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Barriers to Urinary Incontinence Care Seeking in White, Black, and Latina Women

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Abstract

Introduction—We compared barriers to urinary incontinence (UI) healthcare seeking between white, black, and Latina women.

Methods—This is a cross-sectional study using a convenience sample of white, black, and Latina women. Women completed the Barriers to Incontinence Care Seeking Questionnaire (BICS-Q), the Incontinence Quality of Life Instrument (I-QOL), the Questionnaire for Urinary Incontinence Diagnosis (QUID), and the Incontinence Severity Index (ISI). The primary objective was to assess barriers to UI care seeking among groups, as measured by the BICS-Q. Secondary objectives were to assess factors associated with barriers to incontinence care and to compare specific barriers using BICS-Q subscale scores. Regression analyses were used to further assess for differences among groups while adjusting for potential confounding variables.

Results—We included a total of 93 subjects, including 30 white, 33 black, and 30 Latina women. Mean I-QOL, QUID, and ISI scores were not significantly different among our three groups. Barriers, based on BICS-Q scores, were lowest in white women and higher in blacks and Latinas (2.9 vs. 7.3 vs. 10.9 respectively, $p<0.001$). When adjusting for potential confounders such as age, income, education, presence of UI, ISI score, and I-QOL score, Latinas continued to demonstrate higher barriers compared to white or black women ($\beta= 7.4$, 95% CI: 2.2–12.7; $p=0.006$). There were no significant differences between black women compared to other groups in the adjusted analyses.

Conclusions—Latinas experience more barriers to UI healthcare seeking compared to white and black women.

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Keywords

Barriers; Disparities; Incontinence; Treatment; Urinary

Introduction

Urinary incontinence (UI) is a prevalent medical condition that can have profound effects on a woman's quality of life [1]. Up to 45% of adult woman have some urinary incontinence, [2] with the age-adjusted prevalence of *weekly* incontinence ranging from 25% to 36% in black, white and Hispanic women [3]. Despite the high prevalence and significant impact on quality of life, fewer than half of affected women seek professional health care for UI [4]. In the minority of women who inquire about treatment, there is evidence of some racial and ethnic disparity. In one population-based study in the United States (US), 70% of white compared to 16% Latina, 6% black and 5% Asian women with UI admitted to seeking care for their UI symptoms [5].

The decision to seek care for a health condition is influenced by a number of factors. These include: (1) the severity of symptoms; (2) how symptoms impact quality of life; and (3) a woman's knowledge regarding treatment options [6]. Finally, barriers could exist that prevent certain segments of the population from seeking care for a condition. We know that there are disparities in treatment seeking behaviors for UI, but it is unclear if these disparities occur because of differences in symptoms, knowledge about UI, or because of real or perceived barriers to health care. Thus, the primary objective of this study was to assess overall barriers to UI care seeking among white, black and Latina women. Furthermore, we sought to assess how specific qualities of these barriers may differ in the same three groups of women.

Materials and Methods

We conducted a cross sectional study from October 2011 to April 2012 in a convenience sample of community-dwelling white, black, and Latina women in Durham, North Carolina. The research protocol was approved by the Institutional Review Board at Duke University Medical Center (DUMC). Study participants were a convenience sample of women who had enrolled in a series of focus groups regarding care seeking behavior for UI. Participants were recruited from a range of clinical sites within DUMC, and from community groups in Durham, North Carolina. Inclusion and exclusion criteria were the same as those in the survey and the focus groups. Women were included if they were over 18 years of age and self-identified themselves in one of the following three categories: white non-Hispanic/Latina, black non-Hispanic/Latina, or Hispanic/Latina. Women were excluded if they were pregnant, up to three months postpartum, non-English speaking (for white and black participants), non-Spanish speaking (for Latina participants), or mentally incapable of completing self-administered questionnaires. Although the parent study included women without UI, for the current analysis we only included focus group subjects who scored 1 or greater on the Questionnaire for Urinary Incontinence Diagnosis (QUID)[7], indicating the presence of some urinary incontinence.

