ADHD Diagnosis: the good, the bad, and the TikTok

Choosing Wisely in Paediatrics

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Disclosure

No financial conflicts of interest.

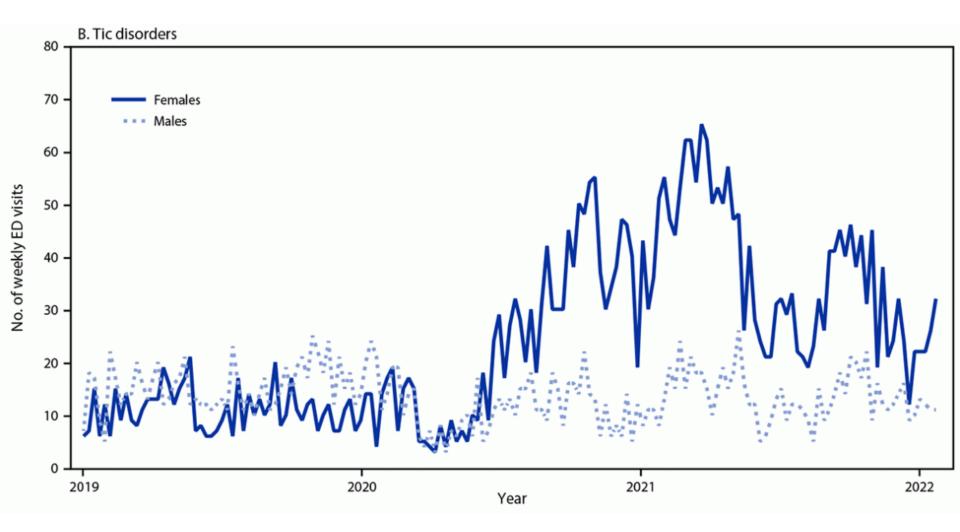
Learning Objectives

- 1.Describe the utility, and pitfalls, of an ADHD diagnosis
- 2.Describe the evidence for ADHD overdiagnosis
- 3.Describe the role of social media in social contagion
- 4. Consider the role of sociocultural factors in the diagnosis of ADHD

Dx Utility

- Communication
- Validation
- Prognosis
- Management

CDC National Syndromic Surveillance Program



Tics, TikTok and COVID-19

Rob J Forsyth 💿

In grappling with COVID-19, the world has been relearning many lessons—from second waves to the importance of mask wearing—from that neglected tutor, the great 1918 ('Spanish') influenza pandemic. For neurologists, 1918 produced an additional unforgettable lesson in postinfectious neuropathology as an outbreak of encephalitis lethargica left cohorts of institutionalised adults living with severe Parkinsonism into the 1970s and immortalised in Oliver Sacks' Awakenings.

Mindful of this story, systematic efforts to capture and report neuropsychiatric sequelae of COVID-19 were put in place at the outset of the pandemic and, in contrast to 1918, where a single syndrome predominated, a complex picture including intracerebral haemorrhage, infarction and inflammation is emerging. 1

Our understanding of the links between inflammation, the brain and behaviour has a long and controversial history, particularly in relation to movement disorders. was probably more important than postinfectious processes.

Against this background, Heyman et al3 highlight their experience of a marked increase in referrals of young people with severe acute exacerbations of tics during the COVID-19 pandemic, an experience I and anecdotally others share. They strongly favour a functional aetiology for these cases, driven by the introcontrovertable mental health toll on young people of the pandemic and lockdown. If we are to avoid the arid mind versus body, psychology versus cytokines debates that have bedevilled this and related fields for so long, proponents on each side need to generate truly falsifiable hypotheses amenable to experimental testing. In this the 'functional' proponents have arguably had more success recently. For too long, functional diagnoses were seen as diagnoses of exclusion, a last resort when no 'medical' explanation could be found Cush possetive framines are rightly

chorea) but as with the dancing mania phenomenon of the Middle Ages, 'social contagion' provides another mechanism, and the role of social media highlighted by Heyman *et al* suggests some directly testable hypotheses that could be the focus of further research in this latest twist in the long story of inflammation and the mind.

