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# Potential Effects of the COVID-19 Pandemic on Children and Adolescents with Separation Anxiety Disorder

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## Abstract

Children with separation anxiety disorder (SAD) experience unrealistic fear of being separated from their significant caregivers (mostly parents). The occurrence of pathological separation anxiety is determined by many factors: parental attitudes, their mental and physical health, but also the way of perceiving the environment, traumatic events in the child's family and life, as well as genetic and individual effects. Pandemic situation and related isolation caused change in the current lifestyle. Both psychological (i.e. the novelty of the social situation, negative information in the mass media, fear of their own life and their loved ones) and daily-life routine disturbances (i.e. the closure of schools and restrictions of contacts with peers, limited contacts with distant family members, remote work of parents) generate difficulties for children and can contribute anxiety among children with SAD. Paradoxically, despite the fact that children and adolescents are at home, the COVID-19 pandemic may intensify SAD, exacerbating factors underlying separation anxiety. It turns out that family social isolation can escalate conflicts. This, in turn, adversely affects relationships between family members and can reduce children's sense of security. Due to pandemic problematic access to specialized health care, especially personal contact with a psychotherapist, children with SAD suffer from insufficient professional help.

**Keywords:** Separation Anxiety Disorder, Anxiety, Pandemic, COVID-19, School phobia, Children, Adolescents, Mental health, SARS-CoV-2, Adverse childhood experiences

## 1. Introduction

Current generation of children and adolescents has not been affected by negative global occurrence till now. Nowadays COVID-19 pandemic could serve as such an event, causing no sense of security and uncertainty. Since 2020, minors -together with adults- have constantly received information about pandemic threats, including death of family members or other role models. Pandemic has challenged different aspects of children's and adolescent's lives, i.e., an access to school and classmates.

Increase in uncertainty in the surrounding world may lead to higher prevalence of anxiety disorders in childhood. Most of the studies on children, which were conducted during COVID-19 pandemics, concerned social anxiety [1] and generalized anxiety [2], assuming, that staying at home due to the lockdown protects against separation anxiety. However, separation anxiety is associated predominately with negative family factors, e.g., lack of secure attachment pattern in the early childhood [3].

As a consequence of the COVID-19 pandemic, limitations occurred in many aspects of life, including family life. It might result in a greater number of children suffering from anxiety disorder, even despite staying at home. After the end of lockdown and come-back to school, more children may find it difficult to go out from home to attend school.

## **2. Definition and criteria of separation anxiety disorder**

Separation anxiety disorder (SAD) is a mental disorder in the course of which a person experiences excessive anxiety, fear, distress when separated from the closest person to whom he or she is attached (most often it concerns parents, grandparents or siblings). Separation anxiety disorder is a deeper and more destabilizing form of normative separation anxiety typically experienced by children during their development [4]. SAD is an inappropriate and excessive display of fear and distress, due to being faced with a situation of separation from home or significant attachment figure [5].

The expressed anxiety is classified as atypical in relation to the expected level of development and age. The severity of symptoms ranges from anticipatory uneasiness to complete anxiety about separation. SAD can have significant negative effects on a child's daily life. These effects can be seen in areas of social and emotional functioning, family life, physical health, as well as within the academic context. The duration of this problem must persist for at least 4 weeks and must present itself before a person is 18 years of age to be diagnosed as SAD [6].

In the evolutionary context, separation anxiety is among the oldest anxiety modules developed by mammals already in Mesozoic era (approximately 140 million years ago).

In DSM-5, SAD was classified as an anxiety disorder. DSM-5 diagnostic criteria for separation anxiety disorder are as follows:

Disorder Class: Anxiety Disorders

- A. Developmentally inappropriate and excessive fear or anxiety concerning separation from those to whom the individual is attached, as evidenced by at least three of the following:
1. Recurrent excessive distress when anticipating or experiencing separation from home or from major attachment figures.
  2. Persistent and excessive worry about losing major attachment figures or about possible harm to them, such as illness, injury, disasters, or death.
  3. Persistent and excessive worry about experiencing an untoward event (e.g., getting lost, being kidnapped, having an accident, becoming ill) that causes separation from a major attachment figure.
  4. Persistent reluctance or refusal to go out, away from home, to school, to work, or elsewhere because of fear of separation.

