



# Development of conduct disorder in post-Covid period due to excessive use of social media: a case report

## Abstract

**Background:** The Covid-19 pandemic imposed significant challenges on adolescents, impacting their mental health and behaviour. This case study aims to elucidate the development of conduct disorder in a 14-year-old girl linked to excessive social media use during the post-pandemic period. The study delves into the interplay between environmental stressors, technology exposure, and resultant behavioural changes in vulnerable populations. **Case description:** The case involves a previously well-adjusted adolescent girl whose behavioural shift emerged concurrently with increased multimedia exposure during online schooling necessitated by the pandemic. Excessive social media engagement led to academic decline, conflicts at home, and ultimately, a diagnosis of conduct disorder. The patient's fixation on mobile phones intensified, leading to severe behavioural disturbances, including theft, manipulation, and suicidal tendencies. **Conclusions:** The case highlights the profound impact of environmental stressors, particularly the influence of increased multimedia exposure during the post-Covid period, on adolescent mental health. It underscores the intricate relationship between technology use, susceptibility to addictive behaviours, and the exacerbation of conduct disorder symptoms.

**Keywords:** Adolescent mental health, Behavioural issues, Environmental stressors, Technology exposure

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## INTRODUCTION

Adolescence is a period marked by the interplay of temperament and environmental factors, often modulated by genetic influences. While these fluctuations tend to normalise under favourable circumstances, extreme conditions like calamities, adverse environments, and prolonged challenges can significantly alter temperament. In case of prolonged and extreme condition, there can be chance for more firm temperament changes. In this particular case, a young patient faced various difficulties during the Covid-19 pandemic, including issues related to family income, schooling disruptions, and increased multimedia exposure. This led to a significant shift in her temperament, prompting her admission for management.

## CASE REPORT

A 14-year-old girl from an urban Hindu family of middle socioeconomic status presented in psychiatry outpatient department (OPD) with complaints of physical harm towards family members, destruction of property, telling lies more often to get the desired outcome, truancy from school, running away from home of insidious onset with no restrictive family environment as predisposing and perpetuating factor. These behaviours appeared gradually over the past two and a half years, contrasting her previous well-adjusted nature

where she excelled in studies. The onset coincided with the shift to online classes necessitating mobile phone usage due to the Covid-19 pandemic. Initially managing her online classes responsibly, she was introduced to social media by peers, leading to excessive use and a decline in academic performance.

Despite her mother's attempts to regulate her mobile phone use, the girl continued accessing social media, resulting in conflicts and violence at home. Visiting her maternal grandmother briefly improved her behaviour due to unrestricted access to social media, but upon returning home, her symptoms exacerbated. Her demands for a mobile phone escalated, leading to confrontations and physical altercations with her mother. She was eventually sent to a boarding school where she manipulated others to acquire mobile phones, frequently skipped classes, and faced multiple disciplinary actions.

Her actions escalated to stealing and manipulating money for a mobile phone, resulting in conflicts with the hostel authorities and accusations of theft. This led to a suicide attempt and subsequent hospitalisation. Returning home, her fixation with mobile phones intensified, resulting in extreme behaviours, including damaging phones, attempting to run away, and falsely accusing family members, leading to police involvement.

The family dynamics shifted negatively due to her relentless obsession with mobile phones, despite her prior amicable relationships and good academic performance. Her father held a significant role in decision-making, while her mother primarily cared for her. There was no prior history of mental illness in the family, and her developmental history was unremarkable. She had been academically adept, respectful towards elders, and had healthy relationships with peers and family members before the onset of these issues.

Her general physical examination was found to be within normal limits. Her routine blood investigations did not reveal any abnormal findings.

## Assessment and diagnosis

On the initial mental status examination, the patient displayed heightened anxiety concerning thoughts related to mobile phone use, accompanied by a strong fixation on this behaviour. Notably, there was an absence of remorse regarding her actions. Conner's 3 Parent long version[1] was administered, revealing elevated scores in both conduct disorder and oppositional defiant disorder. Bergen Social Media Addiction Scale[2] indicated a score of 89, reflecting severe addiction to the internet on the day of assessment. Based on the assessment, the primary diagnosis was established as conduct disorder, while oppositional defiant disorder was considered a potential differential diagnosis.

## Treatment approaches

### Pharmacological treatment

The pharmacological treatment consisted of administering a low dose of risperidone (2 mg twice daily) and clonidine (50 micrograms twice daily) to the patient as part of the management plan.

### Non-pharmacological treatment

The non-pharmacological interventions included several psychotherapeutic sessions focused on various aspects of the patient's life. These sessions aimed to address her feelings of a restrictive home environment, her seeking behaviour, associated anxiety, and teaching relaxation techniques and anger management strategies. Additionally, the family members received psychoeducation, and behavioural management approaches such as reassurance, encouragement of normal activities, engagement in physical exercise, and involvement in age-appropriate activities were employed to support the patient's overall well-being and treatment.

## DISCUSSION

The case study of the 14-year-old girl highlights the profound impact of environmental stressors, particularly during the Covid-19 pandemic, on adolescent mental health and behaviour. Her drastic behavioural changes align with previous research findings,[3] highlighting an increase in emotional, conduct disorder, and hyperactivity during the lockdown period compared to pre-pandemic times. The closure of schools, implementation of social distancing measures, and limited stress regulation opportunities have

emerged as critical factors influencing the mental well-being of children and adolescents.[4] Heightened reports of irritability, boredom, anxiety, depression, self-harm, and suicidal behaviour further emphasise the detrimental effects of these stressors on adolescents' psychological health during this period.[5-8]

The case's significance becomes more apparent when considering the role of technology and media in adolescents' lives, especially during the pandemic. The multimedia usage made easy accessibility of study materials and on the other way made trouble of internet addiction and griped them in cybercrime. Often long-term internet addiction changes the behaviour, social interaction, and study performance. In this case, this adolescent girl often loses her study performance, had changes in her behaviour which fulfilled the criteria of conduct disorder which led her and her parents to face social criticism. While media use can also serve as a coping mechanism and a means to maintain social connections, as indicated by previous studies,[9,10] it also poses risks for individuals susceptible to addictive behaviours or psychological distress, aligning with existing research.[11,12] In this case, the introduction to social media and excessive mobile phone usage coincided with the onset of maladaptive behaviours in the patient, leading to an addiction to the internet and exacerbating her conduct disorder symptoms.

The case study highlights the delicate balance between the benefits and risks associated with media use, especially in vulnerable populations like adolescents facing prolonged stressors. The scarcity of counselling and awareness programme lead many children and adolescent away from their study and even changes their disorder in temperament. This study underscores the need for a nuanced approach in managing technology exposure, considering its potential role as both a coping mechanism and a contributor to addictive behaviours or psychological distress. Furthermore, it emphasises the necessity for early identification of behavioural changes and prompt intervention strategies to mitigate the adverse impacts of stressors, technology use, and behavioural disturbances on adolescent mental health. For this, it needs highly specialised multi-disciplinary management team including psychologist, psychiatrist, and sometimes even legal personnels.

## Conclusion

During post-Covid19, there were several changes in behaviour and other psychological disorder not only found in adult and elderly but even affect temperament of many children and adolescent those persisting since long time.

## Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient has given his/her consent for his/her images and other clinical information to be reported in the journal. The patient understands that his/her name and initials will not be published and due efforts will be made to conceal identity, but anonymity cannot be guaranteed.

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