Potential study candidates were screened over the telephone. During this screening call, women completed standard questions assessing their level of education and socioeconomic status based on gross annual household income. Women were also asked if they experienced urinary leakage either daily, weekly, monthly, or never. Women were then scheduled to attend a single two-hour study session that included completion of questionnaires and participation in one focus group. After informed consent was obtained, but prior to beginning the focus group discussion, participants completed a series of validated questionnaires assessing barriers and urinary symptoms.

Questionnaires included the Questionnaire for Urinary Incontinence Diagnosis (QUID)[7], the Sandvik Incontinence Severity Index (ISI) [2], the Incontinence Quality of Life Instrument (I-QOL) [1], and the Barriers to Incontinence Care Seeking Questionnaire (BICS-Q) [8]. The QUID assesses for presence and *type* of UI. It is scored from 0–30, and includes two subscales that allow the investigator to distinguish between stress incontinence and urgency incontinence. The ISI assesses both frequency and volume of urinary leakage. It is scored from 0–8 with higher scores indicating increased UI severity [2]. The I-QOL is a condition-specific measurement that contains 22 questions assessing the impact of UI on quality of life. On the I-QOL, higher scores indicate better UI-related quality of life [1]. The BICS-Q includes 14 questions divided into 5 subscales: inconvenience, relationships, cost, site-related factors, and fear. On this measure, higher scores indicate more barriers to incontinence care seeking [8]. All questionnaires were initially validated in English-language populations. The I-QOL has since demonstrated validity in Spanish and a Spanish-language translation is available [9]. For our study, the QUID, ISI and BICS-Q were translated into Spanish using a certified health-care translation service (www.cyracom.com) [10]. For the white and black women, screening calls, study sessions, and questionnaires were completed in English. For Latinas, all study related calls, visits, and questionnaires were completed in Spanish.

The current analysis was conducted to assess for barriers to health care seeking in women with urinary incontinence. Thus, we only included women reporting the presence of UI, based on a score of 1 or more on the QUID. Our primary objective was to assess overall barriers to UI care seeking among white, black and Latina women, as measured by BICS-Q total scores. Secondary objectives were to assess factors associated with barriers to UI care seeking and to compare specific barriers amongst our three groups using BICS-Q subscale scores. Educational status, socioeconomic status, incontinence severity, and incontinence-related quality of life information were collected and analyzed as potential confounders. Categorical variables were analyzed using Chi-Square. Continuous variables were analyzed using one-way analysis of variance (ANOVA), and the Tukey test was used for *post hoc* comparisons. Linear regression models were constructed to further assess differences in BICS-Q scores amongst groups, while adjusting for potential confounding variables. All statistical analyses were performed using SPSS Software (Version 19.0 for Mac; SPSS Inc., Chicago, Illinois), and $p < 0.05$ was considered statistically significant. Data are presented according to Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) guidelines [11].

Results

From our convenience sample, 93 participants reported UI and were included in our study. These encompassed 30 white, 33 black, and 30 white Latina women. There were no black Latinas in our study population. Subject characteristics are summarized in Table 1. White and black women were significantly older than Latina woman (52 vs. 49 vs. 38 years, respectively, $p<0.01$). Education levels and annual household incomes were significantly higher in white, compared to black and Latina women. Proportions of women with weekly or daily UI, UI severity based on QUID and ISI scores, and UI-related quality of life (I-QOL) scores were not significantly different among our three groups.

For our primary outcome, there was an overall difference in barriers based on total BICS-Q scores across all three groups, $p<0.001$ (Table 2). This was mainly driven by a significantly higher barrier score in Latinas compared to white women (10.9 vs. 2.9, $p < 0.001$) in *post hoc* analyses. All five BICS-Q subscale scores were also significantly different among the three groups. *Post hoc* analyses revealed that compared to white women, blacks had more relationship barriers ($p=0.01$), and Latinas reported more barriers due to inconvenience ($p<0.01$), cost ($p=0.02$), site-related factors ($p<0.01$), and fear ($p<0.01$). When compared with blacks, Latinas still reported more barriers due to fear ($p=0.03$), but there were no other significant differences in reported barriers between blacks and Latinas.