5. Persistent and excessive fear of or reluctance about being alone or without major attachment figures at home or in other settings.
  6. Persistent reluctance or refusal to sleep away from home or to go to sleep without being near a major attachment figure.
  7. Repeated nightmares involving the theme of separation
  8. Repeated complaints of physical symptoms (such as headaches, stomach-aches, nausea, or vomiting) when separation from major attachment figures occurs or is anticipated
- B. The fear, anxiety, or avoidance is persistent, lasting at least 4 weeks in children and adolescents and typically 6 months or more in adults.
- C. The disturbance causes clinically significant distress or impairment in social, academic (occupational), or other important areas of functioning.
- D. The disturbance is not better explained by another mental disorder, such as refusing to leave home because of excessive resistance to change in autism spectrum disorder; delusions or hallucinations concerning separation in psychotic disorders; refusal to go outside without a trusted companion in agoraphobia; worries about ill health or other harm befalling significant others in generalized anxiety disorder; or concerns about having an illness in illness anxiety disorder [6].

The largest differences between criteria DSM-4 and DSM-5 are related to broadening the criteria to better align with the presentation of SAD among adults; consequently, this should have minimal impact on childhood estimates.

### **3. Impact of pandemic on children's and adolescent's mental health**

So far, data showed that the pandemic influences mental health of the population globally, with the increased prevalence of depression, suicide, and self-harm (apart from other symptoms reported due to COVID-19) [7, 8]. The pandemic resulted in an increase in incidence emotional outbursts, especially panic, avoidance, stigmatization and different types of fear (e.g. fear experienced when meeting other people, fear of death, fear of getting isolated).

### **4. Risk factors of increased frequency of separation anxiety in children and adolescents during the COVID-19 pandemic**

#### **4.1 Attachment pattern and quality of paternal care**

As a consequence of social distance and governmental restrictions on gatherings, minors may be affected by reduced contact with secure attachment. During the COVID-19 pandemic, meeting other people except the nuclear family, is often impossible and against the law. Children are deprived of meeting grandparents or other adults, who could support them. In case of insufficient emotional bond with parents, during isolation from other family members, teachers and friends, the opportunity to free talk and seeking for support has been limited. In extreme cases,

it is conducive to the feeling of loneliness and helplessness. When parents suffer from depression or anxiety disorders, their children are more likely to identify with parental negative perception of the world during pandemic, as additional threat may cause exacerbation of symptoms, especially that an access to mental health professionals is limited. It seems that some triggers of SAD are enhanced during the pandemic, e.g., negative narration in the family, lack of sense of safety, difficulties in accessing health care, restrictions on attending school, limits on social contacts with peers. Burden of lockdown can raise caregivers' risk of becoming addicted to alcohol, drugs or gambling.

Separation anxiety level during pandemic may be elevated due to parents' long hours at work, especially, when their posts are crucial in given circumstances (e.g., health workers, pharmacists, shop assistants). It may generate worries about their lives in children, fear of their infection. If so, children would not be able to concentrate on distance learning, but instead they would wait with tension for a parent's safe return home.

Among publications concerning the influence of the COVID-19 pandemic on children's mental health, little is written about SAD. There was a study investigating relationship between social isolation and changes of sleep patterns with triggering anxiety disorders (including SAD), conducted with subscales from the Spence Children's Anxiety Scale- Child Report (SCAS-C) [9]. There was no relationship between duration of sleep and tendency to SAD. However, sleep duration moderated the effect of social isolation on symptoms of generalized anxiety, social anxiety and depression, but not separation anxiety [10].

#### **4.2 Deterioration of parental situation due to pandemic as a risk factor for SAD**

Children and adolescents are significantly affected by the emotional state of adults. As a result of the exposure to unexplained and unpredictable behavior of adults, children may develop an increase of anxiety [11]. Minors may refrain from sharing their feelings to ensure they are not engaging in emotionally oriented conversations to avoid additional parental worry. As they are concerned about the condition of adults, they may try to deal with own fear by themselves, trying to protect others [12]. This can make young people feel lonely in their family [13].

