

Self-efficacy for HIV Prevention Among Refugee Hispanic Women in South Florida

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Abstract The number of refugees increased in recent years due to factors worldwide, including violence, wars, political strife, and natural disasters. Refugees who are Hispanic women (RHW) in South Florida are a vulnerable population at risk of acquiring HIV infection. Although studies have shown a relationship between self-efficacy for HIV prevention and behavior changes, none have studied RHW. The purpose of this study was to assess whether predictors suggested by the literature were related to self-efficacy for HIV prevention in a sample of RHW. The study is a secondary analysis that uses baseline data from a randomized controlled experimental study, SEPA. A total of 99 refugee Hispanic women from South Florida, 18–50 years of age, participated in the study. There were two predictors of self-efficacy. HIV knowledge was positively related to self-efficacy, and living with a partner was inversely related to self-efficacy for HIV prevention. Culturally competent sexual health education interventions in this population may impact self-efficacy for HIV prevention.

Keywords Refugees · HIV · Condom · Self-efficacy · Hispanic

Introduction

HIV is a global pandemic that has claimed at least 39 million lives. At the end of 2014, an estimated 6.9 million people worldwide were living with HIV, and nearly 2

million people were infected with the virus [1]. Key goals described by the Joint United Nations Programme on HIV and AIDS (UNAIDS) to combat the continuing spread of the infection worldwide include reducing sexual transmission of HIV as well as empowering women to take an active role in prevention efforts [2, 3].

As of 2012, there were about 1.2 million people living with HIV in the U.S. [4]. Of particular concern are infections among members of the Hispanic population in the United States. Hispanics comprise 22 % of new HIV diagnoses in the United States, despite only representing 16 % of the population [5].

About 10 % of the new HIV cases identified each year in the U.S. are in Florida, and the trend shows no signs of abating [6]. New diagnoses of HIV throughout the state increased 24 % in the last year, and the number in Miami-Dade County went up by 20 % [6]. According to The White House Office of National AIDS Policy, people who live in certain geographical hot spots, e.g., the southeast regions of the United States, including Miami, Florida, are considered to be disproportionately impacted by a greater risk for HIV/AIDS than other geographical areas [7].

Hispanic women have particularly high risk for HIV infection within both the U.S. as a whole and Florida in particular. Women represent more than 25 % of those living with the virus in the United States, and this percentage includes a disproportionate number of Hispanics [8]. One in 462 Hispanic women in Florida is currently living with HIV, compared to one in 1080 white women [9]. The newly reported case rate among Hispanic women is 2.4 times higher than the newly reported case rate among white women [10].

There are a number of possible reasons for the disparities in prevalence and incidence for Hispanic women. Traditional gender roles that lead women to accept that

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men will engage in high-risk sexual behaviors have been proposed as a culturally-specific factor that makes it difficult for Hispanic women to negotiate and engage in safer sex practices, e.g., using condoms, that could have an impact on HIV prevention [11–16].

One group especially important to consider when planning for HIV prevention in Florida are Hispanic immigrant women. Miami is a principal point of entry for immigrants arriving from South American and Caribbean countries. A number of women coming from these regions are seeking refugee status. Florida in particular is a primary destination for many of the refugees entering the U.S. [17]. Refugees are defined by the Florida Department of Children and Families, based on international law and the Refugee Act of 1980 as a person who is stateless, unable or unwilling to return to his or her country of nationality, and who can demonstrate persecution or a well-founded fear of persecution [18].

Worldwide the number of refugees has been increasing in recent years due to a variety of factors worldwide, including violence, wars, drug clashes, political strife, and natural disasters [19]. In fiscal year 2013, the year for which the most recent data is available, 69,909 refugees were admitted into the United States. This marks a 20 % increase from the fiscal year 2012 figure of 58,179. Refugees confront economic challenges, violence, discrimination, bias, and marginalization affecting their health and increasing the risk for diseases, including HIV [20, 21]. Florida leads the country in refugee resettlement, with a 2-year total since 2013 of about 43,184, more than California, Texas, and New York combined (40,595) [22, 23]. A large majority of refugees resettling in Florida are from Cuba [22, 24].

Research conducted in the aftermath of conflict indicates that the transition period that follows immigration to a new country may involve social isolation and displacement, which increases risks of sexual abuse and rape, which also increases the risk of exposure to HIV [25]. A study conducted by Agadjanian and Avogo [26] comparing HIV risk factors among long term residents, migrants, and those fleeing war conditions in Angola found that women fleeing war were the least likely to know where to acquire condoms and had the lowest self-efficacy for condom use.

