

Conclusions: These findings call for the development of preventive strategies to mitigate the effect of SMRD in ways that support adolescents' racial justice civic engagement and mental health. Such preventive strategies might include strategies for reducing racial-stress-related responses and substituting healthy behaviors to counter substance use as a coping mechanism for racial stress.

Sources of Support: Croucher, S. M., Nguyen, T., & Rahmani, D. (2020). Prejudice Toward Asian Americans in the Covid-19 Pandemic: The Effects of Social Media Use in the United States. *Frontiers in Communication*, 5, 39. English, D., Lambert, S. F., Tynes, B. M., Bowleg, L., Z.

144.

ASSOCIATIONS AMONG COVID-19 RELATED EXPOSURES, IMPACT OR DISTRESS, AND SELF-RATED HEALTH AMONG ADOLESCENTS AND YOUNG ADULTS

Machiko Minegishi, MD, MPH¹, Alexandra Chretien, BA, MPH¹, Rachele Cox, BS, MPH¹, Elissa R. Weitzman, ScD, MSc¹

¹Boston Children's Hospital Division of Adolescent/Young Adult Medicine.

Purpose: For adolescent and young adult (AYA) cohorts affected by the COVID-19 pandemic, self-rated health may be a parsimonious indicator of wellbeing and marker of future health risk. This study reports about how COVID-19 pandemic-related exposures, individual impacts, and distress predict self-rated health of AYA seen at general and specialty care clinics.

Methods: An electronic cross-sectional survey was administered via REDCap to AYA seen at a general adolescent medicine or specialty care clinic at Boston Children's Hospital from March 2020 to May 2021. Participants completed the COVID-19 Exposure and Family Impact Scales (CEFIS) cataloguing impacts for 5 aspects of emotional and physical wellbeing (scaled range:1-4), exposures as the sum of COVID-19 related events (scale range: 0-32), access which assesses problems obtaining food, medicine, healthcare, or other essentials (scale range: 0-6), self-rated health (over past 12 months), past year substance use, social support, and social demographic characteristics. Multivariate logistic regression was used to assess the probability of reporting worse self-rated health as a function of one unit change in CEFIS scales for all participants and stratified by cohort. We used nested models approach to identify the mechanism through which CEFIS scores operate on the outcome with or without having social support.

Results: Among 462 participants, (average age 19.3 years, 56% female, 58% white non-Hispanic), we found 18% and 27% screened positive for depression and anxiety. "Poor/fair" self-rated health was reported by 17.5%, while 82.5% reported "excellent/very good/good" health overall. The family or self-exposure to COVID-19 cases was reported in 38%, and 25% reported family members were diagnosed with COVID-19 or experienced symptoms. Overall, the mean score for CEFIS exposure was 9.2 (\pm 3.9), CEFIS impact was 2.9 (\pm 0.6), and CEFIS distress was 5.9 (\pm 2.3). A 1-unit increase in the burden of CEFIS impact and CEFIS scales for difficulty accessing essentials was associated with a higher likelihood of reporting "fair/poor" self-rated health (AOR 3.17; 95%CI:1.87- 5.38), (AOR1.72; 95%CI: 1.38-2.15). The effect of pandemic exposure measures on fair/poor self-rated health was attenuated in the presence of social support. (AOR 2.75; 95%CI: 1.60- 4.72), (AOR1.68; 95%CI: 1.34-2.11). In these analyses, having social support was independently associated with a reduced odds of reporting "poor/fair" health (AOR 0.55, 95%CI: 0.32-0.93), (AOR 0.46 95%CI: 0.28-0.78). In the stratified analyses, CEFIS scales indicating worse familial interaction was associated with

reporting "poor/fair" self-rated health (AOR 3.26, 95%CI: 1.68-6.32) only among participants with chronic conditions.

Conclusions: A sizable percentage of AYA reported fair/poor self-rated health during the COVID-19 pandemic and the likelihood of reporting this rose with experience of pandemic related hardships. In overall cohorts, pandemic related difficulties accessing essentials and overall impact was associated with reporting "poor/fair" health. Among youth with chronic conditions, CEFIS scales for familial interaction was associated with reporting "poor/fair" health. Having social support appeared to buffer some of the negative effects of pandemic exposures, underscoring the importance of identifying risk as well as protective mechanisms to protect AYA.

