

## Evaluating Barriers for Autistic Children's Parents about Receiving Dental Services in the COVID-19 Pandemic

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**Abstract--- Background and Purpose:** During the corona pandemic, the importance of dental services, both preventive and curative, for patients with autism is even greater. Therefore, this study aimed to investigate the barriers created for children with autism to receive dental services during the Covid 19 pandemic from the parents' perspectives.

**Materials and Methods:** The study was a randomized clinical trial that looked at 90 children with autism based on their parents' opinions. It was explained. Data collection was administered by using a self-made questionnaire with 11 questions, whose validity and reliability were confirmed, with the help of SPSS26 software at an error level of 0.05, using Chi-square and Fisher's exact tests.

**Results:** The children's age was an effective factor in preventing them from receiving dental services ( $p$ -value = 0.014), and between the two age groups of 9 to 13 and 14 to 18 years, regarding the conditions of the closed space of the dental office that prevents the patient from referring to receive services. Also, there was no significant relationship between questions and parents' jobs and education ( $p > 0.05$ ).

**Conclusion:** Covid 19 pandemic conditions have increased the fear of parents of autistic children about coming to closed places such as offices and regular dental check-ups, and as a result, increased disruption of normal daily activities by autistic children during this period, which has resulted in increased severity.

**Keywords---** Autistic Disorder, COVID-19, Oral Health.

### I. Introduction

COVID-19 Pandemic with the main symptom of acute respiratory depression was first reported in December 2019, in the city of Wuhan, China, and rapidly became a worldwide pandemic for nearly four months.

The policy of all countries concerned is to control and prevent the progressive course of the disease, taking the principles of social distance, closing public places and preventing people crowding at the community level. However, after the vaccine became available in mid-2021 in almost all the countries involved, particularly in Iran, we noticed public vaccination and a decrease in its daily mortality (4.2).

Among locked down public places during the pandemic were school, which caused a considerable change in the school children's quality of life and mental health because attending school and being with peers rendered their physical and mental health (5). Children and adolescents with autism disorder are more likely to be in danger of psychological consequences resulting from the closure of the school, because they are less resistant to psychological harm than others (6, 7). Also children and adolescents with autism tend to be more dependent on frequent activities, such as going to school or doing new activities (8, 9).

In addition to these patients, parents who had assigned a part of their children's daily care to school and educational and treatment centers, during the pandemic, they carried out this burden alone and consequently, they suffered physical and psychological damages of this burden (10,11).

Apart from care services, the dental services offered to these patients were affected during the pandemic. Because the dentists were likely to be subjected to COVID-19 infection, they used more personal protective devices (N95 masks, shields and surgical gown) to prevent contact with infected nodes and infectious particles of COVID-19 Pandemic (12, 13).

During the pandemic, what was important was carrying out the dental services, whether preventive or therapeutic, for patients with autism. The need for treatment is still high in these patients; however, due to differences in the way of delivering services to these patients during this period, there has been a change in the quality of the provided caring and preventive services. (14). The policy of all countries involved is to control and prevent progressive course of disease, taking the principles of social distance, closing public places and preventing people crowding at the community level. However, with the arrival of the vaccine through the mid - year 2021 period to all the countries involved and particularly in Iran, we see public vaccination and a decrease in the number of daily mortality (4.2).

One of the public and social places that were closed during the pandemic was school, which caused a big change in the quality of life of children and adolescents. School closures had a significant impact on children and adolescents mental health because attending school and between other peers caused physical and mental health of children (5). Children and adolescents with autism disorder are more likely to be in danger of psychological consequences resulting from the closure of the school because they are less resistant to psychological harm than others (6, 7). Also, children and adolescents with autism tend to be more dependent on frequent activities, such as school going and reluctant to do new activities (8, 9).

In addition to these patients, parents who had assigned a part of their child 's daily care to school and educational and treatment centers, this time they carried out this burden alone and consequently, the physical and psychological damages of this burden were also noticed (10, 11).

Apart from the care services, the dental services offered to these patients are also affected during this period because the dentists are more likely to be subjected to COVID-19 infection, they use more personal protective devices (N95 masks, shields and surgical gown) to prevent contact with infected nodes and infectious particles of COVID-19 Pandemic (12, 13).

During the pandemic, what is important is that the dental services, whether preventive or therapeutic, continue for patients with autism. The need for treatment is still high in these patients, but due to differences in the way of delivering services to these patients during this period, the quality of service delivery and preventive services have been changed (14).