The role of self-efficacy for HIV prevention in predicting sexual behavior has been well established. Self-efficacy is associated with higher levels of condom-use behavior as well as decreases in the number of sexual partners [27]. Other studies have indicated relationships among self-efficacy, knowledge, condom use, and intimate partner violence [16, 28–30]. As noted by Jewkes et al. [31], more than one episode of intimate partner violence among young women in South Africa increased risk of HIV by more than 50 %.

Given the theoretical import of self-efficacy, it is vital to understand the development and maintenance of self-efficacy. Attributes unique to the immigrant experience may predict self-efficacy for condom use. As noted by Zambrana et al. [32], young Hispanic women under age 20 and who received in sex education in school were more likely to be with partners who consistently used condoms. A study by Uribe et al. [33] that queried Hispanic women and men regarding condom use during the past year found that younger and unmarried respondents as well as those with higher levels of education were more likely to have used condoms.

Another factor that may be a predictor of self-efficacy for HIV prevention, and specifically for condom use, is depression. Depression has been associated with significantly reduced use of condoms during last intercourse among women in a recent study conducted in Canada [34]. Similarly, a study conducted by Brawner et al. [35] focusing on African-American female adolescents found that the proportion of condom use was significant lower during the previous 3 month period among clinically depressed participants than among a nondepressed sample. These studies suggest that that depression may be an important factor to consider when examining self-efficacy for condom use, especially among a vulnerable group such as refugee women.

We defined self-efficacy for HIV prevention as a woman's confidence in her capacity to carry out actions or behaviors necessary to prevent HIV, focusing in this study specifically on condom use [36, 37]. The social-cognitive learning theory of Bandura [38] identifies the performance of a behavior as a function of outcome expectancies (expectation of more positive than negative outcomes) and self-efficacy (confidence in the ability to perform the behavior). The building of positive outcome expectancies and self-efficacy through rehearsal, role modeling, and support for the specific new behavior is the unique contribution of social learning theory to HIV prevention [38].

Self-efficacy for HIV prevention plays a critical role influencing personal change toward prevention behaviors [36]. Although several studies have shown the relation between self-efficacy for HIV prevention and behavior changes [36, 39], none have reported self-efficacy for HIV prevention among refugee Hispanic women (RHW).

The purpose of this study was to assess whether predictors suggested by the literature (age, level of education, living with a partner, number of partners, partner communication, HIV knowledge, intimate partner violence, and depression) are related to self-efficacy for HIV prevention, specifically for condom use, among RHW in Florida. Determining which of these factors most influence self-efficacy for HIV prevention among RHW in South Florida may help to guide future efforts to stem the spread of infection in this vulnerable population.

Methods

Design and Procedures

This study is a secondary analysis study that uses baseline data from a randomized controlled efficacy trial of SEPA, *Salud, Educación, Prevención y Autocuidado*, which translates to Health, Education, Prevention, and Self-Care (2P60MD002266-06 NIH/NIMHD). The parent study evaluates the effectiveness of SEPA to increase HIV prevention behaviors and to reduce the incidence of STI for Hispanic women when delivered in a real world setting by community agency personnel. The study compares SEPA to a delayed intervention control group ($n = 320$). Data was collected from May 2013 to May 2016. For this study, data from the baseline assessment were used.

This study obtained IRB approval from the Florida Department of Health. After recruitment, informed consent was signed, and women were interviewed in their preferred language by trained bilingual (Spanish and English) female research staff using a standardized protocol and a structured interview. Interviews were conducted in private offices located at the University of Miami Hospital. Assessments were collected with a secure web-based research management software system (e-Velos) that allowed assessors to ask participants questions and document their responses on a computer.

Sample

Participants were recruited from the Miami-Dade County Refugee Health Assessment Program center. Located in the section of Miami known as Little Havana because of the high number of Cuban immigrants, this culturally sensitive health center provides services to individuals who have fled their home country. Clients of the center may have overseas records reviewed, undergo new health assessments, and receive immunizations. The center aims to identify and treat newly arrived refugees with communicable diseases and to eliminate health-related barriers they may face in the community [22].

