

IMPACTS OF COVID-19 SOCIAL DISTANCING ON THE COMMUNICATION OF CHILDREN AND ADOLESCENTS WITH AUTISM

IMPACTOS DO DISTANCIAMENTO SOCIAL POR COVID-19 NA COMUNICAÇÃO DE CRIANÇAS E ADOLESCENTES COM AUTISMO

IMPACTOS DE LA DISTANCIAMIENTO SOCIAL POR COVID-19 EN LA COMUNICACIÓN DE NIÑOS Y ADOLESCENTES CON AUTISMO

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ABSTRACT: During the Covid-19 pandemic, one of the restrictions was social distancing, which impacted everyone's lives. This study aimed to analyze the effects of social distancing on the communication of children and adolescents with autism. This is a descriptive, cross-sectional study, in which 322 parents or guardians answered an online questionnaire. As a result, the following stand out: 96.60% of the participants who study stopped attending school; 88.20% of the respondents assessed that there was a change in the child's behavior during the period of social distancing; 68.6% assessed that the changes were negative, 31.4% that they were positive; 46.70% indicated changes in the interaction as positive, 53.30% as negative; 70.35% stated that they had more eye contact and facial expression, 29.65% stated that they had less; 48.45% observed that language and communication were better, 51.55% that they were worse. We conclude that at least half of the children and adolescents investigated worsen in the known aspects, the Covid-19 pandemic had implications for the communication of children and adolescents with autism, and it is important that they receive support.

KEYWORDS: Communication. Coronavirus infections. Social distancing. School. Autistic disorder. Family.

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RESUMO: Durante a pandemia da Covid-19 uma das restrições foi o distanciamento social, que impactou a vida de todos. Este estudo objetivou analisar os efeitos do distanciamento social na comunicação de crianças e adolescentes com autismo. Trata-se de um estudo descritivo, de caráter transversal, no qual 322 pais ou responsáveis responderam um questionário on-line. Como resultado destaca-se: 96,60% dos participantes que estudam pararam de frequentar a escola; 88,20% dos respondentes avaliaram que houve mudança no comportamento da criança durante o período de distanciamento social; as mudanças foram negativas para 68,6% e positivas para 31,4%; 46,70% apresentaram mudanças positivas na interação, 53,30% negativas; 70,35% estavam com mais contato visual e expressão facial, 29,65% estavam com menos; 48,45% entenderam que a linguagem e a comunicação estavam melhores, 51,55% que estavam piores. Conclui-se que pelo menos a metade das crianças e adolescentes investigados apresentaram piora nos aspectos mencionados, com implicações na comunicação, sendo importante que recebam apoio.

PALAVRAS-CHAVE: Comunicação. Infecções por coronavírus. Distanciamento social. Escola. Transtorno autístico. Família.

RESUMEN: Durante la pandemia de Covid-19, una de las restricciones fue el distanciamiento social, que afectó la vida de todos. Este estudio tuvo como objetivo comprender los efectos del distanciamiento social en la comunicación de niños y adolescentes con autismo. Se trata de un estudio descriptivo, de característica cruzada, en el que 322 padres o tutores respondieron a un cuestionario online. Como resultado, se destaca que el 96,60% de los participantes que estudian dejaron de asistir a la escuela; el 88,20% de los que respondieron evaluaron que hubo un cambio en el comportamiento del niño durante el período de distanciamiento social; el 68,6% evaluaron que los cambios fueron negativos, el 31,4% que fueron positivos; el 46,70% indicaron los cambios en la interacción como positivos, el 53,30% como negativos; el 70,35% estaban con más contacto visual y expresión facial, el 29,65% dijeron que tenían menos; el 48,45% entendieron que el lenguaje y la comunicación eran mejores, el 51,55% que eran peores. Se concluye que al menos la mitad de los niños, niñas y adolescentes investigados empeoran en los aspectos conocidos, con implicaciones para la comunicación, y es importante que reciban apoyo.

PALABRAS CLAVE: Comunicación. Infecciones por coronavirus. Distanciamiento social. Colegio. Trastorno autista. Familia.

