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How Have Youth with Autism Spectrum Disorder Managed Quarantine Derived From COVID-19 Pandemic? An Approach to Families Perspectives

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Running Head: AUTISM AND COVID-19 PANDEMIC

How Have Youth with Autism Spectrum Disorder Managed Quarantine Derived From COVID-19 Pandemic? An Approach to Families Perspectives

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Highlights

- Youth with ASD have unique support needs during COVID-19 quarantine.
- Quarantine has not always propitiated higher levels of anxiety in youth with ASD.
- Families beneficiated of additional time with their offspring during quarantine.
- Building positive contexts for youth with ASD and their families are recommended.

ABSTRACT

Quarantine derived from COVID-19 pandemic has challenged children and adolescents with Autism Spectrum Disorder (ASD) and their families daily life and routines. Because of these children unique needs related to manage uncertainty and overcoming situations, an in-depth approach to how they navigated through quarantine urged to better comprehend their current support needs. Forty-seven families with a child with ASD ranging in age between 2 and 17 years old ($M = 7.3$, $SD = 3.4$) from the north of Spain responded to an online developed questionnaire on different aspects of their daily life management of quarantine. Most of the families stressed that their offspring better drove quarantine than expected. Some families reported that youth participated more often in families' routines and were more communicative with their parents. Families, beyond some difficulties aroused, had more time to qualitatively spend with their children to teach new skills as autonomy or house care related skills. Families also developed new strategies to manage quarantine, such as structuring their days, using visual supports or new technologies for learning or leisure, and found more useful in this effort their family cohesion, online contact with relatives, and having online psychological supports.

What this paper adds?

This paper adds to the outbreaking literature about how people with Autism Spectrum Disorder (ASD) face new social situations such as health crisis and in particular the quarantine for COVID-19 pandemic. Based on families reports, the findings demonstrated that children and adolescents with ASD benefited from more time spent with their parents during quarantine, learned new skills and participated more in family routines, based on their families reports and compared to what used to happen before quarantine. Families claimed for more job flexibility and conciliation policies. Families and youth with ASD experiences and perspectives must be heard so as to understand their unique needs and experiences and inform services providers and policy makers to better align and adjust supports to cope with this health crisis.

Keywords: Autism Spectrum Disorder; COVID-19; quarantine; parenting; supports.

1. Introduction

The coronavirus (COVID-19) pandemic is affecting the lives of people with a developmental disability as intellectual disability or Autism Spectrum Disorder (ASD) in a way we were unable to imagine and we still are unable to predict (Eshraghi, Li, Alessandri, Messinger, Eshraghi, Mittal, & Armstrong, 2020; Neece, McIntyre, & Fenning, 2020; Thompson & Nygren, 2020). In Spain, similarly to other European countries such as Italy, by mid-March the government decreed compulsory quarantine. Easing measures to quarantine, such as being allowed to go out for a walk one hour per day, were decreed by the beginning of May. That is, at least, Spanish citizen lived one month and a half, almost two months, in the strictest quarantine, except for adults having essential jobs that were allowed to go work (if they could not work online). People with developmental disabilities were allowed to go out during quarantine, as long as their doctor or psychologist issued an authorization displaying their need to go out, which was not always the case. These easing measures related to quarantine lasted until the end of June, and so children and adolescents were only allowed to voluntarily attend school for two weeks at the end of June. In this sense, the majority of children and adolescents will have spent six months without their daily school routine.

Researchers, professionals and stakeholders endeavor to cope with this new long-lasting situation by continuing to provide the needed supports to people with developmental disabilities (Ameis, Lai, Mulsant, & Szatmari, 2020). However, there is a need to understand how they have managed the changes and navigated new challenges derived from COVID-19 restrictions, so as to tailor interventions and supports. Within population with developmental disabilities, changes and unpredictable situations are especially difficult to cope for people with ASD, derived from the core features of ASD such as restricted and repetitive interests, and social interaction and

