Risky Sexual Behaviors Among Hispanic Young Adults In South Florida: Nativity, Age at Immigration And Gender Differences

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CONTEXT: *U.S. Hispanics are disadvantaged compared with whites in regard to sexual health, particularly early sexual initiation and contraceptive use. It is unclear whether differences in nativity and immigration are associated with risky sexual behaviors.*

METHODS: *Data collected between 1998 and 2000 from a community sample in South Florida were analyzed to examine sexual behaviors among 709 Hispanic individuals aged 18–23. Associations between nativity and age at immigration and sexual behaviors were assessed separately by gender using chi-square tests and analyses of covariance.*

RESULTS: *Smaller proportions of sexually experienced women who had immigrated to the United States before age six than of similar U.S.-born women reported having had vaginal sex (83% vs. 91%) and oral sex (71% vs. 86%) in the past year. Compared with U.S.-born women, those who had immigrated at age six or older reported lower levels of oral sex (66% vs. 86% of those with sexual experience) and drug use in conjunction with sex in the past year (mean score, 1.2 vs. 1.6 on a scale of 1–5), and a lower average lifetime number of sexual partners (2.0 vs. 3.7 in the sample overall). Immigrant men were no less likely than U.S.-born men to engage in risky sexual behavior.*

CONCLUSIONS: *Given the diversity of nativity and immigration histories among Hispanics in the United States, it is important that research examine both factors. An understanding of their joint association with sexual activity, plus the conditioning effects of gender, could help professionals to develop effective education and prevention programs for young people who are at risk for engaging in potentially dangerous sexual behavior.*

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Hispanics are the largest racial or ethnic minority group in the United States, accounting for 14% of the total population.[1] An estimated 40% or more of the U.S. Hispanic population are foreign-born,[2] and 56% are younger than 30.[3] Immigrants, particularly those of Hispanic descent, are now the fastest growing segment of the nation's child population[2] and make up a substantial proportion of U.S. residents in their late teens and early 20s.[3] Thus, understanding how young Hispanic immigrants adapt to the United States and the implications that adaptation holds for their physical and emotional well-being has become increasingly vital.

The onset of sexual activity, which generally occurs during the transition to adulthood, carries potentially serious consequences for health and well-being. Hispanics in the United States experience higher rates of STDs, cervical cancer and AIDS-related ailments than non-Hispanic whites;[4] however, the risk of such negative sex-related outcomes may vary by nativity (i.e., U.S. vs. foreign birth).[5,6]

To date, most studies focusing on sexual activity among Hispanics have examined the associations between nativity or level of acculturation and sexual experience,[5,7–9] age at sexual initiation,[9–11] contraceptive use[9,12] and childbearing.[13] The research suggests that foreign birth and low acculturation are negatively associated with individuals' propensity to initiate sex early or engage in risky sexual activities. Yet, these studies have not yet clearly examined nativity differences in sexual behaviors that pose serious, deleterious health risk. For example, almost no work among Hispanics has explored associations between nativity and type of sexual activity (e.g., vaginal, oral and anal sex), number of partners (either recent or cumulative) or the use of alcohol and drugs during sexual encounters.[14]

In addition, the literature has not adequately explored how age at immigration and gender may influence the relationship between nativity and risky sexual behavior. Research on the sexual behavior and health of adult Hispanics has generally focused on adults as a whole, without distinguishing between life stages or between those who grew up in the United States and those who were raised elsewhere. Consequently, the links between nativity, life stage, time spent in the United States and childhood socializing contexts have not been disentangled. Finally, the vast majority of research on Hispanics' sexual behavior has concentrated on individuals of Mexican or Puerto Rican background; little attention has been paid to Hispanics of other origins.[14]

To address these gaps in the literature, we use data from the Miami-Dade area of South Florida to focus on the risky

sexual behaviors of Hispanic residents aged 18–23, most of whom are of Cuban or Nicaraguan origin. We address the following research questions: Is nativity associated with risky sexual behavior among Hispanic youth? Are similar patterns of risky sexual behavior found among foreign-born persons, regardless of age at immigration? Is the relationship between nativity or age at immigration and risky sexual behavior conditioned by gender? And to what extent can the relationship between nativity or age at immigration and risky sexual behavior be explained by differences in age, ethnicity and socioeconomic status?