Introduction

In 2020, the world was ravaged by a highly contagious viral disease: the new coronavirus severe acute respiratory syndrome (SARS-CoV-2). Data for 23 September 2021 indicate that there are more than 219 million cases in the world, with more than 4.55 million deaths. Brazil, with 210.1 million inhabitants, had more than 21.3 million cases and 592 thousand deaths from Covid-19 (WORLD HEALTH ORGANIZATION, 2021).

The Covid-19 pandemic impacted the world, changed the routine of families and the ways of communicating and relating (DIAS-TRINDADE; CORREIA; HENRIQUES, 2020).



In 2020, due to the high transmission rate of SARS-CoV-2 and the absence of an effective pharmaceutical treatment and an approved safe vaccine, total social isolation, carried out as quarantine, presented itself as the only effective strategy to contain the advance of Covid-19 in Brazil and in the world (HE et al., 2020; LAUER et al., 2020). In early 2021, the first vaccines were approved and on 17 January 2021, the first person in Brazil was vaccinated. Vaccination progressed slowly in several countries around the world, including Brazil, and for this reason it was not possible to avoid a 2nd and even 3rd wave of Covid-19 in many countries. Brazil is currently living (23 September 2021) a time when the situation is considered under control, with an average of 400 deaths a day, but social distancing remains as one of the measures to contain the pandemic (WORLD HEALTH ORGANIZATION, 2021).

Social distancing is configured, among other measures, with the closing of schools, workplaces, roads, public and private events, mandatory quarantine for infected and uninfected people (LEWNARD; LU, 2020; KOO *et al.*, 2020). It is only allowed to open services considered essential, according to current legislation.

In Sergipe, Decree no. 40.567 (SERGIPE, 2020a), regulated the suspension of various services provided in the public and private sectors throughout the state. For this research, it is worth emphasizing the suspension of educational activities in all public and private schools, which lasted until February 2021, when private schools returned, closing again in March and reopening in May. Public schools have recently opened in a hybrid way. Speech therapy, psychology and occupational therapy offices, necessary to assist the development of delayed children, also remained closed until July 2020. In the first half of 2020, they could only function to provide specialized services classified as urgent and emergency, observing the cataloging provided for in class councils (SERGIPE, 2020b).

The distancing measures imposed on families were imperative. Many had to work from home offices, children had to limit themselves to playing and studying indoors, as well as avoiding social contact with friends and family. The families' routines were severely changed. For children who need specialized professional help with rehabilitation services, the offices were back in operation as of August 2020, with a series of restrictions and safety protocols. As for schools, their closure continued throughout the 2020 school year, an average of forty weeks.

In 2021, ordinance no. 273/2020 authorized the operation of schools in public and private networks in Sergipe (SERGIPE, 2020c), which also happened in several other states. However, in March of that same year, Brazil experienced the biggest sanitary and hospital

collapse in the country's history, with the exhaustion of the health system in 27 states (FIOCRUZ, 2021). The seriousness of this situation imposed new restriction measures, with curfews and, in some states, lockdown (FIOCRUZ, 2021).

In this pandemic scenario, social distancing imposes new ways of being and living. There are many damages to child development, a warning note from the Brazilian Society of Pediatrics paid attention to the toxic stress produced by confinement, which can cause: sleep disorders, low immunity, developmental delay, depression, low school development (SOCIETY BRASILEIRA DE PEDIATRICS, 2020a).

The study by Jiao *et al.* (2020), with 320 children and adolescents in Shaanxi province, China, reported that during social distancing, children and adolescents had functional and behavioral difficulties. Among these are: excessive dependence on parents, inattention, worry, sleep disorders, lack of appetite, nightmares, discomfort, agitation, irritability. Wang *et al.* (2020) address that social distancing and prolonged closing of schools caused damage to the health of children, as they exercise little physical activity, have more screen time (which affects language and social development), unhealthy diet and irregular sleep.

When it comes to people with disabilities, it is clear that they suffer more adverse effects from the Covid-19 pandemic. The study by Shakespeare, Ndagire and Seketi (2021) points out that people with disabilities have difficulty accessing essential health and rehabilitation services for their treatment. This corroborates the risk of worsening their health condition, in addition to the social impacts arising from efforts to mitigate the pandemic. The authors also emphasize that students with disabilities find it difficult to return to school, as the situation generates insecurity for schools and families.