communication issues (American Psychiatric Association, 2013). For instance, social communication, and personal challenges have been identified as the most frequently reported barriers to managing anxiety in children with ASD (Clark & Adams, 2020). Specifically, overstimulation, unpredictability, and school demands hinder children with ASD management of anxiety (Clark & Adams, 2020; van Steensel & Heeman, 2017). Social and pragmatic difficulties are also related to a higher risk for anxiety and externalizing disorders (Rodas, Eisenhower, & Blacher, 2017). Because of these unique characteristics, parenting children with ASD have also been related to higher levels of parental stress and lower levels of family quality of life (e.g., Hsiao, Higgins, Pierce, Schaefer Whitby, & Tandy, 2017; McStay, Trembath, & Dissanayake, 2014). Families of children and adolescents with ASD might then need higher levels of emotional and instrumental supports, as they have been related to greater levels of daily positive mood and less parenting stress (Pottie, Cohen, & Ingram, 2009).

The COVID-19 outbreak has affected the mental health of the general population with an increase of stress, anxiety, depression, frustration, and uncertainty (Serafini, Parmigiani, Amerio, Aguglia, Sher, & Amore, 2020). Particularly, during the lockdown derived from pandemic restrictions, all the parents have lived a particularly stressful experience as they had to gauge personal and family life with work, without other resources or supports (Spinelli, Lionetti, Pastore, & Fasolo, 2020). Children and adolescents with ASD have been receiving less support than usual (e.g., public and private educational and psychological institutions and their professionals) because of being unable to leave home and also derived from schools closure, at least during the first weeks when these institutions were adapting to the new situation and trying to provide online support. Families have had to navigate this challenging situation without the supports they were used to, as they were not allowed to quit their homes, mainly because online supports provision was not a common type of intervention in some European countries as Spain and thus were not formally

adopted by supports providers. However, online approaches to intervention and supports provision such as telemedicine are highly accepted by parents of children with ASD (Narzisi, 2020), and must be taken into account during this current health emergency period.

Delving into children with ASD and their families' management during quarantine stands as a crucial objective for educational stakeholders and professionals to better align the supports they will have to provide in this new school year when they will undoubtedly face new restrictions derived from the pandemic. Recent studies have analyzed the impact of the COVID-19 outbreak in individuals with ASD. One study realized in Italy with children with ASD found a higher occurrence of disruptive behaviors and various outbreaking needs emergence, such as in-home healthcare support and online interventions to address disruptive behaviors (Colizzi et al., 2020). Another study was realized in UK with children with ASD or other special education needs and disabilities and their families (Asbury, Fox, Deniz, Code, & Toseeb, 2020) and stressed that COVID-19 outbreak has resulted in an increase in anxiety and fear and sometimes an increase also in distress, low mood and stress that were more often reported for parents than for children, based on parents' reports.

Little is known about how children with ASD and their families managed the quarantine situation, while this knowledge is crucial to provide tailored interventions and adjusted supports in this uncertain period and in upcoming similar situations derived from COVID-19 pandemic. Pandemic situations need specific response strategies to guarantee emotional well-being of both children and families, as they may lead to post-traumatic stress symptoms later on (Sprang & Silman, 2013). For this reason, the aim of this study was to delve into children and adolescents with ASD and their families' management of quarantine period, to better understand their needs. This in-depth comprehension will thus derive in a better provision of adequate supports in this academic year we are living together with the coronavirus. Specifically, the objective was to

describe children and adolescents with ASD and their families' management of quarantine, as well as the strategies and supports that facilitated this period.

2. Methods

2.1. Participants

Forty-seven Spanish families of children and adolescents with ASD living in a northern region of Spain participated in this study. These families attended two institutions where children and adolescents diagnosed with ASD are provided with supports. Twenty-two of these families had only one child with ASD, 23 other families had also another child, and just two of them had other two children. In terms of family's composition, in thirteen out of 47 families the child with ASD was the oldest brother or sister while in 11 other families the child with ASD was the younger sibling and in one family, the child with ASD had a twin with the same age. Regarding the amount of people living at home during quarantine, almost in all cases they were 3 (40.4%) and 4 (46.8%) persons at home and in few cases they were just 2 (4.3%) or 5 (8.5%). They lived either in an apartment without terrace or balcony (4.3%), in an apartment with terrace or balcony (61.7%) or in a house with small garden or terrace (34%). In three out of these 47 families (6.4%) someone living at home had been diagnosed with COVID-19 during quarantine. For the 47 families, accepted to be interviewed for the present study 38 (80.9%) mothers and 9 fathers (19.1%) ranging in age from 32 to 59 years old ($M = 41.3$; $SD = 6.2$). Ten of the respondents (21.3%) were unemployed even before the pandemic, 12 (25.5%) were in an unemployment situation derived from the government measures to curb the pandemic, 13 (27.7%) were working online and 12 (25.5%) were going to work.