When adjusting for potential confounders such as age, income, education, ISI score, and I-QOL score, Latina women continued to report higher barriers based on total BICS-Q score compared to black and white women ($\beta= 7.4$, 95% CI: 2.2–12.7; $p=0.006$). In the adjusted analyses, there were no significant differences in total BICS-Q scores between black women compared to other groups. Because of the differences noted in subscale scores, we also constructed regression models assessing BICS-Q subscale scores while adjusting for the same potential confounders (Table 3). Compared to white and black women, Latinas continued to demonstrate higher barriers due to inconvenience, cost, site-related factors, and fear, even when adjusting for potential confounding variables. There were no significant differences between black women compared to other groups in the adjusted subscale analyses.

Discussion

On the basis of our findings, barriers exist to UI health care seeking. Latinas in particular experience more barriers to UI healthcare seeking compared to white and black women. Latinas perceived more barriers due to inconvenience, cost, site-related factors, and fear. Black women expressed more relationship barriers with their healthcare providers compared to white and Latina women, but this difference was no longer significant in the adjusted analyses.

The strengths of our study include the use of a validated questionnaire to assess for barriers to health care, which is often a nebulous concept. Because of the BICS-Q subscales, we were able to understand specific factors underlying these barriers in the women we studied.

We also collected information on age, income, education, UI severity, and UI-related quality of life; thus we were able to adjust for potential confounding factors.

We were limited by the relatively small size of our sample population, and by the fact that the women volunteered to participate in focus groups on health seeking behaviors. Despite our small sample size, we were still able to detect significant differences in barriers, particularly with regards to Latina women. For the black women, some differences in barriers approached the significance threshold, and it is uncertain if these would have become significant with a larger sample size. Our results are reflective of community-dwelling women in the Southeastern area of the United States and thus may not be applicable in other geographic areas. In particular, much of our Latina population is composed of Mexican and Central American immigrants; these women may face different barriers than other Latinas from Europe or South America. In addition, other racial/ethnic groups are lacking. In particular, Asian women were not included in the study since Durham, North Carolina is under-represented by Asians (4.4% compared to 45% non-Hispanic white, 12% Hispanic and 37% black) [12]. Our study also does not account for women of mixed race/ethnicity. Further research would be useful in demographic areas with larger populations of racial and ethnic minorities in order to further understand barriers to UI care in different populations. Finally, an additional limitation is the lack of validated questionnaires in Spanish. We used a professional company to translate questionnaires (which included back-translation by native speakers) and it is unclear if there would be any differences in responses of Latina women if the BICS-Q, QUID, or ISI questionnaires were validated in Spanish.

There are few studies that assess UI care seeking among different races and ethnicities. Our findings are consistent with Berger et al., who demonstrated that black and white women did not exhibit differential barriers to UI care seeking [13]. In our study, Latinas seem to be disproportionately affected by barriers, rather than black women. Kubik et al. demonstrated that socioeconomic status explains racial differences in UI knowledge, and differences in knowledge could be reflected in the “fear” subscale of the BICS questionnaire [14]. The Latinas in our study were also significantly younger than the black or white women; thus it is unclear if age is an additional factor in the barriers seen in Latinas in our study.

