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## Missed School Days: A Correlational Study Between Children with Asthma and Presence of School Nurses

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## Missed School Days: A Correlational Study Between Children with Asthma and Presence of School Nurses

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# Missed School Days: A Correlational Study Between Children with Asthma and Presence of School Nurses

Brodeur et al.: Missed School Days

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## Abstract

"Asthma is one of the leading causes of school absenteeism" (Meng, Babey, & Wolstein, 2012). Currently, there is a lack of research on the relationship between full-time nurse presence in schools and absenteeism among school-aged children with asthma. The purpose of this paper is to determine the correlation between the amount of time school-aged children are absent and the amount of time a school nurse is absent. A nonexperimental quantitative descriptive correlational study will be conducted with 14 randomly selected participating schools in the Chesapeake public school district. Each school will receive a questionnaire inquiring about the number of asthmatic children enrolled in the school, number of absences of said children, weekly hours the school nurse is present, and number of absences of asthmatic children when the nurse is not present. After obtaining the data from the schools, a single-sample T-test with an alpha of 0.05 will be used for statistical analysis. It is expected to reveal that the number of absences of school-aged children with asthma will have positive correlation with the amount of time the school nurse is absent. The findings of this study will implicate that having a full-time school nurse increases attendance of asthmatic school-aged children.

## Purpose

To determine the correlation between the amount of time school-aged children are absent and the amount of time a school nurse is absent.

## Aim

To conduct a non-experimental quantitative descriptive correlational research study yielding data that indicates a positive correlation between the absence of nurses and the absence of school-aged children with asthma.

## Hypothesis

A higher presence of school nurses in elementary schools will **increase the attendance** rates of asthmatic children between 5-11.

## Background

- Asthma = one of the most prevalent childhood illnesses
- When school nurse is absent, responsibility falls on teachers & faculty
- Lack of research on this topic in the Chesapeake school district

## Significance

Current Asthma Prevalence in 2015	Children 5-11 years old	3,021,000 or 10.6% of the total population
CDC National Surveillance of Asthma (CDC, 2013)	Children 5-17 years old	13.8 million school days missed
Lucas, Anderson & Hill, 2012	Percentage of teachers that received asthma training	<u>Only</u> 32.4%
Jaramillo & Reznik, 2015	Percentage of teachers who were unfamiliar with school asthma policies/failed an asthma questionnaire	67% of teachers scored a grade between 50%-59%

## Introduction

## Methods

- Design: nonexperimental quantitative descriptive correlational study
- Population: school-aged children (5-11) with chronic asthma
- Sample: 14 out of 28 primary and elementary schools of the Chesapeake public schools district will be randomly selected
- Schools will be given a **demographic survey** covering a short period of time
- Survey will ask: number of asthmatic children enrolled in the school, number of absences of said children, hours weekly the school nurse is present, and number of absences of asthmatic children when the nurse is not present
- Data analysis: a single-sample **t-test** with an alpha of 0.05

**13.8 million**
  
**NUMBER OF SCHOOL DAYS KIDS WITH ASTHMA MISSED IN 2013**
  
Source: Centers for Disease Control and Prevention

## Discussion

- Proper symptom management = adequately trained caregivers well-versed in what to expect in the asthmatic child, the potential complications, and how to intervene when health state becomes critical
- School nursing staff has primary responsibility of this domain often influencing whether the child is able to return to class when symptoms flare up or even be in school at all.
- There is a lack of research in the local community of the Chesapeake school district in the correlation between school nurse presence and asthmatic student attendance.



## Interprofessional Roles and Responsibilities

- **Educate** the family on issues related to chronic asthma and the importance of having a RN in schools to decrease absentee days due to asthma
- **Advocate** on behalf of the students affected by asthma and ensure they receive all care possible
- Collectively as a team, we can develop workshops and seminars to educate the administrators, teachers and parents on the importance of having RNs at schools to administer medication in an effort to reduce the number of absentee days related to chronic asthma
- Coordinate with parents and school nurse to ensure students are adequately accommodated to stay for the full school day
- In collaboration with administrators, organize fund raisers if resources for equipment are limited

## Acknowledgements

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## Literature Cited

Jaramillo, Y., & Reznik, M. (2015). Do United States' teachers know and adhere to the national guidelines on asthma management in the classroom? A systematic review. *The Scientific World Journal*, 2015: 624828

Lucas, T., Anderson, M., & Hill, P. (2012). What level of knowledge do elementary school teachers possess concerning the care of children with asthma? A pilot study. *Journal of Pediatric Nursing*, 27(5), 523-527. Meng, Y., Babey SH, Wolstein J. Asthma-Related School Absenteeism and School Concentration of Low-Income Students in California. *Prev Chronic Dis* 2012;9:110312. DOI: <http://dx.doi.org/10.5888/pcd9.110312>

National Health Interview Survey, National Center for Health Statistics, Center for Disease Control and Prevention [CDC]. (2016) *Most recent asthma data*. Retrieved from: [https://www.cdc.gov/asthma/most\\_recent\\_data.htm](https://www.cdc.gov/asthma/most_recent_data.htm)

