



## **Parents' Perceptions Regarding the Effects of COVID-19 on their Children with and without Disabilities**

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This study aimed to explore parents' perceptions regarding the effects of the COVID-19 pandemic on their children, with and without disabilities, from psychological, academic and social aspects. The study sample comprised 310 parents of children in Saudi Arabia both with and without disabilities. A questionnaire was prepared for the purpose of exploring parents' perspectives toward such impacts of the COVID-19 pandemic on psychological, academic and social aspects of their children. Several statistical techniques were applied in order to answer the study questions, such as frequencies, percentages, Cronbach's alpha test, means, standard deviations and independent samples (T) test. The results revealed that the COVID-19 pandemic has serious psychological effects on children, whether they are with or without disabilities. However, from the social and academic aspects, the impacts of the pandemic were generally moderate. Furthermore, no statistically significant differences at level of ( $\alpha \geq 0.05$ ) were found between children with and without disabilities. This study emphasized the importance of raising awareness among families on the management of the problems that arise during times of global crises, such as the COVID-19 pandemic, both consciously and responsibly, by arranging appropriate training courses and workshops for them.

Keywords: COVID-19, psychological, social, academic, disabilities, Saudi Arabia

### **INTRODUCTION**

Due to the rapid global spread of COVID-19, many countries are witnessing frightening and profound negative effects on multiple levels and areas, both locally and globally. The COVID-19 pandemic has changed the entire world because it has disrupted healthcare systems in some countries, and has also affected the economies of governments and individuals. It has also reduced the quality and continuity of the educational process in many countries (Bayham & Fenichel, 2020; Rundle, Park,

**Citation:** Busaad, Y., & Alnaim, M. (2021). Parents' perceptions regarding the effects of COVID-19 on their children with and without disabilities. *International Journal of Instruction*, 14(4), 997-1012. <https://doi.org/10.29333/iji.2021.14457a>

Herbstman, Kinsey & Wang, 2020), leading to negative social and psychological impacts on individuals (Minds, 2020; Van Bavel, Baicker, Boggio, Capraro, Cichocka, Cikara & Drury, 2020; Wang, Zhang, Zhao, Zhang & Jiang, 2020b; Zhang, Nurius, Sefidgar, Morris, Balasubramanian, Brown & Mankoff, 2020).

In order to limit the spread of COVID-19 and to delay its climax, numerous countries have closed schools, universities and institutions at all academic levels. They have continued education by remote study (International Schools Group, n.d.; Van Bavel et al., 2020) as a proven method of limiting transmission of epidemics and of rapidly spreading viruses (Earn, He, Loeb, Fonseca, Lee & Dushoff, 2012; Jackson, Mangtani, Olowokure & Vynnycky, 2014; Nafisah, Alamery, Al Nafesa, Aleid & Brazanji, 2018). Consequently, almost 107 countries have closed their schools, thereby affecting 862 million children around the world. This constitutes almost half of the global student population (Van Bavel et al., 2020). Furthermore, a social distancing policy imposing compulsory home quarantine on everyone in Saudi Arabia was implemented in order to reduce the rapid spread of epidemics and viruses (Rashid, Ridda, King, Begun, Tekin, Wood & Booy, 2015; Sekaran & Bougie, 2016).

Although the organized endeavors made by countries in order to preserve public health are worthy of appreciation, there remains cause for concern. Closure of schools and workplaces and the imposition of long-term home quarantine have a negative impact on the psychological, physical and mental health of children and adults (Wang et al., 2020b). Lengthy interruption of studies, whether for students with or without disabilities, foster high levels of anxiety and fear. Lack of information appropriate to their intellectual levels associated with the spread of this disease will significantly affect their academic and psychological aspects.

Moreover, persons become bored, due to a long period of social distancing and staying at home, and also lack physical activities outside the home. They have unaccustomed dependence on technology to communicate with family, and the denial of real interaction with friends will inevitably lead them into experiencing negative effects on their social aspect (Wang et al., 2020b).