Campagraro et. al (15) suggested that the children’s parents in this period reduce income and financial damage, and nearly 50 percent of the participants in this era have refused to refer and receive dental services. In this period, 61.5 % of children had a diet change pattern. 66.5 % of parents had their only children for emergency treatment. There was a significant relationship between fear of pandemic and tendency to receive dental treatment.

Any factor that causes the child to suffer in the dental office may cause aggressive response and refusal of treatment (16). Also, children and adolescents with autism show different responses to treatment depending on the severity of the disorder (17). Therefore, the aim of this study was to Evaluating barriers for Autistic Children’s parents about receiving dental services in the COVID-19 Pandemic.

**II. Materials and Methods**

This study was a randomized clinical trial (RCT). The study procedure was explained for parents of 90 children with autism. Parents who were not satisfied with the study or children with autism have had no previous history of dental treatment, were excluded from the study. Consent forms were given to parents. The questionnaire was filled out by the parents and then the questionnaire containing 11 items of three options were available online. At first, the questionnaire was assessed by 8 faculty members (pediatrics and community dentistry departments) and its validity and reliability were confirmed. At the beginning of the questionnaire demographic information, age of children, parents’ occupation and parent’s educational level were asked. Then a questionnaire with 11 questions were provided online and asked to fill it. Due to the specific and sensitive conditions of parents of autistic children to provide the maximum possible participation in the study, the number of questions with appropriate number 11 was considered. The questions regarding the previous literature review by pediatrics and community dentistry departments were designed. After collecting the data using SPSS26 software, the error level of 0.05 was analyzed using Chi-square and Fisher’s exact tests.

**III. Results**

In this study, the sample consisted of 90 parents of autistic children. The age of children in three age groups ranged 3-8 years (26.7%), 9 - 13 years (36.7%) and 14 - 18 years (36.7%). 30% of parents were in the freelance jobs,48.9% employees and 21.1% workers. 11.1% of parents were in master degree, 30% bachelor, 6.7% associate degree, 51.1 % high school diploma and 1.1 % below high school diploma.

According to Table 1, the highest number of people agrees to the question 1 in relation to the social interactions of autistic children, which has been changed under COVID-19 conditions for receiving dental services(73.3%), and the next greatest obstacles for autistic children seem to be reducing the opportunity of dentists to spend time with the autistic children in the context of COVID-19, the fear of autistic children’s parents from taking their children into a dental office for dental treatments during COVID-19 Pandemic, and The high impact of COVID-19 conditions on parents' referral for dental services.

Table 1: Frequency Distribution of Barriers to Receiving Dental Services for Parents of Children and Adolescents with ASD

Questions	Agree	No Comment	Disagree
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1- My child's social interaction have changed under the conditions of COVID-19 to receive dental services.	66	2	22
	73.3%	2.2%	24.5%
2- I am afraid of getting COVID-19 infection.	43	11	36
	47.8%	12.2%	40%
3- The closed space of the dental office prevents me from referring to receive services.	43	28	19
	47.8%	31.1%	21.1%
4- Scary pandemic conditions have prevented me from attending regular check-ups and receiving preventive services by a dentist.	41	19	30
	45.6%	21.1%	33.3%
5- The cost of receiving dental services has increased in terms of COVID-19 Pandemic.	43	22	25
	47.8%	24.4%	27.8%
6- My child is afraid to see a dentist and an assistant wearing a mask, gloves, shield and surgical gown.	42	27	21
	46.7%	30%	23.3%
7- Non-observance of protective protocols related to COVID-19 by the dentist affects my referral to receive services.	38	27	25
	42.2%	30%	27.8%
8- I am afraid of taking my child to the dental office for dental treatments during this period	54	15	21
	60%	16.7%	23.3%
9. COVID-19's circumstances have greatly influenced my referral for dental services.	54	20	16
	60%	22%	18%
10- My child's illness has worsened since the onset of the COVID-19 pandemic.	44	26	20
	48.9%	28.9%	22.1%
11. The opportunity for dentists to spend more time communicating with my child has decreased in terms of COVID-19 pandemic.	55	20	15
	61.1%	22.2%	16.7%

According to Table 2, the results of the Chi-square test were significantly correlated ( $p$  - value = 0.014) in the case where the closed space of the dental office prevents parents from referring to receive dental services. There was disagreement between the two age groups of 9-13 years, and 14-18 years regarding the closed space of the dental office that prevents parents from referring to receive dental services, meaning that as the age of autistic children increases they agree with this subject as a barrier to receiving dental services for parents of children and adolescents with ASD.

