



COVID-19 social distancing implications in households with children and adolescents with Autism

Implicações do isolamento social da COVID-19 em famílias com crianças e adolescentes com Autismo

Consecuencias del aislamiento social del COVID-19 en familias con niños y adolescentes con Autismo

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ABSTRACT

Objective: To analyze the implications of social distancing resulting from the pandemic in families with children and adolescents with Autistic Spectrum Disorder. **Method:** This is an analytical, quantitative, and cross-sectional study conducted from June to July 2020. The questionnaire with 31 questions was applied using the "Google form" tool and answered by 90 fathers or mothers of children and adolescents with Autistic Spectrum Disorder residing in the State of Ceará. **Results:** It was demonstrated that the main implications of distancing on these families can be grouped into three axes: family and therapeutic routine, behavioral aspects and associated conditions, and family relationships. Significant changes in this public's family routine stand out, aggravating behavioral aspects and associated conditions. On the other hand, the period of social distancing culminated in the strengthening of the family bond in some cases. **Conclusion:** The study reinforces the importance of public policies establishing parental support and training without this culminating in a mere transference of responsibility. A family unit guided by respect and acceptance, with emotionally strengthened mothers and fathers, is a relevant factor for stimulating and developing people with Autism Spectrum Disorder. The evidence can favor and inspire strategies to stimulate and integrate autistic children; and adolescents and their families, leaving traditional spaces for other creative alternatives identified during the pandemic.

Descriptors: Autism Spectrum Disorder; COVID-19; Social distancing; Family Core.

RESUMO

Objetivo: Analisar as implicações do isolamento social decorrente da pandemia em famílias com crianças e adolescentes com Transtorno do Espectro Autista. **Método:** Trata-se de um estudo analítico, quantitativo e transversal realizado de junho a julho de 2020. O questionário com 31 questões foi aplicado utilizando-se a ferramenta "Google formulário", sendo respondido por 90 pais ou mães de crianças e adolescentes com Transtorno do Espectro Autista residentes no Estado do Ceará. **Resultados:**



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Received on: 04/06/2022

Accepted on: 06/06/2023

Demonstrou-se que as principais implicações do isolamento sobre essas famílias podem ser agrupadas em três eixos: rotina familiar e terapêutica; aspectos comportamentais e condições associadas; e relações familiares. Destaca-se a existência de mudanças significativas na rotina familiar deste público, agravando aspectos comportamentais e condições associadas. Por outro lado, o período de isolamento social culminou no fortalecimento do vínculo familiar em alguns casos. **Conclusão:** O estudo reforça a importância de políticas públicas que instituem apoio e capacitação parental, sem que isso culmine em mera transferência de responsabilidade. Uma unidade familiar norteada pelo respeito e acolhimento, com mães e pais emocionalmente fortalecidos é fator importante para a estimulação e o desenvolvimento de pessoas com Transtorno do Espectro Autista. As evidências podem favorecer e inspirar estratégias de estimulação e integração de crianças e adolescentes autistas e suas famílias, saindo dos espaços tradicionais para outras alternativas criativas identificadas durante a pandemia.

Descritores: Transtorno do Espectro Autista; COVID-19; Isolamento Social; Núcleo Familiar.