Regarding the children and adolescents with ASD the families provided information about, 36 of them were males (76.6%), and all ranged in age between 2 and 17 years old ($M = 7.3$, $SD = 3.4$). Ten children and adolescents with ASD had also Attention Deficit and Hyperactive Disorder

(21.3%), one of them (2.1%) had Language and Communication Disorder and another one (2.1%) had Intellectual Disability. Regarding the type of supports they were usually provided before quarantine, most of them have had access to psychological support (85.1%), occupational therapy (61.7%), social skills group training (44.7%) and speech and language therapy (38.3%).

2.2. Instrument

A semi-structured online survey was built ad hoc for this study. This survey was composed of four parts. In the first one, demographic information about respondent and participant with ASD was collected. The second part integrated questions about child and adolescent management of quarantine, including the child or adolescent emotional changes, behavior and management of changes in routine, among others. The third part of the survey included questions about the family management of the quarantine period, and the last one tackled the types of support received from school and other private centers. Different response formats were utilized: for some questions, a Likert scale ranging from 1 to 4 was used (where 1 corresponded to never and 4 corresponded to always), whereas other questions had a dichotomous response (0 = no and 1 = yes) followed by an open-answer format. Table 1 indicates all the questions asked in the second, third and fourth part of the survey. The online version was arranged through Google Forms.

<Insert Table 1 here>

Before sending the survey to the participants, content validity was ascertained by asking four external judges, two professionals working with children and adolescents with ASD, one family of a child with ASD and a researcher working in the field, to assess the questions clarity and suitability. They did not suggest any change in terms of questions suitability but suggested some changes to facilitate questions clarity, such as stressing in each question if we were asking about information before or after quarantine, that were included by the researchers. For the questions that were responded through a Likert scale, they did also recommend to label all the

possible answers according to its value in the questionnaire, for example (1 = never, 2 = almost never, 3 = often, 4 = very often).

2.3. Procedures

Potential participants, that are families of children and adolescents with ASD were intentionally contacted through four associations, that the first and second authors previously knew and that were devoted to provide support to children and adolescents with ASD and their families. The first and second authors send an invitation to participate to this study by email, which included the link to the online survey and informed consent for them to participate. Two out of the four institutions settled in the north and center of Catalonia, a northern Spanish region, positively answered. Within these institutions, amongst 90 families, 47 of them accepted to take part of the study, and provided informed consent to give their family and children information. They were contacted at the beginning of April 2020 and data was collected throughout this month, before quarantine easing measures were decreed by the government. Families that agreed to participate were send up to three reminders to answer the questionnaire.

2.4. Data Analysis

For the questions with an answer on the 4-point Likert scale (questions n. 1, 5, 6, 7, 8, 13 and 14) descriptive statistics were computed. For questions with closed answers (question 10) frequencies were calculated. Instead the open questions, answers were categorized according to aroused themes. The first author independently coded the qualitative answers into specific themes. Then, the third author checked and revised all the categories and the qualitative answers associated. Interrater reliability was of 91.7%. Disagreements were resolved by creating a new category (“Speaking with a louder tone of voice”, within the “Observed new behaviors theme”) and collapsing two categories (“Family cohesion and support” and “Using technology to communicate with family and relatives”) into a single one (“Family cohesion and online contact with relatives”).

In this way, the categories aroused to children and adolescents management of quarantine were: observed new behaviors and emotional status, needed previous routines and those aroused to describe families management of quarantine were: new skills taught by family, useful supports for family, and needed supports. Frequencies were computed for each of these categories.

Non parametric analyses (Kruskall Wallis and Man Whitney tests) were also run to analyze if the following variables and situations might have affected quarantine management: having (= 0) or not having (= 1) more than one child, the type of place where they spend quarantine (1 = apartment with or without terrace or balcony, 2 = house with a garden or terrace), or the working status of parents (0 = unemployment not related with COVID pandemic, 1 = unemployment because of the COVID pandemic, 2 = working online from home, 3 = presential work).

