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Racial Disparities at the Point of Care for Urban Children with Persistent Asthma

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Abstract

Little is known about disparities in preventive asthma care delivery at the time of an office visit. Our objective was to better understand what treatments are delivered at the point of care for urban children with asthma, and whether there are racial disparities. We enrolled 100 Black and 77 White children (2–12 years) with persistent asthma from 6 primary care practices. We evaluated how frequently providers delivered guideline-based asthma actions at the index visit. We also assessed asthma morbidity prior to the index visit and again at two month follow-up. Black children had greater symptom severity and were less likely to report having a preventive medication at baseline, but were no more likely to report a preventive medication action at the time of an office visit. Symptoms persisted for Black children at follow-up, suggesting additional preventive actions were needed. Further efforts to promote consistent guideline-based preventive asthma care are critical.

Keywords

childhood asthma; disparities; urban health

Introduction

Asthma is one of the most common chronic diseases of childhood, affecting more than 6.7 million children in the U.S.¹ Despite the availability of effective therapies, children from minority and low income backgrounds continue to suffer from greater morbidity and experience more healthcare utilization than non-minority children, resulting in significant racial disparities.^{1–9} A recent U.S. Department of Health and Human Services report showed that in 2010, 4,500,000 non-Hispanic Blacks reported a current diagnosis of asthma, making them 30% more likely to have asthma than non-Hispanic Whites.¹⁰ Strikingly, when compared to their White peers, Black children are 7.6 times more likely to die from asthma-related causes.¹

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Current national guidelines for asthma recommend a daily, preventive, anti-inflammatory medication for all children with persistent asthma.¹¹ These medications reduce morbidity and prevent exacerbations that often lead to emergency department (ED) visits and hospitalizations.^{9,12} Unfortunately, adherence to these guidelines is poor,^{13–16} and many children who should be using preventive asthma medications are not using them. Thus, many children suffer from preventable asthma morbidity, including persistent symptoms, absenteeism from school, as well as frequent emergency visits and hospitalizations.¹⁷ Notably, children from low-income and minority backgrounds are less likely to use recommended preventive treatments to control asthma,^{7,18} potentially perpetuating health disparities.

While the primary care office is the ideal setting for providers to optimize care delivery and provide guideline-based care to asthmatic patients, there are many missed opportunities for preventive care.^{19–22} In this study, we aimed to better understand what treatments are delivered at the point of care for urban children with asthma, and whether there are racial disparities in treatment practices.

Design/Methods

Recruitment

The data for this study were obtained from a larger, randomized control trial, the Prompting Asthma Intervention in Rochester—Uniting, Parents, and Providers (PAIR-UP) study, in Rochester, NY. Through PAIR-UP, 12 urban primary care practices were paired on the basis of size and demographics and were then randomly assigned to either a Multifaceted Prompting Intervention or Usual Care group. We enrolled children with asthma who were visiting their healthcare provider for *any reason*, including routine well-child examinations and sick visits. Children were eligible if they were between the ages of 2–12 years, had a physician diagnosis of asthma, and were currently experiencing persistent asthma symptoms as defined by National Heart Lung and Blood Institutes (NHLBI) guidelines.¹¹ Children were excluded if they had no access to a working phone for follow-up surveys, or had another significant health issue, such as cystic fibrosis and cerebral palsy, that might interfere with the assessment of asthma symptoms. We approached caregivers of children with an indication of asthma documented in their medical chart in the waiting room prior to their healthcare visit. Caregivers completed a brief screening assessment to determine eligibility and then informed consent was obtained from the primary caregiver as well as assent from children aged 7 and older. To avoid any effect of the intervention on outcomes of interest, this analysis includes only data from subjects enrolled at the 6 practices randomly assigned as usual care sites. The University of Rochester and Rochester General Health System Institutional Review Boards approved all procedures for the larger PAIR-UP trial.