We expect that foreign birth is associated with reduced levels of risky sexual behavior, but that this relationship is less pronounced for individuals who immigrated to the United States during very early childhood than for later arrivers. In addition, we hypothesize that the association between foreign birth and risky sexual behavior is stronger for young women than for young men, and that social and demographic characteristics do not fully explain the relationship between nativity or age at immigration and sexual risk-taking.

BACKGROUND

The social and cultural contexts in which Hispanic youth are raised in the United States are often shaped by both Hispanic and mainstream U.S. cultural values.[5] Traditional assimilation theory asserts that immigration is associated with a host of social and economic disadvantages, which gradually disappear as foreign-born individuals adopt the language, behaviors and values of their new country.[15] Although this theory appears to explain the trajectories of socioeconomic mobility among immigrants in the early 1900s, it is less helpful in explaining the outcomes of contemporary immigrants. Growing evidence suggests that conforming to U.S. standards of behavior and diet may lead to immigrants' declining physical and emotional health over time.[16–18] The health of foreign-born Hispanics may, in a sense, be "protected" by their native cultures' tendencies to allow for less family disruption (i.e., divorce, separation and nonmarital childbearing), less permissive parenting styles and less experimentation with sexual activity and substance use.[19–21]

Despite the potential consequences of sexual behavior, the literature remains inconclusive on the associations between nativity, exposure to U.S. norms and practices, and Hispanics' sexual behavior.[11] Sexual risk-taking generally intensifies with each subsequent generation after immigration, but this linear relationship may not apply to all sexual behaviors.[14] Foreign birth has been linked to later sexual initiation,[9–11] lower number of sexual partners and lower rates of engagement in noncoital sexual behaviors, such as oral sex,[22] but also to lower rates of contraceptive use among the sexually active.[23,24] For example, in one study, foreign-born Mexican youth were less likely than their U.S.-born Mexican and non-Hispanic white counterparts to initiate sexual intercourse; however, because of less habitual contraceptive use and lower abortion utilization, foreign-born women were more likely than those born in the United States to become pregnant and give birth.[6] However, the relationship between contraceptive use and nativity may be weaker among immigrants from Latin American countries other than Mexico than among Mexican immigrants; one study found no significant variation in contraceptive use by nativity or time since arrival for Cuban, Puerto Rican, and Central and South American youth.[9]

Whether nativity differences in sexual behavior are consistent across the age spectrum and the extent to which age at immigration is important to risky sexual behavior remain unclear. Level of acculturation is highly associated with the duration of exposure to a new society.[15] Therefore, the younger an immigrant is at the time of his or her arrival, the more acculturated he or she should be at any subsequent age. Individuals who immigrate as children and experience at least part of their education and socialization within the United States may be more likely than later arrivers to take on "American" ways. Those who arrive when very young and who are educated entirely within the United States may be more similar to their U.S.-born peers than those who enter U.S. schools at later ages. In addition, those who arrive at very young ages may be more susceptible to peer influences that encourage behaviors at odds with the values of their parents and their immigrant community.[25,26] Several empirical studies suggest that the emotional well-being and risk-taking behaviors (specifically, drug use and dependence) of Hispanic youth who immigrated before age six do not differ significantly from those of their U.S.-born peers, whereas youth who immigrated at age six or older tend to report greater emotional well-being and fewer risk-taking behaviors.[26,27]

The importance of gender as a moderating influence on the relationship between nativity and age at immigration and risky sexual behaviors also remains unclear.[28] Foreign-born Hispanic youth must often balance traditional cultural values and gender expectations with more liberal U.S. cultural tenets. The sexual norms associated with traditional Hispanic culture frequently draw on ideologies of *marianismo* and machismo,[29] which generally have prescriptive gender norms that emphasize family obligation and cohesiveness. Marianismo stresses traditional female roles of caregiving, virginity and respect for family and male authority, all of which may deter Hispanic women from sexual risk-taking. Machismo is associated with male autonomy and decision-making authority, and has been implicated in Hispanic males' elevated levels of unprotected sexual activity and increased likelihood of having multiple sex partners.[30,31] Thus, foreign-born Hispanic women may experience more "protection" than foreign-born Hispanic men. Over time and exposure to U.S. culture, however, gender norms are likely to attenuate, which would result in eventual convergence in sexual behavior among immigrant and U.S.-born Hispanic men and women.[5,22]

