Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.
Virtual Training Office) resources that faculty and residents can use to promote interactive and team-based discussion with learners (4 minutes). Each session participant will be asked to generate a clinical question and search the available resources for readily available teaching materials. We will use a think-pair-share interactive format to promote audience engagement (7 minutes). We will conclude by discussing the author’s experience developing an expert module for peer review and share how participants may disseminate their own teaching materials (2 minutes). Examples from the case studies will be highlighted as needed to provide emphasis and enhance learning.

**Results:** By the end of the presentation, participants will be able to identify appropriate teaching resources for residents, evaluate the quality of teaching resources, and create teaching resources to assist developing residents as teachers.

**Conclusions:** Through a detailed case discussion and resource review, we will discuss several models of growing residents-as-teachers using informal and formal interactive curriculum resources. Within the case discussion, we will encourage audience engagement and practical skills that can be immediately practiced and discussed with presenters.

**CON, AC, REST**
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### 17.4 ENGAGING LEARNERS: THE DEVELOPMENTAL ASSESSMENT
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**Objectives:** Consultation and liaison psychiatrists are frequently expected to provide clinical care while simultaneously hosting learners from a variety of training programs. This may include medical students, residents, and fellows in addition to other multidisciplinary or midlevel providers who are seeking clinical contact hours in pediatrics or mental health. This session will outline the differences in curriculum development and engagement models necessary when shifting between training medical students, residents, and fellows in a shared learning space.

**Methods:** This session will explore the concrete differences between Undergraduate Medical Education (UME) and Graduate Medical Education (GME) requirements. A model of lesson planning based on milestone acquisition will be outlined with special attention given to the dynamics of the learning environment inherent to a bustling and unpredictable child and adolescent psychiatry consultation service. We will also explore opportunities to reflect on whether a given learner perceives themselves as being both valued and challenged in the clinical learning environment. Finally, we will look at ways to assess whether the clinical exposure opportunities being provided adequately fill the knowledge gaps identified in a learner’s developmental assessment.

**Results:** Participants will be able to conceptualize the curricular differences inherent to UME and GME learners using a developmentally centered approach to maximize engagement.

**Conclusions:** Pediatric consultation and liaison psychiatrists are well positioned to provide high-impact learning opportunities to trainees from a number of academic programs. While some learners may be eager to engage, others may require a more structured approach to maximize engagement. Creating a positive learning environment requires intentional emphasis on the developmental assessment of the learner.

**AC, CON, REST**
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### CLINICAL PERSPECTIVES 18

### COVID-19 AND TIC DISORDERS: A STORY IN MOTION
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**Objectives:** Chronic tic disorders (CTD), including Tourette’s disorder (TD), are childhood-onset, neuropsychiatric disorders characterized by tics. Youth with CTD are often burdened with increased psychosocial and educational challenges, which have been further compounded by the COVID-19 pandemic. Additionally, increases in tic-like behaviors in youth worldwide have been reported.

**Methods:** This Clinical Perspectives will begin with a case presentation illustrating the experience of a teen with underlying TD and new-onset functional tic-like symptoms as she navigates school, friends, self-medication, and family life during the pandemic. Then, our 3 expert panelists will give a series of talks utilizing case examples. Molly Colvin, PhD, will cover the cortical circuitry implicated in CTD and the impact of the COVID-19 educational disruption on neuropsychological development. She will also describe issues in education advocacy and strategies to help support youth with CTD and their families during the pandemic. Cathy Budman, MD, will review the reported increase in functional tic-like behaviors during the pandemic and discuss approaches to differentiate CTD from tic-like behaviors, as well as treatment implications. Anthony Rostain, MD, will discuss how the pandemic has impacted the already challenging typical developmental tasks of adolescence and young adulthood, including the risk of “self-medication.” Finally, Barbara Coffey, MD, will provide a discussion integrating these related topics, as well as broach the complex relationship between COVID-19 and PANS symptoms in those with TD. There will be ample time provided for a panel question-and-answer session as well as some opportunities for audience case presentations and discussion.

