

Measuring Disease Burden: Asthma Caregiver Quality of Life

Ana B. Kobayashi

Background: Asthma is a common chronic illness affecting increasing numbers of children in Washington State and throughout the United States. In light of increasing pediatric asthma prevalence, it is important to understand how asthma affects caregivers' quality of life. Despite a growing literature about patient quality of life, less is known about the effect of asthma on caregivers of children with asthma. No studies have been published investigating the effect of either emergency health utilization or asthma management on caregiver quality of life. Understanding how disease, demographic, asthma management and health care utilization variables influence caregiver quality of life would allow providers to better support families as they cope with childhood illness.

Purpose: To confirm and discover relationship between caregiver quality of life and health utilization, asthma management, and other variables in a community sample.

Methods: This study conducted secondary analysis of data from an impact evaluation of the Clean Air for Kids partnership in Pierce County, WA. The dataset included survey data from 104 caregivers caring for children with asthma. Caregiver quality of life was measured with the Pediatric Asthma Caregiver Quality of Life Questionnaire (PACQLQ). Correlation between individual predictor variables and PACQLQ scores were assessed using linear regression. Multiple linear regression was performed on PACQLQ summary and two subscale scores to investigate the influence of emergency room visits, perceived asthma severity, caregiver education, and caregiver race. Three regression models were developed to describe both PACQLQ summary score and two subscales, emotional function and activity limitation.

Results: Significant correlations with PACQLQ score or subscale score were limited to perceived asthma severity, ER visits, child age and caregiver education. Regression models also included caregiver race because it has been an important influence in other studies. All models were significant at or greater than the $p < 0.05$ level. Caregiver education was associated with a significant increase in caregiver quality of life ($\beta = 0.31$ to 0.34 , $p < 0.05$), while perceived asthma severity ($\beta = -0.54$ to -0.32) and ER visits ($\beta = -0.07$ to -0.19) were associated with a decrease in caregiver quality of life.

Conclusion: Services for children with asthma should focus on supporting increased caregiver quality of life. Potential areas of concern include caregivers of children with increased ER visits in the past year and increased perceived asthma severity, or caregivers with low levels of educational attainment.

Thesis Committee:

Marcia Williams PhD, MPH, PT

Janet Primomo RN, PhD

This study was supported by grant T76 MC 00011 from the Maternal and Child Health Bureau (Title V, Social Security Act), Health Resources and Services Administration, U.S. Department of Health and Human Services.