



# VCU

Virginia Commonwealth University  
**VCU Scholars Compass**

---

Undergraduate Research Posters

Undergraduate Research Opportunities Program

---

2014

## Associations between Cultural Beliefs and Asthma Self-Efficacy in Pediatric Asthma

Crystal McNair

*Virginia Commonwealth University*

Follow this and additional works at: <https://scholarscompass.vcu.edu/uressposters>

© The Author(s)

---

### Downloaded from

McNair, Crystal, "Associations between Cultural Beliefs and Asthma Self-Efficacy in Pediatric Asthma" (2014). *Undergraduate Research Posters*. Poster 69.

<https://scholarscompass.vcu.edu/uressposters/69>

This Article is brought to you for free and open access by the Undergraduate Research Opportunities Program at VCU Scholars Compass. It has been accepted for inclusion in Undergraduate Research Posters by an authorized administrator of VCU Scholars Compass. For more information, please contact [libcompass@vcu.edu](mailto:libcompass@vcu.edu).



# Associations between Cultural Beliefs and Asthma Self-Efficacy in Pediatric Asthma

Crystal McNair, Virginia Commonwealth University

Mentor: Robin S. Everhart, Ph.D., Department of Psychology

## Introduction

- Pediatric asthma is one of the most common chronic illnesses affecting children in the United States.
- Youth with high asthma self-efficacy can have moderate to good outcomes, including improved functional status and better medication adherence. <sup>1</sup>
- A caregiver's lack of belief in the necessity of medications may be an important factor in medication underuse. <sup>2</sup>
- Some evidence shows that beliefs about asthma medications differ by racial/ethnic background, and these beliefs may relate to patterns of medication use. <sup>2</sup>
- A caregiver's beliefs could affect the care of their child with asthma, including a child's efficacy to manage their own asthma.
- More research is needed to understand associations between caregiver beliefs and child self-efficacy related to asthma.

## Goals of the Study

- Examine associations between caregiver beliefs about asthma medications and child asthma self-efficacy.

## Participants

- Study participants included 102 caregivers and their children with asthma (41% female) between 6 and 15 years (M=10.03, SD=2.31)
- 87% of children were prescribed a controller medication
- 44% of families self-identified as NLW, 22% identified as Latino, and 33% identified as African American
- 88% of caregivers identified as the child's biological mother
- 50% of the caregivers were married and caregivers had completed a mean of 13.27 years of school (SD=2.31)
- 18% of families reported an income < \$9,999; 17% between \$10,000 and \$24,999; 39% between \$25,000 and \$74,999; 20% > \$75,000
- Mean number of people living in home = 4.36 (SD=1.31; range 2-8)

## Procedure

- Participants were recruited from hospital-based clinics, as well as through a hospital-based asthma educational program in Providence, Rhode Island.
- Data collection occurred either in a research office or in the family's home.
- Children and primary caregivers participated in one session and completed measures related to beliefs about asthma medications, asthma management efficacy, and asthma symptoms, among other measures.

## Measures

- **Caregiver Beliefs:** Caregivers completed the Medication Beliefs Questionnaire, which assesses beliefs about the *necessity* of prescribed medication for controlling child illness (i.e. "My child's health in the future will depend on these medicines"), and *concerns* about potential consequences of taking medications (i.e. "Having to take these medicines disrupts my child's life").
- **Asthma management efficacy:** Children completed the Asthma Management Efficacy Scale, which assesses efficacy related to attack prevention and attack management in childhood asthma. Higher scores indicate better asthma management efficacy.

## Funding Source:

F32 HL104889; R. Everhart, PI;  
D. Koinis Mitchell, Sponsor

Contact Email: [mcnaircr@vcu.edu](mailto:mcnaircr@vcu.edu)

## Results

Controlling for race/ethnicity and family income:

- Caregivers who more strongly agreed that "my child's medications are a mystery to me" were more likely to have a child who reported lower efficacy to prevent an asthma attack ( $\beta = -.23, \Delta R^2 = .05, p < .05$ ).
- Stronger caregiver beliefs that their child's health depends on asthma medications were more likely to have a child with greater efficacy to manage an asthma attack ( $\beta = .28, \Delta R^2 = .08, p < .01$ ).

## Conclusion

- Findings suggest that caregiver beliefs about asthma medications may impact children's efficacy to both prevent and manage an asthma attack.
- Caregivers that believe strongly in the importance of medications may pass these positive beliefs along to the child, which may influence a child's confidence in managing their asthma.
- Future research on this topic should use a larger sample and examine the specific caregiver beliefs that may affect a child's self-efficacy in managing their asthma.

## Works Cited

1. Ayala, G. X., Yeatts, K., & Carpenter, D. (2009). Brief Report: Factors Associated with Asthma Management Self-Efficacy Among 7th and 8th Grade Students. *Journal Of Pediatric Psychology*, 34(8), 862-868. doi:10.1093/jpepsy/jsn134
2. McQuaid, E. L., Vasquez, J., Canino, G., Fritz, G. K., Ortega, A. N., Colon, A., . Seifer, R. (2009). Beliefs and barriers to medication use in parents of Latino children with asthma. *Pediatric Pulmonology*, 44(9), 892 - 898. doi:10.1002/ppul.21074

## Acknowledgements

I would like to thank Dr. Robin Everhart, my advisor, and mentor on this project. I would also like to thank UROP for their assistance with this poster presentation.