Caring for Urban Families of Children with Asthma: A Community-Based Perspective

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Asthma

- A chronic inflammatory disorder of the airways
- Public health concern for pediatric populations
  - 14 million days of school missed
  - 13.5% of all pediatric hospitalizations are for asthma
- Pediatric asthma disparities exist

Akinbami (2012); CDC (2011); NHLBI (2007)
Pediatric asthma ED admission rate per 100,000 population, by race/ethnicity stratified by area income (median income of ZIP code of residence)

Fig. 1. Conceptual framework of pediatric asthma disparities.

Canino et al. (2006); http://dx.doi.org/10.1016/j.socscimed.2006.07.017
Richmond: Asthma Capital of US

• Pediatric asthma hospitalization rate in Richmond is more than twice the overall Virginia average

• Challenge for families
  – Preventative and acute symptom management

Asthma and Allergy Foundation of America (2015); Virginia Department of Health (2006)
Two Approaches

Ecological Momentary Assessment

Intervention development/refinement

Community-based Needs Assessment
CARE STUDY

Childhood Asthma in Richmond Families

- 61 families enrolled
- Children with persistent asthma ($M$ age = 9.71, $SD$ = 1.52) and their caregivers ($M$ age = 38.93, $SD$ = 9.34)
- 90% African American
- 55% had yearly income < $19,000
- 82% of children had 1 or more ED visits in last year
- Families completed baseline research session and 14 days of EMA surveys
On the following pages are words that describe how you may have felt today.

Rate how you felt in general during the day TODAY.

Today I felt:

ANGRY

not at all  extremely
A Snapshot

- On days when caregivers reported feeling less comfortable in their neighborhoods or less able to control child asthma at home, they reported more daily asthma symptoms.

- Days with more reported child asthma symptoms were not associated with caregiver mood.

- Contextual factors may affect daily caregiver asthma-related behaviors
  - Meet the needs of families where they live
  - Ecological Momentary Interventions
Project ARC

Asthma in the Richmond Community

• **Goal:** To conduct a community-based needs assessment to inform the development of a randomized clinical trial to decrease asthma morbidity among urban children with asthma (5-17 years) in Richmond City.

  – Identify factors that promote or inhibit effective asthma management within families
  – Identify community concerns related to treatment of children with asthma
  – Engage stakeholders in prioritizing needs of families of children with asthma

“A Community-Engaged Approach to Reducing Pediatric Asthma Disparities in Richmond” (U34 HL130759; Everhart, PI)
Components of Needs Assessment

• Caregiver and Youth Advisory Groups
  – Monthly meetings with stakeholders

• Caregiver and Youth Focus Groups

• Community Survey

• Engaging Richmond team
  – Existing community-university partnership that was funded by NIH in 2011 (NCATS UL1TR000058)
Themes emerging from focus groups

- Visits to the emergency room
- Insurance coverage for asthma medications
- Adherence to daily controller medications
- Other people understanding seriousness of asthma
Take Home Message

• Focus on families, including caregiver health and psychological well-being

• Take into account child’s community (strengths and challenges)

• Meet the needs of the family
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