### **Problem of the Study**

At a time that many local and international institutions are focusing their efforts on managing aspects of health and the economy, the Director-General of the World Health Organization emphasizes the importance of balance when managing the effects of the COVID-19 pandemic (Adhanom, 2020; Mantasiah, Yusri, Sinring & Aryani, 2021). These include the psychological, social and academic aspects that are affected by this pandemic, and finding quick-term solutions to avoid the impact of such a crisis in the future. Therefore, it is important to emulate the efforts of the medical and economic sectors as well as to focus on the anticipated effects of the rapid spread of COVID-19 on the aforementioned aspects of individuals, whether they are with or without disabilities, and also to attempt to mitigate these impacts (Uscher-Pines, Schwartz, Ahmed, Zheteyeva, Meza, Baker & Uzicanin, 2018). The objective of this study was to explore parents' perceptions regarding the effects of the COVID-19 pandemic on their children, with and without disabilities, from such aspects in Saudi Arabia.

### The Study Questions

1. What are the perceptions of parents regarding the impact of the COVID-19 pandemic on their children, with and without disabilities, from psychological, social and academic aspects?
2. Are there statistically significant differences between the effects of COVID-19 on the psychological aspect of such children from their parents' viewpoint?
3. Are there statistically significant differences between the impact of the COVID-19 pandemic on the academic aspect of these children, from their parents' viewpoint?
4. Are there statistically significant differences between the effects of the COVID-19 pandemic on the social aspect of such children from their parents' viewpoint?

### Terminology of Study

#### 1. The Psychological Aspect:

The aspect of students' mental health is defined as "not merely the absence of mental disorders, but rather a state of wellness in which everyone can realize his own potential, adapt to typical stress situations, work productively and meaningfully, and contribute to his community." (Mental Health, 2020).

**Procedural Definition:** This refers to parents' verbal reports about their children's awareness of their own potential and their adaptation to the stressful situations that they encounter during their home quarantine period due to the emerging COVID-19 pandemic and their ability to continue productive and useful work.

#### 2. The Social Aspect:

This is the aspect of students' social communication and interaction with those around them as healthy social communication and the formation of successful personal relationships which improve the quality of life and positively enhance mental health (Croteau, 2017).

**Procedural Definition:** This concerns verbal reports from parents regarding the continuity of their children in interaction and effective social communication with others during the home quarantine period due to the COVID-19 pandemic.

#### 3. Academic Aspect:

This is the educational aspect for students in which the educational process is defined as an organized and coordinated set of procedures and activities that satisfy the students' educational requirements, thereby making a profound change in their thinking, and effectively developing their skills and abilities (Features of the Educational Process, 2020).

**Procedural Definition:** This refers to verbal reports from parents on the extent of the effectiveness of procedures and activities that satisfy their children's educational needs during the home quarantine period due to the COVID-19 pandemic, and the extent of their ability to succeed in maintaining their educational levels.

#### 4. Individuals with Disabilities:

Some persons suffer from a permanent state of physical or mental disabilities which prevents them from participating in society fully and effectively (Disability, 2020).

**Procedural Definition:** This refers to individuals between the ages of 4 and 18 years and who suffer from one or more types of disability such as mental, auditory, visual or learning disability, autism and ADHD.

### **Literature Review**

The world has witnessed an extensive spread of the COVID-19 epidemic which has created multiple challenges at different levels and fields, both locally and globally. Many recent studies have expressed interest in knowing the effects that the COVID-19 pandemic has left on societies from different aspects. This section will address recent studies that have addressed some of the psychological social, and academic impacts of COVID-19 on individuals with and without disabilities.