One of the risk factors for developing separation anxiety in a child is the parent's poor mental state. COVID-19 has worsened mental health condition of the society. Polish survey performed with General Health Questionnaire-28 (GHQ – 28) (tool constructed by D. Goldberg) examined four aspects of mental state: physical symptoms, level of anxiety and insomnia, disturbances in everyday life functioning, symptoms of depression [14, 15]. During COVID-19 pandemic, adults display more often disturbances in daily life (in areas such as managing duties or being satisfied with the performed activity), physical symptoms (e.g., headache, exhaustion, weakness, malaise), higher level of anxiety and sleep problems. This can also influence taking care of a child, resulting in a decrease in the child's sense of security. Participants with poorer mental health were reported to be significantly more affected by stress as assessed with a scale SS-10 (The Perceived Stress Scale) [16].

However, these participants were more likely to seek instrumental support and used unsuitable coping techniques such as denial, emotional discharge, psychoactive substance use, ceasing to act, and self-blame. These measures of non-adaptive coping strategies may result with poorer quality of parental support and increase the prevalence of separation anxiety [17].

Pandemic reality can cause enormous stress and psychological distress for all family members. Parents themselves have less competence to support the child. Nevertheless, they should explain to children the whole situation. Their help in



handling fear and anxiety to accompanying these uncertain times is crucial, as the lack of a parental safe support may initiate or intensify the child's separation anxiety.

The precarious financial situation of the family worsens the mental condition of the parents and the child. The economic recession and related factors are significantly associated with deterioration of mental well-being and an increased number of mental disorders among parents. Low socioeconomic status is a well-known risk factor for poor mental health in children [18, 19].

In British surveys, many parents reported that work and financial problems are the most frequent stressors. The Family Fund (2020) survey of parents of children and adolescents with disabilities or serious illness found 50% of participants reported loss of income due to unemployment or loss of job, with 77% reporting household costs have increased [20, 21].

#### **4.3 Increase in traumatic experiences during the pandemic as a risk factor for separation anxiety**

Due to the lockdown, the number of cases of domestic violence is increasing worldwide. There is no escape from abusers during quarantine [22–25]. Some children may be at greater risk of various kinds of abuse while in isolation. Children reported an increase in sexual abuse during the pandemic. Kooth (2020) described 51% increase in self-reports of children being the victim of domestic violence [26]. The lockdown has also created boredom and monotony among parents and children. In many households, due to the restriction of outdoor activities, children become restless and, in some cases, violent. Some people even decided to close windows and doors due to wrong notions regarding the infection. Nearly constant stream of news reports about an outbreak resulted in information- but also misinformation- creating fear, anxiety and stress. A child's response to stress may reflect in many ways, e.g., being clingy, angry, agitated, anxious or withdrawn.

#### **4.4 Parental mental health during the pandemic as a risk factor for separation anxiety**

Children always require love and attention of adults, but more so in extremely difficult times. It is crucial to allow children to be with their parents within the family, to avoid separating children and their caregivers to the extent possible manner. If separation occurs (e.g., hospitalization) regular contact (e.g., via phone) and reassurance are required [27].

Proper child development has consistently been considered as depending on the psychological well-being of parents. Among risk factors for revealing separation anxiety in a child, one of the most important is the development of anxiety in the mother. Mofrad and colleagues noticed in their study, that maternal anxiety was the main predictor for SAD, significantly related to manifestation of SAD in child [28]. What is more, maternal separation anxiety itself was positively related to SAD in child, but not over time [29]. During a pandemic, mothers can develop separation anxiety due to separation from close relatives. The threatening feelings during the pandemic COVID-19 may lead to more protective behaviors in the mother, and as such, impede the separation-individuation process in children.

Family connections and support may be disrupted. Fear of losing family members who belong to a high risk group can increase. In case of death, the pandemic disrupts normal bereavement processes of families. Grief and mourning of lost family members, especially in cases where contact with the infected member is restricted or refused, could lead to adjustment problems, separation anxiety of

young people. As it was shown in a large longitudinal study, children who experience bereavement, especially the loss of a parent, are significantly more likely to exhibit symptoms of separation anxiety, than those who have not experienced such a loss. Children in families with parental overreactivity might be at risk for negative consequences of the lockdown [30]. Young children who have lost a parent are particularly vulnerable. Under these circumstances, the child needs supportive and safe environment, with guidance how to express feelings such as fear and sadness.

