

## **Influence of Self-Esteem and Self-Silencing on Self-Efficacy for Negotiating Safer Behaviors in Urban Bahamian Women, The**

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**OBJECTIVES:** The purpose of this study was to understand the characteristics that put urban Bahamian women at risk for HIV/AIDS. **METHODS:** A cross-sectional, correlational design was used to study the relationships between select demographic variables, self-esteem, self-silencing, and self-efficacy for negotiating safer sex behaviors in urban Bahamian women. Survey data were collected from urban Bahamian women (N = 661) ages 18 to 78 years from a variety of community sites in Nassau, Bahamas. Hypotheses testing was conducted using Pearson product-moment correlation coefficients (r) and logistic regression analyses. **RESULTS:** Findings revealed that age, education, and self-esteem were significant independent and combined predictors of self-efficacy for negotiating safer sex behaviors in urban Bahamian women. **CONCLUSIONS:** The results of this study provided impetus to influence practice and future research related to the development and implementation of gender appropriate and culturally sensitive prevention interventions to decrease the rate of HIV/AIDS among urban Bahamian women.

**KEY WORDS:** Bahamian Women; HIV Risks; Safer Sex Behaviors; Self-Esteem; Self-Silencing; Self-Efficacy.

Bahamian women were at risk for acquiring HIV infection from the time it was first discovered in The Bahamas in 1985 since the virus has primarily been spread through heterosexual transmission in Caribbean countries. In fact, the first case of HIV/AIDS in The Bahamas was discovered during an autopsy of a female cadaver (Gomez, 2002). Among the hardest hit regions in the world, second only to Sub-Saharan Africa (United Nations Programme on HIV/AIDS [UNAIDS], 2002), The Bahamas has the highest annual incidence of HIV/AIDS in the English Speaking Caribbean (Campbell, 2001). Moreover, HIV/AIDS is the leading cause of death for Bahamian men and women between the ages of 15 and 44 years (American Foundation for AIDS Research [AMFAR], 2003). As of December 31, 2002, The Bahamas had a cumulative number of 9,329 reported cases of HIV/AIDS, and 4,162 (45%) were women (Health Information and Research Unit, 2003). As in most of the world, women in the Bahamas represent the fastest growing segment of the population with HIV/AIDS.

As part of the early response in The Bahamas to the HIV/AIDS pandemic, national initiatives to enhance public knowledge were implemented. The Bahamas, like most other developing countries, depends on scientific data from other countries such as Canada, the United Kingdom, and the United States to establish national prevention initiatives. Although Bahamians are exposed to a cadre of educational materials and programs, prevention strategies adopted from other countries are not reducing acquisition and transmission of HIV/AIDS among Bahamians in general or Bahamian women in particular. There has been a paucity of HIV/AIDS research conducted in The Bahamas (Bauwens et al., 2002; Gomez, Bain, & Read, 1992; Gomez et al., 2002). One study assessed characteristics of HIV-infected pregnant women between 1990 and 1991 to determine risk factors for HIV/AIDS (Gomez, Bain, Major, Gray, & Read, 1996). However, few studies have addressed the characteristics and traits of both noninfected and infected Bahamian women that may influence their risk for HIV/AIDS.

The purpose of this study was to understand the characteristics and traits that put urban Bahamian women at risk for HIV/AIDS. More specifically, this study investigated the influence of select demographic variables (i.e., age, education, income), self-esteem, and self-silencing on self-efficacy for negotiating safer sex behaviors in urban Bahamian women.

### **REVIEW OF THE LITERATURE**

#### **Women's HIV Risks**

Women are at greater risk for HIV/AIDS acquisition than men by virtue of their biological make-up. Due to their increased vaginal surface area, it has been estimated that women are eight times more likely to contract HIV/AIDS from a man than for a man to contract HIV/AIDS from a woman (Holmberg, 1997; Quirk & DeCarlo, 1998). In addition to gender-based biological variations, Black women come from a long history of sexism, racism, colorism, and classism which have led to their oppression and put them at greater risk for HIV/AIDS than women of other races (Trotman Reid, 2000).

