior of children, this results disagree with study of Yeasmin et al., (2020) related to impact of pandemic upon children behavioral and mental health of Bangladesh, the study shows that a significant relationship between the educational level of the parents, and the non-significant relationship with the place of residence and gender <sup>(9)</sup>.

## CONCLUSION

There is a clear impact upon children's emotional behavior due to the preventive measures (lockdown and social separation) that were imposed due to the COVID-19 pandemic. Emotional behavior is more affected than other types of behaviors upon children of behaviors.

**Recommendations:** Detecting on children who have abnormal behavior and refer the suspected cases of having behavioral problems to psychological counseling clinics, that's because a long-term of disorderly behavior leads to mental disorders and may accompany children at puberty. Work on developing plans and programs for entertainment and dealing with children during the home confinement in the future when other pandemics occur or recurrent. Establishing psychiatric medical and nursing consultations for children by communication with parents, or allocating a phone number for this purpose in the event of a lockdown when parents notice any changes in children behavior.

**Ethical Clearance:** All experimental protocols were authorized by the Baghdad College of Nursing, and all experiments were carried out according to established protocols.

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