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Health and Cultural Determinants of Voluntary HIV Testing and Counseling Among Middle-Aged and Older Latina Women

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The rate of cases of HIV/AIDS in older people is increasing; indeed one out of every four people with HIV/AIDS is over age 50. This study describes the correlates of HIV Voluntary Counseling and Testing (VCT) using structural equation modeling techniques for a sample of 135 middle-aged and middle-aged and older Latinas in South Florida. Over 60% of participants had been tested for HIV. Provider endorsement was found to be the strongest predictor of VCT (odds ratio [OR] = 6.38), followed by having a clinic as a regular source of healthcare (OR = 3.88). Social work implications are provided.

KEYWORDS *HIV testing, middle-aged and older women, Latina healthcare*

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INTRODUCTION

As the rates of HIV/AIDS in middle-aged and older Latina women in the United States increase, factors that impact their utilization of voluntary HIV counseling and testing (VCT) services become of more interest to social workers and other professionals in the fields of healthcare and aging. Middle-aged and older Latinas can be described as a *bidden* population, due to (a) the lack of recognition by providers, (b) little empirical research, and (d) increased rates of HIV infection. One out of every four people with HIV/AIDS is over age 50 (CDC, 2008a) and compared to Whites, the rates of HIV among Hispanics 50 years and older is five times as high (Linley, Hall, & An, 2007). Middle-aged and older Latinas over age 55 comprise approximately 6% of all Latina people living with AIDS (PLWA) (CDC, 2004). Among Latina women aged >45 the rate of HIV infections increased by 11% between 2002 and 2006 (CDC, 2008b). Furthermore, the CDC estimates that 70% of all Latina PLWA acquired the disease through heterosexual means (CDC, 2009).

Early diagnosis is particularly important since age has been found to influence the progression of HIV/AIDS. Among the general population, patients over 50 years old at the time of diagnosis were found to live an average of only 7 years, compared to 12 years for those aged 13–49 (Inungu, Mokotoff, & Kent, 2001). Over 6% of men and 9% of women age 60 years and older with no medical history of sexually transmitted infections (STI) at the time of death were found to be HIV-seropositive (El-Sadr & Gettler, 1995). In fact, it is even more common for older women to die within a month of being diagnosed with AIDS because of the advanced stage of illness (Lekas, Schrimshaw, & Siegel, 2005; Mack & Bland, 1999; Nguyen & Holodniy, 2008). Given these rates of infection and abrupt mortality, it is critical that we develop a better understanding of what impacts the VCT patterns of this population.

VOLUNTARY HIV COUNSELING AND TESTING

VCT has long been the cornerstone of HIV prevention initiatives (Valdiserri, Robinson, Lin, West, & Holtgrave, 1997). VCT consists of an individualized intervention of two sessions designed to inform clients of their current sero-status and provide sexual risk and prevention education (CDC, 2003; Sabogal & Catania, 1996). Since approximately 1.2 million people have been diagnosed with HIV infection in the United States and many are not aware of their infected status (Hall et al., 2008), the utilization of VCT could allow them to prevent transmission to others and enter early treatment to reduce mortality (CDC, 2008b; Voelker, 2009). Late testing, after which there is a rapid progression to AIDS within one year of VCT, is seen particularly

in older, low-income, heterosexual, and minority populations (Beaulaurier, Craig, & de la Rosa, 2009; CDC, 2008a).

Age

Many studies have found that VCT decreases with age (Fernández et al., 2003; Kalichman, Kelly, Morgan, & Rompa, 1997). Using the 2007 National Health Institute Survey (NHIS) sample, Heyman, Schiller, and Barnes (2008) found that 9% of women over age 65 reported ever being tested for HIV, compared to 32% of those 45–64 and 68% of women aged 25–34. Gender also seems to impact VCT differently by age. Up to age 50, women are the most likely to get an HIV test, while among seniors, men are more likely to obtain VCT (Bond, Lauby, & Batson, 2005).