RESUMEN

Objetivo: Analizar las consecuencias del aislamiento social resultante de la pandemia en familias con niños y adolescentes con Trastorno del Espectro Autista. **Método:** Este es un estudio analítico, cuantitativo y transversal realizado de junio a julio de 2020. El cuestionario con 31 cuestiones fue aplicado utilizando la herramienta "Google formulario", siendo respondido por 90 padres o madres de niños y adolescentes con TEA residentes en el Estado del Ceará. **Resultados:** Fue demostrado que las consecuencias principales del aislamiento sobre estas familias pueden ser agrupadas en tres ejes: rutina familiar y terapéutica; aspectos de comportamiento y condiciones asociadas; y relaciones familiares. Se enfoca la existencia de cambios significativos en la rutina familiar de este público, agravando aspectos de comportamiento y condiciones asociadas. Por otra parte, el período de aislamiento social terminó fortaleciendo el vínculo familiar en algunos casos. **Conclusión:** El estudio refuerza la importancia de políticas públicas que instituyen apoyo y capacitación parental, sin que esto termine en simple transferencia de responsabilidad. Una unidad familiar norteada por el respeto y acogida, con madres y padres emocionalmente fortalecidos es un hecho importante para la estimulación y el desarrollo de personas con Trastorno del Espectro Autista. Las evidencias pueden favorecer e inspirar estrategias de estimulación de niños y adolescentes autistas y sus familias, saliendo de los espacios tradicionales para otras opciones creativas identificadas en la pandemia.

Descriptores: Trastorno del Espectro Autista; COVID-19; Aislamiento Social; Núcleo Familiar.

INTRODUCTION

The COVID-19 pandemic, an infection caused by the new coronavirus (SARS-COV-2)⁽¹⁾, culminated in an unprecedented social crisis, and in addition to health and economic issues, the pandemic has fostered a behavioral crisis⁽²⁾. In a context of a rapid increase in the number of cases in the world⁽³⁾ and overload of health systems⁽⁴⁾, the World Health Organization (WHO) and public health authorities have recognized social distancing as a strategy to control the spread of the virus⁽²⁾. In the most critical periods, the recommendation was to prioritize distancing, which consists of restricting people to the home space, as well as avoiding contact with people outside the domestic circle⁽²⁾.

The sudden changes in routine and the necessary social restrictions associated with the uncertainties of the period promoted a historical context, in itself, anxiogenic⁽⁵⁾. This situation aggravates cases requiring regular assistance and a well-established daily routine, as in the case of most people diagnosed with Autism Spectrum Disorder (ASD)^(6,7).

Although data on its prevalence are imprecise, the Pan American Health Organization (PAHO) and the WHO estimate that one in every 160 children worldwide have ASD⁽⁸⁾. In general, ASD is characterized by persistent deficits in communication and social interaction and restricted and repetitive patterns of behavior, interests, or activities⁽⁹⁾. In this context, the predictability of the person with ASD routine is an relevant strategy for controlling anxiety and developing autonomy^(10,11). Thus, routine changes, such as those experienced during periods of strict social distancing, may have been particularly challenging for people with ASD and their families^(6,10).

In addition, and despite recognizing the need for social distancing in the control of COVID-19, it is worth mentioning the potential and deleterious effects of these measures⁽⁵⁾, which can trigger psychological illness^(5,12), foster domestic and interpersonal violence⁽¹³⁾, in addition to impacting family relationships⁽¹⁴⁾, quality of life and mental health⁽¹⁵⁾. More accurate studies will be necessary for a broader assessment of its effects on the realities of different population groups, age groups, and geographic areas^(16,17). Therefore, it is understood that it is necessary to pay close attention to the possible effects of social distancing on the experience of people with ASD and their families, to devise evidence-based health promotion strategies and disseminate information to improve living conditions and health of this population.

Some articles have already been published based on the effects of the pandemic on people with ASD as research objects. A study carried out in the United States of America⁽¹⁸⁾ focused on assessing stress due to interruption of treatment and financial issues, in addition to the worsening of behavioral issues related to ASD. A study in Italy reported the challenges faced by families related to behavioral problems in the context of distancing⁽¹⁹⁾. Thus, in addition to the cited examples, a study on the effects of distancing on the behavior of children and adolescents with ASD aged between two and 19 years was carried out in Brazil. The research results indicate that the confinement caused by the COVID-19 pandemic accentuated the symptoms of children and adolescents with autism, with these children being more frustrated, distressed, stressed, and anxious⁽²⁰⁾. Despite these research data carried out in Brazil, there are little research works specifically with children and adolescents with autism in this period^(21,22).