In such a heterogeneous field that people with disabilities make up, this study sought to understand the condition of children and adolescents with Autism Spectrum Disorder (ASD). The ASD is defined by the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) 5th. edition (AMERICAN PSYCHIATRIC ASSOCIATION, 2013) as a neurodevelopmental disorder characterized by the following conditions: persistent deficits in social communication and social interaction, with deficits in socio-emotional reciprocity, deficits in non-verbal communicative behaviors, and deficits in developing, maintaining and understanding relationships. Other criteria are repetitive and restricted patterns of behavior, interests and activities, such as speaking, handling objects, repetitive or stereotyped motor movements, ritualized patterns of verbal and nonverbal behavior, inflexibility regarding routines, fixed and restricted interests, unusual interest in sensory aspects of the environment.

ASD manifests itself in all socioeconomic groups and subjects of different ethnicities. It is caused by a combination of environmental and genetic factors. Its prevalence is higher in boys than in girls, around 4:1. At the first sign of delay in achieving the skills foreseen for the age group, both school support and specialized intervention to favor the development of these children are indicated (SOCIEDADE BRASILEIRA DE PEDIATRIA, 2019).

Behavioral symptoms in autism are: irritability, aggression, self-mutilation, anxiety, hyperactivity, impulsivity, inattention and insomnia. Communication deficits include difficulty in functional communication, in starting or responding to a conversation, reduced time for eye contact. As for non-verbal communication, there is little understanding of gestures and facial mimicry. In the interactional field, there is difficulty in imagery play, in adapting to social contexts, with reduced interest in peers. As for the ritualization of behavior, there is echolalia, stereotyped movement, preference for a single object, perseverative interests in objects, low tolerance to sensory stimuli (BRIET *et al.*, 2017; OTTONI; MAIA, 2019).

According to the Federal Council of Speech Therapy (2020), cases of autism are not included in urgent and emergency services. In this sense, patients with this diagnosis would continue without the school support and specialized intervention necessary for their development, as foreseen in the guidance manuals. In a situation of social normality, children and adolescents with autism would be in schools and exposed to rehabilitation activities, which are essential for their development, for many hours a day. In 2020, this was impossible, due to more incisive measures regarding isolation and social distancing. As much as therapeutic clinical offices have been authorized to operate from the second half of 2020, many families did not feel secure for this return, and in 2021, the worsening of the pandemic and the calamity of the health system imposed equally severe restrictions on the isolation and social distance.

As a result of confinement, it is expected that behavioral and communication difficulties will worsen. The changes imposed due to quarantine, such as the need to intensify hygiene care, breaking therapy routines, intimate and exclusive contact with family members at home, can exacerbate the symptoms in communication and behavior. Thus, the objective of this work was to understand the effects of social distancing in the communication of children and adolescents with autism.

Methodology

This is a descriptive, cross-sectional study. This study was approved by the Ethics and Research Committee (CEP) involving human beings at the Federal University of Sergipe, CAAE: 33464320.9.0000.5546.

The research was carried out through a questionnaire made from the Google Form and distributed through the dissemination of a hyperlink. The questionnaire was made available online from 3rd July to 11th August 2020. Along with the questionnaire was the consent form, therefore all participants signed the term, which informed the purpose of the study, its procedures, about voluntary participation and how to make contact with researchers.

The questionnaire contained 21 questions, of which 19 were assertive questions (6 single-answer, 5 dichotomous, 8 multiple-choice questions) and 2 open-answer questions divided into categories: (a) sociodemographic characteristics and psychosocial aspects; (b) the impact of social distancing, caused by the Covid-19 pandemic, on the behavior of children or adolescents with autism; and (c) the impact of social distancing, caused by the Covid-19 pandemic, on the language and communication of children or adolescents with autism. In this article, categories (a) and (c) will be included.

Research participants

Participants were contacted through lists and groups available on social media and association websites. Respondents were parents or guardians, or professionals authorized by the parents, of children and adolescents aged 2 to 19 years with autism. The diagnosis of ASD was by self-report.

Data analysis

Data were subjected to statistical analysis and descriptive analysis to characterize the participants and effects of social distancing in the communication of children and adolescents with autism. Descriptive and analytical data analysis was performed.

