Inflammatory Bowel Disease among Black American Population: Assessing Disparities and Determinants of Pharmacologic Management and Ambulatory Care

Clara Wilson

SUNY Downstate Health Sciences University
School of Public Health

Abstract

Inflammatory bowel disease (IBD) requires optimization and adherence to medication regimens and consistent follow-up care to abate deterioration of quality of life. Racial disparities have been seen in IBD care and in adverse outcomes from complications prevalent in the black American population. This literature review aims to assess the public health significance, identify predictive factors, and characterize disparities and determinants of health in access, utilization, and adherence to pharmacologic therapy and ambulatory care for the IBD black American population in the United States. Several risk factors are highly prevalent and contribute to disparities, including lower socioeconomic status, Medicare and Medicaid, and varying levels of patient education, health beliefs/ attitudes, and perceptions of their disease. There is some discordance in the literature, but the majority of studies do endorse decreased utilization of medications like infliximab and immunomodulators, limited studies endorsing similar to decreased medication adherence, especially during asymptomatic phases of the disease, comparable utilization of ambulatory care, increased amounts of inpatient hospitalizations and emergency department visits, and several unique barriers to ambulatory care in the black American population.

Public Health Significance

- Black American IBD patients have lower disease burden than whites
- However, have ***twice*** the prevalence of ***IBD-related hospitalization and death*** compared to other ethnic groups[1,2]
- Research inconsistent on whether disease behavior is more severe in this population[3-11]
- Studies corroborate ***racial disparity in quality of life and management***, both of which are worse for this population[12-14]

Objectives

- Assess the public health significance of racial disparity among Black American IBD patients
- Identify predictive factors alongside race/ethnicity that impact these racial disparities
- Characterize disparities/determinants of health in access, utilization, and adherence to *pharmacologic therapy*
- Characterize potential disparities and determinants of health in access, utilization, and barriers to *ambulatory care follow-up*

Methods

- Literature review : no time, through Google Scholar & PubMed
- **Inclusion criteria**: meta-analysis, systematic reviews, RCTs, observational, case-control studies, cohort, and cross-sectional studies about racial disparities of medical therapies and ambulatory care in the black population in America with IBD
- **Exclusion criteria**: narrative reviews or editorials, and subpopulations, and like pregnant women.
- Medical therapy: corticosteroids, 5-aminosalicylic acid (5-ASA) derivatives (mesalamine and sulfasalazine), immunosuppressants (azathioprine, methotrexate, mycophenolate, cyclosporine, tacrolimus, 6-mercaptopurine), and biologic agents [anti- TNF agents (infliximab, adalimumab, golimumab, and certolizumab), vedolizumab, natalizumab, ustekinumab, and tofacitinib].[15]
- Ambulatory care : any outpatient gastroenterology follow-up

Table 1: Disparities in Access and Utilization of Pharmacologic Management

Studies Showing Racial Disparities	Studies Showing No Racial Disparities
Six studies : white patients more likely to be treated w/ immunomodulators and infliximab, despite similar disease severity[28,29, 3, 7, 22, 24, 30, 31]	**Two studies**- no disparity in biologic or immunomodulator therapy, after controlling insurance and SES[16, 27]

Table 2 : Disparities in Adherence to Pharmacologic Management

Studies Showing Racial Disparities	Studies Showing No Racial Disparities
Two studies- One validated scale of med adherence- found **76% reduced odds** being adherent AA vs. white[21]; Other study: AA more **freq discontinued. Meds** when felt better and less likely to feel disease under controlled[24]	No studies, but also limited studies overall about racial disparities in IBD med adherence

*Note: two studies support SES associate w/ adherence[32-34]

Table 3: Access and Utilization of IBD Ambulatory Care

Studies Showing Racial Disparities	Studies Showing No Racial Disparities
Two studies: lower rate GI clinic use by AA[28,24]	One study show no association[25]
Two studies: higher IBD-related ED admission and inpatient hospitalization[28,36]	One study show AA men had highest annual visits/person[35]
	One study: Similar hospitalization across groups, but different barriers to ambulatory care noted[12]

Barriers to Ambulatory Care[12, 33, 28]

- **Cost of Healthcare**
  - Black American IBD pts receiving Medicaid found it difficult to afford. healthcare and endorse obstacles with finances
- **Transportation**
  - after adjusting for SES, not an obstacle
- **Difficulty obtaining referral to specialist & long wait times**
- **Social support**
  - AA less likely to share info about disease to employers, fellow employees and friends

Results

- **Predictive/Risk Factors** lower SES, Medicaid/lack of health insurance, differences in patient education, health beliefs, patient-physician trust, and perception of disease[12, 16-26]
- Although data discordant, majority of lit supports presence of racial disparities in pharm / ambulatory care in black IBD pts

Discussion/Conclusion

- Racial disparities research in IBD management is limited in this pop- **need more research** looking at effect of race and SES, individually and together
- Acknowledge black diaspora in research- **immigrant vs. US-born**
- Need for **patient education programs + behaviorally-oriented programs**- perception/trust/beliefs that influence adherence and utilization of meds

References

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Faculty Advisor

Dr. Denise Bruno, MD, MPH
Community Health Science