Baseline assessment of asthma morbidity

In the waiting room, prior to each child's visit with their healthcare provider, we systematically assessed baseline asthma symptom severity using questions based on the NHLBI guidelines.¹¹ Caregivers were asked to report the number of days their child

experienced any cough, wheeze, breathlessness, or chest tightness during the day, frequency of nighttime symptoms, and use of rescue medication for symptom relief within the last 4 weeks. Caregivers reported their child's activity limitation in the past 4 weeks and any acute exacerbations that required their child to take oral prednisone in the past year. Caregivers were also asked how many days over the past 2 weeks the child remained symptom-free, defined as having no signs of asthma for a full 24 hours.

Follow-up assessments

Within two weeks of the index visit, we contacted caregivers by phone and asked about specific preventive care actions the child may have received at the visit. This survey included detailed inquiries regarding whether they had any discussion with the healthcare provider about their child's asthma symptoms, medications, triggers, smoke exposure, and whether any changes were made to the child's asthma treatment plan. We asked caregivers specific questions regarding NHLBI-recommended preventive care actions taken during the child's visit including provision of an asthma action plan, referral to a specialist, and counseling to reduce secondhand smoke exposure (i.e.; "When you were at the doctor's office on <date>, in the exam room were you provided an action plan (a written plan to help you manage your child's asthma)?"). We also asked if the child received a *preventive medication action* defined as one of the following: a new preventive asthma medication prescription, an increased dose or 'step up' of a current preventive asthma medication, or discussion of adherence to currently prescribed daily controller medication per parent report.²³ Caregivers also reported the extent that all of their needs had been met at the visit (All vs. Some/none), and the degree to which they were satisfied with their visit (Completely satisfied vs. Somewhat satisfied/somewhat unsatisfied/completely unsatisfied).

Caregivers were again contacted by telephone two months after the index visit to reassess the child's symptoms. We inquired specifically about daytime and nighttime symptoms, visits to the ED, and hospitalizations since the index visit, as well as whether or not the child had a current prescription for a preventive medication.

Covariates

Covariates included basic family demographics, the child's preventive medication status prior to the index visit, and the reason for the healthcare visit (categorized as an asthma-related acute/follow-up visit, well-child examination, or other non-asthma related visit).

Analysis

We used Pearson's Chi-square tests and Mann-Whitney tests to evaluate racial differences in asthma morbidity and parent-reported preventive care actions, including *preventive medication actions*. We used multivariate logistic regression analyses to explore the relationship between race and asthma outcomes while controlling for caregiver age, Medicaid status, educational level, marital status, smokers in the home and practice type. A two sided alpha <.05 was considered significant.

Results

We enrolled 100 non-Hispanic Black and 77 non-Hispanic White children with persistent asthma from 6 urban primary care practices, with an overall enrollment rate of 82%. Table I presents demographic characteristics of the sample. Children had a mean age of 6 years and 60% were male. Only 21% of the sample was being seen for an asthma-related visit. We found that compared to White children, Black children were more likely to have public insurance (67 vs. 22%), and to be seen in a family medicine practice as compared to a pediatric primary care office. Caregivers of Black children were more likely to be single (80 vs. 27%) and to have less than high school education (23 vs. 3%).

At baseline, over half (58%) of the subjects overall were experiencing moderate to severe persistent symptoms based on NHLBI criteria (Table II). Subjects experienced, on average, 7.6 symptom-free days in the prior two weeks. Although all children in this sample were experiencing persistent symptoms at the time of enrollment, 69% of caregivers reported their child's asthma was under good control.

Black children were experiencing worse asthma morbidity at baseline as compared to their White peers. They were significantly more likely to report asthma-related activity limitation (60 vs. 27%) and to have had at least one hospitalization or ED visit for asthma in the prior year (53 vs. 27%). Black children were also at increased risk of smoke exposure, being significantly more likely to have a primary caregiver who smokes/live with a smoker (Table I). Despite this elevated environmental risk, Black children were less likely to report having a daily preventive asthma medication prior to the index visit (44 vs. 65%).

Within two weeks of the index visit, we asked caregivers to report specific asthma actions that occurred at the point of care (Table III). In total, 69% of caregivers reported that asthma was discussed at the index visit, though very few specific asthma actions were taken, with only 20% of caregivers reporting that their child received a *preventive medication action*. Although the frequency of asthma actions as a whole was low, Black children were significantly more likely to receive counseling to reduce secondhand smoke exposure (68 vs. 42%). However, despite more severe asthma morbidity, Black children were no more likely to receive a *preventive medication action* compared to White children (22 vs. 17%).