A study conducted by Spinelli, Lionetti, Pastore and Fasolo (2020) aimed to explore the impact of the risk factors associated with experiencing a COVID-19 outbreak on the comfort and well-being of parents and children. In this study, parents of children between the ages of 2 and 14 completed an online survey in order to report on the conditions of their home environment, and the difficulties that they encounter due to quarantine. The parents also reported on the perception of the psychological stress from which children suffer as well as emotional and behavioral problems. The final sample comprised 854 parents living in Italy, of whom 797 were mothers. The results revealed that an awareness of the difficulty of quarantine was a critical factor in reducing the well-being of parents and children. Quarantine also has a clear impact on increasing the emergence of behavioral and emotional problems for children. Parents who reported that they experienced more difficulties in managing quarantine also exhibited more stress, which may impair their ability to be supportive caregivers. Finally, the results of the study showed that the variables of living in a more vulnerable region or the quality of the home environment have a clear impact on the comfort and well-being of families during COVID-19 pandemic.

Bhat, Khan, Manzoor, Niyaz, Jasmin Tak, Ul-Muntaha Anees, Gull and Ahmed (2020) conducted a study to survey people in Kashmir in which 400 people participated. The objective of the survey was to obtain a better understanding of their levels of psychological impact, anxiety, depression and stress during the COVID-19 pandemic. The results revealed that 76.5 percent of the participants believe that home quarantine is temporary, in order to prevent the spread of infection, although it will cause many psychological, social, economic and academic problems. Generally, a statistically insignificant difference was observed between male and female respondents regarding the introduction of precautionary measures adopted by the current study population in favor of females. Finally, it was suggested that home quarantine ought to be managed in a less stressful manner, and to enable individuals and family to participate in physical, religious and social activities.

A study conducted by Morgül, Kallitsoglou and Essau (2020) aimed to ascertain the psychological impact associated with the spread of the COVID-19 epidemic on elementary school children and their families living in the United Kingdom. The sample reached 927 caregivers for children, aged from 5 to 11 years, by responding to an online survey. Caregivers reported some changes in their children's state behavior and emotion during home quarantine. Boredom was the most reported symptom in children (73.8%), followed by loneliness (64.5%) and frustration (61.4%). Anxiety, anger, insomnia, sadness, and the possibility of arguing with the rest of the family were reported by more

than 30% of caregivers. During home quarantine, children spent more time using electronic devices and less time in engaging in physical activity and sleeping. Moreover, family coexistence during home confinement was described as being moderately difficult. Therefore, the results emphasized the importance of developing preventive programs to mitigate the impact of the COVID-19 pandemic on the mental health of children and their families.

The study conducted by Zhang et al. (2020) also aimed to explore the academic and psychological effects of the COVID-19 pandemic on children with disabilities in the United States of America. It involved a study sample that included 147 children with and without disabilities. The results indicated that children with disabilities were more interested in lessons transmitted through the internet than were their regular peers. Additionally, children with disabilities reported that they encountered greater difficulty in accessing the internet compared with their regular peers. The results also indicated that the psychological pressures associated with anxiety and fear of studying were higher among children with disabilities than among their peers without disabilities.

A similar recent study conducted by Lubis and Lubis (2020) in Indonesia aimed to explore parents' perceptions of e-learning, their level of satisfaction and the most important obstacles from their point of view. An online survey produced 257 responses, and descriptive statistics were used for the analysis. The results revealed that participants were generally dissatisfied with the implementation of e-learning during the COVID-19 pandemic. Parents claimed that poor information and communication technology infrastructure (such as the internet, digital devices and electricity) and the lack of technological skills became a barrier for their children to use e-learning. Parents also deemed traditional learning as better than online learning.

An article by Al Lily et al. (2020) constructs a conceptual framework for distance education in order to address the ramifications of implementing distance education during the COVID-19 pandemic. Therefore, the authors analyzed many social-media posts and conducted online classes and interviews regarding distance education. It has been found that some people may accept this method of education, whereas others reject it. With regard to the educational and psychological repercussions, the lack of preparedness and teachers' incompetence have damaged the teaching. Furthermore, a prolonged stay at home could involve multiple problems such as: epidemic-related stress, anxiety, depression, domestic violence and divorce. Such difficulties prevent students and teachers from learning and teaching properly. Nevertheless, distance education is one of many social distancing initiatives that has been welcomed by Arabs, despite their solid social proximity and awareness of the danger of the spread of COVID-19.

