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Effect of face-to-face interview versus computer-assisted self-interview on disclosure of intimate partner violence among African American women in WIC clinics

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Effect of face-to-face interview versus computer-assisted self-interview on disclosure of intimate partner violence among African American women in WIC clinics

By

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Bachelor of Science
Rhodes College
2010

Thesis Committee Chair: Kathryn M. Yount, PhD

An abstract of
A thesis submitted to the Faculty of the
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Abstract

Effect of face-to-face interview versus computer-assisted self-interview on disclosure of intimate partner violence among African American women in WIC clinics

By Danielle E. Fincher

Background: African American women in the United States report intimate partner violence (IPV) more often than the general population of women. Still, women often under-report IPV because of shame, embarrassment, fear of retribution, or low expectation of legal support. African American women may be especially unlikely to report IPV because of poverty, low social support, and past experiences of discrimination.

Purpose: To determine the context in which low-income African American women disclose IPV.

Methods: Consenting African American women receiving Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) services in WIC clinics were randomized to complete an IPV screening (Revised Conflict Tactics Scales, Short-Form) via computer-assisted self-interview (CASI) or face-to-face interview (FTFI).

Results: Women (n=368) reported high rates of lifetime and prior year verbal (48%, 34%), physical (12%, 7%), sexual (10%, 7%), and any (49%, 36%) IPV, as well as IPV-related injury (13%, 7%). Mode of screening, but not interviewer race, affected disclosure. Women screened via FTFI reported significantly more lifetime and prior-year negotiation (aOR: 10.54, 3.97) and more prior-year verbal (aOR: 2.10), sexual (aOR: 4.31), and any (aOR: 2.02) IPV than CASI-screened women.

Discussion: African American women in a WIC setting disclosed IPV more often in face-to-face than computer screening, and race-matching of client and interviewer did not affect disclosure. Findings highlight the potential value of face-to-face screening to identify women at risk of IPV. Programs should weigh the costs and benefits of training staff versus using computer-based technologies to screen for IPV in WIC settings.

Keywords: African American women, Intimate Partner Violence, Screening, Response Effects.

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I would especially like to thank ECIC research coordinators Kia Colbert, MPH CHES and Shakiyla Smith, MPH for their guidance, and thank my fellow research assistants, Elizabeth Charles, MPH candidate, Pearlann Arnovitz, MD candidate, and Joanna Jungerman, MPH candidate, for their contribution to data collection, participant follow-up, and data entry.

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Chapter 1: Introduction

Context

The World Health Organization defines intimate partner violence (IPV) as "behavior within an intimate relationship that causes physical, sexual, or psychological harm, including acts of physical aggression, sexual coercion, psychological abuse and controlling behaviors" (World Health Organization, 2010, pg.11). IPV is distinct from violence between relatives or acquaintances because it occurs between current or former spouses and current or former unmarried partners. Women, more often than men, are the targets of IPV (Breiding, Black, & Ryan, 2008; Tjaden & Thoennes, 2000). During their lifetime, nearly half of women in the United States report psychological aggression by an intimate partner, while more than one-third of women report rape, physical violence, or stalking (Black et al., 2011). Compared to other races and ethnicities, African American women are disproportionally likely to experience IPV with approximately 4 in 10 African American women reporting rape, physical violence, or stalking by an intimate partner during her lifetime (Black et al., 2011).

A lack of resources within low-income communities where African Americans are over represented may influence African American women's risk for IPV. For example, in some African American communities there is limited access to transportation, employment opportunities, affordable medical care, social and mental health services, homeless and domestic violence shelters, police protection, and legal services (Taft, Bryant-Davis, Woodward, Tillman, & Torres, 2009). Compared to European American women, African American women are hindered in their ability to start anew after a violent relationship because they experience more barriers to utilizing available services and are less likely to receive a livable amount in alimony or child support after a divorce settlement (Brice-Baker, 1994). Lack of resources and systematic

barriers may promote African American women's dependence on African American men, which increases the risk of IPV and the risk of recurrent IPV victimization among African American women (Taft et al., 2009).

IPV and the consequences of IPV are a major public health problem in the United States. IPV predicts poor health outcomes for both women and their children (Yount, DiGirolamo, & Ramakrishnan, 2011). For women, the physical consequences of IPV range from minor injury (scratch, bruise, laceration, sprain) to internal injury, functional disability, and death (Black et al., 2011; Plichta, 2004; Tjaden & Thoennes, 2000). Compared to women with no history of IPV, women who experience IPV are at an increased risk for gastrointestinal problems, chronic pain, sexually transmitted infections and vaginal bleeding, gynecological or pregnancy complications, and are more likely to engage in high-risk behaviors, such as substance abuse, smoking, and unhealthy weight control methods (Kramer, Lorenzon, & Mueller, 2004; Plichta, 2004; Tjaden & Thoennes, 2000). IPV is associated with chronic conditions, including asthma, irritable bowel syndrome, diabetes, frequent headaches, and difficulty sleeping (Black et al., 2011), as well as with mental health problems, including depression, suicidal ideation, post-traumatic stress symptoms, and anxiety (Plitcha, 2004).

Women with a history of IPV and the children of women with a history of IPV are more likely to miss school or work (Black et al., 2011), to utilize healthcare services more often, and to incur greater healthcare costs than women with no history of IPV or children of women with no history of IPV (Rivara et al., 2007a,b). Even after abuse has ended the annual healthcare costs of women with a history of IPV are 19% higher than women with no history of IPV (Rivara et al., 2007a). In children, exposure to IPV affects their physical health, social and emotional

behavior, cognitive functioning, language development, neurological development, and relational development (Yount et al., 2011).

Current estimates of the prevalence of IPV victimization may be underestimated because women often underreport relationship violence. Many women do not report violence because they feel shame or embarrassment, fear retribution from the perpetrator, or do not expect to receive legal support (Ellsberg, Heise, Pena, Agurto, & Winkvist, 2001). African American women are especially unlikely to report IPV or to seek assistance because of poverty, low social support, or expectations of discrimination and mistreatment by service providers (Taft et al., 2009). Underreporting is an important threat to the validity of IPV-related research. IPV prevalence estimates are sensitive to methodological factors including the nature, wording, and length of the question as well as the context of the interview including privacy, interviewer skill, and opportunities to disclose (Ellsberg et al., 2001). Thus, a major challenge of IPV-related research is how to address a sensitive issue in a way that encourages women to speak openly about their experiences.

Problem Statement

Low-income African American women are at an elevated risk for IPV victimization, but are particularly reluctant to disclose relationship violence. Thus, there is a need to understand the contexts in which low-income African American women report IPV. Despite the existence of many IPV screening tools and research on their implementation (see Rabin, Jennings, Campbell, & Bair-Merritt, 2009 for review), the tools themselves are understudied, as are modes of IPV screening. Without a mode of screening that encourages IPV disclosure, accurate prevalence estimates cannot be calculated, and survivors cannot be identified and linked with necessary services.