Cummings, Battle, Barker, and Krasnovsky (1999) interviewed 142 African Americans and found that although these women were worried about contracting AIDS for various reasons such as lack of trust for partner or spouse, they still engaged in unprotected sex. As a matter of fact, some women held fatalistic beliefs about their risk for HIV/AIDS such as ". . . if I'm gonna get it, I'm gonna get it" or "because what's meant to happen is gonna happen" (p. 339).

Ward and Samuels (1999) reported on a community-based study conducted in The Bahamas with 236 participants including males (n = 61, 26%) and females (n = 175, 74%) to determine factors that make women more vulnerable to HIV/AIDS than men. Although average age of first sexual encounter was 16.3 years and number of sexual partners in the past year ranged from 0 to 20, almost three fourths (n = 190) of the sample believed that their risk for HIV/AIDS was low. Consistent with findings on perceived risk, only 47 women (29%) stated that they always used condoms during sexual encounters.

Age may also be associated with women's risk for HIV/AIDS. Older women tend to be in stable, committed relationships and may not see the need to engage in protected sex. Graves and Hines (1997) also found that older women were more likely to engage in unprotected sex with a new partner than were their younger counterparts. Postmenopausal women may engage in unprotected sex because they no longer need protection from pregnancy (Wyatt et al., 2000).

Education is another variable that may be a contributor to women's risk for HIV/AIDS. In a study of 125 women including non-Latina Blacks (n = 59), Whites (n = 9), Asians (n = 4), and Latinas (n = 52) to identify predictors of HIV/AIDS protective behaviors, Bowleg, Belgrave, and Reisen (2000) found that educational level predicted gender roles and accounted for 14% of the variance in their model. Similarly, Graves and Hines (1997) found that education was a significant predictor of condom use in Hispanic women; more educated women were more likely to engage in safer sex behaviors than were less educated women.

Investigators have linked low socioeconomic status to women's increased risk for HIV/AIDS. In some cultures, women carry the brunt of responsibilities to meet the needs of their families. In The Bahamas where the majority of children are raised by mothers without financial support from fathers, women struggle to keep a roof over their children's heads, food on the table, and clothes on their backs (Neely-Smith, 2002). It is understandable why some women, particularly Black women, ignore the threat of HIV/AIDS when these threats are viewed in the context of complex socioeconomic burden they have to bear (Trotman Reid, 2000). More directly, lack of or inadequate income may be responsible for some women's engagement in risky behaviors such as prostitution (UNAIDS, 2002). Oliva, Rienks, and McDermid (1999) conducted a focus group study with women (N = 63) including injecting drug users (IDUs), partners of IDUs, sex workers, and women with a history of STDs to identify barriers in accessing preventive, primary, and reproductive care. Cost of services and lack of access were major concerns, which suggested a lack of preventive care for this vulnerable group of women. However, insufficient income is not a risk factor in every situation. In a study to identify HIV risk behaviors in Latinas, Peragallo (1996) found no significant relationship between women's income and risk for HIV/AIDS.

### Self-Esteem and HIV Risk

Since self-esteem is considered a feeling of self-worth, self-respect, and self-acceptance (Cast & Burke, 2002), it could be assumed that women with high self-esteem have low risk for HIV/AIDS because their self-regard discourages them from engaging in high risk behaviors. However, findings regarding the relationship between self-esteem and risk for HIV/AIDS have been mixed.

Mill (1997) conducted a study using focus groups with eight HIV positive Aboriginal women to determine their pre-illness risk behaviors. Among many other factors that contributed to these women's risk, all of the women reported having low self-esteem before

becoming infected. Some of the women reported that they engaged in behaviors such as unprotected sex, drug use, promiscuity, and prostitution during the times when they hated themselves most to cope with life Stressors.

Similarly, in a community-based study conducted in The Bahamas, participants in a focus group session identified low self-esteem as a reason for Bahamian women's HIV/AIDS risk. In fact, one of the participants shared with the group that she grew up having low self-esteem and used sex as an avenue to find self fulfillment (Ward & Samuels, 1999).

Several studies of adolescents have demonstrated either no relationship or a positive relationship between self-esteem and HIV risk behaviors (Long-Middleton, 2001; McNair, Carter, & Williams, 1998). Hylton (1999) conducted interviews with Black women (N = 30), 83% of whom were seropositive, and found that although most of the participants had high self-esteem, self-esteem had no influence on safer sex practices. Thus, the relationship between self-esteem and HIV risk remains unclear, although the preponderance of evidence suggests that low self-esteem is generally associated with high risk behavior.