#### **4.5 Child's loneliness during pandemic**

Other factors contributing to the separation anxiety in children during pandemic include an increase in the sense of loneliness. Children and adolescents face this problem due to social distancing and school closures. The increase in the sense of loneliness due to pandemic is related to the increase in anxiety in a number of studies [31, 32]. In British studies rates of loneliness during the initial phase of lockdown were high [33]. The prevalence of loneliness was 27%. Younger age group was a risk factor for loneliness, while higher levels of social support and living with a great number of adults were protective factors. The results suggest that supportive interventions to reduce loneliness should target young people.

The COVID-19 pandemic has caused that children and adolescents experience a prolonged state of physical isolation from their peers, teachers, extended family members, and community networks. As it was revealed in early indications according current pandemic, more than one-third of adolescents reported already high levels of loneliness. Moreover, further increase of anxiety may be detected not only during, but also after enforced isolation [1].

In many cases parents are infected and quarantined, so children are separated from their parents. Any disruption in the form of isolation from parents can have long term effects of perceived attachment of the child. It is found that separation from the primary caregivers can make a child more vulnerable [34, 35]. Children may develop feelings of sadness, anxiety, fear of death, fear of parents' death and fear of being isolated in the hospital which may have a very detrimental effect on their psychological development [11]. Especially younger children can feel separated or alone as they have limited knowledge and level of maturity to understand situation.

#### **5. School phobia as a complication of the COVID-19 pandemic**

The pandemic crisis has hit children in many aspects, but particular with school closures. According to UNESCO data, at its peak, in April 2020, over 1.5 billion students in over 190 countries around the world experienced school closures for epidemiological reasons (which is over 90% of all students). In UK only 5% of school-aged children of key workers have attended school during the lockdown period. The traditional daily routine, habits and patterns are failing to function in the new situation. Lack of school routine, new situation, learning difficulties and demands of students' independence may paradoxically aggravate separation anxiety despite being at home. The absence of familiar order leads to growing tensions, anxiety, irritation, helplessness and frustration. During the pandemic, children with separation anxiety who refuse to attend school may initially feel better. When the pandemic is over, avoidance behavior can worsen and prevent return to school after ending social isolation.

Minors with SAD may underperform at school than others, which may keep anxiety levels elevated and also lead to school phobia. School phobia might be a

variant of mostly severe separation anxiety disorder [36]. School refusal is reported in about 75% of children with SAD, and SAD is reported to occur in up to 80% of children with school refusal [37, 38]. Factors that contribute to pure anxious school refusal are as follows: living in a single-parent home (during a pandemic, fear for the life of the sole caregiver increases), having a parent who had been treated for a mental health problem [39]. The pandemic increases the incidence of mental disorders in caregivers [40]. Among risk factors of school phobia are environmental risk factors such as life events (for many children, negative events related to the pandemic are a source of psychological trauma) and parent-child relationship (especially in dysfunctional families, being at home promotes incorrect relationships) [30].

In a large part of families, the presence of parents at home during pandemic does not ensure a sense of security and does not improve the school functioning of children. The results of Polish research on the situation of educational care in families showed that the majority of parents are professionally active (73%). Over a half of them (54%) work online. This means that they have to combine childcare, assisting the children in learning and completing the assignments sent by teachers with full-time remote work [41].

While most children will be delighted to return to school, there will be some who may prefer home schooling. These are children who find school as a stressful experience. Some of them are children with special needs or disabilities that make attending school particularly challenging. European and Asian studies identify dependence, clinginess, and fear of others leaving the house as most commonly reported symptoms during the COVID-19 epidemic, what promotes separation anxiety and school phobia [34, 42].

## **6. Increased anxiety for parents and weakening of belonging**

Uncertainty according health safety of parents is conducive to the disclosure of separation anxiety in children. Many respondents were deeply anxious about the health of their family, as well as harming those around them by inadvertently spreading the virus [43]. Disruptions in social relationships evoke threats to children's sense of belongingness. Youth who were social distancing because their parents made them, reported greater belongingness [44]. An increase in the sense of belonging to parents may exacerbate separation anxiety in adolescents. Some children reacted to information about the epidemic from media with sadness and anxiety.