**Results:** The COVID-19 pandemic has had significant psychosocial impacts on youth worldwide, including increased challenges for those with CTD and increased reports of tic-like behaviors in transitional-aged youth.

**Conclusions:** This Clinical Perspectives highlights from a biopsychosocial perspective the many ways that the COVID-19 pandemic has impacted youth with typical CTD and also those presenting with tic-like behaviors. This group of TD specialists will examine the complex clinical and educational challenges for diagnosis and treatments during the pandemic and will offer helpful strategies to meet these challenges.

**TICD, MOVE, NEURODEV**
https://doi.org/10.1016/j.jaac.2022.07.108

### 18.1 BEWARE OF COVID-19 ROADBLOCKS ON THE FRONTOSTRIATAL HIGHWAY: IMPLICATIONS OF THE COVID-19 PANDEMIC FOR YOUTH WITH TIC DISORDERS
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**Objectives:** The neuropsychological profile of youth with chronic tic disorders (CTD) is characterized by an interaction between cognitive, motor, and emotional regulation skills. This triad can be linked to dysregulation within 3 parallel pathways comprising the cortico-striatal-thalamo-cortical (CSTC) network, and it likely accounts for high rates of comorbidity with CTD and OCD and ADHD. Youth with CTD may also be more vulnerable to learning, social, and other mood difficulties, and they may be at more risk of these challenges because of the COVID-19 pandemic. Disrupted educational access has increased the risk of learning difficulties and complicated their diagnosis and remediation, while also increasing the risk of social isolation and mental health concerns.

**Methods:** The talk will draw from published literature and clinical experience. The neurocircuitry of CTD will be reviewed, emphasizing the relationship to behavior and development. Then the model will be discussed in relation to the COVID-19 pandemic, identifying additional risk factors as points of intervention for youth with CTD.

**Results:** The neuropsychological profile of youth with CTD is characterized by increased risk of behavioral, emotional, social, and learning difficulties. This risk has been compounded by the COVID-19 pandemic, and even more so for those who are also impacted by cultural disparities.
Conclusions: Youth with CTD are at even greater risk of neuropsychiatric comorbidity because of the COVID-19 pandemic, and many will need more learning, social, and emotional supports in the years ahead.

NEPSYC, EDUC, TICD
https://doi.org/10.1016/j.jaac.2022.07.109

18.2 NAVIGATING THE PANDEMIC SCHOOL EXPERIENCE IN YOUTH WITH TOURETTE’S DISORDER
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Objectives: Chronic tic disorders (CTD), including Tourette’s disorder, frequently present with co-occurring mental health conditions, and are most commonly diagnosed during the elementary or middle school years. In 2004, as a result of the advocacy efforts of the Tourette Association of America, Tourette’s disorder was included in the Individuals with Disabilities Education Act (IDEA) under the definition of Other Health Impairment (OHI). However, students with Tourette’s disorder and CTD unfortunately still struggle to receive the accommodations and services that they need to succeed in academic and social settings. The pandemic and remote learning brought into focus many additional issues affecting these students and demonstrated the need for a different level of understanding, accommodations, and planning for return to school.

Methods: Educational accommodation laws and guidelines as they pertain to Tourette’s disorder, CTD, and related disorders will be reviewed. Following that, the speaker will describe actual case examples highlighting the challenges experienced by students in academic settings (remote and in-person) during the pandemic, and the accommodations that were ultimately successful.

Results: Students with CTD experience multiple academic and social challenges. The pandemic brought into focus new issues affecting school success for these students. Working with educational advocates and learning to become their own self-advocates help enable these youth to obtain the appropriate accommodations and resources necessary for their success.

Conclusions: Family members and individuals diagnosed with CTD, as well as physicians, allied health professionals, and school professionals, need to be well-informed in order to be equipped to be advocates for individuals with Tourette’s disorder to ensure school success.