No missing data was found as all the survey questions were mandatory.

3. Results

3.1. Child/adolescent management of quarantine

Parents reported high scores for children and adolescents general management during quarantine ($M = 3.21$, $SD = .62$, $Median = 3$) indicating a general good management of this period, whereas more than half of them observed new behaviors on their children during quarantine (63.8%). Specifically, five categories of new behaviors aroused (see Table 2). Few children developed new stereotypies such as pulling own ears (6.4%) or spoke with a louder tone of voice (4.3%), but others showed higher levels of autonomy in taking care of themselves (personal hygiene, getting dressed and eating) (14.9%) and were more communicative with their parents (19.2%). Most of children and adolescents participated more often in families' routines (27.7%), such as setting the table or deciding activities. Consistently, 74.5% of the families stated that children have participated in family choice making decisions during quarantine.

Almost half of the parents (53.2%) observed a change in their child emotional status. When asked to provide further information about this observed change, three categories aroused (see Table 2). Families stressed that their children were happier and calmer than before quarantine (40.4%), even more quiet and peaceful, whereas other families highlighted they were more irritable (23.4%), and in a lower frequency sadder and more disconnected (8.5%).

In average, children and adolescents almost never showed desire to go back to school ($M = 1.70$, $SD = .88$, $Median = 1$), or to previous routines ($M = 1.96$, $SD = .85$, $Median = 2$). However, they missed going for a walk or to the park (29.8%), seeing their relatives (grandparents, cousins) (12.8%), attending extracurricular activities such as dancing classes (12.8%), playing with their friends (10.6%), and going on trips or hiking (6.4%) (Table 2). They also asked to go out not very often during quarantine ($M = 2.00$, $SD = .90$, $Median = 2$).

No significant differences were found in children with ASD management of quarantine based on the number of children living at home (Man Whitney $U = 215.5$, $z = 1.50$, $p = .133$), the type of place where they lived (Man Whitney $U = 198.0$, $z = 1.33$, $p = .184$) or the working status of their parents during quarantine (Kruskall Wallis $H = 2.35$, $df = 3$, $p = .502$). However, the variability in children management of quarantine responses was very low ($SD = .62$), and thus significant differences were difficult to find.

<Insert Table 2 here>

3.2. Family management of quarantine

Parents reported high scores for their general management of quarantine as a family ($M = 3.19$, $SD = .49$, $Median = 3$) indicating a quite good management this period. They developed new strategies to better manage quarantine with their children with ASD such as involving children/adolescents in more family routines and activities (40.4%), creating school or academic activities (31.9%), using visual supports (27.7%), using new technologies for learning or leisure

(29.8%), structuring their family days (19.2%), and enabling a specific place at home to move easily (19.2%). In a lower frequency, families organized their daily schedules along with their children (12.8%), and also used new reinforcements (such as token economy) (6.4%), whereas few families did not implement new strategies during quarantine (8.5%).

Families had time to teach new skills (87.2%) to their sons and daughters (Table 3). When asked specifically about those skills, four categories aroused. For instance, families had more time to teach autonomy skills related to the child independence (55.3%), but also house care routines (e.g., cleaning) (21.3%). Families also had time to create more opportunities for interaction and social skills training (14.9%), such as expanding their narrow array of interests, and to teach and strengthen academic skills (10.6%).

Parents were asked about the types of supports they found more useful for managing quarantine, and the following categories of supports aroused (Table 3): their family cohesion and online contact with relatives (36.2%), having online psychological support (23.4%), being allowed to go out for a walk because of having a child with ASD (6.4%), having more free time and jobs flexibility (4.3%), and setting new routines to manage quarantine (4.3%).

Parents were finally asked about the types of supports they missed, and they reported that the following supports would have been useful to better manage quarantine (Table 3): social comprehension when they went out for a walk (19.2%), as some were reprimanded by going out, even if they were authorized given their children special needs, a better work and family conciliation (14.9%), more opportunities to interact with others, especially for their child with ASD (10.6%), continued educational support (from school and educational institutions) (6.4%), and behavioral and communication strategies to better understand and interact with their children (4.3%).

