Results: Of 11,063 posts made during the study dates, 1,305 (11.7%) posts were COVID-related, with an average of 9.2 COVID-related posts per influencer. Each influencer's combined COVID-related content had an average of 44.4 million views and over 8 million likes. Most (81.5%, n=1,064) posts contained behaviors that could be coded for CDC guidelines. Of these posts, 79.4% solely demonstrated behavior following CDC guidelines, with the most frequent being staying at home (n=805) and handwashing (n=50). 7.1% of posts solely demonstrated behavior that did not follow CDC guidelines, with the most frequent being not wearing face cover in public (n=41) or having contact with others outside the household (n=33). Posts that contained a combination of behaviors that followed or did not follow the guidelines comprised 10.3% of the sample. The COVID facts banner was only present in 3% of COVID-related posts.

Conclusions: At the beginning of the pandemic, AYA were felt to be at low risk for severe COVID-19 disease, but were encouraged to follow infection control measures to protect at-risk populations like the elderly. We found that the most popular US TikTok influencers created COVID-related content that reached millions of users on a platform mainly used by AYA. This content usually demonstrated adherence to public health guidance at the time, suggesting positive implications for future health messaging on social media platforms.

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10.

SCREEN TIME AND MODERATE-TO-VIGOROUS INTENSITY PHYSICAL ACTIVITY AMONG ADOLESCENTS DURING THE COVID-19 PANDEMIC: FINDINGS FROM THE ADOLESCENT BRAIN COGNITIVE DEVELOPMENT STUDY

Jason M. Nagata, M.D., M.Sc.[1], Catherine A. Cortez, B.S.[2], Erin E. Dooley, M.S., Ph.D.[3], Puja Iyer, B.A.[1], Kyle T. Ganson, Ph.D., M.S.W.[4], Kirsten Bibbins-Domingo, Ph.D., M.D.[1], Fiona C. Baker, Ph.D.[5], Kelley Pettee Gabriel, M.S., Ph.D.[3]

[1]University of California, San Francisco; [2]University of California, Los Angeles; [3]University of Alabama at Birmingham; [4]University of Toronto; [5]SRI International, University of Alabama at Birmingham.

Purpose: The novel coronavirus 2019 (COVID-19) pandemic and subsequent stay-at-home mandates, remote learning, and social distancing requirements led to changes in nearly all facets of adolescents' lives; however, the pandemic's effect on adolescent screen time and physical activity has not been characterized using national data from the U.S. The aim of this study was to evaluate adolescents' screen use and moderate-to-vigorous intensity physical activity (MVPA) during the COVID-19 pandemic by sociodemographic characteristics, and to determine mental health and resiliency factors associated with screen use and MVPA.

Methods: Data from the Year 1 (2017-2019) and May 2020 COVID-19 survey of the Adolescent Brain Cognitive Development (ABCD) Study, a national prospective cohort study in the U.S., were analyzed. Average hours per day spent on six forms of screen time were summed to calculate a total daily screen time measure, excluding hours spent on school-related work. MVPA was quantified as the product of reported duration and frequency (hours per week; h·wk-1), which was further summarized as the proportion meeting age-appropriate 2018 Physical Activity Guidelines for Americans (i.e., 60 minutes per day). Mental health and resiliency measures were also collected. Regression models examined associations between mental health or resiliency measures and screen time or MVPA during the pandemic.

Results: The sample consisted of 5,153 adolescents predominantly ages 12-13 years, with 50.6% female and 39.5% racial/ethnic minorities. During the pandemic, adolescents reported an average of 7.70 hours of screen use per day, mostly spent on watching/streaming videos, movies, or television shows (2.42 hours), multiplayer gaming (1.44 hours), and single-player gaming (1.17 hours). Median MVPA was 2 hours per week (IQR 0, 6) during the pandemic. Overall, the percentage of the cohort meeting MVPA guidelines decreased from 16.1% (pre-pandemic) to 8.9% during the pandemic. Racial/ethnic minorities and adolescents from lower socioeconomic backgrounds reported higher daily screen use and were significantly less likely to meet MVPA guidelines during the pandemic. In adjusted regression models, poorer mental health and greater perceived stress were associated with higher total screen use. Poorer emotional well-being, COVID-related worry, and stress were associated with lower MVPA. More social support and coping behaviors were associated with lower total screen use and higher MVPA during the pandemic.