Overall, 68% of caregivers stated that all of their needs had been met at the visit, and 69% reported that they were "completely satisfied" with the quality of care their child received. There were no differences in satisfaction with care between Black and White children.

We found that racial health disparities persisted at the 2 month follow-up, with Black children still reporting greater asthma symptom severity compared to White children, experiencing more than 1 additional symptom night and almost 2 more days with activity limitation over two weeks (Table IV). Black children also remained less likely than White children to report having a preventive medication (59 vs. 79%) at the two-month follow-up.

Discussion

The Institute of Medicine defines healthcare disparities as differences in the quality of care due to the operation of the healthcare system. This includes poorer quality of care based on one's race or ethnicity.²⁴ Asthma is a serious and common chronic health condition with substantial morbidity and mortality, especially within the African-American community. This serves as an important marker indicating the need for prompt action to improve care and reduce health disparities.

In this study we evaluated providers' asthma care actions based on the guidelines set by the NHLBI. These guidelines indicate specific preventive care measures that should be taken for every child with persistent asthma symptoms, and specifically recommend the use of effective daily preventive anti-inflammatory medications.¹¹ Our findings are consistent with prior research showing that, when compared to their White peers, Black children experience greater asthma severity and are less likely to be using these recommended preventive medications.^{7,18} Importantly, despite this increased morbidity, Black children were no more likely than White children to receive a *preventive medication action* at the time of a healthcare visit. We also found that, two months after the index visit, Black children continued to report significantly greater asthma morbidity than their White peers. This suggests that additional preventive asthma care actions were needed at the time of the visit.

These findings are particularly striking since we enrolled symptomatic children in the waiting room immediately prior to a visit with a provider, thus eliminating access to healthcare barriers, which are often cited as a major contributor to racial health disparities.²⁵⁻²⁷ These results suggest that, in addition to commonly cited barriers like access to care, health disparities may also be perpetuated by racial differences in the content of NHLBI guideline-based care delivered at the time of an office visit.

Encouragingly, the majority of caregivers of Black children reported that some appropriate actions related to asthma care were delivered at the time of the index visit. Caregivers of Black children were more likely than those of White children to report having received secondhand smoke reduction counseling at the index visit. This is appropriate since Black children were also more likely to have a primary caregiver that smokes/have a smoker living in the home.

Notably, although all children in this study were experiencing persistent asthma at the time of enrollment, more than two-thirds of all caregivers reported that their child's asthma was under good control. This is consistent with prior literature²⁸ and is problematic for several reasons. Parents who do not perceive their child's asthma as being poorly controlled may not relay adequate symptom information to the healthcare provider and may not recognize when their child's current asthma therapy is insufficient. Furthermore, if caregivers are not aware of their child's persistent symptoms, they may be less receptive to any preventive care treatments encouraged by the provider. Caregivers' responses to questions regarding their level of satisfaction at the index visit further suggest that caregivers may be unaware of the need for improved preventive care for their children. The majority of caregivers reported that they felt all of their needs had been met at the visit (68%), and that they were

“completely satisfied” with the quality of care they received (69%). Future studies are needed to evaluate caregivers’ expectations for their child’s asthma care, as well as what influences a provider’s practice decisions during a healthcare visit.

Study Limitations

Our results must be interpreted in light of their limitations. The frequency of providers’ asthma care actions was determined solely by caregiver report. Still, prior research has found caregiver report to be reasonably accurate, particularly within a short time after the visit,²⁹ and ultimately, it is the caregiver’s perception of what occurred during the visit that is most pertinent. There are many steps required to adhere to a daily, preventive medication (i.e.; physician assessment, prescription of medication, receipt of medication from pharmacy, administering the medication daily), and this study reflects the caregiver’s report of what happened during their child’s visit to the healthcare provider. Further, we only included non-Hispanic Black and White children in this study due to an inadequate sample of children from other racial and ethnic backgrounds. Lastly, all children were enrolled in urban Rochester NY, and thus findings can only be generalized to similar areas.

