An Assessment of Parental Knowledge of Pediatric Asthma Triggers

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Personal History

- 1988 - Born in Vietnam
- 1994 - Immigrated to USA in Houston, TX
- 2006 - Graduated High School
- 2010 - B.S. Biology - University of Houston
- 2011 - M.S. Medical Sciences – University of North Texas HSC
- 2016 - Doctor of Osteopathic Medicine – William Carey COM
- Certified Pharmacy Technician, First Aid and CPR Instructor,
National Health Service Corp Scholar
Introduction

• Asthma is an inflammatory disease of the lungs
• Asthma symptoms: narrowed airway, wheezes, chest tightness, shortness of breath, coughs
• Asthma affects all ages
• Could be heritable
• Asthma attacks may result in hospitalizations, ER visits, missed school days, lost work days for parents.
• Rescue inhalers vs. Preventive inhalers

• PURPOSE: To assess parent’s knowledge level of asthma and its triggers.
• GOAL: To educate patient and parent about avoiding asthma triggers and ultimately prevent asthma exacerbations
Methodology

• Study duration: June 17 – July 19, 2013
• Inclusion criteria:
  • Parent of a child <= 18 years of age
  • Seen by a CommuniCare provider at the East, West, or NW campus for asthma AND have Hx of asthma/wheezing
• Information collected via survey included
  • Patient age, gender, zip code
  • 11 questions regarding asthma trigger knowledge
• Two additional questions to assess patient’s comfort of participating in research
• Descriptive trend analyses of responses
Results

- 41 participants (21 female, 20 male)
- Median age of 7
- 36 (88%) participants report of usually developing asthma symptoms at home.
- 27 (66%) participants report asthma symptoms worsen during winter months (Dec, Jan, Feb).
- 32 (78%) participants report having asthma symptoms with weather changes.
- 33 (80%) participants report using/have air freshener products in household.
- 31 (76%) participants report using/have fabric softener sheets in household.
Where Child Usually Develop Asthma Symptoms

- Daycare: 7 responses
- School: 23 responses
- Home: 36 responses

Does your child have symptoms when exposed to any of the following:

- Stress: 2 responses
- Air Freshener: 11 responses
- Exercise: 12 responses
- Air Quality Alerts: 16 responses
- Cold Air: 18 responses
- Dust: 25 responses
- Cold/Flu: 26 responses
- Weather Changes: 32 responses
Time of year asthma symptoms are worse

Number of responses

- Summer: Jun/Jul/Aug
- Spring: Mar/Apr/May
- Fall: Sept/Oct/Nov
- Winter: Dec/Jan/Feb

Does your household use any of the following?

- Wood burn stove
- Dampness
- Mold
- Humidifier
- Fireplace
- Cockroaches
- Pets
- Perfume
- Fabric Softener Sheets
- Air Freshener Products
Summary of findings

- Asthma symptoms occur at home
- Asthma symptoms occur the fall and winter months
- Strong belief that asthma symptoms are due to weather changes, cold/flu, and dust
- Low perception about the effect of air fresheners, fabric softener sheets, and perfume on pulmonary irritation
Future directions for a CommuniCare asthma education, prevention, and intervention

- Identify where CommuniCare patients and providers obtain their asthma trigger information

- Fill knowledge gaps among CommuniCare patients and providers regarding the effect of air fresheners, fabric softener sheets, and perfume on pulmonary irritation

- Increased focus on patient health literacy regarding the differences between rescue and preventive asthma medication

- Assess the feasibility of adopting asthma symptoms mitigation programs in other US cities

- Develop FQHC-specific program evaluation tool for asthma treatment (e.g., reduction in need for acute care)
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My Patient Experiences...
The Pediatric Teams