

# THE DIRECT EFFECTS OF THE CORONAVIRUS 19 ON CHILDREN IN IRAO.

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Article history:		Abstract:
Received: Accepted: Published:	December 10 <sup>th</sup> 2021 January 11 <sup>th</sup> 2022 February 20 <sup>th</sup> 2022	The study aims to know the direct effect of CO-19 on children and this study was conducted in different Hospitals in Iraq, where 100 children were collected for the purpose of describing the features and demographic characteristics of children patient with CO-19. Coronavirus in children is still considered a mysterious disease. It is believed to be asymptomatic and not at all dangerous to children and adolescents. But there is also evidence of the severity of the disease, its risks, and long-term negative effects on the children's body. In childhood, infection with coronavirus is less common than in adults, but cases of the disease have been recorded in Iraq. Moreover, the infection rate is increasing, as evidenced by the statistics.
Keywords:	CO-19 Children MERS	Symptoms

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## **INTRODUCTION**

The impact of this crisis on children is limited to three main areas exposure to the virus itself, the direct social and economic consequences of measures to halt transmission of the virus and end the epidemic, and the potential long-term effects of failing to achieve the Sustainable Development Goals [1,2,3].

All of these affect children in different ways and the COVID-19 pandemic has become the biggest challenge the world is facing

In the aftermath of World War II and the creation of the United Nations and in order to understand its effects on children around the world, it is useful to identify areas where the impact is on children [4,5,6].

Children infected with coronavirus rarely suffer from the long-term effects of Covid-19 and recover in less than a week. These conclusions were reached by scholars at King's College London, there are exceptions, but the vast majority of children tolerate the coronavirus very easily [7,8].

The most common symptoms in children are headache and fatigue. Other common symptoms include sore throat and loss of smell. In addition, compared to adults, children are generally less susceptible to infection with the Coronavirus [9,10].

The scientists' findings published in the medical journal Lancet Child and Adolescent Health. Scientists have followed children in clinics and at home to understand how the coronavirus affects children compared to other respiratory illnesses [11,12].

The study included 1,734 children aged 5 to 17 who tested positive for MERS between September 2020 and February 2021.

It found that fewer than one in 20 children infected with the coronavirus had had symptoms for four weeks or more, and only one in 50 had symptoms for more than eight weeks [13,14].

On average, older children get patient a little longer than primary school children: 12-17-year-olds take a week to recover, and younger children usually get sick for five days [15].

It turned out that only 15 out of 1,734 children had symptoms of the disease for at least 28 days, which is less than 1 percent of a person. The rest recovered much earlier [16,17].

There is no consensus among experts about the age group of children most likely to develop an acute course of the disease. However, two things must be taken into account:



1. Children under two years of age have weaker immunity (it depends on the immunity of the mother in infants if breastfeeding is present), then there is a risk of developing Kawasaki syndrome against the background of COVID-19. in turn,

2. older child, more "adult" the symptoms and consequences of COVID-19 will be. According to doctors and pediatricians, the highest likelihood of infection is in children 6-7 years old, and the most severe symptoms - in children over 9 years old [18,19,20].

## MATERIAL AND METHOD

### **Patient sample**

This study was conducted in different Hospitals in Iraq, where 100 children were collected for the purpose of describing the features and demographic characteristics of children patient with CO-19.

### Study design

The medical records in the hospital were relied upon, and demographic information on children was collected, including age, sex, respiratory symptoms, and the presence of fever, not forgetting other symptoms. Taking into account the fact coronavirus in an ordinary child develops as an acute respiratory viral infection or asymptomatic at all, we note that the disease can only be detected using laboratory blood tests: a PCR test or an immunoglobulin test (it is considered more accurate).

If the child has symptoms of acute respiratory illness (cough, shortness of breath, difficulty breathing), a chest CT scan should be performed to check the lungs for inflammation and to rule out pneumonia. An auxiliary method of analysis, in this case, will be pulse oximetry, which shows the percentage of saturation - oxygen saturation in the blood. If the rate drops to 95%, the child may need to be hospitalized with the body supported with oxygen. The higher the pulse oximetry value, that is, the closer to 100%, the better.

### Study period

Study period related to collecting information and data about pediatric patients with Co -19 from a period of time 20-1-2020 to 2-9-2021

#### Aim of research

The study aims to know the direct effect of CO-19 on children.