Although most studies have focused on the impact of the coronavirus on people generally, this study is distinguished by the fact that it compares the effects of the COVID-19 pandemic on the psychological, academic and social aspects of individuals with and without disabilities from the viewpoint of their families. It is intended to contribute to the development of future precautionary plans that can help to raise the

quality of services. Such services must be provided to individuals with or without disabilities during times of similar global crisis.

## **METHOD**

Based on the nature of the study and the data to be obtained, descriptive approach was used to identify the phenomenon and to determine its size, relationships, strengths and weaknesses, and to make appropriate decisions.

### **Population and Sample of the Study**

The study population comprises all parents of children with and without disabilities in Saudi Arabia. The study population is relatively large; therefore, a sample can be limited to 383 individuals, as recommended by Sekaran & Bougie (2016).

The study sample was chosen randomly by distributing the questionnaire to parents of children with and without disabilities in Dammam, Kingdom of Saudi Arabia. The sample of the study comprised 130 respondents, being the parents of children with disabilities, and 253 respondents being the parents of typical children.

Subsequent to retrieving the questionnaires, 26 of them were excluded from the sample of parents of children with disabilities, and 47 were excluded from the sample of parents of typical children. Consequently, the final study sample for parents of children with disabilities comprised 104 respondents, representing 80 percent of the main sample. The final study sample for parents of typical children became 206 respondents, representing 81.5 percent. The demographic distribution of the study sample according to demographic variables is given below.

### **Research Instruments**

The study utilized a four-part questionnaire in order to collect data from the sample. The first part focused on the primary data of the study sample according to the variable of the child's type of disability, if any. The second part focused on the psychological effects of the COVID-19 pandemic in 13 paragraphs. The third part contained 11 paragraphs which focused on the impacts of the COVID-19 pandemic on the social aspect. Finally, the fourth part focused on the effects of the pandemic from the academic aspect, also in 11 paragraphs. Likert's pentagonal gradient was used to respond to the paragraphs (extremely high, high, medium, low, not applicable).

Ethical issues have also been considered in this research by assuring the participants that all data would remain completely confidential and used exclusively for scientific research. This research was conducted after obtaining approval from the Institutional Review Board at Imam Abdulrahman bin Faisal University.

### **Validity and Reliability of the Questionnaire**

In order to ensure the validity of the questionnaire, the researchers submitted it to a group of academic experts in the fields of education, psychology and special education for judgment of clarity and suitability to the topic. In response to the feedback from the arbitrators, some paragraphs were amended and the questionnaire in its final form

comprised 37 paragraphs. The correlation coefficient (Pearson) was calculated in order to validate the internal consistency of the study tool. The reliability of the questionnaire was confirmed by calculating Cronbach’s alpha coefficient.

Furthermore, in order to calculate the reliability of the study tool, the researchers applied the scale on an exploratory sample of 41 parents who were not included in the main study sample. The researchers used Cronbach’s alpha coefficient to calculate the reliability of the sub-dimensions and the total score, as shown in Table 1 below:

Table 1  
Reliability coefficients for the study tool items using the cronbach’s alpha Test (n = 41)

Variables	Paragraphs	Cronbach’s alpha coefficient
Psychological aspect	13	0.854
Social aspect	11	0.787
Academic aspect	11	0.747
The tool as a whole	35	0.836

The values of the Cronbach’s alpha coefficient ranged from 0.747 to 0.854, with a total level of 0.836, and the values of the coefficient of reliability were acceptable for this study. The calculation of coefficients (Cronbach’s alpha) was used for the study sample (n = 310).

