

Psychological impact of COVID-19 confinement on children

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Abstract

While it is true that sanitary confinement is the only bulwark against the proliferation of Covid-19, it has also proved to be a painful experience, which is not without risk from a psychological point of view! Faced with the oppressive constraints imposed by the confinement, multiple psychological reactions have inevitably revealed themselves. As a matter of fact, the painful test of sanitary confinement is likely to destabilize some mentally vulnerable people, and/or those who have been unable to understand the different preventive and drastic strategies invested by the Government. During this anxious period, which risks offending the specific vulnerability of children, it appears that the severe confinement measures can provoke fear and panic among our confined children. Will confinement trigger new disorders, or will it only exacerbate existing psychological disorders? What would be the particular experience of children with psychopathological disorders? At-risk profiles presented in this article, as identified in our clinical consultation, are the following: ASD, ADHD, mental retardation, Learning disorders.

Keywords: Covid-19; confinement; children with ASD; ADHD; mental retardation; Learning disorders.

Introduction

Containment is an undeniable necessity in the face of epidemics. Several reports mentioned how entire cities have been quarantined out of necessity, as when SARS spread in 2003 in China, H1N1 flu in 2009 in Canada, or Ebola in Africa. In China, which is considered to be the source of the pandemic, the results of a first national survey published in March 2020 in "General Psychiatry" (Qiu, Shen, Zhao et al. 2020), stated that nearly 35% of the respondents to an online survey targeting 53,000 people, between January 31st and February 10th of 2020, revealed they have suffered from a form of psychological distress. The highest levels were observed in the center of the country, notably in the Hubei region, where the outbreak began and where containment measures were most severe.

Containment measurements in Morocco (Zaidi & Aalouane, 2020).

In Morocco, containment came gradually into effect. Its objectives and modalities have been well explained and widely promoted through news channels. As soon as the epidemic started, the Government took firm decisions to contain it. The authorities enforced a general confinement and conditioned the movement of citizens to exemptions in the form of personal exit certificates.

As a result, civil society mobilized in order to overcome the epidemic. A special fund dedicated to managing the pandemic was launched by His Majesty King Mohammed VI, and several civil society organizations engaged in an unprecedented impetus of solidarity and cooperation. In terms of equipment, hospital care facilities were promptly established to strengthen the already existing structures. Health professionals from all sectors were called in to treat the country's suffering. To properly implement these humanitarian actions and satisfy the specific needs of the epidemic context, Royal Armed Forces, National Security, and Royal Gendarmerie, inter alia, committed to a race against time.

Parallel with solidarity, several scientific organizations set up information antennas, advice sheets, listening cells, stress management guidelines... to accompany the population confined during this painful experience, unprecedented for most people.

The anxiogenic living of COVID-19 proliferation

While it is true that sanitary confinement is the only bulwark against the proliferation of the Covid-19 virus, it has proved to be a painful experience, which is not without risk from a psychological point of view.

Faced with the oppressive restrictions imposed by confinement, multiple psychological reactions were inevitably revealed. Over long days of confinement, the use of psychological resources increased rapidly. People's daily tasks became limited, socio-economic activity reduced to its lowest level, time ratio became largely blurred, consumption habits got disrupted, and lifestyle required the adoption of new points of reference.

In fact, the conditions of this lockdown were not the same for everyone, as people living in small and overcrowded houses had more chances to be psychologically vulnerable, than those living in more comfortable homes. However, the anxiety-inducing experience took hold of everyone.

To overcome this psychological instability, everyone tried to do their best to manage the crisis the best they could, usually by calling upon their own means to escape the overwhelming effects of the pandemic. Also, most people turned to their smartphones, hoping to come across some good news regarding an eventual Covid-19 cure. Actually, by staying connected online to be informed all the time, people were unconsciously seeking control of the situation's anxiety. Indeed, there was a desperate desire to not miss any information that could potentially ease the fear linked to the circumstances. And so the social media tour began by constantly flooding brains with images, publications and news which, many times, turned out to be entirely fabricated. In fact, the proliferation of screens and means of communication only amplified anxiety and weakened the psychic immune defenses. (Le Figaro, 2020).