Considering the possibility of new periods of social or health crisis linked to COVID-19, the present study is justified by the need to analyze the consequences of social distancing on the ways of living and relating to families of children and adolescents with ASD, as well as the difficulties presented by this population in that period.

In this context, this study aimed to analyze the implications of social distancing resulting from the COVID-19 pandemic in Brazilian families with children and adolescents with Autism Spectrum Disorder (ASD).

METHODS

It is a study with a quantitative approach of an analytical and cross-sectional nature carried out with mothers and fathers of ASD children in June and July 2020. This period matched with the recommendation of social distancing in most of Brazil. During the data collection time, the state of Ceará had 445 confirmed cases of COVID-19, including residents of the capital, inland, and metropolitan region. Thus, nine deaths from the disease were confirmed in the state, representing a lethality of 2%⁽²³⁾. Without treatments and vaccines, the only effective strategy against COVID-19 was to reduce contact between susceptible and infected people through early identification of cases or reduction of contact, complemented by cleaning potentially contaminated surfaces and hands beyond the use of masks.

Therefore, the application of the instrument occurred through an electronic form, which was developed by a research group comprised of psychologists, speech therapists and physiotherapists, containing 31 questions divided into sessions on the following aspects: sociodemographic data, child/adolescent routine, family relationship and stimulation strategies. It is noteworthy that in the process of constructing the questionnaire, a pilot test was carried out with five family members of children with ASD, who were discarded from the sample.

For the application of the instrument, the "Snowball" strategy was used⁽²⁴⁾. The identification of key informants occurred through the social networks Instagram® and Facebook®. For this, the following keywords were used: mother of autistic, ASD, father of autistic, and autism. After identifying the key informants, an invitation was made to participate in the research, as well as the disclosure of the access link to the questionnaire among other family caregivers of children and adolescents with ASD and in WhatsApp® groups aimed at this target audience. Professionals in centers specializing in ASD were also asked to send invitations to participate in the study to parents of children and adolescents with this diagnosis.

90 mothers and fathers of children and adolescents with ASD residing in the State of Ceará participated in the research. It is noteworthy that the declaration of having a child (0 to 12 years old) or adolescent (12 to 18 years old) diagnosed with ASD was self-reported by the participants. The age range considered to define children and adolescents was based on Art. 2 of the Child and Adolescent Statute - Law No. 8069, of July 13, 1990⁽²⁵⁾.

When accessing the electronic address, the participants were directed to the Free Consent Form (TCLE), containing information about the purpose of the study, voluntary participation, guarantee of secrecy, and contacts of the researchers. Only after consent the questionnaire was made available to the participants.

Fathers and mothers of children and adolescents with ASD residing in Ceará, Brazil, were included in the sample without age or gender limitation. Fathers and mothers of children with ASD who did not experience the period of distancing with their children, people who lived in distancing with the children but who were not fathers and mothers, and those who did not complete the questionnaire completely were excluded.

The Statistical Package for the Social Sciences 20.0 program (SPSS Inc. Chicago, IL) was used for data analysis, and the Shapiro Wilk Test evaluated its distribution. For descriptive analysis, data were presented in absolute frequency, relative frequency, mean and standard deviation. For comparison of categorical variables, chi-square and Fisher's exact tests were applied, with p values <0.05 being considered statistically significant.

This research is part of a larger study approved by the ethics committee - CAAE: 29690220.7.0000.5052 and opinion No. 4.011.855, in compliance with the ethical precepts of Resolution No. 466/2012, of the National Health Council.