Eligibility criteria were: self-identifying as Hispanic, being between 18 and 50 years old, and reporting sexual activity within the last 3 months. Women were excluded from participation if they had participated in a structured HIV program in the previous 6 months. For this study, the sample was 99 women who were refugees. Only women who entered the country as refugees and had been in the US for no more than 7 years were included in this study, as most refugee services are limited to the time period immediately after the individual arrives in the U.S. [18] and women who immigrated more than 7 years ago may have different needs and perspectives from those recently

undergoing the immigrant refugee experience. Characteristics of participants in the study are described in Table 1.

Measures

The measures used in this study had been used with Hispanic populations from previous research and were available in Spanish and English.

Demographics

A 21-item questionnaire that has been used in Spanish and English in prior studies with Hispanic women was used. For this study, participant's age, living with a partner, and employment status will be reported.

Partner Table

Developed and used in several previous studies, this self-report measure contains 25 items that assess a number of factors related to sexual activity based on each reported sexual partners [14, 15]. For this study, number of sexual partners will be reported.

Communication with Partner

Adapted from Catania [40], this 10 item scale was designed to elicit information about the women's main or primary partner. Items assessed were conversations with male partners about condoms and HIV/AIDS, health, negotiating efforts, and HIV/AIDS concerns during the past 3 months. The scale has an internal consistency of $\alpha = .82$ [40].

HIV Knowledge

This scale consists of 12 true–false items that address HIV-knowledge about HIV transmission, prevention, and

Table 1 Characteristics of refugee women

Variables	<i>M</i>	<i>SD</i>
Self-efficacy for condom use	3.44	0.59
Age	33.79	8.93
Education	15.12	3.59
Number of partners	4.21	5.51
Communication with partner	3.31	3.25
HIV knowledge	79.63	12.56
Depression	3.44	4.63
	<i>n</i>	%
Living with partner	68	69
IPV	3	3
High condom self-efficacy	58	59

consequences. This scale has demonstrated adequate internal consistency, $\alpha = .74$ [41], and has been used with Hispanic women.

Partner Violence

The HITS Tool for Intimate Partner Violence Screening measures intimate partner violence in the last month. Different categories of violence were included in this scale: psychological aggression, verbal aggression, and physical injury. This scale had 4 items, and each item was scored from 1 to 5, with a total score range from 4 to 20 points. A lower score represents that the woman has had less/no involvement in violent relationships in the last month. This scale has been used globally in multiple languages, and it was available and validated in Spanish. This scale had an internal consistency of $\alpha = .80$ [42].

Depression

The Patient Health Questionnaire (PHQ-9) scores nine symptoms of depression as 0 (not at all) to 3 (nearly every day). [44]. The PHQ-9 is a depression screening tool. As such, it does not provide a definitive diagnosis of clinical depression which may only be determined by a trained clinician. This scale had an internal consistency of $\alpha = .85$ [43].

Self-efficacy for HIV Prevention

This 7-item scale assesses confidence in the ability to accomplish behaviors relevant to HIV prevention specifically related to condom use (e.g., if I decided that it is best to use a condom, I can convince my partner to use it; it will be easy for me to convince my partner to use a condom). It is scored as the sum of responses on a 4-point Likert scale (strongly disagree; sort of disagree; sort of agree; strongly agree), with a range of 7 to 28. The scale was previously used in a U.S. Hispanic sample [15] and in Chile [13]. This scale has an internal consistency of $\alpha = .75$ [16]. To correct for severe skew in the analysis, condom self-efficacy was dichotomized with median split, so that 43 % of the participants were categorized as low condom self-efficacy and 57 % as high condom self-efficacy.

Results

The mean age of participants was 33.79 ($SD = 8.93$), with a mean number of years of education of 15.12 ($SD = 3.59$). The majority of the participants (69 %) reported living with their partners, and the average of lifetime sexual partners was $M = 4.21$ ($SD = 5.51$).

Almost half of the women in this study (48 %) reported that they do not profess a religion, 39.4 % reported they are Catholic or Christian, and the rest (13 %) stated other religions. In terms of birthplace, 81 % of the participants were born in Cuba. The remainder of participants (19 %) were born in a diverse array of other countries (e.g., Colombia, Dominican Republic, Ecuador, Nicaragua, Guatemala, Honduras, Panama, Peru and Venezuela) (See Table 1).

Communication with Partner About HIV

The mean score for communication with partner about HIV/STI risk was 3.31 ($SD = 3.25$, range 0–10). The largest group of women (32 %) reported no communication with their partners about HIV, more than half of the participants scored 2 points or higher on this scale, and only 25 % scored at 6 or above (on a 10-point scale).