**Scale Correction Key**

It was considered that the five-point Likert scale used in the study should be graded according to the rules and characteristics of the scales as follows:

Extremely high	High	Average	Low	Not applicable
5	4	3	2	1

Accordingly, the values of the means reached by the study were managed according to the following equation:

Highest value - the lowest value of answer alternatives / divided by the number of levels, i.e.:

$$\frac{(1-5)}{3} = \frac{4}{3} = 1.33 \text{ which equals the length of the category.}$$

Thus, the low level of 1.00 + 1.33 = 2.33

The average level is from 2.34+ 1.33 = 3.67

The high level is from 3.68-5.00

**Data Analysis**

Several statistical methods were used in order to answer the study questions, namely: frequencies, percentages, Cronbach's alpha test, averages, standard deviations and (T) test for two independent samples and the significant level or probability of the error was ( $\alpha \geq 0.05$ ).

## FINDINGS

This part of the study included the answers to the study questions. Means and standard deviations were extracted for the purpose of identifying the responses of the study participants regarding “the effects of the COVID-19 pandemic on the psychological, social and academic aspects of children with and without disabilities from the point of view of their parents”. The study questions and the answers to them are given below:

1- . What are the perceptions of parents regarding the effects of the COVID-19 pandemic on their children with and without disabilities from psychological, social and academic aspects?

To answer this question, means and standard deviations were extracted in order to identify the effects of the COVID-19 pandemic on the psychological, social and academic aspects of children with and without disabilities from their parents' viewpoint, as shown in Table 2 below:

Table 2

Means and standard deviations to identify “the perceptions of parents regarding the effects of COVID-19 pandemic on their children with and without disabilities from psychological, academic and social aspects ” arranged in descending order

No.	Effects of the COVID-19 pandemic on	Mean	Standard deviation	Rank	Level
3	Academic aspect	3.43	0.70	1	Average
1	Psychological aspect	3.42	0.72	2	Average
2	Social aspect	2.99	0.64	3	Average
	General mean	3.28	0.52		Average

Table 2 clarifies that the means for the effects of the COVID-19 pandemic on the psychological, social and academic aspects of children with and without disabilities from the point of view of their parents ranged from 3.43 to 2.99 where the general mean reached 3.28, being the average level.

The effects of the COVID-19 pandemic on the academic aspect of children with and without disabilities from parents' viewpoint was in first place. This aspect has the highest mean of 3.43 and a standard deviation of 0.70, which is the average level.

The effects of the COVID-19 pandemic on the psychological aspect of children with and without disabilities from the point of view of their parents was second, with an average of 3.42 and a standard deviation of 0.72, which is of an average level. In third place, came the effects of the COVID-19 pandemic on the social aspect of children with and without disabilities from their parents' viewpoint, which has a mean of 2.99 and a standard deviation of 0.64, being of an average level.

2. Are there statistically significant differences in the level of the effects of the COVID-19 pandemic on the psychological aspect of children with and without disabilities from the point of view of their parents?



To answer this question, two independent sample T-tests were conducted in order to identify the differences in the level of the effects of the COVID-19 pandemic on the psychological aspect of children with and without disabilities from their parents' viewpoint. Table (3) illustrates this as shown below:

Table 3

Independent sample t-test to identify the differences in the level of the effects of the COVID-19 pandemic on the psychological aspect of children with and without disabilities from their parents' viewpoint

Source of variance	Children	Number	Mean	Standard deviation	Degree of freedom	(t) Value	Sig
Effects of COVID-19 pandemic on the psychological aspect	Without disabilities	206	3.51	0.71	308	3.128	*0.002
	With disabilities	104	3.24	0.70			

\*: Statistically significant at the level of significance of 0.05 or less.

