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Parental Views on Parent-Generated Asthma History in a Pediatric ED: A Randomized Control Trial

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**Parental Views on Parent-Generated Asthma History in a Pediatric ED:
A Randomized Control Trial**

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IRB Number: STUDY00000528

Describe role of Submitting/Presenting Trainee in this project (limit 150 words):

Developed the protocol, enrolled participants, researched background data and wrote the abstract.

Background, Objectives/Goal, Methods/Design, Results, Conclusions limited to 500 words

Background:

Prior literature has shown that parents are able to accurately input their child's medical history into an electronic medical record (EMR).¹ In some cases, the quality of parents' documentation met or exceeded that of physicians.² Such patient-facing interfaces for documenting patient information have also been shown to improve placement of preventative care orders in the primary care setting based on the patient's responses.³ Despite the growing body of literature on patient-generated health data in the outpatient environment, there is relatively little published work regarding the utility of using parent-generated health information (PGHI) in the acute, pediatric emergency department (ED) setting.

Objectives/Goal:

To determine whether electronic capture of asthma history by parents of patients waiting to be seen by an ED provider for respiratory complaints is preferable to traditional face-to-face interviewing by ED staff as perceived by the parents.

Methods/Design:

Parents of children 4-18 years old waiting to be seen for any chief respiratory complaint in a pediatric ED were enrolled and randomized to either answer questions on an iPad followed by a standard medical interview by the ED provider, or to a control group receiving only the standard medical interview. Questions presented on the iPad were based on a previously validated Pediatric Asthma Control and Communication Instrument for the Emergency Department (PACCI-ED).⁴ ED providers could view the parent-generated responses in the patient's electronic chart. Prior to discharge, participants completed a multiple-choice questionnaire about their child's medical care as well as the medical interviews conducted during their visit. Chi-squared tests were used to compare responses between groups.

Results:

101 parents were enrolled and randomized (52 control, 49 intervention). Nearly half of participants preferred answering questions on an electronic interface (46.5%) rather than being asked questions in a face-to-face interview (31.7%). 20% of participants had no preference on interview method. There was no significant difference between groups when asked about their child's medical care ($p=0.694$), their interactions with providers ($p=0.996$) or the provider's perceived understanding of their child's asthma history ($p=0.772$).

Conclusions:

This pilot study demonstrates that a parent-facing electronic interface is amenable to parents as a means of obtaining a patient's asthma history while waiting to be seen in the ED for respiratory complaints. Similar PGHI could be obtained for patients with other chief complaints to gather useful information before they ever see an ED provider. Subsequent studies are needed to determine whether use of such PGHI in a pediatric ED would have a significant impact on provider care or ED flow.