The collected data were placed in a data sheet in the Excel program for Windows 2013 and later in the Statistical Package for Social Sciences (SPSS) program, version 16.0, with a significance level of 5% ($p > 0.05$). The profile of the sample and its description were considered, taking into account the study variables.

Results

The research questionnaires were answered by 322 participants, who were parents or guardians, or professionals authorized by the parents of children and adolescents. The results will be presented below.

Sociodemographic and Psychosocial Characterization

Among the 322 respondents, 263 (81.7%) were mothers of children or adolescents, and 30 (9.3%) were fathers. The vast majority of children and adolescents with autism were male (257) and the rest female (65).

As for the age of children and adolescents, it ranged from 2 to 19 years old, with the majority (252) being between 3 and 11 years old. There was representation from all regions of Brazil, with 210 (65.2%) being from the Northeast, the region where the research was developed, 61 from the Southeast, 31 from the South, 11 from the North and 9 from the Midwest region.

Income varied, but it is worth noting the fact that 22.7% earn up to one minimum wage and 74.0% earn up to five thousand reais. Of the families surveyed, 55.65% had a decrease in income during quarantine. As for the formation of families, most have 3 or 4 members (73.6%). In the first half of social distancing, 4% of children and teens with autism were going out, despite 69% of families having at least one adult going out frequently.

Returning to the previous routine of children and adolescents, it appears that of the 322 participants, 311 (96.60%) studied, and, in addition, 100% of them did other weekly activities. The activities that were most frequent were artistic, sporting and therapeutic. As children and adolescents with autism usually undergo supportive therapies, the most frequent treatments before the pandemic were investigated, and it was found that 71.73% were undergoing speech therapy, 62.42% occupational therapy and 70.18% follow-up psychological. During the first half of the pandemic period, the vast majority of families were left without these supports and only 13.0%, 14.9% and 13.3%, respectively, were treated virtually.

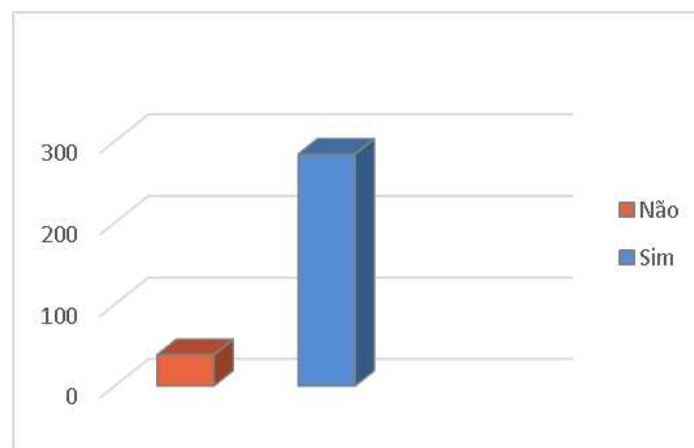
Quantifying all activities that children or adolescents performed before the pandemic, 1,251 activities were counted, knowing that the same child performed more than one activity. During the pandemic, the number of activities dropped to 391, which means that only 31.25% of activities were maintained during the pandemic period.

The participants reported that, before social distancing, leisure activities were common, the most frequent of which were: visiting relatives or friends (235), playing in the playground (183), playing in the street (151), taking a walk in the mall (149), go to the beach (117). With social distancing, these activities were replaced by playing indoors or in the backyard, playing games on cell phones or tablets, drawing and watching television. Another important fact is that of the 322 children and adolescents, 211 were playing alone and 194 playing with adults.

The Impact of Social Distancing on the Language and Communication of Children or Adolescents with Autism

Inevitably, the routine of families was changed. The vast majority of families (284) assess that there was a change in the child's behavior during the period of social distancing (Graph 1). As for the changes, 221 (68.6%) evaluated that the changes were negative, and 31.4% (101) that they were positive.