METHODS

Data

Data were collected as part of a large-scale, two-wave community study of stress, psychiatric well-being and substance use disorders conducted between 1998 and 2000 among young adults in the Miami-Dade area of South Florida. We recruited participants from a previous, three-wave investigation, which administered questionnaires to youth in all of the county's public and alternative middle schools and high schools.[32]

Our sample included 1,800 respondents aged 18–23, all of whom had lived in South Florida since at least the sixth or seventh grade. Thus, all foreign-born respondents had spent their entire adolescence living and attending school in the United States and could be considered a part of the 1.5 generation (i.e., those who immigrated as very young children).[33] The sample was purposefully drawn to include Cubans, other Hispanics, blacks and non-Hispanic whites in approximately equal proportions. This distribution roughly corresponded to the racial and ethnic distribution of young people growing up in the region; analysis suggests that the sample is reasonably representative of that population in terms of social and demographic characteristics.[26] The sample and field procedures have been described in detail previously.[34,35]

Most respondents were interviewed in person, either in their home or in the research team's office, according to their choice; telephone interviews were used for the roughly 30% of respondents who had moved away from the Miami-Dade area since the earlier investigation. The overall response rate was 76%; we found no interviewing mode effects.[26] We analyzed data from the 709 never-married participants who identified themselves as Hispanic. Because preliminary analyses revealed a significant imbalance in the socioeconomic status distribution by gender and ethnicity, we applied appropriate weights to all analyses, to adjust for the use of our subsample.

TABLE 1. Percentage distribution of Hispanic young adults aged 18–23, by social and demographic characteristics, according to nativity and age at immigration, South Florida, 1998–2000

Characteristic	All (N=709)	U.S.-born (N=401)	Foreign-born	
			Age <6 (N=148)	Age ≥6 (N=160)
Sex				
Male	55.4	54.2	52.6	55.4
Female	44.6	45.8	47.4	44.6
Age*				
18–19	29.8	33.4	26.3	23.7
20	46.2	47.9	54.8	33.9
21–23	24.0	18.8	18.9	42.5
Ethnicity*				
Cuban	46.2	60.9	37.7	16.5
Nicaraguan	17.6	2.0	26.3	49.4
Other	36.2	37.1	36.0	34.1
Socioeconomic status*				
Lowest	14.9	13.0	11.2	23.3
Low	18.6	14.5	25.7	22.4
Middle	20.7	20.7	17.9	23.5
High	21.9	22.2	27.9	15.6
Highest	23.9	29.7	17.4	15.2
Total	100.0	100.0	100.0	100.0

*Differences by nativity and age at immigration are significant at p<.05. *Notes:* All data are weighted. Percentages may not add to 100.0 because of rounding.

Measures

•***Risky sexual behavior.*** We assessed whether respondents had ever engaged in three specific sexual activities—vaginal, oral and anal intercourse—and their total number of partners. Information about lifetime participation in the three behaviors was combined to create a dichotomous variable, any sexual experience. Lifetime number of partners was measured both continuously and with a series of four dummy variables (zero, one, two, and three or more). For sexually experienced respondents, we examined sexual behavior in the 12 months prior to the survey, including three dummy variables indicating engagement in vaginal, anal and oral sex, and number of partners, measured both continuously and with the same dummy variables used for the lifetime number.

In addition, we included measures of other risky sexual behaviors among sexually experienced respondents. To assess the extent to which respondents or their partners had used alcohol in conjunction with sex, we asked: "In the last 12 months, how often did you or your partner drink alcohol before or during sex?" The five response options ranged from "always" to "never"; responses were reverse-coded and averaged into a single item, so that a higher score indicated greater frequency of alcohol use. The use of drugs with sex was assessed similarly. Alcohol and drug use during last sex were measured with separate dichotomous variables. Finally, we included two binary measures of condom use: consistent use within the last year and use at last sex.