Table 3 shows statistically significant differences at the level of significance  $0.05 \leq \alpha$  in the level of the effects of the COVID-19 pandemic on the psychological aspect according to the difference between children with and without disabilities. This is because the statistical value of (t) reached 3.128 which is statistically significant at the level of 0.05 or less. It was found that the source of the differences in the impacts of the COVID-19 pandemic on the psychological aspect was higher for children without disabilities, with a mean of 3.51, being higher than the mean of children with disabilities of 3.24.

3. Are there statistically significant differences in the level of the effects of the COVID-19 pandemic on the social aspect of children with and without disabilities from the point of view of their parents?

To answer this question, two independent sample T-tests were used in order to identify the differences in the level of the impacts of the COVID-19 pandemic on the social aspect between children with and without disabilities. Table 4 illustrates this as shown below:

Table 4

Independent sample t-test to identify the differences in the level of the effects of the COVID-19 pandemic on the social aspect of children with and without disabilities from their parents' viewpoint

Source of variance	Children	Number	Mean	Standard deviation	Degree of freedom	(t)	Source of variance
Effects of the COVID-19 pandemic on the social aspect	Without disabilities	206	3.04	0.65	308	2.039	*0.042
	With disabilities	104	2.88	0.63			

\*: Statistically significant at the level of significance (0.05) or less.

Table 4 shows statistically significant differences at the level of significance of  $0.05 \leq \alpha$  in the level of the effects of the COVID-19 pandemic on the social aspect between children with and without disabilities from their parents' viewpoint. This is because the

statistical value of (t) reached 2.039 which is statistically significant at the significance level 0.05 or less. It was found that the source of the differences in the impacts of the COVID-19 pandemic on the social aspect was higher for children without disabilities, with a mean of 3.04 higher than the mean of children with disabilities of 2.88.

4. Are there statistically significant differences in the level of the effects of the COVID-19 pandemic on the academic aspect for the difference between children with and without disabilities from their parents' viewpoint?

In order to answer this question, two independent sample T-tests were used to identify the differences in the level of the impacts of the COVID-19 pandemic on the academic aspect between children with and without disabilities from their parents' viewpoint. Table (5) illustrates this, as shown below:

Table 5

Independent sample t-test to identify the differences in the level of the effects of the COVID-19 pandemic on the academic aspect of children with and without disabilities from their parents' viewpoint

Source of variance	Children	Number	Mean	Standard deviation	Degree of freedom	(t)	Source of variance
Effects of the COVID-19 pandemic on the academic aspect	Without disabilities	206	3.44	0.68	308	0.596	0.551
	With disabilities	104	3.39	0.75			

\*: Statistically significant at the level of significance of 0.05 or less.

Table 5 shows no statistically significant differences at the level of significance of  $0.05 \leq \alpha$  in the level of the impacts of the COVID-19 pandemic on the academic aspect according to the difference between children with and without disabilities from the point of view of their parents. This is because the statistical value of (t) reached 0.596 which is not a statistically significant value at the significance level 0.05 or less, and that the differences between the means, if any, did not reach the level of statistical significance.

## DISCUSSION

1- What are the perceptions of parents regarding the effects of the COVID-19 pandemic on their children with and without disabilities from psychological, academic and social aspects?

The impacts of the COVID-19 pandemic on the psychological aspect of children with and without disabilities based on parents' perceptions:

The opening paragraph of the first question indicates that the COVID-19 pandemic has serious psychological effects which have been revealed in students' experiencing sadness and fear, whether or not they have disabilities. This consequently affected the emergence of such behavioral problems as increased aggressive behavior and sleep disturbances.

Furthermore, other psychological problems and impacts have been reported; for instance, anxiety, mood disorders, and lack of appetite for food to a moderate degree.

This result conformed to the study conducted by Sepulveda-Loyola et al. (2020) which confirmed that the major psychological problems that appeared in the sample members due to the spread of the COVID-19 pandemic were anxiety, depression, poor sleep quality and physical inactivity. On the other hand, this result differed from that of the study conducted by Wang, Pan, Wan, Tan, Xu, Ho and Ho (2020a) which aimed to identify the effects of the spread of the COVID-19 epidemic on Chinese society. This study revealed that most of the people who responded to the questionnaire were psychologically stable, with rates of non-anxiety and non-depression reaching a percentage of 93.67 and 82.83 respectively.