Moreover, the painful test of sanitary confinement was likely to destabilize some mentally vulnerable people, and/or those who have been unable to understand the different preventive and drastic strategies invested by the Government. Furthermore, in this epidemic context, which generated stress and anxiety, the experience of children suffering from psychopathological disorders has not been easy.

The specificity of confinement in children

Current scientific evidence (Herold, 2021) suggests that children are less affected by Covid-19 than adults. Children happen to be asymptomatic carriers that could potentially transmit the disease, but they are more vulnerable to the stress of confinement, as radical change shakes their usual routines.

During this anxious period, which risks disturbing the specific vulnerability of children, it appears that the severe confinement measures can provoke fear and panic among our confined children, especially, if they fail to understand why their schools are closed, and why their parents are suddenly working from home. In addition to a clear and child-friendly explanation, adults will need to be vigilant about children's specific psychological reactions.

So what were the main psychological reactions among our confined young population? Who were the at-risk profiles? Did confinement trigger new disorders, or did it only exacerbate existing psychological disorders? What risk factors predisposed some children to display signs of stress? What was the particular experience of children with psychopathological disorders?

Some risk factors influencing the child's reactions to Covid-19

There are several risk factors that predispose children to disproportionately respond. In the first place, there is the child's psychopathological history and the somatic diseases from which he or she suffers. Then, there is the child's educational level and cognitive development, which allow him or her to better understand the stress of the pandemic.

Table 1: Risk factors and parameters that influence the child's reactions to Covid-19 (Kaplan & Sadock, 1998)

Factors	Parameter
Background	Psychopathological history (ASD, depression, anxiety disorders, ADHD, MR, SLD...).

Vulnerability	Somatic diseases
	Cognitive development
Sociocultural Factors	School level
	Socio-economic level, living space
	Impact of the media, the environment
Personal Resources	Character traits, resilience, acceptability
Quality of family support	Socio-family support, family reactions / Covid-19

However, the family's responses to the pandemic's and the quality of family support feed the personal, cognitive and emotional resources of child acceptability. By adopting psychological reactions of acceptability and resilience vis-à-vis the pandemic, the family develops in the child the ability to overcome shocks and traumatic events, but also the ability to adapt to real danger, the ability to learn to live with changes and the ability to resist uncertainty.

The cognitive-behavioral model explains the trajectory of stress as follows: it all starts with thoughts that contain misconceptions such as excessive fear of getting infected or losing parents. These thoughts generate overblown emotional reactions, such as anger, irritability, anxiety and depression, and produce disproportionate behaviors such as avoidance and somatization.

Some psychopathological profiles of children impacted by Covid-19 related confinement

At-risk profiles of children with psychopathological disorders are:

1. Autism Disorder (ASD)

Autism Disorder (ASD) is a pervasive developmental disorder characterized by the intensity of its clinical symptomatology. The diagnosis of ASD is made through a syndromic triad in the form of serious disorders of reciprocal social interactions, verbal and non-verbal communication disorders and the restriction of fields of interest (Kaplan & Sadock, 1998). With regard to the etiopathogenic factors, several avenues were suggested. The first track is genetic and concerns family psychiatric history. The second is neurobiological, manifested by ventricular dilatation and immunological incompatibility. The third track concerns the cognitive deficit of high functions of perception, understanding, language, intelligence, etc. Concerning the epidemiological data of autism, it starts before 36 months, its Prevalence is 63 cases / 10,000, children < 12 years of age, its sex ratio is 3 boys for 1 girl. The family recurrence rate is 3-7% (Ferrari & Bonnot, 2013).

The clinical features of autism are manifested through four basic fields:

The first is the disorder of reciprocal social interactions which manifest through disinterest in the solicitations of others, avoidance of gaze, lack of social reciprocity and inability to establish relationships with parents, siblings and peers, delay or absence of language, inability to support communication, echolalia, palilalia, stereotyped phrases and pronominal inversion. The second clinical feature is autistic withdrawal which results in isolation, indifference to stimulation, inability to share pleasures and interests with others, excessive? for details. The autistic child does not point or point. Somatic disorders such as cardiovascular, digestive, respiratory, and neurovegetative symptoms are not uncommon in the clinical picture of autism. The last criterion is behavioral

manifestations in the form of motor agitation, aggression and self-harm (Ferrari & Bonnot, 2013).