Table 2: Frequency Distribution of Responses in Parents of Autistic Children Participating in the Study by Age Group

Questions	3-8 years old			9-13 years old			14-18 years old			P-Value	Test
	Agree	No Idea	Disagree	Agree	No Idea	Disagree	Agree	No Idea	Disagree		
1- My child's social interaction	83.3%	0%	16.7%	66.7%	3%	30.3%	72.7%	3%	24.3%	0.728	Fisher's Exact Test

have changed to receive dental services under the conditions of COVID-19.											
2- I am afraid of getting COVID-19 infection.	62.5 %	0%	37.5 %	39.4 %	21.3 %	39.4 %	45.5 %	12.1 %	42.4 %	0.728	Fisher's Exact Test
3- The closed space of the dental office prevents me from referring to receive services.	29.2 %	25%	45.8 %	57.6 %	30.3 %	12.1 %	51.5 %	36.4 %	12.1 %	0.014*	Chi-Square Test
4- Scary pandemic conditions have prevented me from attending regular check-ups and receiving preventive services by a dentist.	41.7 %	25%	33.3 %	39.4 %	21.2 %	39.4 %	54.5 %	18.2 %	27.3 %	0.741	Chi-Square Test
5- The cost of receiving dental services has increased in terms of COVID-19 Pandemic.	37.5 %	33.3 %	29.2 %	51.5 %	18.2 %	30.3 %	51.5 %	24.2 %	24.2 %	0.686	Chi-Square Test

6- My child is afraid to see a dentist and an assistant wearing a mask, gloves, shield and surgical gown.	45.8 %	37.5 %	16.7 %	54.5 %	30.3 %	15.2 %	39.4 %	24.2 %	36.4 %	0.245	Chi-Square Test
Questions	3-8 years old			9-13 years old			14-18 years old			P-Value	Test
	Agree	No Idea	Disagree	Agree	No Idea	Disagree	Agree	No Idea	Disagree		
7- Non-observance of protective protocols related to COVID-19 by the dentist affects my referral to receive services.	50%	25%	25%	42.4 %	33.3 %	24.2 %	36.4 %	30.3 %	33.3 %	0.824	Chi-Square Test
8- I am afraid of taking my child to the dental office for dental treatments during this period	70.8 %	8.3%	20.8 %	63.6 %	15.2 %	21.2 %	48.5 %	24.2 %	27.3 %	0.434	Chi-Square Test
9. COVID-19's circumstances have greatly influenced my referral for dental services.	54.2 %	20.8 %	25%	57.6 %	33.3 %	9.1%	66.7 %	12.1 %	21.2 %	0.191	Chi-Square Test
10-My	50%	33.3	16.7	39.4	30.3	30.3	57.6	24.2	18.2	0.54	Chi-

child's illness has worsened since the onset of the COVID-19 pandemic.		%	%	%	%	%	%	%	%	1	Square Test
11. The opportunity for dentists to spend more time communicating with my child has decreased in terms of COVID-19 pandemic.	58.3 %	25%	16.7 %	66.7 %	12.1 %	21.2 %	57.6 %	30.3 %	12.1 %	0.455	Chi-Square Test

According to Table 3, results of the chi - square test, frequency distribution of responses to none of the questions at different occupational levels is not significant.

Table 3: Frequency Distribution of Responses According to the Occupation of Parents of Autistic Children Participating in the Study

Questions	Freelance group			Employee group			Worker group			P-Value	Test
	Agree	No Idea	Disagree	Agree	No Idea	Disagree	Agree	No Idea	Disagree		
1- My child's social interaction have changed to receive dental services under the conditions of COVID-19.	70.4 %	3.7%	25.9 %	72.7 %	2.3%	25%	78.9 %	0%	21.1 %	0.985	Fisher's Exact Test
2- I am afraid of	55.6 %	7.4%	37%	36.4 %	13.6 %	50%	63.2 %	15.8 %	21%	0.174	Fisher's