Cultural Barriers to VCT

Although there is very little literature that specifically examines the cultural barriers to VCT for middle-aged and older Latinas (Melnik, 1998), cultural issues have been found to impact Latino access to health care. Low-aculturated Mexican Americans are less likely to seek outpatient care than their more acculturated counterparts, even when need is equal between the groups (Wells & Roetzman, 2007; Williams & Mohammed, 2009). Failure to take advantage of general preventative screenings among Latinas has been correlated with lack of health insurance, fatalism, fear of finding a problem, fear of treatment side effects, and perceived disease incurability (Larkey, Hecht, Miller, & Alatorre, 2001; Mohamed, Skeel Williams, Tamburrino, Wryobeck, & Carter, 2005; Palmer, Fernández, Tortolero-Luna, Gonzáles, & Mullen, 2005). Predictors of mammography screenings for middle-aged and older Latinas included age, city of residence, health insurance, and a discussion with a physician within the past two years about the procedure (Laws & Mayo, 1998). Other research has demonstrated that service availability and discrimination are barriers associated with health-service underutilization among older Latinas (Awad, Sagrestano, Kittleson, & Sarvela, 2004).

Regular Provider of Health Care

Latinas are the most likely population to report no usual source of care (19.8%) (DHHS, 2005). Although not yet studied in middle-aged and older Latinas, women who have a usual source of care are more likely to receive preventative care (Ettner, 1999), and having a regular provider of care has also been associated with VCT for younger women (Bond et al., 2005; Emler & Farkas, 2002). The link between provider accessibility and VCT is particularly important to examine in light of the fact that in the U.S.,

the majority of HIV tests are performed at private physicians' offices and clinics and not publicly funded HIV test sites (Anderson, Carey, & Taveras, 2000).

Health Status

Hispanics are the most likely to report that their health was fair or poor rather than good or excellent (59%) compared to African Americans (50%) and non-Hispanic Whites (42%) (DHHS, 2005). Findings detailing the relationship between self-rated health status and VCT have been mixed. Bond et al. (2005) found that those who rated their health poor were more likely to accept VCT. In contrast, Kakoko, Lugoe, and Lie (2006) found that those who rated their health more positively were more likely to have been tested. Although the relationship between health status and VCT has not been studied in middle-aged and older Latinas, a self-assessment of poor health has been shown to be a significant predictor of seeking preventative cancer screening for this population (Cunningham, Ruben, & Narayan, 2008).

Provider Endorsement

Most primary care providers do not routinely assess HIV risk in older patients (Stout, Ratard, Southwick, & Hamilton, 2002). Research involving older women has found that during prevention counseling, nutrition recommendations were frequently offered (15%) while issues of sexuality were not mentioned (Stout et al., 2002). This is particularly important in light of other study findings that inadequate or inaccurate physician assessment may lead to underreporting of HIV/AIDS in older women (CDC, 2000; Savasta, 2004). Researchers have recognized health-care provider assessment and subsequent endorsement as an important predictor of VCT (Fernández et al., 2003). A study of Hispanic farm workers found that 69% of those never tested would accept VCT if suggested by their provider (Fernández et al., 2005). Furthermore, a study of never-tested Hispanics found that physician endorsement was the strongest predictor of intention to accept a VCT within six months (Fernández et al., 2004). Among respondents who had never been tested, 81% of men and 65% of women reported they would accept VCT if their doctor recommended it to them (Bond et al., 2005). Liddicoat, Losina, Kang, Freedberg, and Walensky (2006) found that, prior to diagnosis, 72% of HIV patients had encounters with physicians who missed critical opportunities to suggest VCT. Primary care providers may assume that patients will request VCT after engaging in risky behaviors, yet few people accurately assess their own risk (Takahashi, Johnson, & Bradley, 2005). Therefore, reliance on such patient perception combined with the inadequate physician assessment of sexual risk in healthcare settings conspire to establish missed VCT opportunities. The objective of the present study was

to develop and empirically test a multivariate model of VCT utilization for middle-aged and older Latinas. Four hypotheses provided guidance:

1. Acculturation will be a stronger predictor of VCT than self-perceived health status for middle-aged and older Latinas.
2. Provider endorsement will have a significant impact on VCT for middle-aged and older Latinas.
3. Sexual risk factors will predict VCT for middle-aged and older Latinas.
4. Older age will have a negative impact on VCT for middle-aged and older Latinas.

METHODS

Procedures

Based on a cross-sectional survey design, this study was a secondary analysis of participants between the ages of 45 and 88 ($n = 135$) who had been enrolled in a study of intergenerational Latina mothers and daughters in Miami-Dade County, Florida. Following approval (#080905-00) by the Institutional Review Board at Florida International University, participants were recruited through community health fairs, radio, and TV advertisements using snowball sampling methods. Inclusion criteria included: (a) consenting to a face-to-face interview; (b) aged 45 years old or older; (c) self-identifying as Latina; (d) living in Miami-Dade County, Florida. Interviews took two to three hours and were conducted in either Spanish or English by trained interviewers using a structured questionnaire (Dillon et al., 2009).

