

Psychopathological problems related to the COVID-19 pandemic and possible prevention with music therapy

Wolfgang Mastnak^{1,2} 

¹Research Centre for Arts Therapies, Beijing Normal University, Beijing, China

²University of Music and Performing Arts, Munich, Germany

Correspondence: Wolfgang Mastnak, Hochschule für Musik und Theater München, Arcisstraße 12, München 80333, Germany.
Email: wolfgang.mastnak@hmtm.de

1 | INTRODUCTION

COVID-19 is having a profound effect on societies worldwide and the impact that it is having on children cannot be underestimated. Although Brodin¹ stated that the disease tends to be mild in children, psychopathological considerations allow us to assume that the pandemic will have a high risk of long-term paediatric psychiatric sequelae and interdisciplinary preventative measures are needed.

Psychopathological sample analyses² show that experiencing natural disasters has an impact on the mental health of children and increases their risk of mental disorders in adulthood. Children's awareness of disasters is affected by how their parents react and interact with them, as well as social factors.³ Given that the COVID-19 pandemic is a global disaster, public health, education and social systems need to work together to minimise the mental sequelae in the younger generation.

2 | REACTING TO THE PANDEMIC: THE FOUR KEY STAGES

Comparative analyses and considerations based on inferential reasoning suggest that this pandemic will involve four substantially different phases with regard to child mental health.

The first is the acute phase, when children become aware of national and local cases and steps are taken to limit the spread of the disease. Changes like lockdowns and school closures can trigger acute stress reactions and adjustment issues and children can exhibit insomnia, paranoid traits and disruptive behaviour as they attempt to cope with the strain. They can also be very scared and experience suicidal feelings.

This is followed by the subacute phase. It has been suggested⁴ that the global impact of COVID-19 is likely to last for several years. Our lives need to adapt to changed social circumstances, and this could result in pathological habituation, ongoing anxiety and delusional ideas. Children could suffer post-traumatic stress disorders that adversely affect developmental processes, personal growth and cognitive factors, such as concentration and reduced motivation to achieve goals.

Next comes the post-traumatic phase, which the author estimates to last for about three years. Depending on children's resilience and/or susceptibility to stress, this could give rise to self-protective attitudes and personality features, as well as mental health issues such as post-traumatic stress disorders or depressive and avoidant personality traits.

Finally, there is the effect phase. In common with other traumata resulting from disasters, adverse experiences with COVID-19 could come back to haunt individuals after several relatively symptom-free decades, and this could affect their minds and harm their quality of life. The effect phase mainly concerns adult psychiatry and psychogeriatrics.

It is critical to understand the complex way that a child's mind responds to acute and persistent calamities, by interacting with developmental factors and personality traits. This can manifest in various positive and negative phenomena such as creative acts or nightmares.⁵

3 | WHAT CHILD MENTAL HEALTH ISSUES CAN WE EXPECT?

According to differential pathopsychology, we have to take children's psychopathological susceptibility and specific dispositions to

mental disorders into account. COVID-19 measures need to be carefully designed to avoid adverse psychosocial experiences that can lead to severe symptoms. This calls for adequate screening by public health bodies and educational systems.

We can expect positive and negative attitudes to emerge and these will depend on many factors. These include cultural backgrounds, children's personalities, environmental changes and their perceptions of the lack or harmony between the life they had before the pandemic and their changing self-image and life plans. Some children may regard the new situation as a challenging opportunity, while others will see it as a destructive blow of fate that may even induce suicidal ideation. From a cognitive psychological point of view, particularly vulnerable children will need support to modify the way they think and to how they fit in with changes to their culture and society.

It is also important to look out for communication apprehension and schizoid-schizotypal patterns. Through consolidation and habituation, experiences with forced isolation could lead to social phobias and self-imposed withdrawal. These psychopathological developments may even lead to new diagnoses. These could include intertwined characteristics of schizotypal and schizoid personality disorders, which manifest as emotional coldness and detachment, discomfort in social situations and inappropriate paranoid fears of being contaminated by others.

There is some evidence of structural similarities between anxiety and obsessive-compulsive disorders and the COVID-19 pandemic could lead to fears that restrict children's behaviour. These could include phobias about getting infected, compulsive hand-washing and disinfection, the need to escalate self-control and avoiding contact with others. Some children will display conscientious behaviour that is in line with relevant hygiene guidelines, but others will demonstrate compulsive self-protection and self-isolation and an excessive fear of getting infected. Owing to possible interdependencies between acute behavioural reactions and individual features, these phenomena could turn into strikingly irritating personality traits.

Issues of pseudo-adjustment and self-abandonment may also emerge. From the perspective of cognitive behavioural psychology, vulnerable children are at risk to experience COVID-19 regulations as correctional means or punishment. Related adjustment processes are likely to cause adverse impacts on the child's will and self-determination or even result in self-abandonment. The experience of such measures can cause disorientation, learned helplessness and dependence that go way beyond the intentions of the public health messages. It is vital that children are educated about the risks, and how to manage them, in a way that makes them feel empowered and in control and avoids irrational panicking.

