

## The Ancestry-Asthma Relationship: Risk or Resilience?

Health disparities in pediatric asthma are well documented.<sup>1-4</sup> Specifically, prevalence, morbidity, and mortality of asthma is greatest in Puerto Ricans and African Americans in comparison with non-Hispanic whites.<sup>1-4</sup> Although prevalence in Mexican Americans appears to be lower than in non-Hispanic whites,<sup>1-4</sup> language and other psychosocial factors contribute to health disparities in the diagnosis and treatment of asthma in this Latino subgroup.<sup>5-8</sup> Multiple contributing factors related to the etiology of health disparities in asthma have been identified including systemic racism, poverty, and other psychosocial factors.<sup>9-15</sup>

this construct is truly adaptive prior to implementing interventions promoting panic-fear in any population.

Second, although this work looks at one particular population of 2 urban Latino subgroup cohorts of children with asthma, how this may apply to the general population of those with asthma of varying severities is not yet clear. How does asthma severity interplay with illness-specific panic-fear? Will these findings be translatable to a severe persistent and uncontrolled asthma population? Although the authors did not find evidence of a curvilinear relationship between asthma outcomes and panic-fear, it is likely that there was not enough variance in this measure to observe how these relationships change at higher levels of panic-fear. For example, this study looked at mild-moderate asthma, which corresponded to measured mild-moderate levels of panic-fear. The question thus remains: do these findings still hold as asthma severity and illness-specific panic-fear worsens? Existent literature suggests a possible quadratic function such that high levels of panic-fear may predict greater asthma morbidity. For example, Kean et al found that high levels of post-traumatic stress symptomatology related to a severe asthma event had greater functional asthma morbidity, even when controlling for disease severity and other anxiety and depressive symptoms.<sup>17</sup> These findings suggest that higher levels of asthma-related anxiety may lead to avoidance behaviors as a means of controlling the anxiety that would interfere with asthma management and contribute to morbidity. Thus, with more severe asthma, we may expect illness-specific panic-fear to intensify to a level that compromises asthma care and outcomes.

Feldman et al conclude that we must “continue identifying these behavioral pathways and develop interventions to reduce asthma disparities in ethnic minority, high-risk children.”<sup>16</sup> This is paramount to the goal of achieving health equity for all in the US. However, caution must be taken to clarify definitions, measurements, treatments, and outcomes as to not prevent key treatment opportunities for those with asthma with comorbid mental health disorders. Further research into the concept of panic-fear and its relationship to asthma at higher levels of asthma severity can help clarify how to best incorporate this construct into both clinical and research practice. We believe that the identification of low vigilance as a risk factor for poor asthma outcomes can guide treatment efforts. One clear pathway to the reduction of health disparities in asthma is the promotion and implementation of programming focused on adaptive self-management behaviors<sup>37</sup> that develop resiliency behaviors and attitudes, leverage symptom perception, and influence adherence and asthma control in at-risk youth with asthma. ■

**Andrea A. Pappalardo, MD**  
Department of Pediatrics  
Department of Medicine  
University of Illinois at Chicago  
Chicago, IL

**Sally Weinstein, PhD**  
Department of Psychiatry  
University of Illinois at Chicago  
Chicago, IL

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Reprint requests: Andrea A. Pappalardo, MD, Department of Pediatrics, University of Illinois at Chicago, 840 S Wood St, M/C 856, Chicago, IL 60612. E-mail: [apappa2@uic.edu](mailto:apappa2@uic.edu)

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