## RESULTS

Table 1- distribution of patient according age \* gender \* medical condition Cross tabulation

age * gender * medical condition Cross tabulation					
Count					
medical condition			gender		Total
			f	m	
no	age	11 to 13	7	1	8
		14 to 16	20	9	29
		5 to 7	0	1	1
		8 to 10	0	1	1
	Total		27	12	39
Unknown	age	5 to 7	7		7
		less than 1	1		1
	Total		8		8
yes	age	11 to 13	6	0	6
		2 to 4	7	6	13
		5 to 7	8	0	8
		8 to 10	11	12	23
		less than 1	0	3	3
	Total		32	21	53



lotal	age	11 to 13	13	1	14
		14 to 16	20	9	29
		2 to 4	7	6	13
		5 to 7	15	1	16
		8 to 10	11	13	24
		less than 1	1	3	4
	Total		67	33	100
Tabl	e 2- distributio	on of natient according	to age * gend	er * disease Cross	stabulation
age * gender	* disease Cr	oss tabulation	j të ugë genu		
Count					
disease			gender		Total
			f	m	
Asthma	age	11 to 13	7	0	7
		2 to 4	7	2	9
		5 to 7	15	1	16
		8 to 10	2	8	10
		less than 1	1	3	4
	Total		32	14	46
Diabetes	age	11 to 13	6	0	6
		14 to 16	7	7	14
		8 to 10	6	0	6
	Total		19	7	26
Hematologic	age	11 to 13	0	1	1
		14 to 16	3	2	5
		2 to 4	0	4	4
		8 to 10	0	5	5
	Total		3	12	15
Obesity	age	14 to 16	10		10
		8 to 10	3		3
	Total		13		13
Total	age	11 to 13	13	1	14
		14 to 16	20	9	29
		2 to 4	7	6	13
		5 to 7	15	1	16
		8 to 10	11	13	24
		less than 1	1	3	4
	Total		67	33	100





Figure 1- Symptom's present

Table 3- distribution of patient according to symptoms

## age \* symptoms Crosstabulation

Count

		Chest pain	congestio n	Fever + Cough	Head ache	Myalgia	Shortness of breath	vomitin g	Total
age	11 to 13	0	8	5	1	0	0	0	14
	14 to 16	8	3	17	0	1	0	0	29
	2 to 4	0	1	12	0	0	0	0	13
	5 to 7	0	0	9	0	3	1	3	16
	8 to 10	0	0	11	0	1	7	5	24
	less than 1	0	0	2	0	2	0	0	4
Total		8	12	56	1	7	8	8	100