Conclusions

While the primary care setting is ideal for the delivery of preventive asthma care, missed opportunities to deliver guideline-based care are common for all children and racial disparities in asthma care at the time of an office visit exist. Despite greater symptom severity and a decreased likelihood of having a preventive asthma medication prior to the index visit, Black children were no more likely than White children to receive a *preventive medication action* at the point of care. Asthma symptoms persisted for these children at two month follow-up, suggesting additional preventive actions were required.

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References

1. Akinbami LJ, Moorman JE, Garbe PL, Sondik EJ. Status of Childhood Asthma in the United States, 1980–2007. *Pediatrics*. 2009; 123:S131–S145. [PubMed: 19221156]
2. Gupta RS, Springston EE, Weiss KB. Eliminating asthma disparities: is there evidence of progress? *Curr Opin Pulm Med*. Jan; 2009 15(1):72–78. [PubMed: 19077709]
3. McDaniel M, Paxson C, Waldfogel J. Racial disparities in childhood asthma in the United States: evidence from the National Health Interview Survey, 1997 to 2003. *Pediatrics*. May; 2006 117(5):e868–877. [PubMed: 16651291]
4. Gupta RS, Carrion-Carire V, Weiss KB. The widening black/white gap in asthma hospitalizations and mortality. *J Allergy Clin Immunol*. Feb; 2006 117(2):351–358. [PubMed: 16461136]
5. Dougherty D, Meikle SF, Owens P, Kelley E, Moy E. Children’s Health Care in the First National Healthcare Quality Report and National Healthcare Disparities Report. *Med Care*. Mar; 2005 43(3 Suppl):I58–63. [PubMed: 15746592]
6. Bryant-Stephens T. Asthma disparities in urban environments. *J Allergy Clin Immunol*. Jun; 2009 123(6):1199–1206. quiz 1207–1198. [PubMed: 19501229]