Purpose of the Project

The project will test the feasibility, acceptability, and efficacy of computer-based versus provider screening for IPV victimization in African American clients of two clinics in metropolitan Atlanta that provide Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) services. WIC is a program of the United States Department of Agriculture, which extends grants to states to provide supplemental food, health care referrals, and nutrition education (including breastfeeding promotion and breastfeeding support) to low-income pregnant, post-partum, and breastfeeding women, infants, and children up to five years old who are at nutritional risk (Martinez-Schiferl, Zedlewski, & Giannarelli, 2013). The goal of the project is to advance knowledge about the most feasible and acceptable means to screen for IPV victimization among low-income African American women and to offer recommendations to WIC clinics incorporating IPV screenings into intake procedures. IPV screening will be an additional service for WIC clients and will allow WIC staff to identify women experiencing IPV and offer information, resources, and services.

Chapter 2: Review of the Literature

Background

IPV in the United States

Each year in the United States approximately 4.7 million women report physical violence by an intimate partner (Black et al., 2011). Overall, 36% of American women report rape, physical violence, or stalking by an intimate partner during their lifetime (Black et al., 2011). Compared to other racial and ethnic groups, African American women are disproportionately likely to experience IPV. In the United States, more African American (44%) than European American (35%) or Hispanic (37%) women report IPV victimization during their lifetime, and African American women experience recurrent IPV victimization at a rate six times higher than that of European American women (Black et al., 2011).

High rates of IPV in African American communities may be partially attributable to poverty (Caetano, Field, Ramisetty-Mikler, & McGrath, 2005). African American women in low-income communities, as well as their partners, face few employment opportunities and lack resources, such as transportation, affordable medical care, social and mental health services, homeless shelters, domestic violence shelters, police protection, and legal services (Taft et al., 2009). When attempting to utilize resources that are available, African American women experience greater barriers compared to European American women (Taft et al., 2009). Furthermore, if an African American woman is able to leave an abusive partner, her ability to support herself is often hampered because African American women are less likely than European American women to receive a livable amount in alimony or child support (Brice-Baker, 1994). Lack of resources and systematic barriers may promote a strong dependence of

African American women on African American men, resulting in an increased risk for IPV and a greater likelihood of recurrent victimization (Taft et al., 2009).

Health Consequences of IPV

IPV and the consequences of IPV are a major public health problem in the United States. IPV predicts poor health outcomes in both women and their children (Yount et al., 2011). For women, the physical consequences of IPV range from minor injury (scratch, bruise, laceration, sprain) to internal injury, functional disability, and death (Black et al., 2011; Plichta, 2004; Tjaden & Thoennes, 2000). Compared to women with no history if IPV, those who experience IPV are at an increased risk for gastrointestinal problems, chronic pain, sexually transmitted infections and vaginal bleeding, gynecological or pregnancy complications, and are more likely to engage in high-risk behaviors, such as substance abuse, smoking, and unhealthy weight control methods (Kramer et al., 2004; Plichta, 2004; Tjaden & Thoennes, 2000). IPV is associated with chronic conditions, including asthma, irritable bowel syndrome, diabetes, frequent headaches, and difficulty sleeping (Black et al., 2011), as well as with mental health problems, including depression, anxiety, suicidal ideation, and post-traumatic stress symptoms (Plichta, 2004).

Women who experience IPV and children of women who experience IPV are more likely to miss school or work (Black et al., 2011), to utilize healthcare services more often, and to incur greater healthcare costs, than women with no history of IPV or children of women with no history of IPV (Rivara et al., 2007a,b). Even after abuse has ended the annual healthcare costs of women with a history of IPV are 19% higher than women with no history of IPV (Rivara et al., 2007a). Exposure to IPV affects children's physical health, social and emotional behavior,

cognitive functioning, as well as language, neurological, and relational development (Yount et al., 2011).

IPV Disclosure

Current estimates of the prevalence of IPV victimization may be underestimated because women often underreport relationship violence. Many women do not report IPV because they are ashamed or embarrassed or because they fear retribution from the perpetrator or do not expect to receive legal support (Ellsberg et al., 2001). African American women are especially unlikely to report IPV or to seek assistance because of poverty, low social support, or expectations of discrimination and mistreatment by service providers (Taft et al., 2009). However, Heron and colleagues found that when low-income African American women do report IPV, their responses to a five-item screening tool are significantly associated with responses on a validated, thirty-item measure of physical and non-physical IPV (Heron, Thompson, Jackson, & Kaslow, 2003). Other research suggests that a positive IPV screen predicts future violence (Houry et al., 2004). Thus, a major challenge of IPV-related research is how to address a sensitive issue in a way that encourages women to speak openly about their experiences.

Underreporting is an important threat to the validity of IPV-related research. Women's disclosure of relationship violence is sensitive to methodological factors including the nature, wording, and length of questions as well as the context of the interview, including privacy, interviewer skill, and opportunities to disclose (Ellsberg et al., 2001). Women are also more likely to answer affirmatively to questions with phrasing about specific acts, such as slapping, swearing, or punching, rather than questions that use emotive terms like "abuse" (Ellsberg et al., 2001). Thus, IPV screening tools with a minimal number of questions or that ask about vague experiences of "abuse" are inadequate.

Despite the existence of many IPV screening tools and research on their implementation, the tools themselves are understudied, as are modes of IPV screening. For example, a systematic review by Rabin and colleagues (2009) described the four most common IPV screening tools: Hurt, Insult, Threaten, and Scream (HITS), Woman Abuse Screening Tool (WAST), Partner Violence Screen (PVS), and Abuse Assessment Screen (AAS). Compared to more thorough tools that included behaviorally specific items, the HITS, WAST, and PVS had variable sensitivity (30–100%; 47%; 35–71%, respectively) but good specificity (86–99%; 96%; 80–94%, respectively), and the AAS had variable sensitivity (32–94%) and specificity (55%–99%) (Rabin et al., 2009). Estimates of screening tools' sensitivities and specificities vary widely within and between screening tools, and overall the literature lacks a comprehensive evaluation of the reliability and validity of IPV screening tools (Rabin et al., 2009).

Without screening tools and modes of screening that encourage IPV disclosure, women experiencing IPV cannot be identified and linked with necessary services. Furthermore, inaccurate estimates of the prevalence of IPV could be used to question the importance of violence as an issue or used to justify reallocation of resources. Interviewer-client race-matching and computer-assisted self-interview (CASI) are two modes of screening that show promise in maximizing disclosure of sensitive information, although their success in eliciting IPV disclosure has not been addressed.