## **7. Genetic factors influencing the disclosure of separation anxiety in the course of a pandemic**

At the root of separation anxiety in children and adolescents are genetic factors: presence of various anxiety disorders in the family, anxiety disorders or depression in parents (especially SAD), common occurrence of depression and anxiety disorders, anxiety temperament in early life, tendency to low self-esteem, avoidance behavior in parents [45]. Separation anxiety disorder is closely linked to other anxiety and mood disorders, especially to panic disorder and agoraphobia and can be also associated with externalizing psychopathology in children and adolescents. It may be that separation anxiety disorder represents a general factor of vulnerability for a broad range of anxiety disorders [46, 47]. The dependence of separation anxiety on genetic factors in the family exposes the disorder to the severity of children in their families, in which the pandemic multiplied psychiatric disorders in parents, especially such as anxiety disorders and depression. The pooled prevalence



of depression appears to be 7 times higher during pandemic COVID-19 [48]. Women are more vulnerable to stress than men. In recent studies, the prevalence of anxiety, depression and stress during COVID-19 pandemic is shown to be higher in women than in men [49]. The family origin of anxiety disorders was confirmed, especially between child and maternal anxiety disorder. Results of Cooper's and colleagues' study showed that all child's anxiety disorders were associated with several forms of anxiety disorder in the mother. Some specificity in the form of anxiety disorder in the child and the mother was apparent for social phobia and separation anxiety disorder [50]. Some people are more vulnerable to adversity as a function of inherent risk characteristics [51, 52]. Studies presented that young children show more significant separation problems [53].

Vantage sensitivity hypothesis explains that some genetic variants moderate outcome of positive intervention. The definition of vantage sensitivity includes as follows: reflecting variation in response to exclusively positive experiences as a function of individual endogenous characteristics [54].

## **8. Increase in comorbid disorders in pandemic as a risk factor of separation anxiety**

As separation anxiety disorder often coexists with other mental disorders (mainly with panic disorder, generalized anxiety disorder, depression or addictions), higher prevalence of these diseases may lead to higher prevalence of SAD. In the pandemic, there was observed an increase in the frequency of depression and anxiety disorders in adolescents [2]. At the same time, quality and possibilities of medical and therapeutic care were worsened, periodically limited to phone consultations. In many places, group psychotherapy has been withdrawn and sociotherapeutic activities have been discontinued.

## **9. Factors protecting against the disclosure of separation anxiety in children during pandemic**

Protective factors against the disclosure of separation anxiety in children during the pandemic include: early identification of a group of children and adolescents at risk, taking care of families particularly affected by the pandemic, taking care of families that cannot support children, parents with mental problems, children with school difficulties, children with peer relationship problems, families that isolate themselves from society for a long time, families who experience illness or death from COVID -19 infection. It is beneficial to include an early psychoeducation program for parents, which may reduce the risk of developing anxiety disorder. The main protective factors are social support in the presence of traumatic experiences and coping skills in the resilience to anxiety [55]. It seems important to undertake actions to increase the resilience capacity of individuals to coping with traumatic events. The current imposed social isolation caused by the COVID-19 pandemic forced families to spend more time together and created the opportunity to participate in many joint activities, which evokes positive feelings [41].

## **10. Conclusions**

The severity of social anxiety is influenced by the presence of a fear culture, especially in Western countries. According to F. Furedi, contemporary level of

saturation of our consciousness with fear is higher than ever [56]. Mass media contribute to the culture of fear by continuously disclosing information about impending catastrophes and natural or man-made disasters. Media information about an epidemic may be an aversive stimulus that causes fear [57].

So far, no studies have been conducted on the severity of separation anxiety in children and adolescents in the course of the pandemic, assuming that staying at home will prevent the disorder. Paradoxically, social isolation, general increase in insecurity, intensification of mental problems (including anxiety disorders and depression in parents), intensification of traumatic events and domestic violence during lockdown, exposure to complications and death caused by Coronavirus infection, increased parental frustration, financial problems, chronic limitation of social contacts outside the family, long-term removal from school and peers may generate separation anxiety. It will be particularly difficult for children with separation anxiety to return to school after lockdown.

Prolonged stay at home, without stimulation to undertake activities outside, promotes the consolidation of avoidance behaviors and the risk of refusal to attend school.

It is necessary to provide early psychotherapeutic interventions to this group of children and their families, and to prepare school staff for the upcoming problems after the schools are opened.

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