### Self-Silencing and HIV Risk

The theory of silencing the self was developed to explain why women become depressed (Jack, 1991). Because women judge themselves by their ability to secure and maintain relationships (Gilligan, 1993), they silence themselves in an effort not to "rock the boat." Silencing may be used as a coping strategy yet may have maladaptive outcomes for women (DeMarco, Miller, Patsdaughter, Grindel, & Chisholm, 1998). Scholars have maintained that cultural norms and traditional practices have socialized girls to silence (Cross & Madson, 1997; Koutrelakos, Baranchik, & Damato, 1999). Although adolescent girls and women are very out-spoken in some cultures and ethnic groups, the opposite is seen in their relationships with male partners (Way, 1995).

Despite the paucity of evidence regarding the relationship between self-esteem and self-silencing, scholars have posited a relationship between these two variables (DeMarco, Johnson, Fukuda, & Deffenbaugh, 2001; Jack, 1991). Woods (1999) conducted a study with a sample of abused (n = 53) and nonabused (n = 52) women and found that there was a strong inverse correlation between self-esteem and self-silencing.

Given that the predominant mode for HIV/AIDS transmission is through unprotected sex (UNAIDS/WHO, 2002) and that women silence themselves to secure and maintain intimate relationships (Jack, 1991), it can be postulated that self-silencing behaviors can result in women's increased risk for HIV/AIDS. In countries such as The Bahamas where cultural norms and traditional practices have socialized women to be unassertive and passive during sexual encounters, women may exhibit silencing behaviors and increase their risk for HIV/AIDS due to their inability or unwillingness to negotiate condom use (Gomez & Morin, 1996). Although limited, findings from studies have suggested that sexual communication generally results in safer sexual behaviors (Quina, Harlow, Morokoff, Burkholder, & Dieter, 2000).

### Self-Efficacy and HIV Risk

Bandura (1986, 1989, 1994) has contended that the more successes an individual has in performing a behavior, the higher his or her self-efficacy for that particular behavior will be. Bandura further postulated that the higher an individual's self-efficacy for a particular behavior, the more likely the individual will perform the behavior. Investigators have found positive relationships between self-efficacy and safer sex behaviors such as condom use, refusing sex, and sexual discussions (Forsyth, 1999; Park, Sneed, Morisky, Alvear, & Hearst, 2002). Self-efficacy training has also been found to be successful in reducing the risk for HIV/AIDS (Icard, Schilling, & EL-Bassel, 1995; Jemmott, Jemmott, Fong, & McCaffree, 1999). Dilorio, Maibach, O'Leary, Sanderson, and Clentano (1997) conducted a study with 641 participants ages 18 to 58 years, most of whom were African Americans (n = 577, 90%), to evaluate two instruments including the Condom Use Self-Efficacy Scale. The investigators found that participants who reported no condom use at last intercourse and during the past month had significantly lower self-efficacy scores than those who reported use of condoms. These findings suggest that the less practice an individual has performing safer sex behaviors, the less efficacious he or she will feel.

Based on review of the literature, it is evident that women's increased risks for HIV/AIDS are due to their biological make-up and their behaviors, which are influenced by cultural norms and practices as well as demographic (e.g., age, educational, and income levels), intrapersonal (e.g., self-esteem), and interpersonal (e.g., self-silencing and self-efficacy) variables. Despite the many studies that have investigated these variables, no study has investigated the influence of self-esteem and self-silencing on self-efficacy for negotiating safer sex behaviors in women in general or in urban Bahamian women in particular.

### Theoretical Foundation and Hypotheses

Concepts from self-esteem (Cast & Burk, 2002) self-silencing (Jack, 1991), and self-efficacy (Bandura, 1986, 1989, 1994) theories were synthesized to form the basis for this study (see Figure 1). The following hypotheses were tested:

- \* There will be a negative relationship between urban Bahamian women's self-esteem and self-silencing behaviors.
- \* There will be a positive relationship between urban Bahamian women's self-esteem and self-efficacy for negotiating safer sex behaviors.
- \* There will be a negative relationship between urban Bahamian women's self-silencing and self-efficacy for negotiating safer sex behaviors.
- \* Age, education, income, self-esteem, and self-silencing will significantly predict urban Bahamian women's level of self-efficacy for negotiating safer sex behaviors.