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145.

COPING WITH THE COVID-19 PANDEMIC OVERTIME AMONG DEPRESSED ADOLESCENTS

Tyia Wilson, PhD¹, Daniel Lavage¹, Meredith Wallace¹, Ana Radovic¹
¹University of Pittsburgh.

Purpose: Rates of mental illness diagnoses in youth are increasing, with a concern of contributions to this rise due to the lasting effects of the COVID-19 pandemic. There is sparse research on ways in which depressed adolescents are coping with the COVID-19 pandemic. However, one study found that among non-depressed Chinese adolescents, daily routines and physical activity protected against risks for increased depressive symptoms (Ren et al., 2021). The purpose of this study is to examine the coping strategies utilized by depressed youth during the COVID-19 pandemic and explore the relationship between depression symptoms and coping with the COVID-19 pandemic overtime.

Methods: Adolescents were screened with a patient health questionnaire-9 (PHQ-9; Kroenke, Spitzer, & Williams, 2001) and those with mild or greater depressive symptoms were included in the study. Upon completion of the consent, adolescents were sent an online survey to obtain baseline measures and weekly self-report data. Starting in June 2020, the participants received questions monthly from NIH's Environmental influences on Child Health Outcomes Program regarding the COVID-19 pandemic such as their coping strategies ("What have you done to cope with your stress related to the COVID-19 outbreak?"). Coping strategies were categorized into either effective (e.g., meditation) or ineffective (e.g., substance use) methods. Descriptive statistics were calculated for demographics at baseline, PHQ-9 scores and frequency of coping methods over time. Adjusted and unadjusted linear mixed models were fit to test associations between PHQ-9 scores and quantity of both effective and ineffective coping strategies. Separate models were fit for effective and ineffective coping. Random intercepts were fit for each participant and fixed effects adjusted for time, SES, age and gender.

Results: Data were analyzed from 42 adolescents between the ages of 12-17 (Mage=15.7, 82% female). Within weeks and across participants, the number of effective coping strategies utilized by the adolescents ranged from 0-4 and the number of ineffective coping strategies ranged from 0-6. Eating more was one of the most common ineffective coping strategies reported, ranging from 20-100% of the participants each week. Drinking alcohol (2-33%), smoking and vaping marijuana or other substances (2-33%) were less frequently reported. Reading books and doing puzzles were the most common effective coping strategy (14-67%). Adolescents also reported engaging in family activities (20-60%), meditating (12-100%), talking to health care

providers (13-100%) and volunteering (2-100%). There were no significant relationships with effective coping strategies and depression over time. However, those who reported using two or more ineffective coping strategies had higher depression scores over time than those who used no coping strategies ($B=5.53$, $SE=2.02$, $p=.007$).

Conclusions: Overall, adolescents with a history of depression reported engaging in both effective and ineffective coping behaviors over time with ineffective coping showing association with an increase in depression scores. We also found various types of change over time on an individual level, therefore these data may have further implication on adolescents individually. Interventions helping adolescents understand the relationship between their ineffective coping behaviors and increasing depressive symptoms may help motivate them to decrease these ineffective coping behaviors.

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146.

TRAJECTORIES OF COLLEGE STUDENT MENTAL HEALTH AND WELLBEING DURING THE COVID-19 PANDEMIC

Grace Albright, MA¹, Laurence M. Black, PhD¹, Charisse Graham, MD¹, Angela Stowe, PhD¹, Lisa Schwiebert, PhD¹, Robin Lanzi, PhD¹

¹University of Alabama at Birmingham.

Purpose: College students are at increased risk for mental health concerns, as attending college initiates new stressors such as academic load, leaving home, and peer pressure, placing them at an increased risk for mental health concerns. Prior to the pandemic, mental health disorders were rising in adolescent populations, with a 63% increase in major depressive episodes in the last decade. This is especially concerning when considering that the COVID-19 pandemic contributed to increased stress levels attributed to transition to online learning, isolation, and uncertainty about the future. Herein, the purpose of this study was to examine the longitudinal trajectories of depressive and anxiety symptoms among undergraduate students as a result of the COVID-19 pandemic.