Figure 1 – Assessment of whether the child/adolescent changed behavior during social distancing



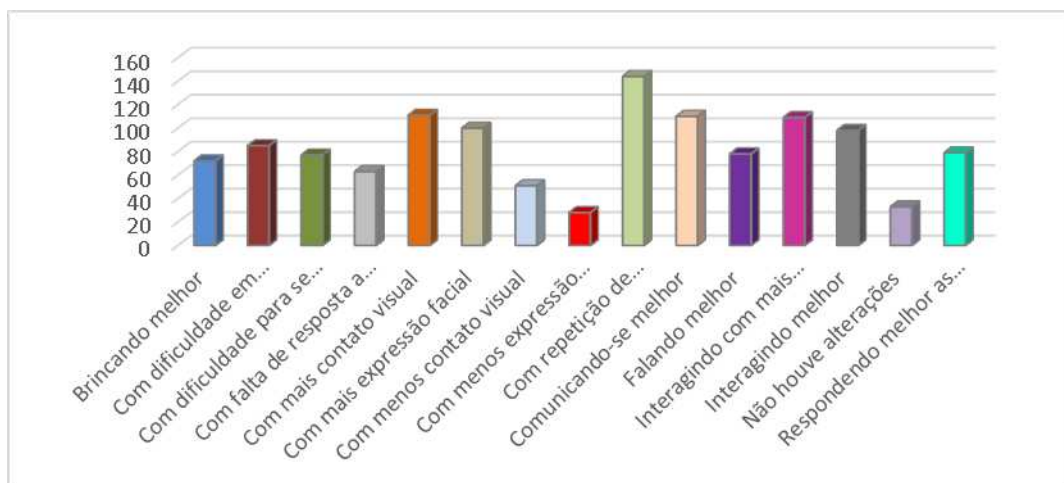
Source: Questionnaire data

Regarding language and communication, the questionnaire contained 15 alternatives, and more than one alternative could be selected. These questions were divided into three major themes, the first related to interaction, the second to paralinguistic characteristics, the third directly related to language and communication. The first grouped the following questions: playing better, interacting better; and the opposite, with difficulty in sharing the game, interacting with more difficulty. The second theme: with more eye contact, with more facial expression; and the reverse, with less eye contact, with less facial expression. The third

theme grouped the following questions: answering the questions better, communicating better, speaking better; and the opposite, with no answer to questions, with difficulty to communicate, with repetition of words, phrases, parts of music or what is spoken.

The analysis of the answers was made from the three themes. In the first, related to interaction, there were 364 responses. Of these, 170 (46.70%) participants indicated the changes in the interaction as positive; and 194 (53.30%) indicated the interaction changes as negative. In the second theme, related to paralinguistic characteristics, there were a total of 300 responses, in which 211 (70.35%) of these said that children and adolescents had more eye contact and more facial expression; and 89 (29.65%) indicated that children and adolescents had less eye contact and less facial expression. In the third theme, in relation to language and communication, there were 551 responses. Language and communication was understood as better, during social distancing, by 267 (48.45%) participants, and as worse by 284 (51.55%) participants (Graph 2).

Figure 2 – Impact of social distancing on the language and communication of children or adolescents with autism



Source: Questionnaire data

Discussion

From the sociodemographic and psychosocial characteristics, the first aspect to be analyzed will be about the respondents. It was found that 81.7% were mothers of children or adolescents. Other research works found that in the exercise of parental functions, the mother is almost always the most responsible for the care of the children, a consequence of a patriarchal culture, which until today influences the determination of the roles of family members (HALBERSTADT; DE SOUZA, 2020).

In this research, the highest incidence of children and adolescents with autism was (257) male, which is consistent with the literature and data from the World Health Organization (NOGUEIRA; DA SILVA RUSCH; DA SILVA ALVES, 2021; BOTTAN *et al.*, 2020).

Incomes, although they vary, follow what happens in Brazil, as only 15% of the population is in classes A and B (IBGE, 2018). The percentage of 22.7% receiving a minimum wage may be related to a fact that is not so uncommon in Brazil, which is living with the Continuous Cash Benefit (BPC), paid by the federal government. As observed in the survey, 55.65% had a decrease in income during the quarantine, which will already bring changes in the families' routines.

With the pandemic, schools were closed, thus, 311 (96.60%) participants, out of a total of 322, who studied stopped attending school, and extracurricular activities were radically reduced. With schools closed, families took on teaching responsibilities, in this case supported by the school. However, it is known that the family-school relationship is not simple and depends on the availability, both of the school, in the figures of management, coordination and teachers, as well as of the families. This relationship is built with participation, recognition of different knowledge, mutual respect and open dialogue (MORENO, 2018).