•***Nativity and age at immigration.*** We classified respondents according to their country of birth (United States or other) and, for those born outside of the United States, their age at immigration (before age six or age six or older). We believe that age six is a theoretically important cutoff point, as this marks the age at which education laws compel most U.S. residents to begin their formal schooling. Children who immigrated before age six are likely to have completed all of their education within the U.S. context, whereas those who immigrated later are likely to have been schooled (and socialized) in both their home country and the United States. In addition, this cutoff point is important because it is associated with significant differences in the emotional well-being and risk-taking behaviors of youth.[26,27] We recognize that individuals who immigrate as children may differ from those who immigrate as adolescents or young adults, but we are unable to explore this issue because our sample contained only respondents living in the United States prior to sixth or seventh grade.

•***Social and demographic characteristics.*** Gender was assessed from respondents' self-identification as either male or female. Ethnicity was assessed from respondents'

self-reported identification and was categorized as Cuban, Nicaraguan or other Hispanic.* Age was measured in years. Socioeconomic status during childhood was assessed using a composite score that considered respondents' reports of their parents' occupation,[36] educational attainment and household income; each respondent's scores on these dimensions were standardized, summed and divided by the number of dimensions for which the respondent provided information.

Analytic Procedures

We conducted chi-square tests and one-way analyses of covariance (ANCOVA) to assess mean differences on summary scores of risky sexual behaviors by respondents' nativity and age at immigration. We initially examined differences in behavior among our full sample and among a subsample of the 597 sexually experienced respondents. We then examined whether the observed relationships remained constant in the presence of controls for age, socioeconomic status and ethnicity. Finally, in separate analyses for each gender, we explored how nativity and age at immigration are related to risky sexual behaviors.

RESULTS

Fifty-seven percent of respondents were U.S.-born, 21% were foreign-born and had immigrated before age six, and 23% were foreign-born and had immigrated at age six or older. On average, respondents were 19.8 years old.

More than half of the sample was male (55%), and males outnumbered females in each nativity group (Table 1). Foreign-born individuals were significantly older than their U.S.-born counterparts, and greater proportions were of Nicaraguan heritage and of low socioeconomic status. Among foreign-born respondents, greater proportions of those who had immigrated at age six or older than of earlier arrivers were aged 21–23 (43% vs. 19%) and of Nicaraguan background (49% vs. 26%).

Overall, 84% of respondents reported being sexually experienced (Table 2); on average, Hispanic youth had had 4.7 lifetime sexual partners. Among those who were sexually experienced, the vast majority had engaged in vaginal and oral sex in the past year (88% and 81%, respectively); 16% had recently had anal sex. Thirty-eight percent indicated having had multiple partners within the past year, and 15% reported that they or their partner had used drugs or alcohol at last sex. Condom use among sexually experienced youth was inconsistent: Only 8% had always used condoms during sex in the past year, and 46% had used condoms at last sex.

Youth who had immigrated before age six and their U.S.-born peers did not differ in their sexual behavior; however, some sexual behaviors did differ between the two foreign-born groups, and between later arrivers and those born in the United States. Seventy-eight percent of foreign-born youth who had immigrated at age six or older had ever had sex, compared with 87% of those who had immigrated earlier. Among sexually experienced youth, greater proportions of those born in the United States and those who had immigrated before age six than of later arrivers had had oral sex in the past year (82–85% vs. 70%); a greater proportion of youth who had immigrated at age six or older than of those born in the United States reported consistent condom use in the past year (14% vs. 6%). Except for consistent condom use, the behaviors found to be significant in chi-square tests remained so in ANCOVA testing controlling for ethnicity, socioeconomic status and age. Thus, unprotected sex—but not sexual activity in general—appears to be explained by group differences in social and demographic background characteristics.