Methods: Participants: The study sample consisted of 81 undergraduate students (Mage = 20.83; 73.13% Female; 60.45% Non-White) at the University of Alabama at Birmingham. Data were collected between August 2020 and April 2021 through monthly electronic surveys. Measures and Procedure: Participants reported frequency of depressive symptoms, anxiety symptoms, and wellbeing in the previous two weeks using the Patient Health Questionnaire-9 (PHQ-9), the Generalized Anxiety Disorder-7 (GAD-7) and the Warwick-Edinburgh Mental Well-Being Scale (WEMWBS). Data Analyses: Unconditional growth models were used to measure the trajectory of depression, anxiety, and mental wellbeing over the data collection period. Changes in individual items from the PHQ-9, GAD-7 and the WEMWBS were also measured.

Results: We found that students increasingly reported feeling tired or having little energy over the course of the study ($p = .03$), while the prevalence of having trouble concentrating decreased ($p = .04$). Male undergraduate students reported an increase in becoming easily annoyed ($p = .04$), while female undergraduate students reported a decrease in feeling tired or having little energy ($p = .03$), and a decrease in having poor appetite or overeating ($p = .04$). Females further reported an increase in feeling useful ($p = .04$) and dealing with problems well ($p = .04$). Undergraduates who self-identified as black, indigenous, people of color (BIPOC) reported increased total wellness ($p = .02$), feeling optimistic about the future ($p < .001$), and

feeling useful ($p = .04$), coupled with a decrease in having little interest or pleasure in doing things ($p = .03$). However, BIPOC students reported an increase in being annoyed/irritable ($p = .02$).

Conclusions: Overall, findings suggest that college students experienced varied effects of the ongoing pandemic on their mental health with an overall theme of recovery. Future research should examine psychosocial factors and resilience measures that may influence these trajectories. Further, researchers should measure the influence of the continued COVID-19 pandemic on college student mental health and wellbeing.

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147.

YOUTH PERCEPTIONS ON THE LONG-TERM IMPACTS OF COVID-19

Sarosh Irani, B.S.¹, Claire Chang¹, Leigh Morrison, M.D.², Marika Waselewski³, Tammy Chang, M.D.³

¹University of Michigan Medical School; ²Department of Family Medicine, University of Michigan; ³Institute for Healthcare Policy and Innovation, University of Michigan.

Purpose: The effect of the COVID-19 pandemic on younger populations is significant and distinct from the experience of older populations. Youths' experiences with, and concerns about, long COVID are particularly important as more young people and their family and friends are infected.

Methods: We conducted a nationwide text message survey of youth aged 14-24 years in the United States. We asked them four questions regarding their experiences and perception regarding the long-term effects of COVID-19. Qualitative data was analyzed independently by two investigators for themes using a modified grounded theory approach. Prevalence of codes were summarized using descriptive statistics.

Results: Among 990 respondents (response rate 86.1% of 1150 participants), a significant portion (74.6%) had COVID-19 or knew someone who did ("Yes, me and multiple friends"). Many respondents (45.5%) reported concern about the long-term effects of COVID-19 ("It worries me a lot, it is dangerous, it would hinder me many things from day to day"), although receiving the vaccine and taking precautions helped alleviate some worry about the long-term effects of COVID-19 ("I have already gotten my vaccine so my chances are reduced, though still take precautions"). Many youth (17.8%) reported knowing someone with prolonged loss of taste and or smell ("Loss of taste and smell for 4 months"). Of the respondents who expressed concerned about long term sequelae, many had concerns about the damage the pandemic could cause to themselves and their loved ones (26%, "I may be able to transfer the virus to the people around me unintentionally"), along with how COVID could affect their future and social/work lives (16.9%, "It would affect my work and my daily routine").

Conclusions: Our findings suggest that among younger populations, there is significant concern regarding the long-term effects of COVID-19. The high proportion of youth concerned about the long term effects of COVID-19 infections on themselves and loved ones, and uncertainty regarding social and occupational impacts, indicates a significant burden on youth that may have mental and physical sequelae.