Conclusions: In this large, national sample of adolescents, we found that average total daily recreational screen use was 7.7 hours per day, representing a doubling of pre-pandemic estimates from the same cohort (3.8 hours). The proportion of those meeting MVPA Guidelines was lower during the COVID-19 pandemic, with significant disparities by race and class. Disparities across racial/ethnic and income groups in adolescents may be due to structural and systemic factors (e.g., built or neighborhood environment, access to resources) – all of which have been amplified in the COVID-19 pandemic. Interventions to promote social support and coping behaviors may reduce screen use and improve MVPA levels among adolescents during and post-pandemic.

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11.

CHANGES IN ADOLESCENT AND YOUNG ADULT (AYA) RELATIONSHIP STATUS DURING COVID19: DATA FROM A 30 COUNTRY SEXUAL AND REPRODUCTIVE HEALTH STUDY

Devon J. Hensel, PhD, MS, FSAHM[1], Linda Campbell, PhD[2], Jennifer T. Erausquin, PhD[3], Kristin P. Mark, PhD[4], The I-SHARE Consortium[5]

[1]Indiana University School of Medicine; [2]University of Antwerp; [3]University of North Carolina Greensboro; [4]University of Minnesota; [5]International Sexual Health And REproductive Health Survey.

Purpose: Important milestones - including romantic/sexual relationship development - were impacted by COVID19 mitigation measures. We examined self-reported change in relationship status before, during and after COVID among AYA who participated in a 30-country survey.

Methods: Data were drawn from the International Sexual Health And REproductive Health Survey (I-SHARE-1), a multi-country, cross-sectional, online study conducted to assess the impact of the pandemic on adult sexual health across the globe. Participants were recruited through local, regional, and national networks (e.g. listservs of professional organizations and international health organizations, social media, etc.) of each country's research team. We drew a sub-sample of AYA (N=7527 18-26 years; 32.3% of the total sample; 60.1% female, 86.1% cisgender, 77.1% heterosexual). We examined 5

categories of relationship status change: 1) unpartnered pre/post; 2) unpartnered pre, new partner post; 3) same partner pre/post; 4) partnered pre, broke up, unpartnered post; 5) partnered pre, broke up, new partner post. Random intercept mixed effects multinomial regression (gllamm; Stata 17.0; all p<.05) adjusted for country-level clustering was used to understand how demographic (age, gender identity, sexual identity, employment status during COVID, mental health, distancing or isolation during COVID) and country-level predictors (income group, Oxford Stringency Index [national response to COVID], Palma Ratio [country-income inequality) and Gender Inequality Index (country-gender inequality) were associated with relationship change.

Results: 15% of AYA had no partner pre/post COVID, 5% were unpartnered pre-COVID with new partner post. 63.3% had the same partner pre/post, whereas 11.3% had a partner pre-COVID, but broke up and had no new partner post-COVID. Less than 5% had a new partner post-COVID after breaking up with their pre-COVID partner. Of those who broke up with their partner, the majority ended during (44.4%) or after (26.6%) COVID-lockdowns, and one-third thought social distancing precipitated the relationship's end. Older (RRR=0.86-0.91), female (RRR=0.32-0.63) and transgender AYA (RRR=0.10-0.37) all had a lower risk, and sexual minority AYA had a higher risk (RRR=1.35-1.51), of being in all status categories compared to being in the same relationship before-and-after COVID. Higher mental health scores were linked to lower probability of being unpartnered pre/post as compared to being partnered pre/post (RRR=0.89-0.82). Social-distancing was associated with a lower risk for pre-COVID unpartnered individuals finding new post-COVID relationships (RRR=0.76) or of partnered individuals breaking up, while ever being in isolation was associated with higher risk of being unpartnered pre/post (RRR=1.20). Higher country income was associated with being unpartered pre-COVID (RRR=0.08-0.12) and higher risk of having a pre-COVID relationship break-up (RRR=1.32). Unpartnered individuals in countries with higher lockdown stringency had a greater probability of finding a new post-COVID relationship (RRR=1.13).

Conclusions: COVID measures were associated with AYA relationships both initiating and ending. Strategies for relationship development/support should be included as part of preparation for future public health emergencies.