RESULTS

141 questionnaires were applied; however, after removing those answered incompletely or completed by people who did not meet the inclusion criteria, the sample totaled 90 complete questionnaires. The average age of children and adolescents with ASD whose parents participated in the study was 7.4 years (SD= 4.7), with most (57.1%) attending the 1st to 5th grade of Elementary School. According to parents, 76.7% can verbalize. Regarding family structure, 64.4% of respondents classified the family as nuclear (comprised of father, mother, and children), with an average of 3.8 people living in the same house (DP=1,1). Only 26.7% of participants reported having a family income of more than nine minimum wages; 73.3% with an average family income of approximately three minimum wages; 7% have two children with ASD; 94.4% were women, with complete higher education and post-graduation (58.9%); and mean age of 34.6 years. Among the participants, 37.8% stated that at least one member of the family nucleus or who lives in the same house had positive symptoms for COVID-19.

The data show that social distancing brought implications for the families of children and adolescents with ASD in several aspects. For a better understanding, the findings are presented in three axes: family and therapeutic routine of children and adolescents with ASD, behavioral traits of children and adolescents with ASD during social distancing, and family relationships of children and adolescents with ASD during social distancing.

A family and therapeutic routine of children and adolescents with ASD

Most participants (67.8%) reported having rigidly experienced social distancing, and 81.1% stated that the family and the child with ASD were restricted to the home space during this period. Most participants (72.2%) pointed out difficulties in maintaining the routine with their child on most days. Only 6.7% of respondents reported having managed to maintain an everyday routine during the week, and 72.2% considered this situation harmful to their children.

Regarding leisure activities, most participants (83.3%) considered these ones very low. Another relevant data was that 65.5% stated that their child's sleep routine was significantly altered concerning the period before distancing. It is worth mentioning that before social distancing, most participants (87.8%) considered that children and adolescents with ASD had an established activity routine with defined schedules (Table 1).

Table 1 - Routines of families of children and adolescents with ASD during social distancing.

Variables	n / %
Everyone in my house is in strict social distancing, only going out to buy food and medication;	61 / 67.8
My child with ASD stays indoors/apartment all the time;	73 / 81.1
Most days I manage to stick to a routine with my son;	25 / 27.8
I am managing to maintain a routine with my son every day of the week;	6 / 6.7
I realize that the change in my child's routine caused by distancing was bad for him;	65 / 72.2
During the distancing period, my son's leisure activity routine is reduced;	75 / 83.3
In the period of distancing, my son's sleep activity routine is reduced;	59 / 65.5
I believe that my son's routine before the pandemic was full of activities with well-defined schedules.	79 / 87.8

Caption: Data expressed in relative and absolute frequency; n= number of individuals; ASD = Autistic Spectrum Disorder.

Some impacts were also verified in the context of therapeutic routines. Regarding the interventions of professionals with children and adolescents with ASD during social distancing, 61.1% of the participants stated that they had received some face-to-face or virtual guidance from therapists who were already accompanying the child. Only 32.2% lacked more advice on stimulating their children; 60% of parents reported having motivated their child more during distancing; 63% have used some strategy to encourage the child's language frequently; and 44.4% have often sought activities to promote motor development.

The most popular professions (Table 2), before and after social distancing, by parents of children and adolescents with ASD were: Psychology (93.3%), Occupational Therapy (82.2%), and Speech Therapy (78.9%). However, all activities showed a significant decrease in demand during the distancing period. Physiotherapy did not show a statistically substantial demand decrease ($p = 0.08$). But it was evident that this profession was already less sought after than the ones mentioned above, even before social distancing.

Table II - Comparison of professional intervention routines before and during the period of social distancing

Variables	Before social distancing	During social distancing	p
Psychology	84 / 93.3	51 / 56.7	0.004
Speech therapy	71 / 78.9	42 / 46.7	<0.001
Occupational therapy	74 / 82.2	41 / 45.6	<0.001
Psychopedagogy	52 / 57.8	26 / 28.9	<0.001
Physiotherapy	14 / 15.6	10 / 11.1	0.08
Therapeutic Companion	51 / 56.7	20 / 22.2	<0.001
Physical education	24 / 26.7	8 / 8.9	<0.001
music therapy	17 / 18.9	2 / 2.2	<0.001
Multidisciplinary Stimulation Group	38 / 42.2	16 / 17.8	<0.001

Caption: Data expressed in relative and absolute frequency; n= number of individuals; ASD = Autistic Spectrum Disorder.