Interviewer-Client Race-Matching

Social science research from the 1970's suggests respondents may be more open and frank with interviewers of their own race (Hatchett & Schuman, 1975-1976). More recently, research investigating the disclosure of sensitive information suggests that interviewer characteristics, especially interviewer appearance, can influence participant survey responses

(Dailey & Claus, 2001; Rosenbaum, Rabenhorst, Reddy, Fleming, & Howells, 2006; Weeks & Moore, 1981). Davis and colleagues found that an integral part of interviewer appearance, the interviewer's race, influenced participants' responses in face-to-face, telephone, and self-administered surveys, and the effects were more dramatic when survey items asked about sensitive topics, such as physical abuse and substance use (Davis, Couper, Janz, Caldwell, & Resnicow, 2010). Effects of interviewer's race may be particularly relevant to our study, which takes place in the southern United States. Research suggests African Americans in the South are more likely to disclose sensitive and potentially stigmatizing behaviors to African American interviewers compared to European American interviewers (Livert, Kadushin, Schulman, Weiss, & Schulman, 1998).

Although the impact of interviewer characteristics on survey responses has been investigated, few studies investigate interviewer-respondent race-matching specifically. One such study failed to find race-matching effects, but did find interviewer effects in that respondents more frequently reported sensitive information to European American interviewers compared to African American interviewers (Dailey & Claus, 2001).

Computer-Assisted Self-Interview

CASIs use a computer interface to guide participants through survey questions. Questions appear on a screen with corresponding answer choices, and participants respond to each question using a touchpad. CASI seems ideally suited for collection of sensitive information because it offers added privacy and anonymity (Rosenbaum et al., 2006). During a CASI, respondents can complete the instrument at their own pace and pre-programmed skip patterns allow for easy and efficient self-administration. Furthermore, when required to universally screen for IPV, many clinicians do not screen for reasons ranging from time constraints to personal discomfort (Larkin,

Hyman, Mathias, D'Amico, & MacLeod, 1999; Larkin, Rolniak, Hyman, MacLeod, & Savage, 2000). Because of the sensitive nature of IPV screening and the lack of provider adherence to screening protocols, researchers have suggested computer-based screening as an alternative that may increase disclosure and bypass the issue of provider compliance.

Results are mixed, however, about CASI's influence on disclosure of sensitive information, and CASI's specific effect on IPV disclosure is understudied. Compared to face-to-face administration of the same questionnaire, CASIs increase disclosure of potentially stigmatizing information, including HIV-status, history of tuberculosis, illicit drug use, and sexual behavior (Newman et al., 2002; Turner et al., 1998). In contrast, face-to-face interviews elicit more frequent reporting of psychological distress, including feelings of hopelessness, worry, or depression (Newman et al., 2002). Other studies found no difference in disclosure rates of sensitive information, including HIV risk behavior and gynecological history, between CASI and face-to-face interview (Hasley, 1995; Sanders et al., 1994).

Significance

This project tests the feasibility, acceptability, and efficacy of computer-based versus provider screening for IPV victimization in African American clients of two clinics in metropolitan Atlanta that provide WIC services. WIC clinics serve a high percentage of low-income African American women, a population at particular risk for IPV victimization (Cunradi, Caetano, & Schafer, 2002), and provide an opportunity to screen for IPV in a non-threatening environment where women can receive services. WIC clinics are also an important, and often the only, point-of-contact between low-income African American women and the healthcare system.

Accurate, effective, and acceptable IPV screening would be an additional service for WIC clients and would allow WIC staff to identify women experiencing IPV and offer

information, resources, and services. Since women repeatedly return to WIC clinics, screening for IPV in a WIC setting provides a unique opportunity to follow-up with clients who answer affirmatively to questions about IPV victimization and to offer continued guidance and resources. In addition, witnessing IPV as a child is associated with future perpetration and victimization (see Wood & Sommers, 2011 for review). Since WIC households contain young children, intervening to prevent or discontinue violence in WIC households could limit children's exposure to violence and prevent future cycles of abuse.

Chapter 3: Manuscript

Effect of face-to-face interview versus computer-assisted self-interview on disclosure of intimate partner violence among African American women in WIC clinics

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This manuscript was developed in preparation for submission to the
Journal of Interpersonal Violence

Contribution of the Student

I wrote a research proposal to secure student funding from the Emory Center for Injury Control Summer Student Scholarship Program. Before the project was submitted to the Emory Internal Review Board, I contributed questions used in the survey and completed ethics training for biomedical research. After the project received IRB approval, I assisted with the preparation of data collection materials and helped train other research assistants in the research protocol. During data collection, I recruited and interviewed all participants at Clinic 1, and assisted with over half of the interviews at Clinic 2. In collaboration with other research assistants, I made follow-up phone calls, entered face-to-face interview data, and entered follow-up survey data. In the fall of 2012, I presented an overview of the project and preliminary findings at the Emory Center for Injury Control Quarterly Meeting. In the spring of 2013, I conducted all data analysis used in the manuscript and led the development of the manuscript for publication under the guidance of Dr. Kathryn M. Yount (Committee Chair) and Dr. Kristin VanderEnde (Committee Member).

Abstract

Effect of face-to-face interview versus computer-assisted self-interview on disclosure of intimate partner violence among African American women in WIC clinics

By Danielle E. Fincher, Kia Colbert, Elizabeth Charles, Pearlann Arnovitz, Kristin VanderEnde, Debra Houry, Shakiyla Smith, and Kathryn M. Yount

Background: African American women in the United States report intimate partner violence (IPV) more often than the general population of women. Still, women in general under-report IPV because of shame, embarrassment, fear of retribution, or low expectation of legal support. African American women may be especially unlikely to report IPV because of poverty, low social support, and past experiences of discrimination. Purpose: To determine the context in which low-income African American women disclose IPV. Methods: Consenting African American women receiving Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) services in WIC clinics were randomized to complete an IPV screening (Revised Conflict Tactics Scales, Short-Form) via computer-assisted self-interview (CASI) or face-to-face interview (FTFI). Results: Women (n=368) reported high rates of lifetime and prior year verbal (48%, 34%), physical (12%, 7%), sexual (10%, 7%), and any (49%, 36%) IPV, as well as IPV-related injury (13%, 7%). Mode of screening, but not interviewer race, affected disclosure. Women screened via FTFI reported significantly more lifetime and prior-year negotiation (aOR: 10.54, 3.97) and more prior-year verbal (aOR: 2.10), sexual (aOR: 4.31), and any (aOR: 2.02) IPV than CASI- screened women. Discussion: African American women in a WIC setting disclosed IPV more often in face-to-face than computer screening, and race-matching of client and interviewer did not affect disclosure. Findings highlight the potential value of face-to-face screening to identify women at risk of IPV. Programs should weigh the costs and benefits of training staff versus using computer-based technologies to screen for IPV in WIC settings.

Keywords: African American women, Intimate Partner Violence, Screening, Response Effects.

Introduction

Intimate partner violence (IPV) refers to “behavior within an intimate relationship that causes physical, sexual, or psychological harm” (World Health Organization, 2010, pg.11). Each year in the United States, approximately 4.7 million women report physical violence by an intimate partner (Black et al., 2011). Overall, 36% of US women report rape, physical violence, or stalking by an intimate partner during their lifetime (Black et al., 2011). Compared to other racial and ethnic groups, African American women are disproportionately likely to experience IPV. In the United States, more African American (44%) than European American (35%) or Hispanic (37%) women report IPV during their lifetime, and African American women experience recurrent IPV at a rate six times higher than that of European American women (Black et al., 2011).