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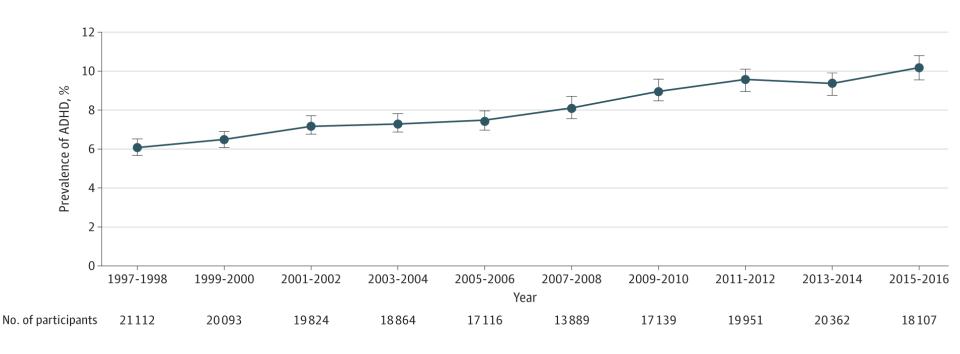


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ADHD trends

Interest over time Google Trends adhd 100 -Feb 1, 2014 Dec 1, 2020

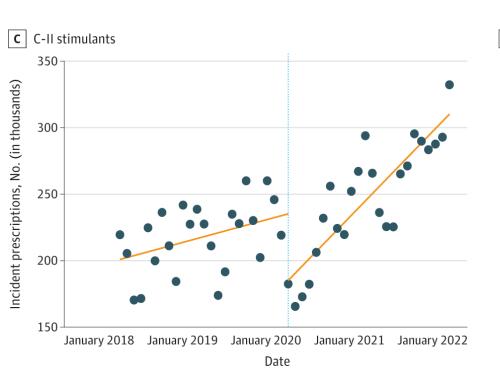
ADHD Dx trends...

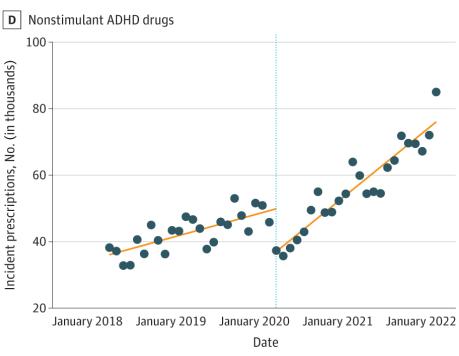


...ADHD Dx trends

Study name	Statistics for each study							Std diff in means and 95% CI		
	Std diff in means	Standard error	Variance		Upper limit	Z-Value	p-Value	Rela weig		
Babore et al., 2021	0.577	0.053	0.003	0.473	0.681	10.887	0.000	+ ;		
Bosch et al., 2022 A	0.343	0.054	0.003	0.238	0.448	6.389	0.000			
Bosch et al., 2022 B	0.331	0.046	0.002	0.240	0.421	7.141	0.000	5		
Bramanti et al., 2022 A	-0.002	0.134	0.018	-0.264	0.260	-0.018	0.986			
Bramanti et al., 2022 B	0.479	0.145	0.021	0.195	0.763	3.303	0.001	- 2 24		
Breaux et al., 2021	0.123	0.029	0.001	0.066	0.180	4.241	0.000	-0-		
Cellini et al., 2021	0.231	0.059	0.003	0.116	0.346	3.942	0.000	—o— s		
Daniunaite et al., 2021	0.208	0.052	0.003	0.107	0.309	4.032	0.000	—— s		
Hu & Qian, 2021	-0.043	0.034	0.001	-0.109	0.023	-1.289	0.197	- 		
Kawaoka et al., 2021	0.181	0.092	0.008	0.001	0.361	1.974	0.048	 		
Kohler-Dauner et al., 2021	0.371	0.109	0.012	0.157	0.585	3.405	0.001			
Murray et al., 2022	-0.098	0.022	0.000	-0.140	-0.056	-4.548	0.000	-0-		
Raghunathan et al., 2022	0.401	0.155	0.024	0.097	0.705	2.588	0.010			
Salcem et al., 2022	0.668	0.202	0.041	0.272	1.064	3.309	0.001	3		
Soriano-Ferrer et al., 2021	1,237	0.235	0.055	0,777	1.698	5.268	0.000	 		
Suzuki & Hiratani, 2021	-0.360	0.086	0.007	-0.530	-0.191	-4.176	0.000	 0 		
Tramello et al., 2021	0.429	0.103	0.011	0.226	0.632	4.148	0.000			
Walters et al., 2021	0.214	0.077	0.006	0.063	0.366	2.768	0.006	:		
Wendel et al., 2020	0.308	0.093	0.009	0.126	0.490	3.312	0.001			
Zhang et al., 2020	0.458	0.068	0.005	0.325	0.591	6.764	0.000			
	0.270	0.057	0.003	0.158	0.382	4.723	0.000			