Behavioral aspects of children and adolescents with ASD during social distancing

Regarding behavioral aspects (Table 3), 74.4% of respondents reported that their children were more agitated and anxious during the period of social distancing; 63.3% reported the presence of inappropriate behavior, such as hitting or screaming; only 25.6% stated that there was a regression in the children's language development during the period of social distancing; and 24.4% indicated a setback in motor development.

Table III - Behavioral aspects of children and adolescents with ASD during social distancing

Variables	n / %
During the distancing period, I noticed that my child became more anxious and agitated);	67 / 74.4
My child has been showing inappropriate behavior more often, such as hitting and screaming, for example;	57 / 63.3
There was a regression in my child's language development during the period of distancing;	17 / 25.6
There was regression in my son's motor development during the distancing period.	22 / 24.4

Caption: Data expressed in relative and absolute frequency; n= number of individuals; ASD = Autistic Spectrum Disorder.

Family relationships of children and adolescents with ASD during social distancing

Although 98.9% reported that the family relationship with children with ASD was good before the pandemic, social distancing had some implications for these relationships (Table 4) since 50% said they had difficulty dealing with their child during this period; 81.1% became closer to them; and 66.7% reported that the relationship with the child or adolescent with ASD improved. Most participants (67.7%) reported that this period also provided higher proximity to the child with ASD and their family members.

Table IV - Family relationships of children and adolescents with ASD during social distancing.

Variables	n / %
It has been more difficult to deal with my son in the distancing period than before;	45 / 50
I have been able to get closer to my son in the period of distancing;	73 / 81.1
In the period of distancing, my relationship with my son got better;	69 / 66.7
Distancing has brought my son closer to the other family members;	61 / 67.7
My relationship with my son before distancing was good.	89 / 98.9

Caption: Data expressed in relative and absolute frequency; n= number of individuals; ASD = Autistic Spectrum Disorder.

DISCUSSION

The COVID-19 pandemic caused severe changes in the population routine, especially concerning specific groups, such as children and adolescents with ASD and their families, since they naturally already experience challenging situations⁽²⁶⁾. In this sense, the present study made it possible to verify that social distancing caused changes in routines, relationships, and behaviors of these families, pointing to the need for support and coping measures in the face of these challenges.

Considering the scenario and context of the study, the sociodemographic data of the respondents deserve to be highlighted since there are situations showing the vulnerability of families of children with ASD. Most participants are female and, even with a high level of education, reported uncomfortable situations with their children with ASD during the social distancing period. A study⁽²⁰⁾ shows that many mothers, during the pandemic period, played in the backyard, played indoors, and watched television with their children to relieve stress and the change in routine imposed by the situation.

Family income also impacts this population since the lower the income, the more difficult it is to carry out coping measures. Other authors⁽²⁷⁾ show that families of children and adolescents with ASD and with better purchasing situations could hire specialized professionals and carry out extra activities during the pandemic using technological resources that allowed interaction at a distance.

Regarding family routines and behavioral aspects during the distancing period, it was found that the results were similar to those of other studies^(19,28) that indicated the existence of significant changes affecting the behavior of children and adolescents with ASD, in addition to your family relationships.

It is noteworthy that one of the main criteria for the diagnosis of autism is the presence of excessive attachment to routines (ritualized routine) along with patterns of resistance to changes in habits and routines^(29,30). Thus, children with ASD have difficulty dealing with the unexpected and uncertain, making them dependent on well-structured and predictable routines⁽²⁹⁾. A simple change in routine is enough to provoke aggressive reactions or cause irritability, as well as accentuate rigid behavior patterns, which may result in anxiety symptoms⁽³¹⁾.

