

Chronic Physical Health Conditions and Emotional Problems From Early Adolescence Through Midadolescence



LaRita C. Jones, PhD; Sylvie Mrug, PhD; Marc N. Elliott, PhD;
Sara L. Toomey, MD, MPhil, MPH, MSc; Susan Tortolero, PhD; Mark A. Schuster, MD, PhD

From the Department of Psychology, University of Alabama at Birmingham, Birmingham, Ala (Drs Jones and Mrug); RAND Corporation, Santa Monica, Calif (Dr Elliott); Division of General Pediatrics, Boston Children's Hospital, Boston, Mass (Drs Toomey and Schuster); Center for Health Promotion and Prevention Research, University of Texas Health Science Center, Houston, Tex (Dr Tortolero); and Pediatrics, Harvard Medical School, Boston, Mass (Drs Toomey and Schuster)

Conflict of Interest: The authors declare that they have no conflict of interest.

Address correspondence to LaRita C. Jones, PhD, SOM-Orthopedic Surgery, University of Mississippi Medical Center, 2500 N State St, Jackson, MS 39216 (e-mail: ljones9@umc.edu).

Received for publication May 8, 2016; accepted February 4, 2017.

ABSTRACT

OBJECTIVE: Chronic physical health conditions are highly prevalent in youth, frequently persisting into adulthood and contributing to the current and future health care burden in the United States. Our study evaluated associations of chronic physical health conditions with depressive and physiological anxiety symptoms in a community sample of youth and examined how those associations changed from early to midadolescence.

METHODS: In this longitudinal study of 5147 youth, students and their caregivers were interviewed when youth were in grades 5 (mean age = 11), 7 (mean age = 13), and 10 (mean age = 16). Caregivers reported family sociodemographics, youth race/ethnicity, and youth chronic physical health history at baseline. Youth reported their depressive symptoms at each time point and their physiological anxiety symptoms at grades 7 and 10.

RESULTS: At age 11, 28.5% had experienced a chronic physical health condition. Having any chronic physical health condition

was related to elevated depressive symptoms at age 11 (2.05 ± 0.05 vs 1.89 ± 0.03 ; mean \pm standard error; $P < .01$) and anxiety symptoms at age 16 (2.72 ± 0.06 vs 2.55 ± 0.04 ; $P < .05$). Experiencing multiple conditions was also related to experiencing more depressive symptoms ($b = 0.13$; $P < .01$) and physiological anxiety symptoms ($b = 0.13$; $P < .05$). After adjusting for previous mental health symptoms, having any condition still predicted anxiety at age 16.

CONCLUSIONS: Children with chronic physical health conditions have an increased risk of depressive symptoms and physiological anxiety symptoms, especially in early and midadolescence. Repeated screening for these symptoms may help identify children in need of interventions.

KEYWORDS: adolescent development; chronic physical health conditions; depressive symptoms; physiological anxiety symptoms

ACADEMIC PEDIATRICS 2017;17:649–655

WHAT'S NEW

Youth who experience chronic physical health conditions are at increased risk of developing depressive symptoms and physiological anxiety symptoms. Specifically, these individuals are at risk of elevated depressive symptoms in early adolescence and elevated physiological anxiety symptoms in midadolescence.

THE PREVALENCE OF pediatric chronic physical health conditions is increasing in the United States.¹ Approximately 25% of American youth experience a chronic health issue, most commonly respiratory allergies and asthma, before reaching early adulthood.^{1–4} Experiencing chronic physical health conditions increases risk for mental health problems,⁵ with depression and anxiety disorders being 2 to 3 times more prevalent compared to healthy

youth^{6,7} for multiple factors.⁸ Mental health symptoms may be further exacerbated in those who experience multiple health conditions—an estimated 1 in 15 youth.⁹

A common limitation of studies examining mental health in youth with chronic illness is the use of small clinical samples, rendering results less generalizable to youth with less severe conditions or limited health care access.¹⁰ Using a community-based sample would provide information about the general population of youth. Another limitation of extant literature is the lack of attention to developmental differences in mental health. Both depressive and anxiety symptoms typically emerge or escalate in early adolescence, around age 13, particularly among girls.¹⁰ However, many studies on mental health in youth with chronic physical health conditions group together children and adolescents without addressing possible developmental differences. Additionally, few studies have used longitudinal designs that would examine

depression and anxiety symptoms among youth with chronic conditions over time. Fewer still have examined these issues in youth with multiple conditions.

The present study used a prospective longitudinal design to examine depression and physiological anxiety symptoms in a community sample of children with versus without chronic physical health conditions as they transition from early to midadolescence. We evaluated the associations of chronic physical health conditions and the number of conditions experienced in early adolescence with developing mental health symptoms, and we examined how those associations changed over time. Because the prevalence rates of chronic physical health conditions, depression, and anxiety vary across race,¹¹ gender,¹² and socioeconomic status (SES),¹² we adjusted for these potential demographic confounders.