## Table 5- distribution of patient according to type of case (non-critical)

11 to 13   3   3.0     14 to 16   5   5.0     2 to 4   2   2.0     5 to 7   1   1.0     8 to 10   4   4.0     less than 1   1   1.0     Symptoms   1   1.0     congestion   3   3.0     Fever + Cough   5   5.0     Headache   3   3.0     Myalgia   3   3.0     Shortness of breath   2   2.0     Reported underlying medical condition   2   3.0     No   6   6     Disease   7   7     Diabetes   5   5	age	Ν	P%
14 to 16   5   5.0     2 to 4   2   2.0     5 to 7   1   1.0     8 to 10   4   4.0     less than 1   1   1.0     Symptoms   1   1.0     congestion   3   3.0     Fever + Cough   5   5.0     Headache   3   3.0     Myalgia   3   3.0     Shortness of breath   2   2.0     Vers   10   6     No   6   6     Disease   7   7     Diabetes   5   5   5	11 to 13	3	3.0
2 to 4   2   2.0     5 to 7   1   1.0     8 to 10   4   4.0     less than 1   1   1.0     Symptoms   1   1.0     Symptoms   5   5.0     congestion   3   3.0     Fever + Cough   5   5.0     Headache   3   3.0     Myalgia   3   3.0     Shortness of breath   2   2.0     Reported underlying medical condition   9   6     No   6   6     Disease   7   7     Diabetes   5   5	14 to 16	5	5.0
5 to 7   1   1.0     8 to 10   4   4.0     less than 1   1   1.0     Symptoms   1   1.0     congestion   3   3.0     Fever + Cough   5   5.0     Headache   3   3.0     Myalgia   3   3.0     Shortness of breath   2   2.0     Reported underlying medical condition   2   2.0     No   6   6     Disease   7   7     Diabetes   5   5	2 to 4	2	2.0
8 to 10   4   4.0     less than 1   1   1.0     Symptoms	5 to 7	1	1.0
less than 111.0Symptomscongestion33.0Fever + Cough55.0Headache33.0Myalgia33.0Shortness of breath22.0Reported underlying medical condition76Ves106No66Disease77Asthma755	8 to 10	4	4.0
Symptomscongestion33.0Fever + Cough55.0Headache33.0Myalgia33.0Shortness of breath22.0Reported underlying medical condition26yes106No66Disease77Asthma755	less than 1	1	1.0
congestion33.0Fever + Cough55.0Headache33.0Myalgia33.0Shortness of breath22.0Reported underlying medical condition26yes106No66Disease77Diabetes55	Symptoms		
Fever + Cough55.0Headache33.0Myalgia33.0Shortness of breath22.0Reported underlying medical condition26yes106No66Disease77Diabetes55	congestion	3	3.0
Headache33.0Myalgia33.0Shortness of breath22.0Reported underlying medical conditionyes106No66DiseaseAsthma77Diabetes55	Fever + Cough	5	5.0
Myalgia33.0Shortness of breath22.0Reported underlying medical condition6yes106No66Disease7Asthma77Diabetes55	Headache	3	3.0
Shortness of breath22.0Reported underlying medical condition5yes106No66Disease55	Myalgia	3	3.0
Reported underlying medical conditionyes10No6No6Disease7Asthma7Diabetes5	Shortness of breath	2	2.0
yes106No66Disease77Asthma755	Reported underlying medical condition	I	
No66Disease77Asthma75Diabetes5	yes	10	6
Disease 7 7   Asthma 7 7   Diabetes 5 5	No	6	6
Asthma77Diabetes55	Disease	Ι	
Diabetes 5 5	Asthma	7	7
	Diabetes	5	5
Neurologic 4 4	Neurologic	4	4



## Table 6-distribution of patient according critical case

age	Ν	Ρ%
8 to 10	3	3.0
11 to 13	5	5.0
14 to 16	2	2.0
Symptoms		
Fever + Cough	2	2
Chest pain	1	1
Shortness of breath	1	1
Reported underlying medical condition		
yes	3	3
No	1	1
Disease		
Asthma	2	2
Diabetes	1	1
Obesity	1	1





#### DISCUSSION

100 patients were collected from the hospital and medical records were relied on for patient information and were analyzed using SPSS and MS EXCEL program in analyzing data and patient outcomes. 24%) and in the third place from 5 to 7 years, as shown in the table below

Table 7-distribution of patient according to age

age

		f	%
Valid	11 to 13	14	14.0
	14 to 16	29	29.0
	2 to 4	13	13.0
	5 to 7	16	16.0
	8 to 10	24	24.0
	less than 1	4	4.0
	Total	100	100.0

We note that asthma was present in a large proportion in patient children and in females more than males, with 32 patients and 14 patients in male children, and the same is the case with diabetes

We note that asthma was one of the most frequent and frequent diseases among patients, with a percentage of 46%, diabetes with 26%, hematologic 15%, and

obesity with 13% As for the most frequent symptoms, fever and cough were at a rate of 55 %, and headache was the least frequent and frequent among children. Coronavirus transmitted by children can cause complications of the cardiovascular system: myocarditis, which is clinically manifested somewhere within 2-4 weeks of the onset of symptoms caused by the Covid virus, or formidable complications such as multisystem inflammatory syndrome, Which occurs in the late period after about a month or a month and a half after infection with the coronavirus, and this is manifested in high temperature, muscle inflammation

#### CONCLUSION

our findings highlight the potential for severe disease in this age group and inform other regions to anticipate and prepare their COVID-19 response to include a significant burden of hospitalized and critically ill children and young adults.

#### RECOMMENDATION

- 1. It is important for parents to control the recovery of the child's body after illness and this should be done under the supervision of a doctor. If the disease passes easily and ends without complications, then it is necessary:
- 2. Pay attention to the observance of the daily routine
- 3. Avoid fatigue



- 4. diet
- 5. child hardening
- 6. register him in the sports department or ensure that he does physical exercises;
- 7. Provides nutrition rich in vitamins and minerals.