getting COVID-19 infection.												Exact Test
3- The closed space of the dental office prevents me from referring to receive services.	55.6 %	25.9 %	18.5 %	50%	29.5 %	20.5 %	31.6 %	42.1 %	26.3 %	0.596		Chi-Square Test
4-Scary pandemic conditions have prevented me from attending regular check-ups and receiving preventive services by a dentist.	51.9 %	18.5 %	29.6 %	50%	22.7 %	27.3 %	26.3 %	21.1 %	52.6 %	0.305		Chi-Square Test
5- The cost of receiving dental services has increased in terms of COVID-19 Pandemic.	51.9 %	25.9 %	22.2 %	47.7 %	20.5 %	31.8 %	42.1 %	31.6 %	26.3 %	0.826		Chi-Square Test
6- My child is afraid to see a dentist and an assistant wearing a mask, gloves,	44.5 %	33.3 %	22.2 %	45.4 %	27.3 %	27.3 %	52.6 %	31.6 %	15.8 %	0.881		Chi-Square Test



shield and surgical gown.												
7- Non-observance of protective protocols related to COVID-19 by the dentist affects my referral to receive services.	37%	37%	26%	45.5%	29.5%	25%	42.1%	21.1%	36.8%	0.744	Chi-Square Test	
8- I am afraid of taking my child to the dental office for dental treatments during this period	51.9%	22.2%	25.9%	68.1%	11.4%	20.5%	52.6%	21.1%	26.3%	0.577	Fisher's Exact Test	
Questions	Freelance group			Employee group			Worker group			P-Value	Test	
	Agree	Idea No	Disagr ee	Agree	Idea No	Disagr ee	Agree	Idea No	Disagr ee			
9. COVID-19's circumstances have greatly influenced my referral for dental services.	55.6%	18.5%	25.9%	70.5%	18.3%	11.4%	42.1%	36.8%	21.1%	0.172	Fisher's Exact Test	
10-My child's illness has worsened	44.5%	29.6%	25.9%	52.3%	25%	22.7%	47.4%	36.8%	15.8%	0.845	Chi-Square Test	

since the onset of the COVID-19 pandemic.												
11. The opportunity for dentists to spend more time communicating with my child has decreased in terms of COVID-19 pandemic.	59.3 %	29.6 %	11.1 %	56.8 %	22.7 %	20.5 %	73.7 %	10.5 %	15.8 %	0.524	Fisher's Exact Test	

Table 4: The Frequency Distribution of the Responses in Terms of Master Educational Degree, Bachelor Degree and Associate Degree between Parents of Autistic Children who is Involved in the Study

Questions	Master Degree			Bachelor Degree			Associate Degree			P-Value	Test
	Agree	No Idea	Disagree	Agree	No Idea	Disagree	Agree	No Idea	Disagree		
1- My child's social interaction have changed to receive dental services under the conditions of COVID-19.	70 %	0%	30 %	63%	3.7%	33.3 %	66.7 %	0%	33.3 %	0.277	Kruskal - Wallis Test
2- I am afraid of getting COVID-19 infection.	60 %	0%	40 %	48.1 %	7.5%	44.4 %	50%	33.3 %	16.7 %	0.415	Kruskal - Wallis Test
3- The closed space of the dental office prevents me from referring to	40 %	40 %	20 %	48.1 %	25.9 %	25.9 %	50%	16.7 %	33.3 %	0.733	Kruskal - Wallis Test

Questions	Master Degree			Bachelor Degree			Associate Degree			P-Value	Test			
	Agree	Idea	No	Disagree	Agree	Idea	No	Disagree	Agree	Idea	No	Disagree		
receive services.														
4-Scary pandemic conditions have prevented me from attending regular check-ups and receiving preventive services by a dentist.	90%	0%	10%	22.2%	37%	40.8%	50%	16.7%	33.3%	0.889	Kruskal - Wallis Test			
5- The cost of receiving dental services has increased in terms of COVID-19 Pandemic.	50%	10%	40%	40.8%	29.6%	29.6%	33.3%	50%	16.7%	0.684	Kruskal - Wallis Test			
6- My child is afraid to see a dentist and an assistant wearing a mask, gloves, shield and surgical gown.	70%	20%	10%	51.9%	29.6%	18.5%	66.6%	16.7%	16.7%	0.129	Kruskal - Wallis Test			
7- Non-observance of protective protocols related to COVID-19 by the dentist affects my referral to receive	20%	60%	20%	51.9%	29.6%	18.5%	66.7%	33.3%	0%	0.086	Kruskal - Wallis Test			

services.											
8- I am afraid of taking my child to the dental office for dental treatments during this period	60 %	10 %	30 %	74.1 %	7.4%	18.5 %	05	33.3 %	66.7 %	0.24 6	Kruskal - Wallis Test
9. COVID-19's circumstance s have greatly influenced my referral for dental services.	50 %	30 %	20 %	63%	25.9 %	11.1 %	83.3 %	0%	16.7 %	0.57 4	Kruskal - Wallis Test
10-My child's illness has worsened since the onset of the COVID-19 pandemic.	50 %	30 %	20 %	44.4 %	29.7 %	25.9 %	16.7 %	66.6 %	16.7 %	0.62 2	Kruskal - Wallis Test
11. The opportunity for dentists to spend more time communicating with my child has decreased in terms of COVID-19 pandemic.	60 %	20 %	20 %	55.6 %	22.2 %	22.2 %	66.6 %	16.7 %	16.7 %	0.58 0	Kruskal - Wallis Test