IPV predicts poor health outcomes for both women and their children (Yount, DiGirolamo, & Ramakrishnan, 2011). For women, the physical consequences of IPV range from minor injuries such as lacerations and contusions to more severe injuries, disability, and death (Black et al., 2011; Plichta, 2004; Tjaden & Thoennes, 2000). Compared to women with no history of IPV, those who experience IPV are at an increased risk for gastrointestinal problems, chronic pain, sexually transmitted infections and vaginal bleeding, gynecological or pregnancy complications, and are more likely to engage in high-risk behaviors, such as substance abuse, smoking, and unhealthy weight control methods (Kramer, Lorenzon, & Mueller, 2004; Plichta, 2004; Tjaden & Thoennes, 2000). IPV is associated with chronic conditions, including asthma, irritable bowel syndrome, diabetes, frequent headaches, and difficulty sleeping (Black et al., 2011), as well as mental health problems, including depression, anxiety, suicidal ideation, and post-traumatic stress symptoms (Plitcha, 2004).

Women who experience IPV and children of women who experience IPV are more likely to miss school or work (Black et al., 2011), to utilize healthcare services more often, and to incur greater healthcare costs than women with no history of IPV or children of women with no history of IPV (Rivara et al., 2007a,b). Even after abuse has ended the annual healthcare costs of women with a history of IPV are 19% higher than women with no history of IPV (Rivara et al., 2007a). Exposure to IPV affects children's physical health, social and emotional behavior, cognitive functioning, language development, neurological development, and relational development (Yount et al., 2011).

IPV victimization often is underreported because women feel shame, embarrassment, fear retribution from the perpetrator, or do not expect to receive legal support (Ellsberg, Heise, Pena, Agurto, & Winkvist, 2001). African American women may be especially unlikely to report IPV or seek assistance because of poverty, low social support, or expectations of discrimination and mistreatment by service providers (Taft, Bryant-Davis, Woodward, Tillman, & Torres, 2009). Further, IPV disclosure is sensitive to methodological factors, including the nature, wording, and length of the question as well as the context of the interview including privacy, interviewer skill, and opportunities to disclose (Ellsberg et al., 2001). Despite the existence of many IPV screening tools and research on their implementation (see Rabin, Jennings, Campbell, & Bair-Merritt, 2009 for review), the tools themselves are understudied, as are modes of screening for IPV.

Because a positive screen for IPV predicts recurrent victimization among women (Houry et al., 2004), screening is an important first step in offering assistance to women experiencing violence. Clinics that provide Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) services provide a unique opportunity to screen for IPV in a non-threatening environment where women can receive services. WIC clinics also serve a high percentage of

low-income African American women, a population particularly at risk for IPV victimization (Cunradi, Caetano, & Schafer, 2002). These clinics also are an important, and often the only, point-of-contact between low-income African American women and the healthcare system. Thus, incorporating IPV screening into WIC intake procedures provides an opportunity to identify women experiencing IPV and to offer information, resources, and services.

Both interviewer-client race-matching and computer-assisted self-interview (CASI) show promise in maximizing disclosure of sensitive information, although their success in eliciting disclosure of IPV has not been addressed. Social science research conducted in the 1970's suggests respondents are more open and frank with interviewers of their own race (Hatchett & Schuman, 1975-1976). More recently, research regarding disclosure of sensitive information suggests that interviewer characteristics, especially interviewer appearance, can influence participant survey responses (Dailey & Claus, 2001; Rosenbaum, Rabenhorst, Reddy, Fleming, & Howells, 2006; Weeks & Moore, 1981). Davis and colleagues found that an integral part of interviewer appearance, the interviewer's race, influenced participants' responses in face-to-face, telephone, and self-administered surveys, and the effects were more dramatic when survey items asked about sensitive topics, including physical abuse and substance use (Davis, Couper, Janz, Caldwell, & Resnicow, 2010). Effects of interviewer race may be particularly relevant to our study, which takes place in the southern United States. Research suggests African Americans in the South are more likely to disclose sensitive and potentially stigmatizing behaviors to African American interviewers compared to European American interviewers (Livert, Kadushin, Schulman, Weiss, & Schulman, 1998).

Although interviewer characteristics, including race, have been investigated, few studies investigate interviewer-respondent race-matching. Some studies found interviewer effects, in that

respondents reported sensitive information to European American interviewers more frequently than to African American interviewers, but failed to find race-matching effects (Dailey & Claus, 2001).

CASI screening may influence disclosure of sensitive information, although the effect of CASI on disclosure of IPV victimization is understudied. CASIs have been shown to increase disclosure of stigmatized behaviors, including HIV-status, history of tuberculosis, and nonprescription methadone use, in comparison with face-to-face administration of the same questionnaire (Newman et al., 2002). In addition, technology seems ideally suited for the collection of sensitive data because of added privacy and anonymity (Rosenbaum et al., 2006). CASI administration has elicited higher reported rates of illegal drug use and sexual behavior in comparison to traditional, face-to-face interview (FTFI) techniques (Turner et al., 1998).

In contrast, face-to-face interviewing elicits more frequent reporting of psychological distress, including feelings of hopelessness, worry, or depression (Newman et al., 2002). Other studies found no difference in disclosure of risk behaviors for transmission of HIV or gynecological history between CASI and FTFI (Hasley, 1995; Sanders et al., 1994).

More research is needed to investigate the contexts in which low-income African American women disclose IPV victimization. Our study examines the effect of race-matched versus non-race-matched interviews and CASI versus FTFI on disclosure of IPV victimization among African American clients of two WIC clinics in greater metropolitan Atlanta, Georgia. We hypothesize that women who complete a race-matched interview or a CASI will disclose more IPV victimization.

Methods

Study Design

Between July 17, 2012 and September 21, 2012, we conducted a cross-sectional survey of self-reported IPV victimization in African American women receiving WIC services. Questionnaires were administered via FTFI or CASI with either an African American or European-American research assistant. We computed prevalences of IPV victimization overall and by type in the general WIC population and compared levels of disclosure across interview mode and interviewer race.

Setting

The study took place in two WIC clinics (hereafter called Clinic 1 and Clinic 2) located in greater metropolitan Atlanta, Georgia. Metropolitan Atlanta has a population of over 5.3 million people and is the ninth largest metropolitan area in the United States (United States Census Bureau, 2010). The city of Atlanta has a population of about 432,000, just over half (54%) of whom are African American (United States Census Bureau, 2010). Nineteen percent of families in the city of Atlanta live below the federal poverty line, which is defined as a yearly income of $23,050 or less for a family of four (Department of Health and Human Services, 2012), and 26% of these families have children below five years of age. Almost half (45.7%) of the families within the city of Atlanta with children less than 18 years old receive food stamps, and a large majority of the families receiving food stamps are African American (91.7%) (United States Census Bureau, 2010)

WIC is funded by the United States Department of Agriculture, which extends grants to states to provide supplemental food, health care referrals, and nutrition education to low-income women, infants, and children up to five years old (Martinez-Schiferl, Zedlewski, & Giannarelli,

2013). To be eligible for WIC, families must fall below 185% of the U.S. Poverty Income Guidelines (Martinez-Schiferl et al., 2013). WIC clinics are a common healthcare contact for low-income women and children, and thus an important opportunity to identify at-risk clients and to give them resources.