## METHODS

### Design and Setting

A cross-sectional correlational survey design was used. The setting for this study was a variety of community sites in Nassau that Bahamian women frequently visit (i.e., laundromats, beauty salons, clinic waiting rooms, churches, work-places, adult education settings). Owners of establishments were contacted via formal letters to ask their permission to collect data from women at their establishments and to post flyers to advertise the study.

### Sample

A convenience sample of volunteer Bahamian women, ages 18 years or older, living in Nassau or Freeport was recruited for this study. A variety of recruitment strategies were used including word of mouth, flyers, letters of support from governmental leaders, and media advertisements. Public and private events and forums (i.e., church meetings, community service organization meetings, radio talk shows, television advertisements) were used to encourage participation of urban Bahamian women. Benefits of knowledge to be gained from the study to The Bahamas in general and women in particular were described. A small incentive (i.e., mugs, photo albums, bath brushes, make-up brushes, calculators, pen sets) valued at \$1 each were offered to the women to encourage their participation in the study and to show appreciation for their time (Patsdaughter, Christensen, Kelley, Masters, & Ndiwane, 2001).

### Instrumentation

An 80-item questionnaire was used to obtain data. Twenty-one demographic items were carefully developed to ensure social and cultural sensitivity. For example, since age was deemed to be very personal to Bahamian women, an informal survey of 60 Bahamian women was conducted to determine how they would prefer to be asked the question (i.e., How old are you? vs. What year were you born? 19\_\_). As a result, birth year rather than age was asked on the demographic questionnaire, and age was computed by subtracting birth year from 2003 prior to analysis. Demographic items were reviewed by a panel of 10 Bahamian registered nurses living in South Florida to ensure that questions were appropriate for Bahamian women.

Self-esteem. Self-esteem was measured using Taylor's Self-Esteem Inventory (TSEI) which was developed by Taylor and Tomasic (1996) and based on social exchange theory (Thibaut & Kelly, 1959). This measure was selected over other self-esteem instruments because it was developed for Black populations and initially tested on Black women. Additionally, the TSEI was short and easy to administer and score. This inventory is comprised of 16 self-report items: eight items measure rewards, or positive self-esteem, and eight items measure costs, or negative self-esteem. Each item is rated on a 0 (never) to 8 (always) scale resulting in a possible total scale range of 0 to 128 after negative items are reverse coded. In the present study, the Cronbach's alpha for the TSEI was .80, and the Spearman-Brown split-half coefficient was .82.

Self-silencing. Self-silencing was measured by the Silencing The Self Scale (STSS) developed by Jack and Dill (1992) based on Silencing The Self theory (Jack, 1991). The STSS consists of 31 items designed to tap the feelings, thoughts, and actions that women use to preserve intimate relationships. The 31 items of the STSS are rated on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Five items (i.e., items 1, 8, 11, 15, and 21) were reverse scored, and the second part of item 31 was excluded from statistical analyses because it yielded qualitative data. Total STSS scores can range from 31 to 155, with higher scores indicating greater silencing behaviors. In the present study, Cronbach's alpha for the STSS was .85, and the Spearman-Brown split-half coefficient was .81.

Self-efficacy. Self-efficacy for negotiating safer sex behaviors was measured by the Self-Efficacy Scale (SES). This scale is a revision of an instrument developed by Dilorio, Maibach, O'Leary, Sanderson, and Celentano (1997) and was based on Bandura's (1986, 1989, 1994) self-efficacy theory (C. Dilorio, personal communication, June 18, 2002). The revised scale contains 12 items that tap refusal, condom use, and discussion. Each of the 12 items are rated on a 10-point scale ranging from 1 (not at all sure I can) to 10 (completely sure I can). Total Self-Efficacy Scale scores can range from 12 to 120 with higher scores indicating high levels of self-efficacy. In this study, the Cronbach's alpha for the SES was .90, and the Spearman-Brown split-half coefficient was .88.