The interaction between gender and nativity and age at immigration was marginally significant in most cases (not

TABLE 2. Risky sexual behaviors reported by Hispanic young adults aged 18–23, by nativity and age at immigration

Behavior	All	U.S.-born	Foreign-born	
			Age <6	Age ≥6
ALL YOUNG ADULTS	(N=709)	(N=401)	(N=148)	(N=160)
Any sexual activity	83.7 (0.4)	85.1 (0.4)	87.3 (0.3)*,†	77.8 (0.4)
Mean no. of sex partners	4.7 (7.9)	4.7 (7.0)	5.2 (11.3)	4.2 (6.2)
No. of partners				
0	17.7 (0.4)	15.9 (0.4)	16.1 (0.4)	23.9 (0.4)
1	17.1 (0.4)	16.2 (0.4)	17.8 (0.4)	18.7 (0.4)
2	13.0 (0.3)	13.0 (0.3)	14.1 (0.4)	12.0 (0.3)
≥3	52.2 (0.5)	54.9 (0.5)	52.0 (0.5)	45.4 (0.5)
SEXUALLY EXPERIENCED	(N=597)	(N=343)	(N=130)	(N=124)
Sex in past year				
Vaginal	88.3 (0.3)	89.4 (0.3)	87.0 (0.3)	86.7 (0.3)
Anal	15.8 (0.4)	14.2 (0.4)	17.8 (0.4)	18.3 (0.4)
Oral	81.3 (0.4)	85.0 (0.4)*,†	82.0 (0.4)*,†	70.0 (0.5)
Mean no. of partners in past year	1.9 (2.4)	1.8 (1.6)	2.0 (2.3)	2.3 (3.8)
No. of partners in past year				
0	6.6 (0.3)	6.9 (0.3)	4.9 (0.2)	7.2 (0.3)
1	55.4 (0.5)	53.5 (0.5)	60.3 (0.5)	55.7 (0.5)
2	18.4 (0.4)	21.5 (0.4)	14.5 (0.4)	13.8 (0.4)
≥3	19.6 (0.4)	18.1 (0.4)	20.4 (0.4)	23.3 (0.4)
Mean score of substance use with sex in past year (range, 1–5)				
Alcohol	1.9 (0.9)	1.9 (0.9)	1.8 (0.8)	1.9 (1.0)
Drugs	1.4 (0.9)	1.5 (0.9)	1.4 (0.8)	1.3 (0.8)
Substance use at last sex				
Alcohol	11.1 (0.3)	10.8 (0.3)	11.4 (0.3)	11.8 (0.3)
Drugs	6.7 (0.3)	7.6 (0.3)	5.1 (0.2)	6.1 (0.2)
Alcohol or drugs	15.3 (0.4)	15.8 (0.4)	15.1 (0.4)	14.2 (0.4)
Always use condoms	8.3 (0.3)	6.1 (0.2)*	9.2 (0.3)	13.7 (0.4)
Used condoms at last sex	46.1 (0.5)	47.4 (0.5)	43.8 (0.5)	44.9 (0.5)

*In chi-square test, significantly different from those who immigrated at age ≥6 at p<.05. †In analysis of covariance, significantly different from those who immigrated at age ≥ 6 at p<.05. *Notes:* All data are weighted percentages unless otherwise noted. Analyses of covariance controlled for ethnicity, socioeconomic status and age. Index of substance use with sex in past year was scored so that higher number indicates more frequent substance use.

*Among "other" Hispanics, 11% reported being Puerto Rican, 10% Mexican, 8% Colombian, 6% Dominican and 5% Salvadoran. The remainder reported being of an unspecified Central or South American background (39%), of a combination of two Hispanic backgrounds (10%) or "from the U.S." (12%).

shown).* Foreign-born status was more strongly associated with the sexual behavior of young women than of young men. Therefore, we conducted additional chi-square and ANCOVA tests separately by gender.

Among women, sexual behavior did not differ between those born in the United States and those who had immigrated before age six (Table 3); it also did not differ between the two foreign-born groups. However, compared with women born in the United States, those who had immigrated at age six or older had had fewer sexual partners (2.0 vs. 3.7); among sexually experienced women, late arrivers were less likely to have had oral sex in the past year (66% vs. 86%) and less frequently had used drugs in conjunction with sex (mean score, 1.2 vs. 1.6).