In this study, Clinic 1 serves, on average, 436 women per month, 91% of whom are African American. Clinic 2 serves, on average, 709 women per month, 80% of whom are African American. The Emory University Institutional Review Board and the Division of Health and Wellness of the health department of the county in which the study was conducted approved the study.

Sample Inclusion and Exclusion Criteria and Power

To be enrolled in the study, a woman had to be at least 18 years old, eligible to receive WIC services, English speaking, and literate. Based on the average monthly caseload in each clinic, we estimated that we could recruit 700 total participants during the study period. To make the sample proportional to monthly clinic volume, the total desired sample size was adjusted to 704, with 256 participants to be recruited from Clinic 1 and 448 participants to be recruited from Clinic 2. Assuming a two-sided type I error rate of 0.05, 80% power, and a 40% reported lifetime prevalence of IPV victimization in the FTFI group (Black et al., 2011), our study was able to detect an effect if reported lifetime prevalence of IPV victimization was less than 30% or greater than 51% in the CASI group.

Data Collection

Research assistants were trained on survey administration and completed sensitivity training for administering questionnaires related to IPV (Watts, Heise, Ellsberg, & Moreno, 2001). Research assistants were present in the waiting rooms during regular clinic hours during

the study period in order to identify and approach potential participants. Research assistants identified potential participants by reviewing the clinic registration log. All potentially eligible participants were approached and taken to a private room near the waiting room to obtain informed consent. Potential participants were informed that the survey asked questions about their general health and about their relationship with their partner.

In addition to questions on women's experiences of lifetime and prior-year IPV victimization, we collected information on demographics, tobacco use, alcohol use, substance use, contraceptive use, and health behaviors. Participants could stop the interview if they were called to receive their WIC services or if they chose not to finish. All participants who completed a FTFI received a brochure with resources related to WIC, child health insurance, and healthy relationships. All participants who completed a CASI received an equivalent printed list of resources for any health risk behaviors they disclosed. Data were entered into SPSS 20 (IBM, Chicago, IL) and converted to STATA 12 (STATACorp LP, College Station, TX) for analysis.

Instruments

Study instruments included brief modules on demographics, general health behaviors, tobacco use, alcohol use (TWEAK) (Russell, 1994), substance use (Drug Abuse Screening Test) (Skinner, 1982), contraceptive use, and women's lifetime and prior-year IPV victimization. Questions from the Revised Conflict Tactics Scales Short Form (CTS2S) were used to screen for IPV victimization. The CTS2S asks questions regarding specific acts and behaviors, rather than about attitudes, causes, or consequences of violence (Straus & Douglas, 2004). Negotiation skill items included a) a woman's partner explaining an opinion or suggesting a compromise and b) a woman's partner showing respect or caring for her feelings during a disagreement. Psychological IPV items included a) a woman's partner insulting, shouting, swearing, or yelling at her and b) a

woman's partner threatening to hit her or destroying her belongings. Physical IPV items included a) a woman's partner pushing, shoving, or slapping her and b) a woman's partner punching, kicking, or beating her up. Sexual IPV items included a) a woman's partner using force (hitting, holding down, using a weapon) to make her have sex and b) a woman's partner insisting on sex, or insisting on sex without a condom, without using physical force. IPV-related injury included a) a woman having a sprain, bruise, small cut, or feeling pain after a fight with her partner and b) a woman needing to see a doctor after a fight with her partner (Straus & Douglas, 2004). The CTS2S has good construct validity with the full 78-item Revised Conflict Tactics Scale (CTS2) (Straus, Hamby, Boney-McCoy, & Sugarman, 1996), with item correlations between the CTS2 and CTS2S for IPV victimization ranged from 0.65 to 0.94 (Straus & Douglas, 2004). Our own Cronbach's alpha test for internal consistency of the CTS2S yielded a coefficient of 0.83.

Variables

Outcomes: A positive response to any IPV victimization item was coded as a positive IPV screen. Participants' responses regarding the timing of IPV victimization relative to the past year determined whether the participant screened positive for lifetime or prior-year IPV. Lifetime and prior-year IPV were dichotomous, with disclosure of any lifetime or prior-year IPV victimization coded as 1 and no disclosure coded as 0. We also created dichotomous (yes, no [reference]) outcomes for lifetime and prior-year negotiation skills and each IPV domain (psychological, physical, and sexual IPV victimization as well as IPV-related injury). A positive response to either of the two items of the IPV victimization subscale was coded as a positive response to that subscale. A summative score of IPV victimization, which included any psychological, physical, or sexual IPV or any IPV-related injury, was calculated for each

participant. More frequent reporting of each CTS2S item yielded a higher numerical item score. The sum of all item scores served as each participant's summative score.

Exposures: Exposure variables included mode of screening (FTFI or CASI [reference]) and interviewer race (European American [reference] or African American). Participants were randomized to give their survey answers orally to a research assistant (FTFI) or to enter their answers on a tablet computer (CASI). Participants were recruited by and completed the questionnaire with either a race-matched, African American research assistant or a non-race-matched, European American research assistant. Matching respondents and interviewers on race was not formally randomized, but rather determined by interviewer availability. Women interviewed by an African American research assistant were similar to those interviewed by a European American research assistant with respect to education, relationship status, employment, age, and number of children (results available upon request).

Covariates: Measured covariates included the participant's relationship status (married, unmarried relationship, or single [reference]), education (less than or equal to high school [reference], some college, or college), and currently employed outside the home (yes, no [reference]). We also collected data on the participant's age (years) and total number of children ever born.

Data Analysis

Demographic attributes of the sample across interview mode and interviewer race were compared via Chi-square tests and t-tests to determine any differences between these subsamples. Chi-square tests were conducted to compare reported rates of lifetime and prior-year IPV victimization, by type, across interview mode and interviewer race. Summative scores for lifetime and prior-year IPV victimization were compared across interview mode and interviewer

race using the Wilcoxon-Mann-Whitney test (which is appropriate for non-normally distributed variables). Logistic regression was used to estimate the unadjusted and adjusted odds of reporting IPV victimization, overall and by type, by interview mode and interviewer race. All adjusted models controlled for participant attributes that were shown in the descriptive analysis to vary across interview mode and interviewer race (relationship status, education, and employment).