Measures

DEMOGRAPHICS

Participants reported their age (in years), marital status (collapsed into never married/married, including common-law/remarried/divorced, separated, and widowed), education (less than high school/high school/bachelor's degree or above), nativity (U.S.-born/foreign born), annual income (\$0–\$4,999/\$5,000–\$9,999/\$10,000–\$14,999/\$15,000–\$19,999/\$20,000–\$24,999/\$25,000–\$29,999/\$30,000+).

HEALTH

Data collected included: usual source of healthcare (none/community clinic/private doctor/community clinic), and health insurance status (no insurance/insurance). Provider endorsement was evaluated by response to the question, "Has your doctor or any health professional spoken to you about HIV prevention or testing in the past 12 months?" (yes/no).

CULTURAL IDENTITY

The *Multidimensional Measure of Cultural Identity Scales for Latinos (MMCISL)* (Félix-Ortiz, Newcomb, & Meyers, 1994) was administered to participants. This scale has been used in a variety of studies, most frequently in those that assess the impact of culture on risk behaviors among Latinos (Félix-Ortiz & Newcomb, 1999; Félix-Ortiz, Velázquez, Medina-Mora, & Newcomb, 2001). The scale contains 35 items that measure cultural identity across 10 distinct dimensions: Spanish-language proficiency, English-language proficiency, familiarity with American culture, familiarity with Latino culture, preferred Latino affiliation, perceived discrimination, *respeto*, Spanish-language preference, Latino activism, and feminism. Estimates of criterion validity and internal consistency of this scale are fully described in previous articles focusing in this measure (Dillon et al., 2009). For this study, three scales from the MMCISL suggested inadequate reliability with internal consistency estimates below 0.70. Thus, feminism (α .69) and Latino activism (α .40) were dropped, and *respeto* (α .63) was retained for theoretical reasons.

SEXUAL ACTIVITY

A modified version of a sexual-activity scale was utilized to gather information on participants' sexual risk behaviors (Turner & Gil, 2002). Participants reported: (a) total number of male and female sex partners (vaginal, anal, and oral) over the past 12 months; (b) frequency of alcohol use during sex (always, frequently, sometimes, occasionally, never); and (c) total frequency of vaginal, oral, and anal sex during the past 12 months and the number of acts that included the use of a condom. To obtain proportions of protected acts, the number of protected vaginal sexual acts was divided by total number of acts (Turner & Gil, 2002). Due to few reports of either anal sex or the use of a condom during oral sex, these two variables were dropped from the analysis.

VOLUNTARY COUNSELING AND TESTING

Participants were asked whether they have been tested for HIV (yes/no). If the participants answered "no," they were asked why they have not been tested. If they answered "yes," they were also asked the physical location of their last HIV test (no test/community clinic/private doctor/hospital).

ANALYSIS

Logistic regression in a structural equation modeling (SEM) framework was utilized to analyze the potential correlates of VCT. SEM was chosen because

it allows for the simultaneous testing of the complex relationships between variables in both measurement and outcome models (Phillips, Morrison, Andersen, & Aday, 2000) and accounts for measurement error. SPSS 17.0, AMOS 7.0, and MPlus 5.0 software packages facilitated data analysis.

FINDINGS

Descriptive Statistics

As illustrated in Table 1, participant ages ranged from 45 to 88 ($M = 55.32$, $SD = 8.15$) with the vast majority born outside the United States (87%). These middle-aged and older Latinas were divorced, separated, or widowed (64%) with education of either less than high school (27%) or high school graduate (24%). For the most part, participants had very low incomes of less than \$15,000 per year (65%). A private doctor was cited as their regular source of healthcare most frequently (44%) while slightly more than half of the participants reported having health insurance (54%). The number of sexual partners during the past 12 months ranged from 0 to 7 ($M = .98$, $SD = .958$). The majority of respondents reported having one sexual partner during the past 12 months (63%) and not using alcohol during sexual activity (73%). Most participants reported their health status as good (38%) or fair (23%). Slightly more than half stated that a provider had not endorsed VCT (57%). A surprising majority (61%) of middle-aged and older Latinas had obtained VCT. Of those who had received VCT, most had been tested at a clinic (66%).