Cardinal symptoms that characterize autism include immutability. In fact, the autistic child has severe anxiety attacks when changing places, situations or objects. The change and modification of objects, places or situations causes the autistic child to be angry, restless and aggressive.

The radical change in the pace of life and the confinement with the family following confinement put the child's coping skills to a severe test. Already, this child cannot stand confined spaces, does not understand the harsh instructions of barrier gestures, or assimilates the reactions of his or her family. The break with the outside world: school, pairs, carers, assistants... makes him or her suffer a lot. How will he or she then express his or her deep suffering, when knowing that he or she does not have the linguistic ability to verbalize it?

The suffering of the autistic child due to confinement is expressed through three levels:

- Emotional: in the form of stress and anxiety reactions unsuited to situations.
- Behavioral: Psychomotor restlessness, aggression toward loved ones, self-harm and frequent sleep disorders.
- As for learning, which is already very modest in children with autism, we note the deterioration and the forgetfulness of learning acquired, and the absence of language, with an emphasis on gestural stereotyping that replaces speech as well.

2. Attention deficit/hyperactivity disorder (ADHD)

Attention deficit/hyperactivity disorder (ADHD) is a persistent mode of inattention and/or hyperactivity. This condition must be more frequent and severe than usual for a given stage of development, affecting the child's school and relationship. The diagnosis is made starting from 7 years (Ferrari & Bonnot, 2013).

According to DSM-5 (2013), there are three types of ADHD: one type of inattention is predominant, the other or hyperactivity and impulsivity are more dominant. Whereas the third type, which is mixed, combines inattention, hyperactivity and impulsivity.

The prevalence of ADHD is 3-5% of school-age children. Predominant sex is 4 boys for one girl. It is a disorder that is more common among first-born boys. The onset of the disorder often manifests at the age of 3, but its discovery is often late and only confirmed at the age of 7. The prevalence of this disorder is high among children with parents with mental health problems: type antisocial personality, and/or have addictive behaviors (Ferrari & Bonnot, 2013).

Several risk factors are implicated in the genesis of attention deficit hyperactivity. On the one hand, there are factors that are directly related to the child, such as neurobiological factors, which are noted through the decrease in the overall activity of the two dopaminergic and noradrenergic systems, and the decrease in the metabolism of the frontal lobe. On the other hand, factors related to the child's temperament, such as poor coping skills and high levels of distractibility. As for family-related factors, they appear in two modes.

The first one is genetic. In this case, the prevalence of ADHD is very high in monozygous twins compared to heterozygous twins. The risk of siblings is X3. Family psychiatric history of ADHD, mood disorders, anxiety disorders, antisocial personality

disorder, or substance use disorders predispose the child to ADHD. The second family factor is parent-child interactions, that is, a parental educational mode characterized by violence, systematic punishment and prolonged emotional deprivation.

Psychosocial and environmental factors include the impact of stressful life events. For example: illness, divorce, death, and the peculiarity of the family structure between the two extremes (i.e.: large families or only child). Environmental factors refer to what is dietary, toxic, obstetrical (Ferrari & Bonnot, 2013).

❖ Clinical characteristics of ADHD

Among the clinical features of ADHD are distractibility and attention span, which is particularly short. Attention deficit must be noted in two different places, at school and at home. In school, a child with ADHD is unable to follow the teachers' instructions, and demonstrates difficulty in maintaining attention at work or in games. The child often seems not to listen when spoken to personally and is easily distracted by external stimuli. He or she often loses the objects necessary for his or her work or activities. In addition, children with ADHD have difficulties in completing their school duties, domestic duties or personal duties, with frequent forgetfulness in daily life, (DSM-5, (2013)).

- The stress of confinement has aggravated the symptoms of the disease:
- For children suffering from TADHA, with an intolerance of nature and closed space, their hyperactivity, impulsivity and aggressiveness became more pronounced because of the sanitary confinement.
- Their difficulty in complying with the demands of the parents created a lot of internal tensions.
- Confinement has emotionally impacted children with ADHD causing anxiety and fear. Their sleep and diet were consequently disturbed. The stress of confinement was expressed by agitation, irritability, self-harm and heteroaggression, and by increased behavioral disturbances. As for the teaching of children with ADHD, it was almost impossible for them to take distance-learning classes. Their difficulties in concentrating, in completing their homework and their great weariness during school classes, demanded the family's unrelenting control.