Results

By the end of the study period, 1137 women had been approached before the desired sample of 704 women was reached, for an overall participation rate of 61.9%. Since the majority (90.8%) of study participants were African American and race-matched interviews took place only at Clinic 2 (the higher-volume clinic), only African American women interviewed at Clinic 2 were included in the present analysis (n=402). Of the participants who self-identified as African American, 368 (91.5%) had complete data for variables of interest and were included in the analysis. The women who did not complete the full survey were similar to women who completed the full survey with respect to education, relationship status, employment, age, and number of children (results available upon request).

Exposure Variables

One fourth of participants (25.3%) were interviewed by an African American research assistant, and 74.7% were interviewed by a European American research assistant. Almost half (48.1%) completed the survey via CASI, and just over half (51.9%) completed the survey via FTFI.

Characteristics of the Sample

The mean age of respondents was 27.4 years (Table 1). The majority of respondents were single (40%) or in an unmarried relationship (45%). Thirteen percent of respondents completed some high school, and 30% received a high school degree. There were no significant differences in age, relationship status, education, employment, or number of children between women interviewed by an African American research assistant and women interviewed by a European American research assistant. There were differences in reported relationship status by interview mode. More women completing a CASI reported being single (47%) compared to women completing a FTFI (33%), while more women completing a FTFI reported being in an unmarried relationship (47%) or married (20%) compared to women completing a CASI (42% and 11% respectively). A higher percentage of women completing a FTFI reported having a job outside the home (50%) than women completing a CASI (40%).

[Table 1.1]

Rates of IPV Disclosure by Race of Interviewer and Mode of Interview

The majority of women reported negotiation both in her lifetime (94%) and during the prior-year (88%). Forty-nine percent of women reported any lifetime IPV victimization, and 36% reported any IPV victimization during the prior-year. The most commonly reported type of IPV was psychological IPV victimization (48% lifetime; 34% prior-year). A notable minority (13%) of women reported an IPV-related injury during their lifetime, and 7% reported an IPV-related injury during the previous year (Table 2).

During both their lifetime and the prior-year, participants reported higher levels of negotiation during a FTFI (99%, 95%) than during a CASI (89%, 80%). There was no association between interviewer race and reporting negotiation and any type of lifetime or prior-

year IPV victimization; however, there were different rates of disclosure by interview mode. Respondents who completed a FTFI reported significantly higher levels of any lifetime IPV victimization (54%) and any prior-year IPV victimization (44%) than did women who completed a CASI (44%, 28%) (Table 2). Women interviewed via FTFI reported significantly higher prior-year psychological (42%) and prior-year sexual (10%) IPV victimization than did women who completed a CASI (26%, 3%). The mean summative lifetime and prior-year IPV victimization scores were significantly higher among women participating in a FTFI (3.31, 2.17) than women participating in a CASI (2.36, 1.30), but the mean summative scores for lifetime and prior-year IPV victimization did not differ by interviewer race (Table 2).

[Table 1.2]

Logistic Regression Models

In unadjusted models, interviewer race was not associated with participants' reporting of negotiation, any lifetime IPV victimization, or any prior-year IPV victimization. However, women participating in a FTFI had 1.52 times higher unadjusted odds of reporting any lifetime IPV victimization than women who completed a CASI (95% CI: 1.01-2.29). Also, women interviewed via FTFI had 1.99 times higher unadjusted odds of reporting any prior-year IPV victimization than women interviewed via CASI (95% CI: 1.29-3.08). The odds of women completing a FTFI reporting prior-year psychological or sexual IPV victimization were 2.05 and 3.80 times the odds of reporting among women completing a CASI (95% CI: 1.32-3.19 and 1.39-10.41, respectively). Similarly, the odds of women interviewed via FTFI reporting both lifetime and prior-year negotiation were 11.36 and 4.46 times as large as the odds of reporting among women completing a CASI (95% CI: 2.61-49.54 and 2.14-9.32, respectively) (Table 3).

In models controlling for interview mode and demographic characteristics, interviewer race was not associated with participants' reporting of negotiation, lifetime IPV victimization, or prior-year IPV victimization, but interviewer race was associated with the odds of disclosing prior-year psychological IPV victimization. Specifically, women interviewed by an African American interviewer had 42% lower odds of reporting psychological IPV than women interviewed by a European American interviewer (OR: 0.58, 95% CI: 0.34-1.00) (Table 3).

When controlling for interviewer race and demographic characteristics, we found no difference in the adjusted odds of reporting lifetime IPV victimization (in any domain) based on the mode of interview (Table 3). In contrast, the odds of reporting any prior-year IPV victimization were 2.02 times as large for women who completed a FTFI compared to women who completed a CASI. Also, compared to women who completed a CASI, women who completed a FTFI had 2.10 and 4.31 times the adjusted odds of disclosing prior-year psychological and sexual IPV victimization as well as 10.45 and 3.97 times the odds of reporting lifetime and prior-year negotiation, respectively (Table 3).

[Table 1.3]

Discussion

Rates of reported IPV victimization among African American women are disproportionally higher than reported rates among women of other races and ethnicities (Black et al., 2011), even though African American women may be less likely to report IPV (Taft et al., 2009). To understand the burden of IPV victimization among African American women, accurate IPV screening procedures are needed; however, few studies exist that examine the contexts in which low-income African American women disclose IPV victimization. Although we hypothesized that race-matched interviews and CASIs would maximize IPV disclosure, our

results suggest that low-income African American women are more likely to report IPV victimization when interviewed face-to-face rather than via CASI, but race-matching of the interviewer and respondent does not affect disclosure.

Overall, African American women in a WIC setting disclosed high rates of both lifetime (49%) and prior-year (36%) IPV victimization. This reported lifetime prevalence is consistent with the prevalence of IPV victimization (44%) among African American women found in the 2010 National Intimate Partner and Sexual Violence Survey (NISVS) (Black et al., 2011). However, our estimate of prior-year IPV victimization (36%) is much higher than NISVS estimates of prior-year IPV (5.9%) among African American women (Black et al., 2011). This difference could be a result of sample variation, with our sample including only women who are 185% of the poverty line and registered for WIC services. Research suggests that low-income women experience IPV at a higher rate than do women in households with higher incomes (Benson & Fox, 2004). Furthermore, African American women living in impoverished neighborhoods are more likely to experience IPV than European American women with a similar economic status (Benson & Fox, 2004; Cunradi, Caetano, Clark, & Schafer, 2000).

Contrary to our expectations, interviewer race did not affect disclosure of IPV victimization. Prior research suggests that the race of the interviewer may affect disclosure of sensitive information (Davis et al., 2010; Livert et al., 1998). For example, one study among substance users found that interviewer race affected disclosure of physical and sexual abuse, in that respondents were more likely to disclose past abuse to a European American interviewer; however, matching clients with interviewers of their same race did not affect disclosure (Dailey & Claus, 2001). Thus, interviewer and client race-matching may not be necessary to get accurate assessments of sensitive information.