Individuals with ASD tend to have a higher prevalence of anxiety disorders⁽³²⁾ and depression⁽³³⁾. When the routine of children and adolescents with ASD is interrupted, regardless the moment, the frequency of problematic behaviors can increase in frequency and, as in social distancing, these routine changes were imposed by the pandemic, so there was an intensification of the suffering of these individuals⁽²⁸⁾. It resulted in several behavioral effects in these children and adolescents, as shown in the above studies, which converge with the present research results.

Another point observed was the reduction in the sleep routine of the investigated population. Research⁽³⁴⁾ showed that children with ASD when suddenly forced to stay at home due to social distancing, had sleep disorders (drowsiness, lack of sleep) and an increase in other ASD symptoms (agitated, peaceful, sulky, sad, happy, with more repetitive movements, higher distancing). These data are worrying since reduced sleep time can affect human behavior patterns. In the case of ASD, psychotherapeutic, pharmacological, and parental education interventions are necessary to lower the impact of distancing on these children⁽³⁴⁾.

As for routine interventions with professionals during the pandemic, there was a significant reduction in treatment with the most sought-after professionals before the pandemic. This data is worrying since these professionals also offer support to families through their respective expertise. As this period resulted in increased stress on parents, their need for support also increased⁽³⁵⁾. This fact may be associated with the negative results found.

From this perspective, routine is a point of attention and care commonly addressed by professionals who work with this population, as changes in the daily lives of people with ASD can cause suffering⁽²⁹⁾. Even in the pandemic context, it is essential to organize the daily routine of people with ASD to promote greater predictability and structure activities aimed at well-being^(26,27). On the other hand, although in this period, several resources were offered to the public - information materials, support networks, creation of a communication channel, and proposition of strategies to guarantee the rights of people with ASD⁽²⁸⁾, access to various services varies greatly depending on income, health insurance/insurance, support system, and other psychosocial factors. Adding to this all, the challenges imposed by the pandemic brought some barriers between families and professionals⁽³⁶⁾.

Due to the pandemic, many companies providing specialized services, voluntary or not, closed in several countries and caused a decrease in hours of therapy, which are crucial for children with ASD⁽³⁷⁾. In addition, there was a decrease in time at school, and many services that did not close had to be temporarily suspended to restructure according to the new conditions, leading to a reduction in the number of work teams.

It is also noteworthy that the difficulty of adapting to new service formats, such as remote assistance, can affect the quality of treatment. Although this public has a greater affinity with electronics, this scenario can contribute to

worsening family stress and the exacerbation of behavioral problems in children and adolescents. In addition, there is the fact that the parents of children with ASD have problems arising from these circumstances, such as having to work at home or having lost their jobs, which overloads them with their children without, not always having frequent support from specialists⁽³⁷⁾.

Concerning the types of behaviors that emerged or increased in frequency during this period, a study⁽²⁷⁾ carried out in the United States whose objective was to identify general challenges and highlight the strategies that families used to deal with the experience of supporting people with ASD, ranging in age from 11 to 21, amid a worldwide pandemic. The study was conducted through a semi-structured telephone interview with the parents, which showed mood changes, increased crying, aggressiveness, anger, confusion, sadness, and hyperactivity as effects of interrupting the usual routine in their children. These findings corroborate those of other studies, which point to an increase in restricted and repetitive behaviors, the expansion of motor and vocal stereotypes, and behavioral worsening concerning hyperactivity, restlessness, changes in sleep and mood, and aggressiveness^(27,32,33,38,39).

Despite these problems, only 25.6% of children and adolescents with ASD had language regression during social distancing. An Italian survey⁽³⁸⁾, carried out during the first confinement, used a standardized questionnaire aimed at families of 63 children with ASD, aged between 2.7 years and 9.4 years. The study showed the main clinical alterations perceived by the parents and also pointed out that they reported that, in addition to not having noticed a regression in the language of their children, they noticed the appearance of new words in the repertoire. It was associated by parents with greater stimulation of their children in the social distancing period, given the better daily interaction.