It is worth mentioning the fact that the number of children and adolescents in support therapies has been radically reduced, highlighting speech therapy, occupational therapy and psychological support.

The change in routine and the lack of support for these children and adolescents inevitably created a greater burden on families. Studies such as those by Halberstadt, Moares and Souza, (2020), Tsukamoto *et al.* (2010), emphasize the importance of supporting parents of people with disabilities. Professional support helps parents or caregivers to develop internal resources to face difficulties. Especially the dialogue between parents and teachers and therapists for children and adolescents helps parents learn to deal with the varied demands, common in cases of people with autism.

Other studies have shown that the process of caring for people with disabilities becomes smoother when professionals are involved in different needs, such as reception, monitoring and guidance (MESQUITA *et al.*, 2020).

With the closing of schools, students were also left without the Specialized Educational Attendance (SEA), which is another important pedagogical support device for children and adolescents with autism. According to the guidelines of the National Policy for

Special Education from the Perspective of Inclusive Education, the SEA is responsible for organizing teaching resources and for eliminating barriers that prevent these students from learning (GONÇALVES; MANTOVANI; MACALLI, 2016).

Autism, being seen in its biopsychosocial dimension, invokes another look at issues related to quality of life and the implications arising from the disability process. Families, being alone in the care process, lose, in addition to professional support, sharing between parents and/or caregivers. Therefore, they are more stressed, feel helpless and end up having more difficulty in social regulation (CIPRIANO *et al.*, 2020).

As can be seen in the results, before social distancing, children performed various leisure activities, and with social distancing these activities were reduced, with children being forced to play indoors or in the yard, play on cell phones or tablets, draw and watch television. In addition, they were mostly playing alone or playing with adults. It is known that social relationships are extremely important for the child's development and for families to recognize the needs and engage in affective and social relationships (BISPO DOS SANTOS *et al.*, 2020).

Another factor that deserves discussion is that all the changes caused by social distancing also generated changes in behavior. Of the changes mentioned, 221 (68.6%) participants rated these changes as negative, and 101 (31.4%) as positive. Other studies, such as by Colizzi *et al.* (2020) demonstrated that the pandemic situation made symptoms related to preexisting mental and psychological issues aggravated.

In the case of autism spectrum disorders (ASD), in which there is a group with different conditions of behavior, communication, language and social interaction, social distancing can generate stress and anxiety, which can negatively interfere with behavior (LIMA; SANTOS; MONTEIRO, 2021). However, according to our data, 31.4% of the families evaluated that the changes in children and adolescents with autism were positive. When analyzing the reason for this situation, it is understood that as autistic people usually prefer predictable environments, staying at home may have brought some comfort and security (HODGES; FEALKO; SOARES, 2020).

Results of this survey indicate that most parents consider that the period of restrictions caused by the Covid-19 pandemic affected the behavior of most children and adolescents with autism (68.6%). Other studies also found that families felt overwhelmed during the pandemic, with difficulties in organizing daily activities. In addition, it was noticed that people with ASD are more vulnerable to interruption in their routine, and had a worsening in their behavior. (COLIZZI *et al.*, 2020).

In relation to language and communication, each of the themes will be analyzed separately. The first theme, interaction, concerned the way they were playing and interacting. A little more than half of the respondents (53.30%) indicated the interaction changes as negative, and the rest (46.70%) as positive. The negative evaluation of the interactional aspect during the Covid-19 pandemic is pointed out in other studies with people with ASD. Colizzi *et al.* (2020) stated that families whose children have autism experience greater stress than other families, reverberating in the way they interact with their children. Smile (2020) found that children with autism can increase the difficulty in interacting because they do not adapt to this new standard.

Regarding the positive impact of social distancing on the interaction of children and adolescents with autism, it can be analyzed that part of the families took advantage of social distancing and the fact that everyone was at home to intensify the moments of interaction. It is understood here that interaction and dialogue are the result of intense and reciprocal encounters between people (GENU SOARES *et al.*, 2019).

Another factor verified in other studies is that in countries with greater structure, parents received greater support to face social distancing, in these cases, parents involved their children with autism in different activities at home, received an activity guide to develop with their children, and took advantage of this moment to teach children new social behaviors (CAHAPAY, 2020).