No significant differences were found in families management of quarantine based on the number of children living at home (Man Whitney $U = 266.0$, $z = .25$, $p = .806$), the type of place where they lived (Man Whitney $U = 185.0$, $z = 1.81$, $p = .070$) or the working status of their parents during quarantine (Kruskall Wallis $H = 2.72$, $df = 3$, $p = .436$). Also, the variability in family management of quarantine responses was very low ($SD = .49$), making it difficult to find significant differences.

<Insert Table 3 here>

3.3. Types of external supports

The majority of families (76.6%) were provided support by their private psychological center during quarantine, either through online sessions with the child or adolescent (23.4%), with the families (38.3%), and through phone calls or emails (51.1%). Regarding school support, 61.7% of the families were provided some kind of school support during quarantine. The most common one was doing online classes and sending specific activities for students to work at home (61.7%), whereas other schools just provided some general themes and guidelines for families to work with their sons and daughters (21.3%), others just followed up families situation through phone calls or emails (12.8%) and 2 of them did not provide any kind of support (4.3%).

4. Discussion

The aim of this study was to depict how children and adolescents with ASD and their families have managed quarantine derived from the COVID-19 pandemic so as to lay the foundations for a more adjusted provision of supports to face this new situation. We found that both families and children with ASD have managed quarantine better than expected. Specifically and based on parents responses, although some were found to be more irritable because of the unpredictability of the situation, the majority of respondents highlighted that their children were happier than before quarantine. Consistently, families observed that their children were more

communicative, participated more often in family routines and in choice-making decisions regarding family activities. The majority seemed to be comfortable with the situation and did not often asked to go back to school or to previous routines. Families also benefited from this extra time with their sons and daughters to teach new skills related to their autonomy, to house care routines, and perhaps more importantly, to social skills and communicative interaction. Families appreciated to have online psychological support, and truly valued their cohesion and online contact with relatives during quarantine. They also claimed for social comprehension regarding their children special needs during quarantine (such as going out for a walk), more flexibility at their workplaces to better conciliate with their family life, and they would also have appreciated a more continued educational support. The majority of families have also benefited from school and psychological online support, although some of them would have appreciated a more tailored monitorization of school activities.

These results, although informative, must be considered in the light of some limitations. First, the participants have been intentionally recruited and thus results might be interpreted accordingly. They were also limited in number and lived only in one region of Spain. Also, information about the families socioeconomic or about their children with ASD level of social communication or repetitive behaviors was not collected. Second, adults stress levels before and after quarantine were not measured although it would also have been informative of the families dynamics. In this sense, deepening into families stress levels, specifically in the case of families who did not receive online support would as well strengthen the need for new policies derived from the experience of quarantine due to COVID-19. Also, data was collected throughout the month of April, that is from two weeks after quarantine was decreed to three weeks before the start of quarantine easing measures. During this full month of strict lockdown, emotions and compliance with the situation for each person and each family might have navigated from surprise to acceptance and through

anxious and depressive states, among others. Each unique person had gone through different emotional states during quarantine and this transversal data collection might not have embraced all those different states for each family and children, even if an effort was made from researchers to stress within the survey guidelines, that respondents must answer to the questions considering their average perceptions throughout quarantine.

Despite these limitations, the present study lay out the foundations to comprehend the needs and required supports for children and adolescents with ASD and their families to cope with the new times and challenges to come. Surprisingly, families stated that children and adolescents have better coped with quarantine than expected, given their difficulties to manage unpredictable situations. The lockdown decreed by the government has not necessarily propelled higher levels of anxiety in children and adolescents with ASD, contrarily to what usually happens with unpredictable and demanding contexts (Clark & Adams, 2020). Perhaps more importantly, this finding claims for the need to build positive and supportive contexts for children and adolescents with ASD, with contextual opportunities and challenges and demands tailored to their needs and anxiety management levels. When children and adolescents with ASD develop and interact in an environment where demands and challenges are wisely balanced with their well-being, they tend to participate more in family routines and seem to be more communicative and willing to interact with others. In this sense, supports providers for people with ASD should consider the adequacy of context-based factors to maximize supports provision (Luckasson & Schalock, 2020), for example, facilitating family involvement in building educational opportunities in natural contexts, which would imply, in turn, that policy makers adjust and reconsider job and family conciliation policies.