### REFERENCES

- Brazendale K., Beets M.W., Weaver R.G. Understanding differences between summer vs. school obesogenic behaviors of children: the structured day's hypothesis. Int J Behav Nutr Phys Activ. 2017; 14:1–14. [PMC free article] [PubMed] [Google Scholar]
- Pietrobelli A., Pecoraro L., Ferruzzi A. Effects of COVID-19 lockdown on lifestyle behaviors in children with obesity living in Verona, Italy: a longitudinal study. Obesity (Silver Spring) 2020 0–3. [PMC free article] [PubMed] [Google Scholar]
- Rundle A.G., Park Y., Herbstman J.B., Kinsey E.W., Wang Y.C. COVID-19–Related school closings and risk of weight gain among children. Obesity. 2020; 28:1008– 1009. [PMC free article] [PubMed] [Google Scholar]
- 4. Lockdown and loaded: coronavirus triggers video game boost BBC News.
- Woo Baidal J.A., Chang J., Hulse E., Turetsky R., Parkinson K., Rausch J.C. Zooming towards a telehealth solution for vulnerable children with obesity during COVID-19. Obesity (Silver Spring) 2020 0– 1. [PMC free article] [PubMed] [Google Scholar]
- Dunn C., Kenney E., Fleischhacker S., Bleich S. Feeding low-income children during the covid-19 pandemic. N Engl J Med. 2020; 40:1–2. [PubMed] [Google Scholar]
- 7. School closures caused by Coronavirus (Covid-19).
- 8. COVID-19: IFRC, UNICEF, and WHO issue guidance to protect children and support safe school operations.
- Wang G., Zhang Y., Zhao J., Zhang J., Jiang F. Mitigate the effects of home confinement on children during the COVID-19 outbreak. Lancet. 2020; 395:945–947. [PMC free article] [PubMed] [Google Scholar]
- 10. Zhang J., Wu W., Zhao X., Zhang W. Recommended psychological crisis intervention response to the 2019 novel

coronavirus pneumonia outbreak in China: a model of West China Hospital. Precis Clin Med. 2020; 3:3–8. [Google Scholar]

- Decosimo C.A., Hanson J., Quinn M., Badu P., Smith E.G. Playing to live: outcome evaluation of a community-based psychosocial expressive arts program for children during the Liberian Ebola epidemic. Glob Ment Heal. 2019;6 [PMC free article] [PubMed] [Google Scholar]
- Ross N., Gilbert R., Torres S. Adverse childhood experiences: assessing the impact on physical and psychosocial health in adulthood and the mitigating role of resilience. Child Abuse Negl. 2020; 103:2106–2115. [PubMed] [Google Scholar]
- 13. Sprang G., Silman M. Posttraumatic stress disorder in parents and youth after healthrelated disasters. Disaster Med Pub Health Prep. 2013; 7:105–110. [PubMed] [Google Scholar]
- Liu S., Yang L., Zhang C. Online mental health services in China during the COVID-19 outbreak. Lancet Psychiatr. 2020;7: e17–e18. [PMC free article] [PubMed] [Google Scholar]
- Duan L., Zhu G. Psychological interventions for people affected by the COVID-19 epidemic. Lancet Psychiatr. 2020; 7:300– 302. [PMC free article] [PubMed] [Google Scholar]
- Mazza C., Ricci E., Biondi S. A nationwide survey of psychological distress among Italian people during the COVID-19 pandemic: immediate psychological responses and associated factors. Int J Environ Res Publ Health. 2020; 17:1–14. [PMC free article] [PubMed] [Google Scholar]
- Yang Y., Li W., Zhang Q., Zhang L., Cheung T., Xiang Y.T. Mental health services for older adults in China during the COVID-19 outbreak. Lancet Psychiatr. 2020;7: e19. [PMC free article] [PubMed] [Google Scholar]
- Liem A., Wang C., Wariyanti Y., Latkin C.A., Hall B.J. The neglected health of international migrant workers in the COVID-19 epidemic. Lancet Psychiatr. 2020;7 [PMC free article] [PubMed] [Google Scholar]



- 19. Weaver M.S., Wiener L. Applying palliative care principles to communicate with children about COVID-19. J Pain Symptom Manag. 2020;60(1): e8–e11. [PMC free article] [PubMed] [Google Scholar]
- Berry N., Lobban F., Belousov M. Understanding why people use Twitter to discuss mental health problems. J Med Internet Res. 2017;19 [PMC free article] [PubMed] [Google Scholar]