Mode of interview, however, was related to disclosure, but the relationship was contrary to our expectations. Specifically, women completing a FTFI reported more prior-year IPV victimization than did women completing a CASI (aOR=2.02, 95% CI: 1.29-3.16), but there was no difference in disclosure of lifetime IPV victimization by interview mode (aOR=1.50, 95% CI: 0.98-2.28). The difference between prior-year and lifetime reporting suggests disclosure of recent IPV is more sensitive to interview mode. FTFI may lead to higher rates of prior-year IPV disclosure because participants develop trust and rapport with the interviewer. Feelings of connection during in-person interviews have led to more disclosure of study habits, substance use, and physical and sexual aggression, victimization, and perpetration (Rosenbaum et al., 2006). The importance of interviewer-respondent connection is recognized in IPV-related research protocols that stress the importance of making the respondent feel comfortable during the interview by building rapport and remaining interested and nonjudgmental (Ellsberg et al., 2001; Watts et al., 2001). Indeed, researchers who receive this type of training are more successful in eliciting disclosure of IPV victimization (Jansen, Watts, Ellsberg, Heise, & Garcia-Moreno, 2004).

Potential barriers to IPV disclosure during any type of interview are respondents' perceptions that they were not asked directly about their experiences with violence, beliefs that interviewers lack time and interest in discussing abuse, fears about involving police and courts, and concerns about confidentiality (Rodriguez, Sheldon, Bauer, & Perez-Stable, 2001). Perhaps women screened via CASI had concerns about the confidentiality of their responses or felt that the computer-based screening was being administered because the interviewer was not interested in discussing or lacked the time to discuss potential abuse. In addition, IPV disclosure may have been hindered among women completing a CASI because of low-literacy or low-computer-

literacy. Women interviewed via CASI may have become frustrated with technical issues and sped through the survey in order to finish more quickly. In contrast, women interviewed via FTFI experienced the interviewer's compassion and interest, which built rapport and may have made participants feel more comfortable disclosing IPV victimization.

Limitations

Our study is not without limitations. The study was conducted in two WIC clinics in greater metropolitan Atlanta; therefore, our results may not be generalizable to other regions, smaller communities, or clinics that serve a different clientele. Our study sample did not include women who did not speak and read English, so our results and estimated prevalences of IPV victimization may miss a group of women who are at particular risk for IPV, including women who are illiterate, refugees, or undocumented. Future research may address these limitations by testing IPV screening in languages other than English and testing audio-CASI devices to accommodate low-literate women who are less familiar with computers. In our study, the matching of interviewers and participants by race was not randomized. Although women interviewed by a European American interviewer and women interviewed by an African American interviewer did not differ with regards to age, number of children, relationship status, education, or employment status, the lack of randomization could affect the results insofar as the race of the interviewer may have proxied for a range of unmeasured characteristics associated with disclosure. In addition, only African American women were included in the analysis. A study that included other racial and ethnic groups or men may yield different results. The CTS2S has a lower sensitivity than the full CTS2 because it screens for only a subset of IPV-related behaviors (Straus & Douglas, 2004); thus, our results may reflect underestimates of the true prevalences. The correlation between the CTS2S and the CTS2 ranges from 0.65 to 0.94, so

some participants who would have disclosed IPV using the longer instrument may have been misclassified as non-exposed (Straus & Douglas, 2004). Finally, our IPV screening took place in the context of a research study. Patient-provider relationships are different from participant-researcher relationships, so our results and conclusions may not directly translate into a clinical setting.

Conclusions

In a WIC setting low-income African American women disclosed high rates of IPV victimization. This population of women is at an elevated risk for IPV victimization and, as a group, may experience substantial barriers to the disclosure of IPV. Thus, appropriate procedures for screening that encourage disclosure among low-income African American women are needed to understand the prevalence of IPV and to offer information, resources, and services. Our findings highlight the potential value of face-to-face screening to identify women at risk of IPV victimization. Programs should consider the costs and benefits of training staff versus using computer-based IPV screenings in WIC settings. Future research may investigate the use of other technologies that may enhance disclosure, including audio-CASI, which may be more appropriate for women with lower literacy skills.

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Tables and Figures

Table 1.1. Characteristics of the Sample, Overall and by Interviewer Race and Mode of Interview, African American WIC Clients, n=368

		Interviewer Race			Interview Mode		
Characteristics	Total Sample	African American	European American	p	Computer	Face-to-face	p
Age, in years, mean (StDev: 7.77)	27.42	27.39	27.53	0.883	27.67	27.20	0.565
Relationship status (ref: single)	0.40	0.42	0.32	0.178	0.47	0.33	***0.007***
unmarried relationship	0.45	0.42	0.53	…	0.42	0.47	…
married	0.15	0.16	0.15	…	0.11	0.20	…
Education (ref: <= High School)	0.44	0.44	0.45	0.052	0.42	0.46	0.755
some college	0.33	0.31	0.41	…	0.35	0.32	…
completed college or higher	0.22	0.25	0.14	…	0.23	0.22	…
Job outside the home	0.45	0.44	0.47	0.579	0.40	0.50	***0.050***
Number of children, mean (STDev: 1.65)	2.35	2.27	2.58	0.112	2.35	2.34	0.954

Table 1.2. Distribution of Self-Reported Intimate Partner Violence, by Interviewer Race and Mode of Interview, African American WIC Clients, n=368

		Interviewer Race			Interview Mode		
Outcome:	Total Sample	African American	European American	p[a]	CASI	FTFI	p[a]
Negotiation							
Lifetime Negotiation (yes=1)	0.94	0.94	0.96	0.499	0.89	0.99	***0.000***
Prior Year Negotiation (yes=1)	0.88	0.87	0.90	0.385	0.80	0.95	***0.000***
Lifetime IPV Victimization, by Domain							
Psychological IPV (yes=1)	0.48	0.49	0.43	0.310	0.42	0.52	0.055
Physical IPV (yes=1)	0.12	0.12	0.11	0.679	0.12	0.12	0.788
Sexual IPV (yes=1)	0.10	0.11	0.06	0.245	0.08	0.11	0.313
Any lifetime IPV (yes = 1)*	0.49	0.50	0.45	0.402	0.44	0.54	***0.046***
IPV-related injury (yes=1)	0.13	0.13	0.15	0.568	0.16	0.11	0.173
Prior-Year IPV Victimization, by Domain							
Psychological IPV (yes=1)	0.34	0.37	0.27	0.084	0.26	0.42	***0.001***
Physical IPV (yes=1)	0.07	0.07	0.06	0.789	0.06	0.08	0.308
Sexual IPV (yes=1)	0.07	0.08	0.03	0.136	0.03	0.10	***0.006***
Any prior-year IPV (yes = 1)*	0.36	0.39	0.30	0.144	0.28	0.44	***0.002***
IPV-related injury (yes=1)	0.07	0.07	0.08	0.745	0.07	0.06	0.686
IPV Summative Scale							
Lifetime (0-56), mean	2.85	3.05	2.27	0.278[b]	2.36	3.31	***0.018***[b]
Prior-Year (0-48), mean	1.75	1.92	1.26	0.175[b]	1.30	2.17	***0.001***[b]