ADHD Rx trends





Evidence for Overdiagnosis

- Incr Dx (45 studies)
- Milder Sx (25 studies)
- Incr Rx (83 studies)
- Sociocultural effects (104 studies)
 - Subpopulation effects: sex, SES, race, age, location
 - Dx criteria broadening
 - Decr behaviour tolerance

TikTok Social Contagion

- Tourette syndrome
- ADHD
- Dissociative identity disorder
- Dissociation
- Eating disorders
- Autism
- Gender identity
- Bipolar disorder

- Self-injurious behaviour
- Suicidality
- Anxiety
- Depression
- Borderline personality disorder
- Functional neurological disorder
- Neurodivergent

TikTok accidentally detected my ADHD. For 23 years everyone missed the warning signs

Matilda Boseley



Learning you have ADHD on TikTok is now such a common phenomenon it has become its own meme, but it can be tricky

These Calgarians say TikTok told them they had ADHD – turns out, they do



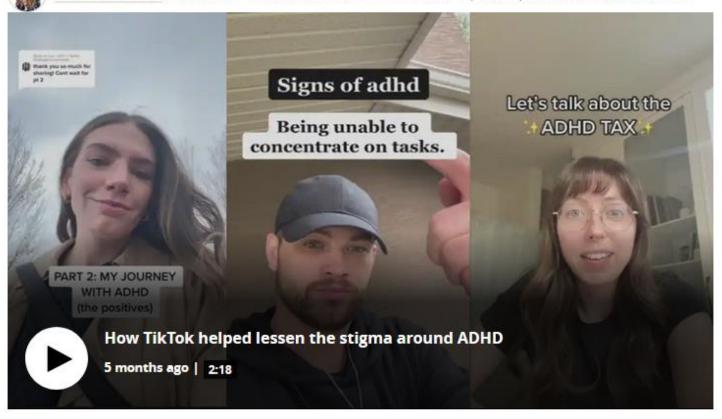






Psychologists say more young adults are seeking assessments thanks to TikTok

Lucie Edwardson · CBC News · Posted: Nov 07, 2022 7:00 AM EST | Last Updated: November 7, 2022



Because of TikTok, more young adults are learning about ADHD, its symptoms and seeking assessments for the disorder.

How TikTok helped lessen the stigma around ADHD

5 months ago | News | 2:18

Because of TikTok, more young adults are learning about ADHD, its symptoms and seeking assessments for the disorder.

I just started to have all these like aha moments, and even hearing people talk about the same kind of things I was struggling with: sleep issues, brain fog, daytime fatigue

TikTok ADHD

- 4.3 billion views "#adhd"
- 100 most popular videos total > 280 million views
- 52 misleading (27 personal experience, 21 useful)
 - "ADHD paralysis", where the brain "physically won't let me do anything"
 - lack "object permanence."
 - "anxiety shivers," "random noise making," and "being competitive"
 - "only either understimulated or overstimulated" and "lack dopamine."