Families have benefited during quarantine of time to build opportunities for interaction with their children with ASD. Social skills training stand as crucial skills children and adolescents with

ASD have to develop to prevent or alleviate symptoms of social anxiety (Pickard, Rijdsdijk, Happé, & Mandy, 2017). However, jobs schedules in Spain and other European countries do not necessarily facilitate that families could spend more quality time with their children. In fact, most of the jobs devoted to services provision imply long lasting working days that hurdle building opportunities for playing or interacting with their sons and daughters. As the quarantine situation has forced a flexibilization in job schedules, families have had additional time to spend quality time with their children. In parallel, families have been provided with online support during quarantine to address the psychological and educational needs of their children with ASD, consistently with their demands and with emergent practices in some European countries (Narzisi, 2020). Schools and other psychological and educational supports providers have done their best during quarantine to reach all the students, although new measures are clearly needed to face this new academic year. This pandemic has forced policy makers and stakeholders to find measures to ensure safety in classrooms and schools. In Spain, some autonomic governments are decreeing reduced ratios of students per class to facilitate social distancing. Although strictly derived from the pandemic, this measure would also benefit students with ASD, as less crowded educational contexts are necessarily more predictable, and less demanding in terms of social and communicative interaction. Future research would have to delve into the benefits of this new policies on the well-being and academic performance of all students, but specifically of students with ASD attending inclusive schools, to nurture policy makers decisions regarding maintaining some of the educational changes derived from the pandemic. Undoubtedly thus, policy makers and stakeholders will have to take into consideration the information derived from this study in future decision-making processes arising from the pandemic derived from Covid-19.

Credit roles

The corresponding author is responsible for ensuring that the descriptions are accurate and agreed by all authors. Below are listed the specific contributions of each author.

Cristina Mumbardó-Adam: Conceptualization, Methodology, Formal analysis, Investigation, Writing - Original Draft

Silvia Barnet-López: Conceptualization, Formal analysis, Investigation, Writing - Review & Editing

Giulia Balboni: Conceptualization, Methodology, Writing - Original Draft, Supervision

Conflict of Interest

The authors declare that they have no conflict of interest.

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Ethical Standards

This study was conducted in accordance with the ethical standards laid down in the 2013 Fortaleza version of the Declaration of Helsinki. Informed consent was obtained from the legal guardians of each participant.

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Table 1 Questions on Child/Adolescent and Family Management of the Quarantine and External Support Received

Part 2. Child/Adolescent management of quarantine

1. In general terms, how is your child managing quarantine? (1 = very badly, 2 = badly, 3 = well, 4 = very well)
2. Have you observed new behaviors in your son or daughter? (0 = no, 1 = yes) *If so, describe which ones.*
3. Specifically, has your son or daughter participated in choice making decision regarding family activities and routines during quarantine? (0 = no, 1 = yes)
4. Have you observed a change in the emotional state of your son or daughter? (0 = no, 1 = yes) *If so, please describe it.*
5. How often has your son or daughter wanted to come back to previous routines (the ones he or she was used to before quarantine)? (1 = never, 2 = almost never, 3 = often, 4 = very often) *If so, please describe the missed routines.*
6. How often does your son or daughter with ASD ask to go outside? (1 = never, 2 = almost never, 3 = often, 4 = very often)
7. How often does your son or daughter with ASD ask to go back to school? (1 = never, 2 = almost never, 3 = often, 4 = very often)

Part 3. Family management of quarantine

8. In general terms, how would you assess your family management during quarantine? (1 = very badly, 2 = badly, 3 = well, 4 = very well).
 9. Are you having time during quarantine to teach your son or daughter new skills? (0 = no, 1 = yes) *If so, please describe which ones.*
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10. What new strategies have you developed during quarantine? Please, choose as many strategies as necessary. (1 = Visual supports (such as visual schedules, sequences for activities of daily living), 2 = Reinforcements (e.g., token economy) , 3 = Having a space at home enabled to move easily, 4 = Incorporate your child into activities of daily living, 5 = Creating school or academic activities, 6 = Structuring your son or daughter's day activities, 7 = Organizing the day structure together with your son or daughter, 8 = Using new technologies for leisure or learning, 9 = None).