As for the family relationships of this public, despite being good even before the pandemic (98.9%), it was observed that 50% of the participants had difficulties in dealing with children with ASD in social distancing, and 66.7% reported an improvement in this relationship. This fact was attributed to the expansion of games between siblings and the quality of interaction. It is because, despite the increase in stressful demands, challenging behavior of children, and tension in family relationships, social distancing, by imposing changes in routines, also favored the intimate coexistence of families in the same place^(35,36,40).

Although ASD is not itself a risk condition for severe forms of COVID-19, people with this condition are more vulnerable to social crises, requiring higher support during the pandemic period and in future public health emergencies^(37,41). The level of aggravation of the behavioral and emotional problems resulting from this period may depend on the severity of the disorder, the receipt of pharmacological and/or therapeutic treatment with a multidisciplinary team, as well as the social support received or not by the family.

In this way, it becomes relevant, in this pandemic or similar scenario, to seek alternatives for treatment, such as telehealth services, government incentives to support these families, and guidance for parents. Although telehealth has benefits^(42,43), research is needed to align this strategy with the demands and characteristics of people with ASD. For this, it is necessary to consider the adaptation difficulties and the need for support and training for families to ensure both the diagnosis and the therapeutic practices⁽³⁷⁾. In addition, telehealth services encounter implementation difficulties associated with the extensive Brazilian territory, consisting of several inland and remote regions, poor distribution of primary care services, high turnover of professionals, and lack of investment in IT infrastructure in services⁽⁴⁴⁾.

Therefore, it is considered pertinent practices based on scientific evidence that may favor the development of strategies and health actions concerning unnecessary consequences in the daily life of these children and adolescents with ASD in the long term and about the possibilities of care for this population and their families from the perspective of psychosocial care.

CONCLUSION

The main implications of social distancing for families with children and adolescents with ASD found in the study were changes in routines, relationships, and behaviors of these families during the period.

The results point to the need for strategies and actions to support these families, offering them better conditions to deal with their children since ASD carriers are already resistant to changes. It is evident that in times of social distancing, therapies and support from qualified professionals become extremely important. This issue deserves a lot of attention since, after carrying out this work, the pandemic continues to extend, and it is not possible to specify when distancing and/or social distancing measures will be necessary strategies.

Although the results of this article are in line with data obtained in other studies, other research must be carried out, reaching a wider audience and also investigating current situations and/or late effects of the pandemic on their

mental health to improve strategies aimed at health promotion and its consequences that may favor the continuity and strengthening of Public Policies and actions in favor of assisting autistic children.

As for the limitations of the study, as the period of social distancing is a new and challenging situation, there were some difficulties in accessing the families of children and adolescents with ASD and also in receiving electronically completed questionnaires. Also noteworthy is the fact that despite the researchers being available remotely to clarify doubts, some issues were possibly not clear to some families.

Thus, it is suggested that new studies be carried out in order to continue monitoring the studied population in the post-pandemic period. This could favor and inspire strategies to stimulate and integrate children and adolescents with ASD and their families, leaving traditional spaces for other creative alternatives identified during the pandemic.

CONFLICTS OF INTEREST

The authors informed us that there is no conflict of interest.

CONTRIBUTIONS

All authors contributed to the design, elaboration, collection, analysis, and interpretation of data, as well as to the writing, revision, and approval of the final version. Furthermore, they agree that they are responsible for the accuracy and completeness of all work.

FUNDING SOURCES

The research was funded by a Scientific Initiation Scholarship from the University of Fortaleza.

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How to cite: Brasil CCP, Brasileiro FNV, Gabler F, Queiroz FFSN, Pessoa YLRP, Brandão M, et al. COVID-19 social distancing implications in households with children and adolescents with Autism. Rev Bras Promoç Saúde. 2023;36:13678.