As for the second theme, paralinguistic characteristics (eye contact and facial expression), most respondents (70.35%) said that children and adolescents had more eye contact and more facial expression; and 89 (29.65%) indicated that children and adolescents had less eye contact and less facial expression. One hypothesis for this improvement is that because they are only living with very close people, paralinguistic skills would be more easily perceived, and children would be more comfortable to express themselves. No studies were found that evaluated this aspect during social distancing, however, in a study with adolescents and adults with autism it was found that one of the reasons for avoiding eye contact is due to the fact that they have difficulties in understanding how to use it in a way that is considered socially appropriate, and in inferring and sending non-verbal emotional information. Therefore, it is possible that they feel less threatened with people close to them and therefore make more eye contact (TREVISAN; ROBERTS; BIRMINGHAM, 2017).

In the third theme, which involved language and communication more directly, the results showed that half of the participants evaluated that during social distancing, children and adolescents had improved in this regard, and half that they had worsened.

It is known that language is an activity that involves complex systems, and professionals from different areas can contribute to the diagnosis, planning and treatment of different types of problems (FERNANDES; DEFANI, 2013). Therefore, the fact that children and adolescents are without therapeutic and school monitoring is probably one of the reasons why the pandemic had a negative impact on communication. Studies have shown that when there is sharing between families or support groups, fear and insecurity are reduced (COLIZZI *et al.*, 2020; DIAS *et al.*, 2021). Both families and children and adolescents with autism need support, especially at this time of pandemic, to continue the development and learning processes (BONOTTO *et al.*, 2020).

Another factor that justifies the negative impact on language and communication during social distancing is the fact that children and adolescents drastically reduced interactional processes and communicative exchanges. The interaction and communication processes between the child with autism and other children and adults contribute to the development of language, as well as other expressive manifestations. Being in a group enhances the dialogical dynamics and other forms of contact and interaction (OLIVEIRA; VICTOR, 2018).

As for the families who assessed that, during social distancing, children and adolescents with autism had an improvement in language and communication, our hypothesis is that these families were able to guarantee support for their children, and that, in this way, proximity to the family, the familiar environment and family routine would facilitate language development. This is due to the fact that they carry out calmer activities and with less conflicts (AMARAL; VRIES, 2020).

Conclusion

The development of research with children and adolescents with autism at this time of pandemic is extremely important, as they constitute a vulnerable group. People with autism need a care apparatus, and the pandemic, with the consequent social distancing, has impeded clinical and educational assistance.

Outbreaks of infections such as Covid-19 can provoke fear and insecurity, especially in vulnerable people. Therefore, it can be concluded that in the Covid-19 pandemic, the harm caused by the negative impacts of social distancing in children and adolescents with autism was also perceived in communication. Furthermore, the families of these children seem to be

more prone to stress. (COLBERT, 2020; COLIZZI *et al.*, 2020; DROGOMYRETSKA; FOX).

As strengths of this research, we can mention the number of participants; the quick response; the objectivity of the study; and the similarity with the results of other studies. The study also had limitations, such as the variability of characteristics and the degree of severity of autism in the participants; possible difficulties of families in responding; the impossibility of crossing some study variables, such as income and communication.

Undeniably, the ongoing emergence of Covid-19 brought challenges from different areas, such as economic, political, educational, health and personnel (MORALES *et al.*, 2021). It affected several groups, including children and adolescents with autism. As a summary of the results of this research, it is concluded that the vast majority of children and adolescents with autism showed changes in behavior; behavior changes were rated as negative by most families; the interaction also showed changes, with a similar proportion for negative and positive changes; paralinguistic characteristics were negatively impacted; and language and communication suffered alterations, with practically half of the respondents affirming that language and communication were worse and the other half better; that school is an important factor in the development of interaction and that it drives communication.

The Covid-19 pandemic is still a reality in several countries, including Brazil, and the results point to the need for different types of support for children and adolescents with autism and for their families, including educational and health support. In Brazil, even before the pandemic, issues related to intersectorality in policies have many flaws, and in the case of people with disabilities, only transversality can meet the varied demands (GIVIGI *et al.*, 2020). Through the research results, it is possible to outline remedial measures, contributing to the improvement in the quality of life of children and adolescents with autism and, consequently, for their families.

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