ARTICLE

Asthma Home Management in the Inner-City: What can the Children Teach us?

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ABSTRACT

Objective: Knowledge of asthma home management from the perspective of poor, minority children with asthma is limited.

Method: Convenience sampling methods were used to recruit families of low-income children who are frequently in the emergency department for uncontrolled asthma. Thirteen youths participated in focus groups designed to elicit reflections on asthma home management. Data were analyzed using grounded theory coding techniques.

Results: Participants (Mean age = 9.2 years) were African American (100%), enrolled in Medicaid (92.3%), averaged 1.4 (standard deviation = 0.7) emergency department visits over the prior 3 months, and resided in homes with at least 1 smoker (61.5%). Two themes reflecting multifaceted challenges to the development proper of self-management emerged in the analysis.

Discussion: Findings reinforce the need to provide a multipronged approach to improve asthma control in this high-risk population including ongoing child and family education and self-management support, environmental control and housing resources, linkages to smoking cessation programs, and psychosocial support. J Pediatr Health Care. (2016) ■, ■-■.

KEY WORDS

Asthma, children, focus groups, poverty, self-management

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This study was funded by the National Institute of Nursing Research, National Institutes of Health (NIH), with the grant number R01 NR013486. The study is registered with ClinicalTrials.gov with number NCT01981564. This publication was made possible by the Johns Hopkins Institute for Clinical and Translational Research (ICTR), which is funded in part by grant number UL1 TR 000424-06 from the National Center for Advancing Translational Sciences (NCATS), a component of the NIH, and NIH Roadmap for Medical Research.

Conflicts of interest: None to report.

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0891-5245/$36.00

http://dx.doi.org/10.1016/j.pedhc.2016.11.002

INTRODUCTION

Asthma is chronic inflammatory disorder of the airways that causes wheezing, coughing, chest tightness, and shortness of breath (Blakey, Zaidi, & Shaw, 2014). It is a major public health concern, with the economic burden of asthma estimated at over $56 billion annually (Barnett & Nurmagambetov, 2011). Asthma health disparities are well documented, with children of minority groups—particularly those residing in urban poor environments—disproportionately affected by asthma morbidity and mortality (Loftus & Wise, 2016). Developing proper self-management skills, such as symptom monitoring, medication adherence, and environmental exposure avoidance, is key to preventing uncontrolled asthma (Sleath et al., 2011) and optimizing health, social, and academic outcomes among affected youths (Kaul, 2011). However, African American and Hispanic children are less likely to have an asthma management plan compared with their non-Hispanic White counterparts (Piper, Glover, Elder, & Baek, 2008). Because asthma morbidity may stem from deficient self-management skills such as poor symptom recognition and/or medication nonadherence (Rhee, Belyea, Ciurzynski & Brasch, 2009), a greater understanding of barriers to effective asthma home management and the process of developing self-management skills in minority youths living in urban poverty is paramount (McClelland, Wenz, Sood & Yono, 2013).

Qualitative research yields critical insights to everyday life experiences that may inform the development of tailored education and intervention programs for vulnerable populations including individuals with high-risk asthma (Keddem et al., 2015). However, qualitative inquiries into asthma home management from the perspective of poor, inner-city children are limited. One focus group study comprised primarily non-Hispanic White youths ages 9 to 15 years and identified several consequences of asthma, including social limitations, as well as a range of barriers to adherence such as child lack of motivation, distractibility, and forgetfulness (Penza-Clyve, Mansell, & McQuaid, 2004). Focus group research that combined low-income minority children ages 8 to 12 years and their caregivers highlighted a deleterious effect of asthma on child and caregiver quality of life and showed profound difficulties in home environmental control because of a lack of family financial resources (Laster, Holsey, Shendell, McCarty, & Celano, 2009). Findings from home-based interviews exploring asthma knowledge, perceptions, and autonomy in a sample of racially diverse children with moderate to severe asthma (age range = 7–12 years) underscored developmental differences in self-management capabilities (Pradel, Hartzema, & Bush, 2001). Younger children were less aware of asthma symptoms and medication roles and tended to identify medications by shape or color only.

Other qualitative research depicts suboptimal asthma home management in families of minority groups. Interviews with 20 African American caregivers and children (age range = 5–14 years) with asthma suggested that both groups lacked understanding of guideline-based care, with family management activities primarily occurring in response to symptom exacerbation instead of focusing on prevention efforts (McClelland et al., 2013). Concerns about medication adverse effects resulting in poor medication adherence emerged from focus groups with Hispanic children, adolescents, and parents on asthma self-management beliefs and practices (Martin, Beebe, Lopez, & Faux, 2010). Similarly, a mixed-methods study of adherence in a sample of older, primarily African American adolescents with asthma indicated that fears of medication adverse effects and addiction potential were a significant contributor to nonadherence (Naimi et al., 2009). Housing instability also emerged as a barrier to adherence among the adolescent participants who reported frequent overnight stays away from their primary residence that complicated medication oversight and administration. Further, urban minority adolescents (mean age = 14.25 years) with persistent asthma participating in focus groups described a lack of established routines and competing demands/responsibilities at school and in the broader social environment as additional barriers to proper medication adherence (Blaakman, Cohen, Fagnano, & Halterman, 2014).

These findings offer useful insights to multidimensional barriers that may impede the development and implementation of effective self-management skills among minority youths with asthma. Knowledge deficits and inaccurate health beliefs that shape asthma management decisions are evident in adolescents with asthma, and a growing body of research illustrates how nonintentional barriers found in contextual risks, such as housing instability, and unavoidable exposure to environmental triggers in the home due to family financial constraints may also contribute to poor adherence (Klok, Kaptein, & Brand, 2015). Although assessments of asthma knowledge and management among school-aged youths have long been recommended (Sin, Kang, & Weaver, 2005) and previous research found that inner-city children as young as 9 years are self-managing their asthma (Winkelstein et al., 2000), little is known about how children of minority groups experience asthma management in the home. Our study aims to address this gap by exploring the perspectives of young, urban, poor children living with asthma.

METHODS

This focus group study is part of a larger, ongoing randomized controlled trial (RCT) testing the effectiveness of an emergency department (ED) and home-based environmental control intervention for children with persistent asthma who have high frequency of ED