3-Mental retardation (MR)

The (DSM-5, 2013) defines MR. as a general intellectual function, significantly below average, which is accompanied by limitation of adaptive functioning, beginning before the age of 18. The RM has several names: debility, mental impairment, oligophrenia... The degrees of severity of the MR. are: light, medium, severe or deep. Epidemiological data from MR. indicate that its prevalence is 1% in the general population. The incidence is higher among school-aged children between 10 to 14 years. The sex ratio is 1.5 men for one woman. 85 % of the population with MR. is mild. The highest mortality rate in RM is in the severe or deep category. The diagnosis of MR. is often carried out in school. In the preschool period, the child's social skills are appropriate. On the other hand, the child has a poor capacity for abstraction and self-centered thinking, with a communication deficit. His or her social and professional levels are satisfactory despite his or her limited autonomy and dependence on the environment. The average MR. is diagnosed earlier than the light MR. In the preschool period, the child's social skills and communication are not well developed. This

predisposes him or her to early school failure in primary school. However, this child has the possibility of access to occupational tasks, simple professions (handicrafts, sheltered workshops...). On the other hand, severe MR. is evident from preschool years. A child with severe MR. has several symptoms including rudimentary language, limited cognitive abilities, and a highly dependence on

the environment. As for the deep MR, it is characterized by the absence of language and communication, the weakness of motor skills and the absence of any autonomy. The child also suffers from serious associated pathologies such as dysmorphia, malformations, cardiovascular and respiratory pathologies. Since his or her understanding is very limited, the learning would be weak, and as a consequence, the child develops non-verbal communication.

4. Learning disorders

Learning disabilities or "dys" are defined as the sum of dysfunctions in the ability to acquire knowledge. They are persistent despite appropriate and sustained interventions. These disorders cause difficulties in the everyday life of people who suffer from them, especially in the school environment, because they prevent children from properly acquiring basic learning such as reading, writing, calculating and expression, (DSM-5, (2013)). It is school failure that reveals the existence of these disorders, as they are most often diagnosed late. There are several types of learning disabilities, including:

- ❖ Dyslexia: the difficulty of correctly associating letters and sounds, resulting in poor reading;
- ❖ Dysphasia: affects language acquisition, the vocabulary of the dysphasic child is very poor, and not respecting syntax or grammar, which frequently silences him or her;
- ❖ Dysgraphia: people affected by dysgraphia have difficulty in performing graphic gestures like writing and drawing.

Containment has impacted children with learning disabilities on several levels. The sudden change from presential to distancial, disturbed the normal course of classes. Also, the child lost links with teachers and peers, as he or she lost the paramedical care programs with the multidisciplinary team that looks after him or her. This child already suffers from an inability to follow and assimilate knowledge in a face-to-face environment, so from a distance, his or her academic performance was likely to deteriorate, essentially his or her reading and writing skills. The child suffering from dys is unable to perform his or her duties alone, hence the obligation to always have continuous assistance. This led to a decline in the learning already acquired.

Containment affected children with learning disabilities on other clinical aspects, including sleep disorders, repetitive wake-ups, the frequency of nightmares, eating disorders in the form of anorexia nervosa, sphincteric disorders, especially enuresis, which in turn had a bad effect on self-esteem.

Recommendations

We conclude this study with the following recommendations:

- Explain calmly what is happening to the child, without trivializing or exaggerating, while taking into account his age and level of knowledge. Reassure him or her on the fact that the situation is temporary, and that the whole world is going through the same thing.

- Answer the child's questions using a simple and clear vocabulary.
- Encourage him or her to talk about his or her emotions and to name them; and remind him or her not to feel ashamed of being afraid or stressed.
- The child must be reassured that he or she is safe at home, and that there are professionals (doctors, nurses, authorities...) who work on solving the problem.
- Explain to him or her that everyone must stay at home and adopt barrier gestures (i.e: wash your hands frequently, cough or sneeze in your elbow, keep safe distances, protect yourself from household hazards or misuse of disinfectant products).
- Keep the routine that sets the hours of sleep, meals, school homework, physical activities, games and leisure.
- Limit hours spent in front of screens, which could further increase the fear of the child.

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