Model Fit Evaluation

Following the recommendations of Bollen and Long (1993), a variety of global fit indices were used, including indices of absolute fit, relative fit, and indices of fit with a penalty function for lack of parsimony. These include the traditional overall chi (χ) square test of model fit, which should be statistically nonsignificant. The value of χ in relation to the degrees of freedom (df) can indicate invalid model parameters and is employed as measure of goodness of fit (Byrne, 2007). Once the full model diagnostics were reviewed, modification indices (MI) over 4.0 that were logically supportive of the proposed model were used to identify points of ill fit. These MI indicated relationships between income to number of partners (MI = 14.229); age to protected sex (MI = 7.914); health status to protected sex (MI = 5.867); and age to number of partners (MI = 4.815). Based on the theoretical logic and previous studies indicating such relationships (Tubman, Gil, Wagner, & Artigues, 2003), each of the four paths was added individually and the model was rerun to identify any improvements. This revised model indicated good model fit wherein the χ^2 (14, $p = >.725$) = 10.497;

TABLE 1 Descriptive Statistics

Variable ¹	<i>n</i>	%	M	SD	Skewness	Kurtosis
Age			55.32	8.15	1.14	1.45
45–54	73	54.1				
55–64	44	32.6				
65+	18	13.3				
Marital Status						
Never been married	7	5.2				
Married/Common-law	42	31.1				
Divorced, Widowed, Separated	86	63.7				
Education						
Less than high school	37	27.4				
High school graduate	33	24.4				
Some post high school	32	23.7				
College graduate +	33	24.4				
<i>Cultural Identity Scale (CIS)</i>						
Spanish Proficiency	135		14.32	2.59	–1.12	1.06
Spanish Preference	135		35.35	7.88	–.68	–.24
English Proficiency	135		8.20	3.15	–.28	–1.19
Latin Culture	135		11.81	3.04	–6.05	–.57
Latin Affiliation	135		9.75	1.94	–.31	–1.28
Latin Activism	135		11.22	1.75	1.16	.70
American Culture	135		9.16	2.83	.17	–.34
Respeto	135		9.52	2.63	.22	–.41
Discrimination	135		7.21	2.92	.49	–.30
Feminism	135		12.87	2.33	–1.41	2.56
<i>Nativity</i>						
United States (US)	18	13.3				
Outside US	117	86.7				
<i>Annual Income</i>	135					
\$0–\$4,999	34	25.2				
\$5,000–\$9,999	29	21.5				
\$10,000–\$14,999	24	17.8				
\$15,000–\$19,999	13	9.6				
\$20,000–\$24,999	7	5.2				
\$25,000–\$29,999	12	8.9				
More than \$30,000	16	11.9				
<i>Regular Source of HC</i>						
No source of care	6	4.4				
Clinic	31	23.0				
Hospital	38	28.1				
Private doctor	60	44.4				
<i>Health Insurance</i>						
No	62	45.9				
Yes	73	54.1				
<i>Sexual Risk Factors</i>						
Safe Sex (% of protected)			.53	.48	–.12	–1.95
Sexual Partners			.98	.96	2.32	8.08
0	35	25.9				
1	85	63.0				
2	5	3.7				
3	6	4.4				
4+	4	2.9				

(Continued)

TABLE 1 (Continued)

Variable ¹	<i>n</i>	%	M	SD	Skewness	Kurtosis
Alcohol consumption			4.44	1.07	-1.95	2.96
Always	6	4.4				
Usually	3	2.2				
Sometimes	16	11.8				
Rarely	11	8.1				
Never	99	73.3				
Health Status			3.01	1.12	.10	-.57
Poor	12	8.9				
Fair	31	23.0				
Good	51	37.8				
Very good	25	18.5				
Excellent	16	11.9				
Provider Endorsement			.43	.50	.29	1.95
No	77	57.0				
Yes	58	43.0				
Voluntary HIV Testing (VCT)			.61	.49	-.45	-1.83
VCT						
Yes	82	60.7				
No	53	39.3				
Location of VCT			.87	.893	.826	-.051
Clinic	53	65.5				
Hospital	19	23.4				
Private doctor	9	11.1				

Note. ¹These variables are left in their continuous form for all analysis and are presented in categorical form here for descriptive purposes only.

$\chi^2/df = 0.750$; CFI = 1.00; GFI = .986; RMSEA < .001 with a *p*-value of close fit of .904. Additional focused fit indices were examined, and no modification indices or no offending estimates were found. Standardized residuals were less than two. The Goodness of Fit Index (GFI), (which should be greater than .90) was .986, and the Normed Fit Index (NFI) (which should be between .9 and 1.0) was .925. The standardized root mean square residual (RMR) was good at .024, and the RMSEA was < .05. All indications point to a good model fit. Path coefficients, critical ratios, and standard errors are illustrated in Table 2.