7. Crocker D, Brown C, Moolenaar R, et al. Racial and ethnic disparities in asthma medication usage and health-care utilization: data from the National Asthma Survey. *Chest*. Oct; 2009 136(4):1063–1071. [PubMed: 19567492]
8. Grant EN, Lyttle CS, Weiss KB. The relation of socioeconomic factors and racial/ethnic differences in US asthma mortality. *Am J Public Health*. Dec; 2000 90(12):1923–1925. [PubMed: 11111268]
9. Oraka E, Iqbal S, Flanders WD, Brinker K, Garbe P. Racial and ethnic disparities in current asthma and emergency department visits: findings from the national health interview survey, 2001–2010. *J Asthma*. Jun; 2013 50(5):488–496. [PubMed: 23544662]
10. U.S. Department of Health and Human Services. [Accessed 9/10/2012] Asthma and African Americans. 2012. <http://minorityhealth.hhs.gov/templates/content.aspx?ID=6170>
11. NIH publication No. 07–4051. Bethesda, MD: U.S. Department of Health and Human Services; National Institute of Health; National Heart, Lung, and Blood Institute; National Asthma Education and Prevention Program; 2007. Expert panel report III: guidelines for the diagnosis and management of asthma.
12. Senthilselvan A, Lawson JA, Rennie DC, Dosman JA. Regular use of corticosteroids and low use of short-acting beta2-agonists can reduce asthma hospitalization. *Chest*. Apr; 2005 127(4):1242–1251. [PubMed: 15821201]
13. Garg VK, Bidani R, Rich EP, Hershey E, Hershey CO. Asthma patients' knowledge, perception, and adherence to the asthma guidelines. *J Asthma*. Oct; 2005 42(8):633–638. [PubMed: 16266952]
14. Schneider A, Biessecker K, Quinzler R, et al. Asthma patients with low perceived burden of illness: a challenge for guideline adherence. *Journal of evaluation in clinical practice*. Dec; 2007 13(6):846–852. [PubMed: 18070254]
15. Okelo SO, Butz AM, Sharma R, et al. Interventions to modify health care provider adherence to asthma guidelines: a systematic review. *Pediatrics*. Sep; 2013 132(3):517–534. [PubMed: 23979092]
16. Lee G, Le T. Training pediatricians to adhere to asthma guidelines. *Pediatr Asthma Allergy Immunol*. Sep; 2013 26(3):110–114.
17. Newacheck PW, Halfon N. Prevalence, impact, and trends in childhood disability due to asthma. *Arch Pediatr Adolesc Med*. Mar; 2000 154(3):287–293. [PubMed: 10710030]
18. McDaniel MK, Waldfogel J. Racial and ethnic differences in the management of childhood asthma in the United States. *J Asthma*. Oct; 2012 49(8):785–791. [PubMed: 22784007]
19. Yee AB, Fagnano M, Halterman JS. Preventive asthma care delivery in the primary care office: missed opportunities for children with persistent asthma symptoms. *Acad Pediatr*. Mar; 2013 13(2):98–104. [PubMed: 23294977]
20. Cabana MD, Rand CS, Becher OJ, Rubin HR. Reasons for pediatrician nonadherence to asthma guidelines. *Arch Pediatr Adolesc Med*. Sep; 2001 155(9):1057–1062. [PubMed: 11529809]
21. Cabana MD, Ebel BE, Cooper-Patrick L, Powe NR, Rubin HR, Rand CS. Barriers pediatricians face when using asthma practice guidelines. *Arch Pediatr Adolesc Med*. Jul; 2000 154(7):685–693. [PubMed: 10891020]
22. Gupta RS, Weiss KB. The 2007 National Asthma Education and Prevention Program asthma guidelines: accelerating their implementation and facilitating their impact on children with asthma. *Pediatrics*. Mar; 2009 123(Suppl 3):S193–198. [PubMed: 19221163]
23. Halterman JS, Kitzman H, McMullen A, et al. Quantifying preventive asthma care delivered at office visits: the Preventive Asthma Care-Composite Index (PAC-CI). *J Asthma*. Sep; 2006 43(7):559–564. [PubMed: 16939999]
24. Institute of Medicine of the National Academies. *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care*. 2002.
25. Flores G, Snowden-Bridon C, Torres S, et al. Urban minority children with asthma: substantial morbidity, compromised quality and access to specialists, and the importance of poverty and specialty care. *J Asthma*. May; 2009 46(4):392–398. [PubMed: 19484676]
26. Centers for Disease Control. Asthma Mortality -- Illinois, 1979–1994. Morbidity and Mortality Weekly Report. 1997; 46(37):877–880. <http://www.cdc.gov/mmwr/preview/mmwrhtml/00049363.htm>. [PubMed: 9310212]

27. LeNoir MA. Asthma in inner cities. *J Natl Med Assoc.* Aug; 1999 91(8 Suppl):1S–8S. [PubMed: 12653387]
28. Halterman JS, Yoos HL, Kitzman H, Anson E, Sidora-Arcoleo K, McMullen A. Symptom reporting in childhood asthma: a comparison of assessment methods. *Arch Dis Child.* Sep; 2006 91(9):766–770. [PubMed: 16705016]
29. Halterman JS, Fisher S, Conn KM, et al. Improved preventive care for asthma: a randomized trial of clinician prompting in pediatric offices. *Arch Pediatr Adolesc Med.* Oct; 2006 160(10):1018–1025. [PubMed: 17018460]
30. President’s Task Force on Environmental Health Risks and Safety Risks to Children. Coordinated Federal Action Plan to Reduce Racial and Ethnic Asthma Disparities. 2012.

Implications

The importance of standardizing care is reflected in a new United States federal action plan³⁰ which aims to reduce racial and ethnic asthma disparities by minimizing barriers that prevent the consistent delivery of NHLBI guideline-based asthma management. As our results demonstrate, missed opportunities for preventive care are common. Black children continue to receive sub-optimal preventive asthma care, even when they are present at a healthcare visit with significant symptoms. Further efforts to promote consistent provision of guideline-based preventive asthma care are critical to reducing racial disparities in care for children with persistent asthma.