HIV Knowledge

The mean score for HIV/STI knowledge was 79.63 ($SD = 12.55$, range 50–100). Scores were generally very high, with more than half of the participants scoring 83 or higher on this scale, meaning 83 % correct answers to the questions. Five women (5 %) answered all questions correctly. Nearly all women (97–98 %) answered three items correctly: *Birth control pills protect against the AIDS virus*; *If a man pulls out right before orgasm (coming), condoms don't need to be used to protect against the AIDS virus*; and *Cleaning injection needles with water is enough to kill the AIDS virus*. Two items were answered incorrectly most often, *Most people who carry the AIDS virus look and feel healthy* (48 % of women responding correctly) and *Vaseline and other oils should not be used to lubricate condoms* (51 % of women responding correctly).

Intimate Partner Violence

Overall, women reported little violence, $M = 4.49$, $SD = 1.50$, range 4–14. Only 3 (3 %) of women had scores that would indicate a positive risk for violence on the HITS screening instrument, and 83 % had scores at 4 on this scale, which is the lowest possible score.

Depression

Overall depression scores were low, $M = 3.44$, $SD = 4.63$, range 0–24. Most (89; 90 %) women had depression scores in the minimal to mild range, with only 10 (10 %) in the moderate to severe range of depression symptoms.

Self-efficacy for Condom Use

Overall scores were high, $M = 3.50$, $SD = 0.52$, range 1.71–4. Almost a third (32; 32 %) of the women had self-efficacy at the ceiling of the scale, with the majority (84; 85 %) scoring in the upper range (3–4) of the scale.

Predictors Self-efficacy for Condom Use

We used logistic regression analysis in SPSS 21 with self-efficacy for condom use as the outcome. Block 1 included age and education. Block 2 added living with a partner and number of partners. Block 3 added communication with partner, HIV knowledge, intimate partner violence, and depression. Table 2 shows the logistic regression results. Condom self-efficacy was not related to age, education, number of partners, communication with partner, depression, or intimate partner violence. After controlling for other variables, HIV knowledge was significantly related to condom self-efficacy, $B = 0.05$, $SE = 0.02$, $p = .022$, $OR 1.05$. This translates into the odds of *high* condom self-efficacy increasing by 1.05 for every one-unit increase in HIV knowledge. Living with a partner became significant, $B = -1.15$, $SE = 0.54$, $p = .034$, $OR 0.32$. This indicates women who are *not* living with a partner had 3.14 times the odds of high condom self-efficacy as compared to women who are living with a partner, controlling for the other variables.

Discussion

This study contributed to the expansion of knowledge about Hispanic refugee women in the U.S. The perspectives of women who have undergone the refugee experience can provide valuable insight regarding the role of self-efficacy among a unique segment of the Hispanic

immigrant population. It is noteworthy that the majority of the women in this study, who represent an especially vulnerable group, reported high levels of self-efficacy for HIV prevention. Other studies conducted among different groups of Hispanic women have obtained similar results regarding perceived self-efficacy for HIV prevention [12, 15, 16, 45–47].

The findings suggest that many Hispanic refugee women in this study are knowledgeable about HIV. This finding is similar to other studies conducted with Hispanic women [12, 15, 16]. In addition, HIV knowledge had a significant positive relation to self-efficacy for HIV prevention. That is, women with greater knowledge had greater self-efficacy to HIV prevention measures, a pattern similar to results found by other authors [45, 48]. Having an understanding of the scope of previous knowledge of HIV and the relationship with self-efficacy among RHW is an important aspect to consider when planning for future HIV prevention intervention for this group as it may affect implementation strategies.

After partialling out the effects of HIV knowledge, living with a partner was a significant inverse predictor of self-efficacy, as women with partners had, on average, lower self-efficacy than women who were not living with their partners [16]. This is a notable finding to be taken in consideration when developing future HIV prevention programs for RHW and merits further exploration. As not all RHW who migrate to the U.S. arrive with their partner, many will confront separation from a previous partner and navigate the initiation of new relationships during what may be a time of emotional and economic vulnerability. In addition, RHW will experience changes related to their social roles and financial necessity that may play a factor in the dynamics of cohabitating couples.