This result is consistent with many studies which confirmed the existence of a link between home quarantine and the increase in the emergence of psychological, behavioral and emotional problems in normal children and those with disabilities. These problems include anxiety, tension, insomnia, frustration, anger and sadness.

The effects of the COVID-19 pandemic on the social aspect of children with and without disabilities based on parents' perceptions are given below:

The result of the second paragraph of the first question can be explained by the fact that the impact of the COVID-19 pandemic on children, whether with or without disabilities, associated with the social aspect were generally moderate. This was due to the existence of a good relationship which binds parents with their children. It also shows their ability to compensate their children during the home quarantine period. This may be due to families being unemployed, or to their social and other consequences, or their practicing of compensatory social activities with their children at home.

This result agreed with the proposals of the study conducted by Bhat et al. (2020) in Kashmir. In this study, the sample members believed that occupying themselves and their family members in physical and religious activities and social work are particularly important in mitigating the impact of the COVID-19 pandemic on children and families during the home quarantine.

The effects of the COVID-19 pandemic on the academic aspect of students with and without disabilities based on parents' perceptions are given below:

Based on the results of this study, it is clear that academic problems resulting from distance education have been adopted in the Kingdom of Saudi Arabia as a precautionary measure. This is due to the spread of the COVID-19 virus, together with limited-distance education, educational setbacks for some children, and difficulty in following up a house-quarantined child's progress which have become the average standard.

On the other hand, the results of this study revealed that distance education has had a positive effect on the academic level of the children of the sample members. These results also indicated that the children of the sample members showed a high improvement in their academic performance. Furthermore, compensatory summer programs were available at a high level.

These results can be explained by the fact that the Kingdom of Saudi Arabia has been very successful in implementing (emergency) distance education plans. As the study confirmed, the education process progressed well, and teachers' attempted, at a medium level, to follow up students remotely and provide educational and training services wherever possible. This result differed from the study conducted by Al Lily et al. (2020) which stated that the sudden implementation of the distance education plan and the lack of preparedness of schools had a negative impact on education in some Arab countries.

This may be due to several reasons, as mentioned in the study conducted by Lubis and Lubis (2020), such as the weakness of the information and communication technology infrastructure. It could be also related to the lack of using skills which have become an obstacle for teacher to use e-learning properly (Burdina, Krapotkina & Nasyrova, 2019).

2. Are there statistically significant differences in the level of the COVID-19 pandemic effects on the psychological aspect between children with and without disabilities based on their parents' perceptions?

It is evident from the results of this study that statistically significant differences exist at the level of significance  $0.05 \leq \alpha$  of the effects of the COVID-19 pandemic on the psychological aspect between children with and without disabilities from their parents' viewpoint. This result can be explained by the COVID-19 pandemic effects on the psychological aspect being greater for the children without disabilities than those with disabilities. Full awareness by the children without disabilities of the magnitude of the global crisis and its various implications on different aspects of life are explained as follows:

The children's experiences of the rapid spread of this pandemic, through the daily statistics published by the Ministry of Health, include large and constantly increasing numbers. These are in addition to the ordinary children living with the changes occurring in the features of daily life as a result of following the precautionary measures imposed by the state in order to limit the spread of this virus.

Consequently, the results of this study disagreed with the study conducted by Zhang et al. (2020) in the USA which indicated that the psychological pressures of anxiety and fear were higher among children with disabilities than their peers without disabilities.

3. Are there statistically significant differences in the level of the effects of the COVID-19 pandemic on the social aspect between children with and without disabilities based on their parents' perceptions?