11. What type of supports have been most useful for your family during quarantine? *Please, describe them.*

12. What type of supports have you missed for your family during quarantine? *Please, describe them.*

Part 4. Types of external supports

13. Did you receive school support during quarantine? *Please, choose all the answers that may apply in your case* (1 = online classes and provision of specific activities, 2 = provision of general themes and guidelines for families to work with their children, 3 = following-up through WhatsApp, email or phone calls, 4 = no support)

14. Did you receive other psychological or educational external support during quarantine? *Please, choose all the answers that may apply in your case* (1 =individual online sessions for your child, 2 = online coaching sessions for the family, 3 = following-up through WhatsApp, email or phone calls, 4 = no support)

Table 2

Categories Aroused From the Open Questions Regarding Children/Adolescents Management of Quarantine

Questions themes	Categories	Quotes examples*
Observed new behaviors	Participating in family routines	<i>“He collaborates in family routines, corresponds more, makes more efforts”</i>
	Being more communicative	<i>“More interaction with his brother, he looks for him to play and there is more complicity”</i>
	Autonomy related behaviors	<i>“He dresses up alone”</i>
Emotional status (as compared to before quarantine)	New stereotypies	<i>“He stretched his ears again, a behavior he used to do”</i>
	Speaking with a louder tone of voice	<i>“Speaking in a higher tone of voice and even shouting”</i>
	Being happier and calmer	<i>“He is happier and more receptive”</i>
Needed previous routines	Being more irritable	<i>“[he is] a little more irritable”</i>
	Being sadder and more disconnected	<i>“He is sad sometimes and cries”</i>
	Going for a walk or to the park	<i>“Going for a walk, he loves walking”</i>
	Seeing their relatives	<i>“Above all, interacting with his relatives”</i>

Attending extracurricular activities	<i>“[he asks to] going back to dance and drawing classes”</i>
Playing with friends	<i>“Above all he asks to go playing with the children of our town”</i>
Going on trips or hiking	<i>“[he asks to] going to a hotel or camping, going for a walk or to the school.”</i>

*Quotes examples have been translated into English as parents responded in Catalan or Spanish.

Table 3

Categories Aroused From the Open Questions Regarding Families Management of Quarantine

Questions themes	Categories	Quotes examples*
	Autonomy related skills	<i>“We are strengthening her personal autonomy skills at home, like learning to peel potatoes or to make her bed”</i>
New skills taught by families	Homecare related skills	<i>“Cooking and house cleaning”</i>
	Social interaction skills	<i>“Social interaction games”</i>
		<i>“Ways to greet and make friends”</i>
		<i>“Working on more concepts such as</i>
	Academic skills	<i>colors, the names of their classmates and making puzzles”</i>
Useful supports for family	Family cohesion and online contact with relatives	<i>“I am infinitely grateful for the video calls... My son made his day to see his loved ones, the people he shared time with, all of them without exception (family, therapists, friends)”</i>
	Psychological online support	<i>“Support and interest from the first moment of our psychological center to guide us and share strategies”</i>

Being allowed to go out	<i>“Being allowed to go out with a specific certificate”</i>
Having more free time and job flexibility	<i>“[activities as] cooking together”</i>
Setting routines during quarantine	<i>“Maintaining a daily work routine”</i>
Social comprehension	<i>“We were very afraid to go out with her in case a neighbor called the police, even if we were allowed to do so. I totally refused to put any blue or distinctive bracelet on her.”</i>
Work and family conciliation	<i>“I’m working online and I still have work obligations to answer immediately which hinders me from being with my wife and my son.”</i>
Needed supports	<i>“[he missed] people... because 24 hours during so many days, always</i>
Interacting with other people	<i>seeing the same faces... the child is tired of that...”</i>
School support	<i>“I have missed online classes”</i>
Behavior and communication strategies to better interact and understand them	<i>“Knowing how to handle tantrums or yelling, as sometimes I don't know what to do.”</i>

* Quotes examples have been translated into English as parents responded in Catalan or Spanish.