#### Data Collection Procedure

After gaining approval from an Institutional Review Board (IRB) for the Protection of Human Subjects, data collection took place over a three week period. Bahamian women were invited to participate in the study individually and in groups. For instance, Bahamian women at the beauty salons and laundromats were approached individually to solicit their participation. Women in places such as clinic waiting rooms, church groups, and adult educational settings were approached in groups. Some women were reluctant to participate until they assessed the data collection process and saw that it went as promised. Although some women verbally expressed that the small gifts were an incentive for their participation, the main reason for Bahamian women's participation appeared to be the fact that they were waiting for a service and had free time.

Whether recruited individually or in groups, participants were informed regarding the purpose of the study, anonymity of responses, and plans for dissemination of findings. Once women agreed to participate, they were given a questionnaire with a cover letter attached to a clipboard, a pen, and an envelope. These items facilitated data collection in community-based sites. It took participants an average of 20 to 30 minutes to complete questionnaires, which they then sealed in an envelope and returned in a secured box.

#### Data Analysis

The Statistical Package for the Social Sciences (SPSS) version 11.0 (SPSS, 2001) was used for data analysis. Individual scale means were used to substitute for missing data. Hypotheses 1 through 3 were tested using a one-tailed Person product-moment correlation coefficient ( $r$ ), and hypothesis four was tested using logistic regression analysis.

## RESULTS

#### Response Rate and Power Analysis

A total of 708 questionnaires were distributed, and 699 were returned. However, only 661 questionnaires were useable since 38 contained considerable amounts (i.e., more than 30%) of missing data. Thus, the response rate for this study was 93.4%. The G\* POWER 2.1.1 software was used for both a priori and post hoc power analysis (Erdfelder, Faul, & Buchner, 1996; Faul & Erdfelder, 2001). With alpha ( $\alpha$ ) set at .05 and use of small effect sizes, actual power attained for bivariate correlations ( $r$ ) and regression analysis were 1.0 and .81, respectively [note: according to Munro (2001), there are no statistical packages available to conduct power analysis for logistic regression, so estimates were obtained for multiple regression]. These power values indicated that the obtained sample size of 661 was more than adequate to detect associations between study variables as well as to have a reasonable level of confidence in the predictive value of variables in logistic regression analysis.

### Demographic and HIV/AIDS Characteristics of the Sample

Ninety-eight percent of the participants ( $n = 651$ ) were born in The Bahamas, and almost all of the women ( $n = 651$ , 98.5%) lived in Nassau at the time of the study. A vast majority (95%) of the women were Black Bahamians; Haitian Bahamians (2.5%), White Bahamians (0.5%), and "Other" (2.0%) comprised the remainder of the sample.

Participants ranged in age from 18 to 78 years (see Table 1). The majority of the participants ( $n = 575$ , 81%) had completed at least 12 years of school, and over half ( $n = 351$ , 56%) had a monthly income of \$1,500 or greater.

Most participants ( $n = 531$ , 80.3%) were employed. The participants attended their place of worship on an average of five times per month, but monthly church attendance ranged from 0 to 30 times. The majority of the participants were either married ( $n = 232$ , 35.1%) or single ( $n = 229$ , 34.6%), with few women being separated, divorced, or widowed. Most participants ( $n = 429$ , 64.9%) reported that they were heterosexuals; however, it should be noted that over one fourth of the sample ( $n = 177$ , 26.8%) did not respond to the item on sexual preference either because participants did not understand the terminology or did not want to disclose their sexual orientation. Over two-thirds of the participants ( $n = 448$ , 67.8%) reported having fewer than five children.

Participants reported having between 0 and 107 sexual partners in their lifetimes ( $M = 4.75$ ,  $SD = 8.39$ ). Most participants ( $n = 469$ , 71%) reported personally knowing someone with HIV/AIDS, many of whom were reported as being family members and friends. Almost 85% ( $n = 560$ ) of the participants reported having been tested for HIV/AIDS, and the majority of HIV tests were reportedly conducted during the year 2002; thus, most tests were recent. The majority of women ( $n = 529$ , 94%) who were tested for HIV reported negative test results, yet almost 2% of the participants reported being HIV positive. Reading and singing were the two most frequent hobbies reported by participants. In addition, career goal attainment, educational achievement, and Christianity were the three most frequent standards participants set for themselves