METHODS

STUDY DESIGN AND PARTICIPANTS

This study utilized data from waves 1 to 3 (average ages 11, 13, and 16) of Healthy Passages, a longitudinal study of health-risk behaviors in adolescence¹³ conducted by the University of Alabama at Birmingham; the University of California, Los Angeles/RAND; and the University of Texas, Houston. Institutional human subjects review boards at each location approved the study. At wave 1, the study sampled 5th graders in regular classrooms in public schools with 5th grade enrollments of ≥ 25 students within the Birmingham, Houston, and Los Angeles metropolitan areas. Schools and students were selected using a 2-stage probability sampling procedure. Inclusion criteria included ability to understand the interview questions and provide answers. Stratified sampling was used to achieve similar numbers of non-Hispanic black, Hispanic, and non-Hispanic white participants. Design and nonresponse weights were constructed so that weighted results represent the population of 5th graders in the public schools in each area.

Of the 11,532 eligible 5th graders, 58% of primary caregivers gave permission to be contacted. Of those, 77% of parent-child dyads completed baseline (wave 1) interviews ($N = 5147$; 2607 girls). At the 2-year follow-up (wave 2), 4773 dyads completed interviews (93% retention); and at the 5-year follow-up (wave 3), 4521 completed interviews (88% retention from baseline). Written informed parental consent and youth assent were obtained at each wave. Racial/ethnic composition of the sample was 31% non-Hispanic black, 41% Hispanic, and 25% non-Hispanic white. Because of their small numbers, youth who identified as Asian, Pacific Islander, Native American, or multiracial were grouped together ("other"); this group constituted 3% of the sample. Birmingham contributed 31% of participants, Houston 35%, and Los Angeles 34%. Median family income was \$30,000 to \$34,999 per year, and median parental education was "some college" or "2-year degree." At each wave, parents and youth completed individual interviews in separate private rooms with trained interviewers using a computer-assisted

personal interview and audio-computer assisted self-interviewing for sensitive topics. Both English and Spanish versions were available, with 24% of caregivers and 8% of youth participants responding partially or entirely in Spanish. There were few missing data, which were imputed using a single Markov chain Monte Carlo imputation via SAS PROC MI (SAS Institute, Cary, NC).

MEASURES

CHRONIC PHYSICAL HEALTH CONDITIONS

Although there is no uniform definition of pediatric chronic physical health conditions, most definitions focus on recurrence, duration, and/or physical consequences of the condition.¹⁴ Following recommendations to use a more inclusive definition when examining health issues occurring in the general population,² we defined pediatric chronic physical health conditions as physical health issues that were likely to last ≥ 3 months; had occurred ≥ 3 times; and/or were likely to have long-term physiological consequences by early adolescence. These criteria were used to select conditions which were included in the assessment instrument.

Physical health assessment items came from the National Health Interview Survey.¹⁵ At wave 1, caregivers were asked if a doctor or health professional had ever told them that their child had any of the following conditions: allergies including hay fever, respiratory allergy, and/or any kind of food or digestive allergy; arthritis; asthma, wheezing, or respiratory airway disease; congenital heart disease; diabetes; frequent or repeated diarrhea or colitis; frequent and severe headaches/migraines; muscular dystrophy; seizures or epilepsy; or sickle cell anemia. Caregivers were also able to specify any other serious health conditions that were not listed. Youth were then categorized as having "any" versus "no" condition, and the number of different chronic physical health conditions was also computed. Because very few youth (0.01%) had more than 3 different conditions, this variable was coded as 0, 1, 2, or ≥ 3 conditions. Parent-proxy reports of youth physical health have shown good reliability and validity.¹⁶

DEPRESSIVE SYMPTOMS

At each wave, depressive symptoms were assessed via youth self-report on 6 items from the 7-item Major Depressive Disorder (MDD) subscale from the DISC Predictive Scales (DPS). The DPS is a screening tool derived from the DISC that identifies youth with subclinical mental health problems. The MDD items assessed depressive symptoms, including decreased interest/pleasure in activities; decreased energy levels; feelings of worthlessness; suicidal ideation; fatigue; and trouble thinking clearly/concentrating. One MDD question assessing previous suicide attempts was not used because of concerns from the institutions' boards for protection of human subjects. In this study, items on the scale were rated Yes (1) or No (0) and summed (α values ranged from .62 to .68). The full MDD subscale scores have good reliability and validity.¹⁷

Download English Version:

<https://daneshyari.com/en/article/5716851>

Download Persian Version:

<https://daneshyari.com/article/5716851>

[Daneshyari.com](https://daneshyari.com)