Overall, the correlates in the final model accounted for 33% of VCT. Significant ($p < .001$) predictors of VCT included younger age (*OR* .93 [CI -0.01, 0.02]); poor self-perceived health status (*OR* .59 [CI -0.95, -0.10]); and provider endorsement (*OR* 6.38 [CI .88; 2.82]). The use of a community clinic as a regular source of healthcare (*OR* 3.88 [CI 1.13, 2.58]), Spanish proficiency as a measure of linguistic acculturation (*OR* 1.26 [CI .048, 0.42]), and alcohol consumption during sex (*OR* .54 [CI -1.11, -0.09]) were associated ($p < .05$) with VCT. Nonsignificant associations included the number of sexual partners, percent of protected sexual activity, and the presence of health

TABLE 2 Final Model Coefficients for VCT

Path Description	Path Coefficient	Standard Coefficient	Standard Error	Critical Ratio	ODDS Ratio	Confidence Interval (95%)
AGE to VCT	-.076	-.131	.031	2.427**	.927	(-.014) (-.015)
SPANPROF to VCT	.228	.126	.097	2.358*	1.256	(.038) (.418)
DISCRIM to VCT	.135	.084	.084	1.168	1.145	(-.029) (.299)
INS to VCT	-.607	-.234	.466	1.302	.545	(-1.519) (.306)
CLINIC to VCT	1.357	.524	.625	2.169*	3.884	(.131) (2.583)
AGE to PARTNERS	-.028	-.187	.010	-2.734*		
AGE to PROSEX	.016	.238	.005	3.177*		
AGE to ALCSEX	.040	.274	.011	3.607*		
PROSEX to VCT	.327	.037	.488	.670	1.386	(-.629) (1.25)
PARTNERS to VCT	-.441	-.113	.248	-1.778*	.643	(-.928) (.045)
ALCSEX to VCT	-.600	-.150	.258	-2.323*	.549	(-1.106) (-.094)
HEALTHST to PROSEX	-.087	-.181	.037	-2.391*		
HEALTHST to VCT	-.525	-.125	.218	-2.409**	.592	(-.952) (-.098)
PROVEND to VCT	1.852	.716	.494	3.748**	6.375	(.884) (2.821)

Note. VCT = Voluntary Counseling and Testing, SPANPROF = Spanish Proficiency, DISCRIM = Discrimination, INS = Health Insurance, CLINIC = Community Clinic as Regular Source of Healthcare, PARTNERS = Number of Sexual Partners during the past twelve months, PROSEX = Percent of Protected Sex, ALCSEX = Consumption of Alcohol during Sexual Activity, HEALTHST = Health Status, PROVEND = Provider Endorsement.

insurance. Despite the lack of significant direct effect on VCT, discrimination was retained in the final model because of the improvement in fit statistics.

DISCUSSION

This study's primary objective was to uncover the factors that may impact the HIV testing of middle-aged and older Latinas. Older Latina women are increasingly at risk from the epidemic yet have received minimal attention from healthcare professionals and researchers. The fact that 60% of middle-aged and older Latinas reported VCT was somewhat surprising given perceptions of the contribution of age, foreign-born status, and cultural identity to such health service use. Although previous research has found that Latino migrant farm workers (Fernández et al., 2005) and adults of all races (Takahashi et al., 2005) do tend to accept VCT when recommended

by a physician, this study extends these findings to middle-aged and older Latinas.

An encouraging finding was that so many women, particularly given their low socioeconomic status, had a regular source of healthcare. The use of a community clinic was significantly related to having a VCT while neither the use of a private physician or a hospital for the regular source of care was significantly related to VCT, which could indicate that these providers were less likely to consider such testing as part of their service delivery (McKenna, 2007). It is interesting to report that most middle-aged and older Latinas reported VCT from a clinic, even though most used a private physician as their regular source of care and provider endorsement was significantly related to getting a VCT. This may suggest that while middle-aged and older Latinas are getting their regular healthcare from a private physician, they are actually obtaining VCT at a clinic. Perhaps private physicians are actually endorsing VCT, yet for middle-aged and older Latinas the anonymity of a clinic setting provides a certain amount of appeal. As expected, because of the substantial clinic use and the availability of free VCT at these sites, the presence of health insurance or high income was not found to be significantly related to VCT.