### Descriptive Findings

Descriptive findings for major study variables are presented in Table 2. TSEI scores ranged from 22 to 124 with a mean of 88.06, indicating that urban Bahamian women had moderately high levels of self-esteem. Self-esteem items with which women were most likely to agree included (a) "I am satisfied with the kind of person I am" ( $M = 6.86$ ,  $SD = 1.60$ ), (b) "I think of things I've done well" ( $M = 6.61$ ,  $SD = 1.78$ ), and (c) "I have a sense of purpose" ( $M = 6.55$ ,  $SD = 1.90$ ). Conversely, items with which women were most likely to disagree included (a) "I dwell on my faults" ( $M = 3.02$ ,  $SD = 2.18$ ), (b) "My problems get the best of me" ( $M = 2.73$ ,  $SD = 2.21$ ), and (c) "I feel ashamed of the things I do" ( $M = 2.69$ ,  $SD = 2.04$ ).

STTS scores ranged from 36 to 139 with a mean of 78.07, indicating that urban Bahamian women tended to silence themselves in intimate relationships. Items with which women were most likely to agree included (a) "My partner loves and appreciates me for who I am" ( $M = 4.33$ ,  $SD = 1.13$ ), (b) "I speak my feelings with my partner, even when it leads to problems or disagreements" ( $M = 4.03$ ,  $SD = 1.13$ ), and (c) "In order to feel good about myself, I need to feel independent and self-sufficient" ( $M = 3.90$ ,  $SD = 1.30$ ).

Conversely, items with which women were most likely to disagree included (a) "When it looks as though certain of my needs can't be met in a relationship, I realize that they weren't very important anyway" ( $M = 2.19$ ,  $SD = 1.35$ ), (b) "When I make decisions, other

people's thoughts and opinions influence me more than my own thoughts and opinions" ( $M = 2.18$ ,  $SD = 1.31$ ), and (c) "In order for my partner to love me, I cannot reveal certain things about myself to him/her" ( $M = 2.14$ ,  $SD = 1.42$ ).

SES scores ranged from 12 to 120, with a mean of 102.94, indicating that urban Bahamian women had very high self-efficacy for negotiating safer sex behaviors. Since this variable was extremely negatively skewed (index of skewness = -1.72), it was dichotomized using a median split into 0 (low self-efficacy) and 1 (high self-efficacy) to permit use of binary logistic regression as an alternative to multiple regression. Items with which women were most likely to agree include (a) "I can always say no to sexual intercourse with someone I have just met even if I am attracted to that person" ( $M = 9.16$ ,  $SD = 2.01$ ), (b) "I can always discuss preventing AIDS and STDs with my sex partner" ( $M = 9.06$ ,  $SD = 2.11$ ), and (c) "I can always discuss the importance of using condom" ( $M = 8.97$ ,  $SD = 2.22$ ). Items with which women were most likely to disagree included (a) "I can always be the one to put the condom on even if I'm with a new partner" ( $M = 8.04$ ,  $SD = 2.84$ ), (b) "I can always put a condom on (myself/my partner) so that it will not slip or break" ( $M = 7.96$ ,  $SD = 2.91$ ), and (c) "I can always use a condom without fumbling around" ( $M = 7.89$ ,  $SD = 2.92$ ).

### Hypotheses Testing

Data supported hypotheses one, two, and three and partially supported hypothesis four. There was a significant negative relationship between self-esteem and self-silencing ( $r = -.56$ ,  $p$

Two models were used to test hypothesis four. The first model, which was based on the theoretical foundation of the study, was a forced entry approach to logistic regression with demographic variables entered on block one, self-esteem scores entered on block two, and self-silencing scores entered on block three (see Table 4). The results of this three-block model revealed that only age (odds ratio [OR] = 1.02, 95% CI = 1.01-1.04) and self-esteem (OR = 1.02, 95% CI = 1.01-1.04) were significant independent predictors of self-efficacy for negotiating safer sex behaviors in urban Bahamian women. Although education was a significant predictor up to block two (OR = 1.09, 95% CI = 1.00-1.19), this variable no longer demonstrated significance (although the  $p$ -value of .07 approached significance) when self-silencing was entered into the equation. The model correctly classified 62% of urban Bahamian in regard to their level (i.e., low vs. high) of self-efficacy for negotiating safer sex behavior (-2 Log Likelihood = 845.697, Hosmer-Lemeshow goodness-of-fit,  $[\chi]^2 = 8.73$ ,  $df = 8$ ).