The Kruskal-Wallis test showed that the frequency distribution of responses to none of the questions at different levels of education of parents participating in the study did not have significant differences.

Table 5: The Frequency Distribution of the Responses in Terms of High School Diploma Degree and below High School Diploma Degree between Parents of Autistic Children who is Involved in the Study

Questions	High school diploma	Below High school diploma	P- Value	Test
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	Agree	No Idea	Disagree	Agree	No Idea	Disagree		
1- My child's social interaction have changed to receive dental services under the conditions of COVID-19.	80.4%	2.2%	17.4%	100%	0%	0%	0.277	Kruskal-Wallis Test
2- I am afraid of getting COVID-19 infection.	45.7%	15.2%	39.1%	0%	0%	100%	0.415	Kruskal-Wallis Test
3- The closed space of the dental office prevents me from referring to receive services.	47.8%	34.8%	17.4%	100%	0%	0%	0.733	Kruskal-Wallis Test
4- Scary pandemic conditions have prevented me from attending regular check-ups and receiving preventive services by a dentist.	50%	15.2%	34.8%	0%	100%	0%	0.889	Kruskal-Wallis Test
5- The cost of receiving dental services has increased in terms of COVID-19 Pandemic.	54.3%	19.6%	26.1%	0%	100%	0%	0.684	Kruskal-Wallis Test
6- My child is afraid to see a dentist and an assistant wearing a mask, gloves, shield and surgical gown.	34.8%	34.8%	30.4%	100%	0%	0%	0.129	Kruskal-Wallis Test
7- Non-observance of protective protocols related to COVID-19 by the dentist affects my referral to receive services.	37%	23.9%	39.1%	100%	0%	0%	0.086	Kruskal-Wallis Test
8- I am afraid of taking my child to the dental office for dental treatments during this period	60.8%	19.6%	19.6%	0%	100%	0%	0.246	Kruskal-Wallis Test
Questions	Diploma degree			Below Diploma			P-	Test

				Degree			Value	
	Agree	No Idea	Disagree	Agree	No Idea	Disagree		
9. COVID-19's circumstances have greatly influenced my referral for dental services.	58.7%	21.7%	19.6%	100%	0%	0%	0.574	Kruskal-Wallis Test
10-My child's illness has worsened since the onset of the COVID-19 pandemic.	54.4%	23.9%	21.7%	100%	0%	0%	0.622	Kruskal-Wallis Test
11. The opportunity for dentists to spend more time communicating with my child has decreased in terms of COVID-19 pandemic.	63%	24%	13%	100%	0%	0%	0.580	Kruskal-Wallis Test

#### IV. Discussion

Autism disorder, as its lexical equivalent, is an important developmental disorder that is a category of childhood neurological disorders and one of the biggest challenges of the world today in children.

According to the latest edition of the Diagnostic and Statistical Manual of mental disorders (DSM-5), the number of children with autism is increasing every year, this increase, whether real or due to an increase in the incidence, or due to increased awareness and discernment among parents and professionals, has increased sensitivity to autism. Therefore, many studies investigate the reasons for the creation, types of interventions and conditions of social, educational and family life and many other topics related to autism. It seems that because of the significant prevalence of this disorder and its effect on the dimensions of life of the involved person and his family, research on special and exceptional circumstances has been found to be useful after the prevalence of COVID-19 and its effects on a relatively large population of children with autism.

Based on the results of this study, it can be stated that the provision of dental services by dentists is weak from their parents' point of view. In most of the answers given by parents, there is a lot of changes in the delivery of dental services such as fear of infection with COVID-19, increasing the cost of providing dental services during the pandemic, lack of conformity to the health protocols during the pandemic by dentists and aides, and decrease the opportunity for dentists to communicate with autistic children.