Completely explaining the interaction between HIV knowledge and living with a partner is beyond the scope of this study. However, these results underscore importance of

Table 2 Predictors of condom self-efficacy

Variables	Block 1				Block 2				Block 3			
	<i>B</i>	<i>SE</i>	<i>p</i>	<i>OR</i>	<i>B</i>	<i>SE</i>	<i>p</i>	<i>OR</i>	<i>B</i>	<i>SE</i>	<i>p</i>	<i>OR</i>
Age	−0.03	0.02	.300	0.98	−.02	.03	.502	.98	.00	.03	.988	1.00
Education	−0.01	0.06	.829	1.01	.02	.06	.705	1.02	−.01	.07	.849	.99
Living with partner					−.76	.49	.116	.47	−1.15	.54	.034	.32
Number of partners					−.06	.05	.292	.95	−.05	.06	.474	.96
Communication with partner									−.06	.07	.377	.94
HIV knowledge									.05	.02	.022	1.05
IPV									−1.49	1.46	.306	.23
Depression									−.06	.05	.265	.95

Significant relationships shown in bold

understanding the complex interaction of knowledge and beliefs within the context of relationships for RHW. Future research should examine links between sexual health variables while accounting for relational status.

It is also noteworthy that women in this study had very low communication with partners about HIV. It should be considered that the cultural context in which Hispanic women live may underscore the importance of promoting communication strategies for HIV prevention [47]. This factor is particularly important in the Hispanic population, in which machismo and marianismo frequently inhibit communication between partners [49]. These beliefs may lead to Hispanic women to be poorly informed about sex risks and to lack partner communication about condom use and HIV prevention. These findings highlight the importance of emphasizing to health care workers an appropriate understanding of the cultural norms for communication with partner that should be considered when implementing any HIV prevention intervention in this population.

Our findings indicated a low incidence of IPV among the refugee women, which stands in contrast to the literature demonstrating a high prevalence of IPV among refugee women and among Hispanic women in general [3, 47, 50]. Generally, women who are in violent relationships with a partner are frequently more vulnerable and unable to sustain day-to-day activities, reducing their perceptions of self-efficacy [16, 51, 52]. Although IPV was not a significant predictor of self-efficacy in this study, future studies should continue to further explore the relationship between IPV and self-efficacy for condom use among RHW.

Most women had depression scores in the minimal to mild range. The scores were similar to the national trend among women in the U.S. [53]. Depression is one of the most common mental health conditions seen in primary care settings, and women are more likely to experience depression than men [53]. Further, individuals who have experienced adverse life events are more likely to experience depression [54], a critical fact to bear in mind regarding the population of RHW. It is important to consider that among Hispanic families there is often an emphasis on self-reliance when coping with mental health problems, as well as a sense of shame for the family if psychological issues—such as depression—are disclosed [55, 56]. In addition, Hispanics could tend to minimize or avoid disclosing signs of depression, fearing they may face discrimination due to having a mental health condition [57].

Limitations

The limitations of our study include its cross-sectional design. Future studies should consider a longitudinal analysis of these variables in order to provide a richer

picture of interrelationships and provide information to make causal inferences. The majority of the RHW who participated in this study were from Cuba, which could affect the generalizability of findings to other refugee groups of Hispanic women. Also, the data collected for our study relied on women's self-reports, which could influence the outcomes of the study if the women had felt inclined to give responses perceived as desirable to the researchers.

Conclusions

This study is the first analysis conducted that examines self-efficacy for condom use among RHW in South Florida. Several other factors need to be further studied to better understand the links between sexual health variables while accounting for the relational status of members of this vulnerable population.

It is important to consider that cultural expectations and social roles such as machismo and marianismo may impact the self-efficacy of some women to engage in prevention behaviors. Consequently, cultural competence among health care providers who work with RHW and other immigrants should be promoted in order to understand the needs and respect differences in values and norms, which may in turn serve to improve prevention behaviors among members of these vulnerable populations.

The relationship context is important for women, making it particularly relevant to consider in regard to sexual health interventions for RHW. Sexual health education interventions designed to consider cultural values of refugees, and in particular women, are likely to be more effective than those that do not consider the interactions of knowledge, beliefs, values, and cultural practices of the refugees. Therefore, health care providers and government and nongovernment organizations should consider developing and implementing prevention programs designed specifically for RHW.

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Compliance with Ethical Standards

Conflict of interest The authors declare that they have no conflict of interest.

Research Involving Human Participants and/or Animals This study obtained IRB approval from the Florida Department of Health. All procedures performed in studies involving human participants were in accordance with the ethical standards as laid down in the 1964 Declaration of Helsinki and its later amendments or comparable ethical standards.

Informed Consent Informed consent was obtained from all individual participants included in the study.

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