The results show statistically significant differences at the level of significance  $0.05 \leq \alpha$  in the level of the impact of the COVID-19 pandemic on the social aspect according to the difference between children with and without disabilities from their parents' viewpoint. This difference can be attributed to the higher social nature of individuals without disabilities as well as their ability to communicate effectively with others compared with persons who have disabilities. Furthermore, this could be attributed to the social problems that affect the communication ability of individuals with disabilities from which they may suffer.

In this case, they do not receive the necessary support from the people, as happens with treatment interventions and basic needs.

4. Are there any statistically significant differences in the level of the impact of the COVID-19 pandemic on the academic aspect for the difference between children with and without disabilities based on their parents' perceptions?

It is evident from the results that no statistically significant differences exist at the level of significance  $0.05 \leq \alpha$  in the level of the effects of the COVID-19 pandemic on the academic aspect according to the difference between children with and without disabilities from their parents' viewpoint.

The result of the absence of differences between the impact of the COVID-19 pandemic can be explained by fairness of distance education in the Kingdom of Saudi Arabia and the ability of individuals with various physical and mental abilities to continue education and training remotely during the COVID-19 pandemic.

It is also possible to explain the result of the lack of differences between the effects of the COVID-19 epidemic on the academic side of ordinary children compared with children with disabilities from their parents' viewpoint. This is due to the similarity of the problems associated with distance education for both groups, represented in the frequent interruption of the internet, the difficulty of providing devices and the lack of the necessary technical skills. The results of this study disagreed with those of the study conducted by Zhang et al., (2020). Zhang (2020) in the USA, the results of which indicated that children with disabilities showed more interest in distance education compared to their peers without disabilities. However, individuals with disabilities had greater difficulty in accessing the internet than did their peers without disabilities.

## CONCLUSION

The preventive and precautionary measures taken by countries to limit the spread of the COVID-19 pandemic have had a positive impact in restricting the spread of the virus, although they have had serious effects on the psychological, social and academic level of children with and without disabilities (Zhang et al., 2020). Consequently, this study aimed to explore the perceptions of parents regarding the effects of the COVID-19 pandemic on the aforementioned aspects of their children, and to compare such impacts on both groups. The results of the study revealed significant differences at the significance level  $0.05 \leq \alpha$  concerning the psychological and social aspects from the point of view of Saudi parents between children with disabilities and those without. This result agrees with the following studies (Morgül et al., 2020); (Zhang et al., 2020). Furthermore, no significant differences were recognized between them on the academic aspect because of the fair opportunities that the Kingdom of Saudi Arabia provided for such children to enable them to succeed in distance education during the COVID-19 outbreak.

This study recommends conducting further research on the perceptions of parents and caregivers regarding the impact of the COVID-19 pandemic on children with and without disabilities in different countries. Such research would attempt to reach the

correct knowledge based on whichever successful solutions could be proposed in order to alleviate similar effects.

### LIMITATIONS

The main limitation of the study was that it was conducted exclusively on Saudi society. It is known that each country has followed various precautionary measures during the COVID-19 pandemic. The Kingdom of Saudi Arabia followed precautionary measures such as: imposing home quarantine and distance learning, applying social distancing practices, taking health precautions and numerous other ways at different times in order to mitigate the severity of the COVID-19 pandemic on Saudi society.

Therefore, the results of this study cannot be generalized to other societies. Some limitations of this study were shown in the distribution of questionnaires after the partial relaxation of the compulsory state-imposed home quarantine which was extended for a period of three months, and which may have affected the responses of some participants. The circumstances of the COVID-19 pandemic meant that the researchers were unable to present the questionnaire personally to schools and centers. This is because they were totally dependent on publishing the questionnaire electronically; consequently, the number of the study sample was smaller than desired.

### ACKNOWLEDGMENT

The researchers are grateful to the Deanship of Scientific Research in Imam Abdulrahman Bin Faisal University, in the Kingdom of Saudi Arabia, for funding this research project.

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