Sources of Support: None.

12.

THE IMPACT OF THE COVID-19 PANDEMIC ON ADOLESCENT/ YOUNG ADULT EATING DISORDER PATIENT VISITS: DATA FROM THE NATIONAL EATING DISORDER QUALITY IMPROVEMENT COLLABORATIVE

Sydney M. Hartman-Munick, MD [1], Jessica A. Lin, MD [2], Carly E. Milliren, MPH [1], Paula K. Braverman, MD [3], Martin M. Fisher, MD [4], Jessica M. Jary, DO [5], Diana C. Lemly, MD [6], Rollyn M. Ornstein, MD [7], Alexandra Roche, MD [8], Ellen S. Rome, MD, MPH [9], Elaine L. Rosen, MD [10], Margaret Thew, DNP, FNP [11], Megen Vo, MD [12], Michaela Voss, MD [13], Elizabeth R. Woods, MD, MPH [1], Sara F. Forman, MD [1], Tracy K. Richmond, MD, MPH [1]

[1]*Boston Children's Hospital;* [2]*Cincinnati Children's Hospital Medical Center;* [3]*Baystate Children's Hospital;* [4]*Cohen Children's Medical Center;* [5]*University of Michigan;* [6]*Massachusetts General Hospital;* [7]*Veritas Collaborative;* [8]*Children's Hospital of Orange County;* [9]*Cleveland Clinic Children's Hospital;* [10]*University of California Los Angeles Health;* [11]*Children's Wisconsin;* [12]*Stanford University Hospital;* [13]*Children's Mercy Kansas City.*

Purpose: The COVID-19 pandemic has profoundly impacted the mental health of adolescents/young adults (AYA) globally. Patients with eating disorders (EDs) are no exception, with studies noting worsening ED-related symptomatology (e.g., calorie restriction, binging, purging, excessive exercise) during the pandemic. Though anecdotally, ED programs have felt an increase in demand for ED-related care, there is little empiric evidence to date. We aimed to compare ED-related care pre- and post-onset of the pandemic among AYA in inpatient and outpatient settings using a sample of geographically diverse adolescent medicine programs.

Methods: This study examined data from 11 academic adolescent medicine programs throughout the United States as well as data from one private ED program, which was analyzed separately. Data were obtained as part of the National Eating Disorder Quality Improvement Collaborative, a 25+ site collaborative of adolescent medicine programs. We defined "pre-pandemic" as January 2018-March 2020 and "post-onset of the pandemic" as April 2020-December 2020. We used segmented regression models to examine the trend in monthly volume of patients seeking care for EDs in the inpatient and outpatient settings separately. We compared changes pre- versus post-onset of the pandemic allowing for different slopes in the pre- and post- periods (interaction) and testing for an immediate shift at the time of pandemic related restrictions (intercept). We analyzed data separately for each site and then pooled data from all sites to examine overall trends across sites. For the pooled analysis, we utilized log-transformations to allow for easier comparison of programs of different sizes (i.e., examining relative rather than absolute changes in patient volume).

Results: There was some variability in trends by site. Results from our pooled analysis examining changes in the number of patients requiring medical hospitalization pre- and post-onset of COVID-19 showed a slight increase pre-pandemic of about 1% each month (95% CI: 0.3 to 2% per month; p=0.02). There was an immediate significant decrease of 50% in patients requiring medical hospitalization following onset of the pandemic (95% CI: -67% to -23%; p=0.003). Following this shift, there was a significant average increase in slope of hospitalized patients with EDs of 17% per month (95% CI: 10 to 25% per month; p<0.001). Our pooled analysis examining the number of patients requesting outpatient assessments showed no change pre-pandemic but a significant decline of 71% immediately following onset of the pandemic (95% CI: -88 to -31%; p=0.007), and subsequently an increase of 24% per month on average (95% CI: 11 to 40% per month; p=0.002). In the private ED program, post-onset of the pandemic there was an average of 6 additional inquiries per month (slope=6.3; p<0.001).

Conclusions: We found a significant pandemic-related national increase in both inpatient and outpatient ED patient volume. Given the limitations in ED-related care that existed pre-pandemic, these findings raise concern that existing systems will not be able to meet the current needs. Our results highlight the need to address workforce issues related to ED care as well as improve ED prevention strategies.

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