Table I

Population Demographics

	Overall N=177	Black N=100	White N=77	P-value
Child Age, mean $\pm$ SD ^a	6.32 (2.8)	6.37 (2.8)	6.26 (2.8)	.852
Child Gender: Male ^b	60% (107)	59% (59)	62% (48)	.757
Medicaid Insurance ^b	47% (84)	67% (67)	22% (17)	<.001
Caregiver Age: $\geq$ 30 years ^b	72% (127)	57% (57)	91% (70)	<.001
Caregiver Marital Status: Single ^b	57% (101)	80% (80)	27% (21)	<.001
Caregiver Education: < High School ^b	14% (25)	23% (23)	3% (2)	<.001
Primary Caregiver Smokes ^b	29% (51)	41% (41)	13% (10)	<.001
Smoker(s) Live in Child's Home ^b	44% (77)	54% (54)	30% (23)	.001
Pediatric Primary Care Office ^b	80% (142)	77% (69)	95% (73)	<.001
Asthma-Related Visit ^b	21% (37)	20% (20)	22% (17)	.852

^a Mann-Whitney non-parametric test, Mean (SD)

^b Chi-Square test, % (Number)

Table II

Asthma Morbidity and Medication Use at Baseline

	Overall N=177	Black N=100	White N=77	P-Value
Asthma Severity Level ^a				
<i>Mild Persistent</i>	42% (74)	40% (40)	44% (34)	.719
<i>Moderate to Severe Persistent</i>	58% (103)	60% (60)	56% (43)	
Symptom-Free Days (0–14 days), mean (SD) ^b	7.6 (4.9)	7.5 (4.9)	7.7 (5.1)	.737
Asthma-Related Activity Limitation (prior month) ^a	46% (81)	60% (60)	27% (21)	<.001
1 Emergency Department Visit or Hospitalization (prior year) ^a	42% (74)	53% (53)	27% (21)	.001
Caregiver Report of Good Asthma Control ^a	69% (122)	71% (71)	66% (51)	.516
Child has a Preventive Asthma Medication ^a	53% (94)	44% (44)	65% (50)	.006

^aChi-Square test, % (Number)^bMann-Whitney non-parametric test, Mean (SD)

Preventive Asthma Actions at the Point of Care

Table III

	Overall N=177	Black N=100	White N=77	β (95% CI for β)	Adjusted P-Value
Asthma Discussed at Visit	69% (123)	68% (67)	73% (56)	1.58 (0.61, 4.10)	.350
Received <i>Preventive Medication Action</i>	20% (35)	22% (22)	17% (13)	1.04 (0.37, 2.97)	.937
Received Written Asthma Action Plan	14% (24)	20% (20)	6% (4)	0.34 (0.09, 1.30)	.114
Asthma Follow-Up or Referral to Specialist Requested	30% (53)	33% (33)	26% (20)	1.11 (0.45, 2.73)	.819
Trigger Reduction Discussed	33% (55)	37% (37)	26% (18)	1.04 (0.41, 2.60)	.938
Counseling to Reduce Smoke Exposure/Resources to Quit Smoking	56% (100)	68% (68)	42% (32)	0.34 (0.14, 0.81)	.015

Logistic Regression Models include: Child's race, Medicaid insurance, caregiver factors (age, education level, marital status), smokers living in the home, and practice type

Table IV**Asthma Morbidity Two Months Post Healthcare Visit**

	Overall N=158	Black N=89	White N=69	P-Value
Symptom-Free Days ^a	9.8 (5.0)	9.0 (5.2)	10.8 (4.7)	.006
Nights with Symptoms ^a	1.9 (3.7)	2.4 (4.1)	1.2 (2.9)	.003
Days with Activity Limitation ^a	2.0 (3.7)	2.7 (4.1)	1.1 (2.8)	<.001
Days Using Rescue Medication ^a	2.6 (4.3)	3.2 (4.6)	1.9 (3.8)	.007
1 Emergency Department Visit or Hospitalization Since Baseline ^b	3% (6)	5% (5)	1.3% (1)	.235
Child has a Preventive Asthma Medication ^b	67% (103)	59% (52)	79% (51)	.015

^a Mann-Whitney non-parametric test, Mean (SD), Range 0–14 days

^b Chi-Square test, % (Number)