For confirmatory purposes, a second model was tested using forward stepwise logistic regression, which allowed the statistical software to empirically specify the best fitting model for the study variables (see Table 5). The results of this three-step model revealed that age (OR = 1.02, 95% CI = 1.01-1.04), education (OR = 1.10, 95% CI = 1.00-1.20), and self-esteem (OR = 1.03, 95% CI = 1.02-1.04) were significant independent predictors of self-efficacy for negotiating safer sex behaviors. The model correctly classified 61% of urban Bahamian women in regard to their level of self-efficacy for negotiating safer sex behavior (-2 Log Likelihood = 847.825, Hosmer-Lemeshow goodness-of-fit,  $[\chi]^2 = 10.84$ ,  $df = 8$ ).

Thus, hypothesis four was partially supported since only three (i.e., age, education, and self-esteem) of five predictors were significantly associated with self-efficacy for negotiating safer sex behaviors. Although goodness-of-fit of the overall models were questionable according to -2 Log Likelihood and Hosmer-Lemeshow goodness-of-fit results (Mertler & Vannatta, 2001), the models were statistically reliable in distinguishing between urban Bahamian women's level of self-efficacy ( $[\chi]^2 = 45.427$ ,  $p$

### DISCUSSION

The rapidly increasing rate of HIV/AIDS among Bahamian women is daunting for the future of Bahamian society. Despite many concerted efforts, scientists have been unable to find a cure for HIV disease. As a result, there has been a major focus on HIV prevention. However, many prevention strategies have been ineffective with women and particular cultural groups, and the rates of HIV/AIDS continue to rise. By understanding characteristics of Bahamian women that are related to their self-efficacy for negotiating safer sex behaviors, gender appropriate and culturally sensitive prevention interventions can be developed and implemented in an effort to reduce acquisition and transmission of the disease.

Consistent with findings from other studies (Page, Stevens, & Galvin, 1996; Woods, 1999), a negative relationship between urban Bahamian women's self-esteem and self-silencing behaviors was found. This finding suggests that urban Bahamian women with high levels of self-esteem are more likely to speak their minds in intimate relationships than are women with low levels of self-esteem. Although a causal relationship cannot be established, it can be concluded that urban Bahamian women could benefit from skills building in areas such as self-esteem enhancement and sexual communication, which may improve their sexual negotiation powers and decrease their risk for HIV/AIDS.

A positive relationship between urban Bahamian women's self-esteem and their self-efficacy for negotiating safer sex behaviors was also found. Although findings from some studies have indicated that as an individual's self-esteem increases, so does his or her practice of safer sex behaviors (Mill, 1997; Ward & Samuel, 1999), other findings have suggested the contrary (Hylton, 1999; Long-Middleton, 2001; McNair et al., 1998). However, it is important to note that the studies that failed to link self-esteem with safer sex behaviors were conducted with adolescents who tend to engage in risky behaviors more than do adults (Ponton, 1998).

As hypothesized, findings showed a negative relationship between urban Bahamian women's self-silencing behaviors and their self-efficacy for negotiating safer sex behaviors. This finding suggests that urban Bahamian women who silence during intimate relationships are less likely to believe that they can negotiate safer sex behaviors with their partners, a conclusion that has also been drawn from other studies (Quina et al., 2000; Thompson, Harlow, Morokoff, Burkholder, & Dieter, 2001).

Findings showed that age, education, and self-esteem were significant predictors of urban Bahamian women's level (i.e., low or high) of self-efficacy for negotiating safer sex behaviors, whereas income and self-silencing were not. Findings indicated that older, more educated urban Bahamian women with higher levels of self-esteem are more likely to engage in negotiating safer sex behaviors than their younger, less educated counterparts with lower levels of self-esteem.