Distinction between reality and imagination will also play a role. Both epistemology and neurocognitive sciences emphasise the crucial difference between one's own mind and the external world, in terms of philosophy the impossibility of objective knowledge independent from individual subjectivity. Our central nervous system processes external stimuli, and this shapes how we see the world and our natural and social environment. This includes disasters. Children also have an immense power of imagination and fantasy that shape

their very own reality. This includes features that frighten and potentially traumatise them. Their individual understanding of COVID-19 and how it has changed their lives is likely to cause anxiety and the desperate impression of being at the mercy of an invisible enemy. It is hard for others to identify what triggers this trauma, such as words, facial expressions or an atmosphere brimming with panic.

Non-psychotic paranoia and haunting assumptions must also be considered. In the James Bond film *Tomorrow Never Dies*, the villain Elliot Carver says that 'There's no news like bad news'. This also applies to how the media have portrayed the pandemic. Repetitively shocking headlines are likely to seriously harm children's mental balance and trigger panic and non-psychotic paranoia. Children have enormous creativity that enables them to fashion their own world and invent stories that turn into haunting realities, such as nature's revenge, God's punishment, escaped bioweapons, economic breakdown and Big Brother watching them. At the same time, they are strong when it comes to coping with external threats. These both contradictory and complementary aspects of creativity are challenging for child psychiatry and education.

4 | PREVENTIVE MEASURES

Child psychiatry and child psychotherapy provide efficient means to treat the psychopathological sequelae of COVID-19, but these will not reach all children who are susceptible to those threats and/or, those with unreported issues or subclinical symptoms.

Schools are the only institutions that can reach all children and public health and health promotion bodies need to work with them to develop educational interventions to handle the psychopathological threats and sequelae that children may face from COVID-19. Beijing Normal University, Moscow State Pedagogical University and the University of Munich are developing preventative measures that can be used by education providers, including in-service-training for teachers. We have to consider the pandemic may also affect developing countries without advanced education and paediatrics, hence the need of international support.

Although the whole spectrum of school subjects is being considered by these universities, there is an explicit focus on educational models that are tailored to the specific issues associated with COVID-19. These include physical and arts education, with a particular emphasis on music, including music therapy and music-oriented medical sciences. Music has been chosen for a number of reasons.

There is some medical evidence that music has a positive influence on the immune system, which has direct implications for life during the pandemic. Experiences in other medical disciplines suggest that even being aware that this can work can boost the immune system. Singing therapy is already used to improve respiratory issues, like asthma, and this could alleviate symptoms if children are infected and experience breathing issues.

Inner calmness, activation of autotherapeutic potential and psychosomatic rebalancing are key issues in music therapy. Various

approaches help to reduce stress and to break through obsessive-compulsive structures. Particularly in analytic music therapy and expressive arts therapies, creative transformation of traumata, artistic expression and catharsis play a crucial role and help when traumata are hard to access.

Music therapy can help children who are socially shy or hostile, as it can enhance their empathy and readiness to communicate. Creativity is also a driving force behind the individual therapeutic solutions used in child psychotherapy. From a neuroscientific perspective, creative processes are interdependently linked to the brain's default mode network, hence the both artistic and neuro-psychological value of music. Furthermore, neuro-aesthetic and cultural-anthropological findings suggest therapeutic and health-promoting effects of 'beauty'.

Community music therapy may also be useful for self-help groups dealing with the immune system in health and disease. Interdisciplinary collaboration will be required and should include mindfulness, which has become a psychiatric standard.

These approaches are all designed to help children regulate their own emotions and take care of their immunological health.

5 | RESEARCH CHALLENGES

Improving adjustment and resilience in children following disasters⁶ call for immediate and interdisciplinary research. Multi-modal approaches need to combine prospective and meta-synthetic research, cross-sectional and culturally sensitive studies, quantitative evidence-based medical and qualitative in-depth investigations. There also needs to be collaboration between schools of thought,

such as cognitive behavioural and psychoanalytic approaches. Since COVID-19 and its psychopathological sequelae are a global concern, both Western medicine and ethno-medical approaches are called into play.

ACKNOWLEDGEMENT

None declared.

CONFLICTS OF INTEREST

The author has no conflicts of interest to declare.

ORCID

Wolfgang Mastnak  <https://orcid.org/0000-0003-4632-5639>

REFERENCES

1. Brodin P. Why is COVID-19 so mild in children? *Acta Paediatr.* 2020;109(6):1082-1083.
2. Maclean JC, Popovici I, French MT. Are natural disasters in early childhood associated with mental health and substance use disorders as an adult? *Soc Sci Med.* 2016;151:78-91.
3. Pfefferbaum B, Jacobs AK, Houston JB, Griffin N. Children's disaster reactions: the influence of family and social factors. *Curr Psychiatry Rep.* 2015;17(7):57.
4. Kissler SM, Tedijanto C, Goldstein E, Grad YH, Lipsitch M. Projecting the transmission dynamics of SARS-CoV-2 through the postpandemic period. *Science.* 2020. <https://science.sciencemag.org/content/early/2020/04/24/science.abb5793>
5. Secrist ME, Dalenberg CJ, Gevirtz R. Contributing factors predicting nightmares in children: trauma, anxiety, dissociation, and emotion regulation. *Psychol Trauma.* 2019;11(1):114-121.
6. Grolnick WS, Schonfeld DJ, Schreiber M, et al. Improving adjustment and resilience in children following a disaster: addressing research challenges. *Am Psychol.* 2018;73(3):215-229.