As has been found in previous research, sexual risk factors also had a mixed impact on VCT, with alcohol use during sexual activity particularly significant. Since alcohol consumption is often part of medical assessments, perhaps alcohol use triggers recommendations for VCT. Furthermore, having more partners indicated a lower likelihood of getting a VCT. Since VCT is currently a voluntary test, perhaps only those that are the most conscientious are seeking VCT. This indicates that voluntary testing strategies may be missing those most in need of testing. The most efficient method to address those that are not acquiring testing is the continued push for routine VCT integrated into comprehensive healthcare services. This removes the need for clients to properly assess their risk and seek testing because that mechanism may not be working effectively for this population, as has been found for African American women (Cole, Logan, & Shannon, 2008). The CDC aims to increase VCT as part of adult routine medical care (Branson et al., 2006). This study's findings of the importance of provider endorsement for middle-aged and older Latinas seem particularly significant in light of these recommendations. Finally, such integration of prevention services into regular health activities may provide further opportunities for VCT (Bond et al., 2005).

Acculturation was hypothesized to have a strong influence on VCT but was not broadly supported. Although Spanish proficiency was critical to VCT, nativity was not significantly related to VCT. This could be due to the particular nature of service provision in South Florida that may differ from other cities because of the large population of foreign-born Latinas. Localities that have fewer immigrant Latinas may be less likely to have a service delivery system that is responsive to their needs.

LIMITATIONS

Several limitations of the study bear examination. For instance, there may be alternative or more complete models that could also account for the obtained findings. The feminist, Latino affiliation, and *respeto* subscales of the MMCISL scales evidenced less than adequate reliability estimates in the current sample. The middle-aged and older Latinas profiled in this study were both low income and low acculturated and as such are not representative. Future research should include more precise measures of nativity and country of origin, so it remains to be seen whether the effects of these variables would hold across such diverse groups. In addition, most of the measures collected were single-item indicators. Although interviewers received extensive training in rapport building to facilitate the elicitation of unbiased responses, constructs such as sexual behaviors were not verifiable through any means other than subject self-report. Heavy reliance on self-report measures could inflate or confound results. Furthermore, this study differed from most studies of VCT, as it was considered a measure of health service utilization and not a behavioral intervention to impact risk behaviors. Although it is only possible to speculate, perhaps providers working in settings where VCT is regularly provided might be more likely to recommend VCT, regardless of the other characteristics (such as age, culture, ethnicity, race, etc.) of their patients. Furthermore, testing may be more normative for older individuals in immigrant communities. Despite these challenges, this study provided a rigorous analysis and critical evidence that factors associated with VCT among this population are distinct. Social workers need to be aware of the specific barriers to testing among this population in order to provide comprehensive health promotion and healthcare to middle-aged and older Latinas.

IMPLICATIONS FOR SOCIAL WORK AND HEALTH-CARE PROFESSIONALS

Although older Latina women have received minimal attention from healthcare professionals, such disciplines have a unique opportunity to be involved in combatting HIV/AIDS among middle-aged and older Latinas. Sufficient resources should be directed to support community clinics, where middle-aged and older Latinas are most likely to test. Professionals in health and community settings can be involved in educational initiatives to reduce the stigma of sexual behavior and VCT for middle-aged and older Latinas. As primary care providers are often a patient's only contact with the healthcare system, routinely testing at such locations could help identify HIV infection in patients who might unknowingly transmit HIV to others (Takahashi et al., 2005). The provision of VCT also provides an opportunity to link individuals with other parts of the healthcare system such as

community organizations and mental health professionals (Awad et al., 2004). Such access may be particularly important for marginalized groups who have disparate interaction with the healthcare system, such as ethnic minorities. The findings from this study indicate that VCT for middle-aged and older Latinas should be culturally appropriate and at a minimum include the provision of services in Spanish. Finally, the development of a preventive intervention that addresses the age, gender, and culture-related risks of middle-aged and older Latinas combined with effective screening procedures from healthcare providers could be essential to reduce the HIV risks of this marginalized population (Beaulaurier et al., 2009).

CONCLUSION

This study represents an important step toward understanding the health and cultural determinants of VCT with middle-aged and older Latinas. Ultimately, since the most important correlate of VCT for middle-aged and older Latinas is provider endorsement, healthcare providers in community clinics and healthcare settings can advocate for the inclusion of such recommendations in patient care. Practice and research efforts should continue to encourage awareness of the benefits of VCT for this population.

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