TikTok ADHD

#adhd

35.9B

TikTok is enabling predatory

ADHD advertisers to target young

users

WRITTEN BY OLIVIA LITTLE

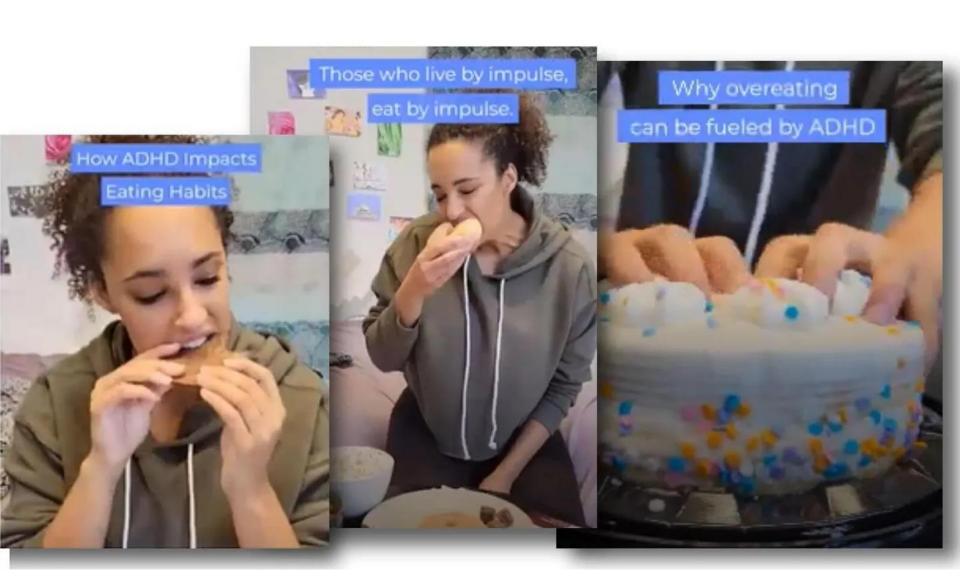
RESEARCH CONTRIBUTIONS FROM GIDEON TAAFFE, KAYLA GOGARTY & ABBIE RICHARDS

PUBLISHED 02/08/22 11:52 AM EST

SHARE COMMENT

xyf 🖨 🤊

A swarm of advertisements encouraging attention deficit hyperactivity disorder (ADHD) self-diagnosis and medication have appeared on TikTok in recent weeks, potentially violating the platform's medical misinformation policy. TikTok seems to be prioritizing profit over the safety of its young user base by allowing companies to promote medication for a broad set of symptoms, such as being "chatty."



ADHD assessments from the NHS and private clinics

Clinic	NHS	Harley Psychiatrists	ADHD 360	ADHD Direct	
E Cost	£0	£685	£950 (annual subscription)	£1,095	
Assessment duration	More than 3 hrs	45 mins	1 hr 15 mins	1 hr 40 mins	
Diagnosis	No	Yes	Yes	Yes	
Drug prescription	No	Yes	Yes	Yes (offered)	