It was interesting that older urban Bahamian women were more likely to engage in negotiating safer sex behaviors than younger women. It has been suggested that older women are more likely to be in stable relationships and beyond the need for contraceptive use (Wyatt et al., 2000). The finding that older women had higher perceived self-efficacy for negotiating safer sex behaviors than younger women may be reflective of their years of experience rather than actual current behaviors.

Income and self-silencing were not found to predict urban Bahamian women's self-efficacy for negotiating safer sex behaviors. Forty-two percent of the participants in this study reported an income less than \$18,000 per year. Although there is no established poverty level for The Bahamas (Department of Statistics, 2002), income levels in The Bahamas are reportedly higher than those reported for other Caribbean countries (Spadoni, 1977). Thus, Bahamian women may not feel the same financial constraints as women in other cultures. Had income been measured as an interval rather than nominal level variable in this study, this proxy for financial resources may have been a stronger predictor of self-efficacy for negotiating safer sex behaviors. Alternatively, since income was found to be associated with both age and education, perhaps these variables masked the influence of income on self-efficacy for negotiating safer sex behaviors. Nonetheless, study findings suggest that income may not be a constraint or motivator in efforts to improve urban Bahamian women's self-efficacy for negotiating safer sex behaviors.

Self-silencing, a concept not previously studied in Bahamian women, also did not predict self efficacy for negotiating safer sex behaviors. However, self-silencing was associated with all other major study variables. Urban Bahamian women who silenced more in intimate relationships were older, less educated, had lower incomes, had lower levels of self-esteem, and had lower levels of self-efficacy for negotiating safer sex behaviors than women who silenced less in intimate relationships. Perhaps other variables overshadowed the effect of self-silencing on self-efficacy. Alternatively, whether or not Bahamian women are outspoken with their sexual partners, they may believe that they can engage in safer sex behaviors, but this belief may not be translated into behavior.

#### Implications for Practice



The main goals of prevention strategies should be to improve knowledge and enhance skills for safer sex behaviors in urban Bahamian women. Since reading was the hobby women engaged in most, written materials such as brochures, pamphlets, and posters should be written in simple, clear language that is culturally appropriate and should be readily available and accessible. These materials should include information about HIV/AIDS and HIV testing as well as information on skills building (i.e., self-esteem enhancement, assertiveness training, communication skills, and condom use). In addition to written materials, skills building is enhanced through peer support groups that provide opportunities for women to share their experiences as well as include demonstrations, role-playing, singing (i.e., another favorite hobby of Bahamian women), and videotapes since women with educational limitations can also benefit from these prevention intervention approaches. Role modeling or a buddy system should also be incorporated in intervention strategies for Bahamian women. Older women could be paired with younger women to teach them skills building, offer advice about safer sex based on their experiences, and act as role models for their younger counterparts (DeMarco & Norris, 2002).

### Implications for Research

This study should be replicated with Bahamian women living in rural areas on the Family Islands, Bahamian adolescents, Bahamian men as well as women, adolescents, and men in other Caribbean countries to determine characteristics that influence self-efficacy for negotiating safer sex behaviors. Additionally, other predictor and criterion variables such as perceived risk for HIV/AIDS, type of relationships (i.e., self-dominated, partner-dominated, equal dominance), alcohol and drug abuse, and condom use (i.e., consistent users, inconsistent users, none users) should be studied with Bahamian women to further identify characteristics and behaviors that may put them at risk for HIV/AIDS.

Longitudinal studies should be conducted with urban Bahamian women to identify changes and trends overtime. Additionally, methodological triangulation should be used to enhance validity of findings. For instance, interviews, focus groups, sexual diaries, and condom use demonstrations can be included as means of data collection to compare self-efficacy for negotiating safer sex behaviors with actual sexual practices and behaviors. Qualitative methodologies should be used to identify additional characteristics of Bahamian women that may influence their self-efficacy for negotiating safer sex behavior, which could then be tested in quantitative designs.

Finally, research should be conducted to evaluate theory-based skills building interventions that are gender appropriate and culturally sensitive as well as tailored to age group and educational level. Such interventions should address self-esteem enhancement, assertiveness training, communication skills, safer sex negotiations, and condom use. Experimental and multifaceted designs (Grembowski, 2001) should be used to identify which components of interventions work individually and in combination and to determine their effectiveness in preventing HIV/AIDS in Bahamians in general and Bahamian women in particular.

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