TICD, EDUC, ADV
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18.3 A TIC OR NOT A TIC, THAT IS THE QUESTION
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Objectives: Over the last 1 to 3 years, coinciding with the COVID-19 pandemic, there have been increased reports of new, sudden-onset tic-like behaviors in adolescents/transitional-aged youth. Functional tic-like behaviors are a well-described phenomenon and have been reported to occur endemically, such as the outbreak of tic-like behaviors in Le Roy, New York in 2012. During the COVID-19 pandemic, increased reports of such symptoms emerged worldwide. In some cases, typical tics may present alongside such tic-like behaviors, posing diagnostic and treatment challenges. Approaches for distinguishing tic-like symptoms from typical tics will be reviewed, and the roles of social media as well as social isolation will be considered. Treatment strategies for managing both typical tics and tic-like behaviors will be discussed.

Methods: Cathy Budman, MD, will provide case examples and highlight the current literature addressing the surge of tic-like behaviors in youth during the COVID-19 pandemic. Approaches for evaluating and distinguishing typical tics from tic-like behaviors will be presented along with strategies for effective treatment.

Results: Over the past 1 to 3 years, there has been a surge in reports of functional tic-like behaviors. Functional tic-like behaviors can be distinguished from typical tics in most cases, although both conditions may coexist. Clinical and family history, as well as state and trait factors, can help differentiate between these 2 conditions. Treatment of typical tics and tic-like behaviors may include similar and disparate approaches.

Conclusions: Multiple factors appear to contribute to the increased observations of functional tic-like behaviors worldwide. Acute pandemic-related stressors, increased access to social media, and influencers with reported Tourette’s disorder/social contagion, social isolation, and greater rates of anxiety/depressive disorders may all play a role. Typical tic exacerbations during COVID-19 do occur and require evidence-based treatments. In contrast, the treatment of tic-like behaviors does not usually include medication management, and instead should focus on the associated underlying stressors/conditions. Regardless of the etiology, youth with tics, functional tic-like behaviors, or both, will likely benefit from gold-standard behavioral tic treatments and increased psycho-social-educational support.

TICD, MOVE, COPI
https://doi.org/10.1016/j.jaac.2022.07.111

18.4 “STUCK INSIDE OF MOBILE WITH THE COVID-19 BLUES AGAIN”: HOW ADOLESCENTS AND YOUNG ADULTS WITH CHRONIC TIC DISORDERS HAVE BEEN AFFECTED BY THE PANDEMIC
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Objectives: The objectives are: 1) to educate attendees regarding the complex challenges facing youth with tic spectrum disorders (TSD), which includes chronic tics and related disorders such as OCD and ADHD, during the COVID-19 pandemic; and 2) to provide a framework for clinical work with youth with TSD and their families.

Methods: This presentation reviews the developmental tasks of adolescence, particularly that of separation/individuation, and discusses the challenges that the COVID-19 pandemic poses for youth with TSD and their families. Throughout the various phases of the pandemic, youth with TSD have been especially vulnerable to both the anxiety of catching COVID-19, and the limits imposed by social distancing, virtual learning, increased screen time, and diminished opportunities for autonomy.

Results: During the lockdown phase, the pandemic delayed separation/individuation by reducing opportunities for youth with TSD to practice self-management skills. For some, this provided room for growth because it allowed parents to understand their children’s difficulties and provide scaffolding; for others, this was problematic because it led toward parental over-functioning and micromanaging, further slowing the youth’s ability to practice self-management and self-control. In some cases, youth experimented with “medical marijuana,” which is particularly complicated because preliminary evidence suggests that cannabis may indeed alleviate tics despite its negative potential adverse effects. It is especially important for clinicians to engage patients and parents in constructive, problem-solving sessions that promote open communication, balancing of autonomy and accountability, flexibility, and modeling of resiliency skills.

Conclusions: Assessing the impact of the pandemic on patients and families and addressing these challenges through an iterative set of evidence-based family-centered interventions can promote learning opportunities for the adolescent to practice self-management and for the parents to accept youth’s need to separate and individuate from the family system.

TICD, FAM, ADOL
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