Source: BBC Panorama

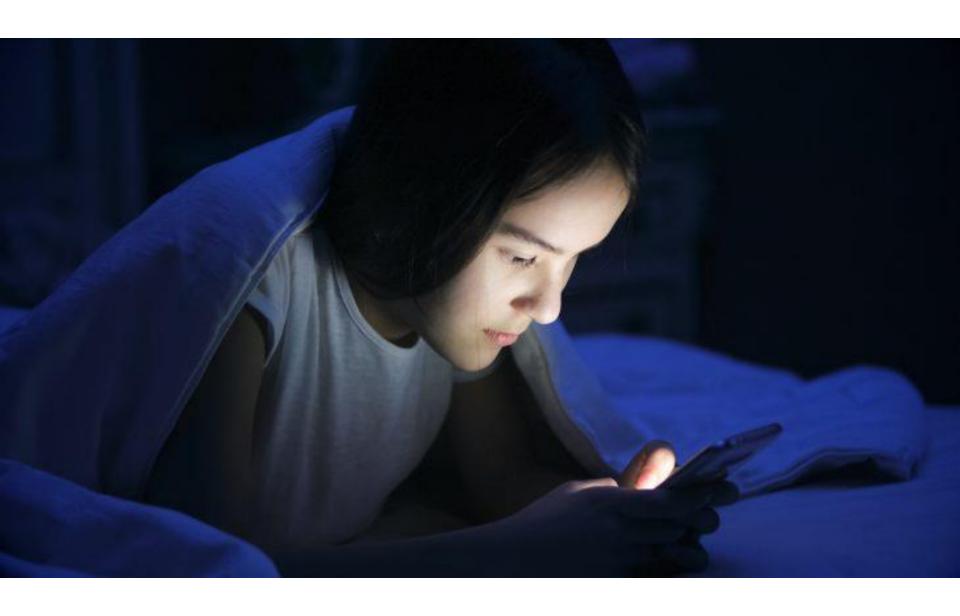
BBC 2023





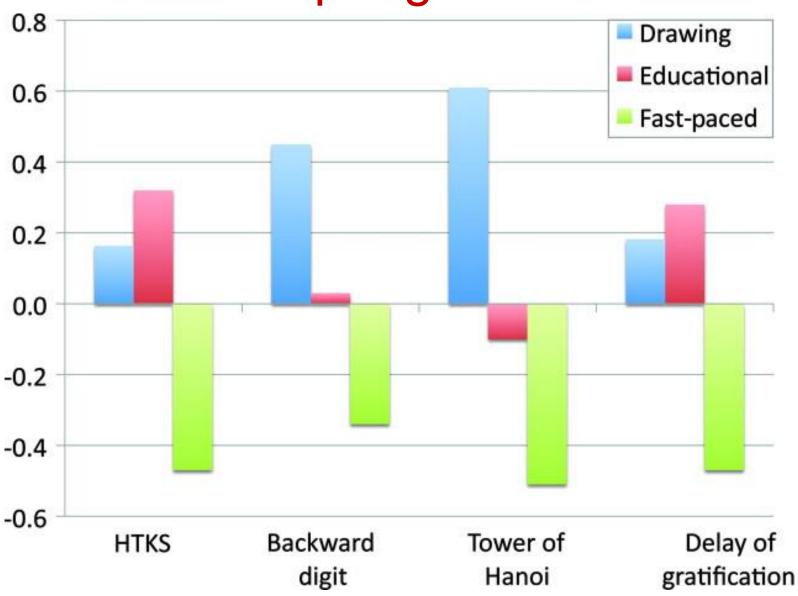


LOOKS LIKE DEPRESSION. SOUNDS LIKE ANXIETY. MIGHT BE ADHD12



Carter et al, 2016

SpongeBob

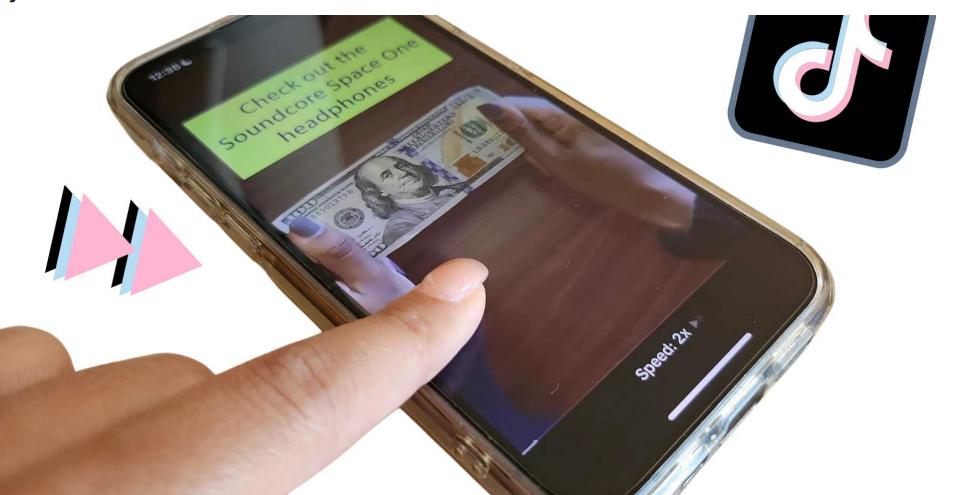


23

TikTok quietly added a fast-forward option, and it's a game-changer

Tired of sitting through lengthy intros or long TikToks? Now you won't have to.

Written by Sabrina Ortiz, Editor Sept. 7, 2023 at 10:39 a.m. PT



ADHD Dx

- What is normal? (Freedman & Honkasilta, 2017)
- Hyperstimulation world (Loh & Kanai, 2016)
- Distractions (Chen & Yan, 2016)
- Online learning/work (Shim & Lee, 2020)
- Sleep deprivation (Carter et al, 2016)
- Stress
- Competitiveness, expectations
- Social contagion, suggestion (Haltigan et al, 2023)
- Marketing
 - Pharma (Schwarz 2013)
 - Private clinics (Little 2022)

Harms

- Illness identity (Kazda et al, 2022)
- Harmful interventions
- Missed opportunities
- Overwhelmed resources

Alternatives

- Thorough Ax
- Lifestyle
 - Media use
 - Sleep
- Behavioural strategies
- Big picture

Questions?