*includes any verbal, physical, or sexual IPV or IPV-related injury

[a]differences tested using Chi-square test, unless otherwise noted

[b]rank sum differences tested using Wilcoxon-Mann-Whitney test

Table 1.3. Unadjusted and Adjusted Odds Ratios (95% Confidence Intervals) of Reporting IPV by Type, by Interviewer Race and Mode of Interview, African American WIC Clients, n=368

Exposure:	African American Interviewer (ref: European American)		FTFI (ref: CASI)		African American Interviewer (ref: European American)		FTFI (ref: CASI)	
Outcome:	uOR	(95%CI)	uOR	(95%CI)	aOR[a]	(95%CI)	aOR[a]	(95%CI)
Negotiation								
Lifetime Negotiation	1.47	(0.48 - 4.47)	***11.36***	***(2.61 - 49.54)***	1.11	(0.34 - 3.58)	***10.54***	***(2.37 - 46.84)***
Prior Year Negotiation	1.41	(0.65 - 3.04)	***4.46***	***(2.14 - 9.32)***	1.03	(0.45 - 2.35)	***3.97***	***(1.85 - 8.53)***
Lifetime IPV Victimization, by Domain								
Psychological IPV	0.78	(0.49 - 1.26)	1.49	(0.99 - 2.26) p=0.056	0.75	(0.46 - 1.22)	1.48	(0.97 - 2.25) p=0.072
Physical IPV	0.85	(0.40 - 1.80)	0.92	(0.49 - 1.72)	0.80	(0.37 - 1.73)	0.93	(0.49 - 1.79)
Sexual IPV	0.59	(0.23 - 1.46)	1.44	(0.71 - 2.92)	0.52	(0.21 - 1.32)	1.48	(0.72 - 3.07)
Any lifetime IPV*	0.82	(0.51 - 1.31)	***1.52***	***(1.01 - 2.29)***	0.79	(0.49 - 1.28)	1.50	(0.98 - 2.28) p=0.061
IPV-related injury	1.22	(0.62 - 2.37)	0.66	(0.36 - 1.21)	1.20	(0.60 - 2.38)	0.66	(0.35 - 1.22)
Prior-Year IPV Victimization, by Domain								
Psychological IPV	0.63	(0.37 - 1.07)	***2.05***	***(1.32 - 3.19)***	***0.58***	***(0.34 - 1.00)***	***2.10***	***(1.33 - 3.32)***
Physical IPV	0.88	(0.34 - 2.26)	1.53	(0.67 - 3.46)	0.78	(0.30 - 2.06)	1.44	(0.62 - 3.36)
Sexual IPV	0.40	(0.12 - 1.38)	***3.80***	***(1.39 - 10.41)***	0.33	(0.09 - 1.16)	***4.31***	***(1.54 - 12.07)***
Any prior-year IPV*	0.69	(0.41 - 1.14)	***1.99***	***(1.29 - 3.08)***	0.64	(0.38 - 1.08)	***2.02***	***(1.29 - 3.16)***
IPV-related injury	1.16	(0.47 - 2.88)	0.85	(0.38 - 1.91)	1.15	(0.45 - 2.93)	0.79	(0.34 - 1.83)

*includes any verbal, physical, or sexual IPV or IPV-related injury

[a] Models include both exposure variables and adjust for relationship status, education, and job outside the home.

Chapter 4: Conclusions and Recommendations

Rates of IPV victimization among African American women are disproportionally higher than women of other races and ethnicities (Black et al., 2011), despite the fact that African American women are especially unlikely to report IPV (Taft et al., 2009). In order to understand the burden of IPV victimization among African American women, accurate IPV screening procedures are needed; however, few studies exist that examine the contexts in which low-income African American women disclose IPV victimization.

Maximizing IPV disclosure is important because poorly implemented screening protocols are unethical. Not only does ineffective screening fail to describe the prevalence of IPV victimization, but it can also put women at risk (Watts et al., 2001). Poor-quality data produced from improper screening may be worse than not collecting data. Low prevalence estimates of IPV victimization may be used to question the importance of violence as an issue or used to justify reallocation of resources away from IPV.

The results of this study mirror earlier research that observed high rates of IPV among African American women (Black et al., 2011). African American women reported high rates of lifetime and prior-year psychological, physical, sexual, and any IPV victimization, as well as IPV-related injury. Women screened via FTFI reported significantly more lifetime and prior-year negotiation and more prior-year psychological, sexual, and any IPV victimization than women who completed a CASI, but race-matching of interviewer and client did not affect disclosure. Our findings highlight the potential value of face-to-face screening in a WIC setting to identify women at risk of IPV victimization.

Watts and colleagues highlight the importance of proper interpretation of research findings and the use of study findings to advance policy and design IPV intervention activities

(Watts et al., 2001). Because of the personal, social, and health related costs of violence against women, researchers have a moral obligation to provide timely feedback to the community and to ensure the community, and society at large, understands how to practically apply the research findings (Watts et al., 2001). Thus, we recommend that WIC clinics in metropolitan Atlanta weigh the costs and benefits of training staff versus using computer-based technologies to screen for IPV victimization, but clinics need not be concerned about race-matching when administering screenings.

Although theoretically race-matching and computer-based IPV screenings could increase disclosure, this project suggests that IPV disclosure among low-income African American women is more complex. Clients interviewed face-to-face may have felt they established a connection with the interviewer, leading to a more secure interview environment in which the client felt more comfortable disclosing IPV victimization. The importance of interviewer-respondent connection is recognized in IPV-related research protocols. Most protocols stress the importance of making the respondent feel comfortable during the interview by building rapport and remaining interested and nonjudgmental (Ellsberg et al., 2001; Watts et al., 2001). Indeed, researchers who receive this type of training are more successful in eliciting IPV disclosure than untrained researchers (Jansen et al., 2004).

However, training and education may not be enough to fully ensure IPV screenings are conducted and conducted properly. Even healthcare providers who receive education about IPV, alone or in tandem with mandated universal screening, do not increase their rates of screening (Larkin et al., 1999). Providers report feeling uncomfortable when screening, fearing offending their patient, feeling powerless, and facing time constraints as reasons for not universally screening for IPV (Larkin et al., 1999). However, administrative interventions may enhance

compliance with universal screening policies (Larkin et al., 2000). In addition to implementing a universal IPV screening policy and training staff to conduct face-to-face screenings, WIC clinics may consider an administrative intervention with organization-appropriate disciplinary action to ensure compliance with the universal IPV screening policy.

Our IPV screenings took place in the context of a research study. Patient-provider relationships are different from participant-researcher relationships, so our results and conclusions may not directly translate to a clinical setting. Future research may incorporate and evaluate different modes of IPV screening as used in a WIC intake interview. In addition, future research may investigate the use of other technologies that may enhance disclosure, including audio-CASI, which may be more appropriate for women with low-literacy or low computer literacy.

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