It is not surprising that Latinas in our study had more barriers secondary to cost, given that no Latinas reported household incomes greater than $40,000. This is comparable to the median income of Hispanic households in the US which was $37,759 in 2010 [12]. Although we attempted to broadly include women of different socioeconomic status in our focus groups, it was difficult to identify Latinas with higher incomes to participate in our study. This again, likely is a reflection of community-dwelling women in the Southeastern region of the US. Though we attempted to control for income disparity in our adjusted analyses, it is possible that there are additional confounding factors with regard to socioeconomic status that may affect our results. Insurance status, for example, was not collected for this study; therefore it is unclear if this factor also contributes to cost barriers. Other studies corroborate that cost can be a significant barrier for UI treatment seeking in any population [14, 15]. When adjusting for socioeconomic status, cost no longer remained a disparate factor affecting Latinas. However, in the adjusted analyses, inconvenience, site-related factors, and fear remained as significant barriers in Latinas suggesting that some unique disparities exist even when controlling for confounders like socioeconomic status and education. It is possible that clinic availability, lack of interpreters, and language difficulties contribute to the inconvenience and site-related barriers exhibited in Latinas. Transportation, child-care issues, and the inability to take time off of work may also result in “inconvenience” and “site-related barriers”, but could also be linked to socioeconomic status. Thus, a similar study in women with equivalent socioeconomic status would be very informative. Barriers related to fear may be due to language/vocabulary issues, cultural differences, or lack of general health care or UI-specific knowledge. More information regarding the sources of fear in Latinas would be useful.

This research provides insight into healthcare disparities that may limit certain racial, and particularly ethnic, groups from seeking UI treatment. Knowing why certain groups of women are hesitant about pursuing care will help to determine specific interventions that could be performed to eliminate disparities.

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Brief Summary

Latina women experience significantly more barriers to urinary incontinence care seeking than white or black women.

Table 1

Subject characteristics

	White n=30	Black n=33	Latina n=30	P value
Age[a]	51.8 ± 15.9	49.0 ± 8.1	38.1 ± 14.2	< 0.01[c]
College or professional degree[a]	22 (76)	14 (52)	4 (14)	< 0.01[d]
Household Income > $40K[a]	14 (49)	4 (15)	0 (0)	<0.01[d]
Weekly UI	17(57)	19 (58)	10 (33)	0.10 [d]
ISI[b]	3.1 ± 2.5	3.2 ± 2.6	2.4 ± 2.1	0.50[c]
I-QOL	96.3 ± 18.9	87.0 ± 25.6	80.9 ± 24.3	0.02[c]

Data presented as mean ± standard deviation or n(%)

[a] Information summarized for n=29 white, n=27 black, n=30 Latina women

[b] Information summarized for n=30 white, n=33 black, n=25 Latina women

[c] ANOVA

[d] $\chi 2$ test

Table 2

BICS-Q total and subscale scores

	White n=30	Black n=33	Latina n=30	P value
Total BICS-Q	2.9 ± 3.5	7.3 ± 8.8	10.9 ± 9.1	< 0.01
Inconvenience	0.5 ± 0.8	1.9 ± 2.7	2.8 ± 3.2	< 0.01
Relationship	0.6 ± 1.2	2.0 ± 2.7	1.7 ± 1.7	0.01
Cost	0.7 ± 1.3	1.3 ± 2.2	2.2 ± 2.6	0.02
Site-Related	0.1 ± 0.3	0.7 ± 1.4	1.6 ± 2.3	< 0.01
Fear	1.0 ± 1.5	1.4 ± 1.7	2.6 ± 2.3	< 0.01

Data presented as mean ± standard deviation

[a] One way ANOVA was used for all calculations

Table 3

BICS-Q total and subscale scores (adjusted analyses)

	Coefficient β	95% CI	P value
Total BICS-Q Score			
Black	3.2	−0.7, 7.0	0.12
Latina	7.4	2.2, 12.7	<0.01
Inconvenience Subscale			
Black	1.2	−0.3, 2.6	0.12
Latina	2.4	0.4, 4.4	0.02
Relationship Subscale			
Black	1.0	−0.1, 2.2	0.08
Latina	0.2	−1.3, 1.8	0.76
Cost Subscale			
Black	0.4	−0.7, 1.5	0.42
Latina	1.7	0.2, 3.2	0.03
Site-Related Subscale			
Black	0.5	−0.4, 1.4	0.29
Latina	1.6	0.4, 2.8	0.01
Fear Subscale			
Black	0.05	−0.9, 1.0	0.92
Latina	1.5	0.2, 2.8	0.03

Data were calculated using linear regression models with the following covariates: education, income, age, ISI, and I-QOL. White women were considered the reference group for all analyses.