Most parents were afraid to take their child to dental offices, which could be due to the closure of dental office's space, the scary situation of pandemic, fears of the child from seeing dentists and assistants with masks, shields, and surgical scrubs. All of these factors led to a decrease in regular visits by parents to dentists for regular checkups and using preventive services. Almost half of the parents stated that the beginning of the pandemic accompanied by worsening of their children's disease severity. This can be due to the nature of autism disease.

Cao et al. (18) suggested that people with different educational degree have the same level of anxiety. The reason for the similarity is the level of knowledge of people with different education, global information and most importantly in the country level.

In the present study, by observing the results of demographic factors of age, occupation and educational level, we can infer the importance of these factors on the type of decision making. This can be due to the impact of environmental and media advertising on the virus and the high mortality rate of people about the occurrence of COVID-19, which has a great impact on the quality of life and the increase in the level of anxiety and stress caused by COVID-19 Pandemic.

In the study of Machado et al. (19), the fear of children's parents with the ASD problem was assessed during the COVID-19 Pandemic period in the face of the personal protective means of dentistry, which vary according to the degree of autism. The result indicated that the majority of parents reported the excessive fear of children and adolescents from personal protective equipment during the COVID-19 Pandemic period, while in the present study, 46.7% of parents ascribed their child fear to personal protective means. The reason for this can be to reconcile the autistic children with the disease and personal protective means over time during this period as well as the cultural difference between the people of the two countries of Iran and Brazil.

Machado et al. (19) found that children with medium to severe levels of ASD believe their children had more fear than children with lower levels of ASD and that they had a direct relationship with each other. The proportion between the different degrees of ASD and the normal daily activity in the era after Covid 19 is not present and the parents have no different understanding of this. The results of the present study showed that 48.9 % of parents of autistic children believe that their children's disease has been seriously affected by the start of the pandemic.

Machado et al. (19) found that most parents had a fear of COVID-19 pandemic (72.13 %). In the present study, 47.8 % of parents were afraid of COVID-19 pandemic. The reason for this difference can be in increasing the vaccination rate against this disease and decreasing mortality.

In 2020, yang et al. (20) reported that dental service delivery has been affected during Covid - 19 because most of the dental services, whether preventive or non -emergency, have been delayed, which may have a great impact on the health of the community. Similarly, the results of the present study show that 45.6 % of parents of autistic children believe that the scary situation of pandemic prevents the presence of their child for regular checkups and getting preventive services by dentists, which makes a lot of consequences on the public health.

In the year 2021, Samuel et al. (21) reported a number of emergency dental services in the Covid - 19 period in the long - term study. Studies have shown that emergency visits to the dental offices (e.g. tooth extraction) have increased. In the present study, similarly, 45.6 % of parents believed that the scary situation of pandemic was an obstacle to their presence for regular checkups and receiving preventive services, reducing the number of referrals to check - ups, caused an increase in emergency dental visits.

Jefsen et al. [22] reported in the year 2020 that children and adolescents with ADHD, hyperactivity and ASD may be susceptible to psychological complications due to the loss of routine daily activities, as compared with the results of the present study that 73.3 % of autistic children's parents believe their child's social interactions have been changed to receive dental services under COVID-19 conditions.

In the study of Lai et al. (23) in the US, from 615 autistic children who went to the dentist, 11 % had not met dental needs. The main obstacles in the way of resolving their needs were child behavior, expense, and lack of insurance. The important variables were the unmet needs of these children including child behavior, oral health, and more than six months from the last dentist's visit. The opinions expressed in the study of Lai and his colleagues express the importance of providing more health care in the COVID-19 pandemic period. It is to be mentioned that this study did not take place in the case of COVID-19 pandemic conditions.

Machado et al. (19) stated in their study that more than half of the parents had a lot of fear of the pandemic of Covid-19 and most of them stated that their children and adolescents had a great impact on the daily practice of autistic children and adolescents during the pandemic. The results of the present study are in line with the frequency of parents ' response in regard to the rate of fear and the effect on referrals to dentists and the changes in the daily procedure of autistic children by reading Machado et al.

## **V. Conclusion**

The conditions of the Covid-19 pandemic have increased the fear of parents of autistic children to come to closed places such as the dental offices and regular check-ups, and as a result, increased disruption in performing normal daily activities by autistic children during this period, which resulted in an increase in the severity of autism disorder in them, therefore, the most efforts should be made to encourage these children to adapt to these conditions by their parents and on the other hand, the efforts of the treatment staff to eliminate the concerns of the parents of these children in order to properly ventilate closed places to break the chain of transmission of COVID-19 infection and create a safe environment to reduce anxiety in these children.

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