According to ANCOVA testing, the differences in sexual behavior between U.S.-born women and those who had immigrated at age six or older were not the result of group differences in socioeconomic status, ethnicity or age. In fact, after we controlled for these background characteristics, the associations between having immigrated at age six or older and both the mean lifetime number of sexual partners and the use of drugs with sex became more highly significant.

Moreover, after we controlled for background factors, some comparisons between sexually experienced U.S.-born women and women who had immigrated to the United States before age six became significant: The former were more likely than the latter to have engaged in vaginal sex (91% vs. 83%) and oral sex (86% vs. 71%) in the past year. Thus, foreign birth, regardless of age at immigration, seems to be negatively associated with participation in risky sexual behaviors among Hispanic women. For those who immigrated before age six, this association appears to be suppressed by the group's below-average socioeconomic status, older age and greater ethnic diversity (this group includes a higher proportion of Cuban respondents than the other foreign-born group)—all factors that are associated with greater involvement in sexual activity. Interestingly, despite differences by nativity and age at immigration in the propensity to engage in some particularly risky behaviors, such as drug use with sex, we see no evidence of significant differences in condom use.

Sexual behaviors did not differ between foreign-born men and their U.S.-born counterparts (Table 4). However, a smaller proportion of men who had immigrated at age six or older than of those who had immigrated earlier reported being sexually experienced (79% vs. 93%). Furthermore, 73% of sexually experienced men who had immigrated at age six or older had had oral sex in the past year, compared with 91% of men who had immigrated before the age of six.

When we controlled for socioeconomic status, ethnicity and age in ANCOVA models, the difference in sexual experience between men in the two foreign-born groups was no longer significant, suggesting that ethnic background may be a particularly important part of the explanation for the lower level of sexual engagement among men who immigrated at older ages. This group included a much higher proportion of Nicaraguan respondents than did the other groups, and young Nicaraguan men seemed to be less likely than men of other backgrounds to have engaged in most of the sexual behaviors we examined.† In general, once we accounted for background characteristics, immigration at an older age was not associated with Hispanic men's risk of engaging in potentially dangerous sexual behavior. One exception, however, was that among sexually experienced men, those who had immigrated at age six or older remained less likely than those who had immigrated earlier to report having recently engaged in oral sex.

TABLE 3. Risky sexual behaviors reported by Hispanic young women aged 18–23, by nativity and age at immigration

Behavior	All	U.S.-born	Foreign-born	
			Age <6	Age ≥6
ALL YOUNG WOMEN	(N=316)	(N=177)	(N=68)	(N=71)
Any sexual activity	81.4 (0.4)	83.8 (0.4)	81.6 (0.4)	74.5 (0.4)
Mean no. of sex partners	3.2 (4.7)	3.7 (4.5)*,†††	3.0 (6.4)	2.0 (2.4)
No. of partners				
0	20.3 (0.4)	16.7 (0.4)	22.9 (0.4)	27.1 (0.5)
1	22.9 (0.4)	20.6 (0.4)	25.1 (0.4)	26.5 (0.4)
2	13.9 (0.4)	11.0 (0.3)	18.6 (0.4)	17.1 (0.4)
≥3	42.9 (0.5)	51.7 (0.5)	33.5 (0.5)	29.3 (0.5)
SEXUALLY EXPERIENCED	(N=260)	(N=150)	(N=56)	(N=54)
Sex in past year				
Vaginal	88.9 (0.3)	91.0 (0.3)‡	82.5 (0.4)	89.8 (0.3)
Anal	9.6 (0.3)	11.2 (0.3)	6.3 (0.3)	8.6 (0.3)
Oral	79.1 (0.4)	86.3 (0.4)*,†,‡	71.3 (0.5)	66.3 (0.5)
Mean no. of partners in past year	1.5 (1.4)	1.5 (1.3)	1.4 (1.5)	1.5 (1.7)
No. of partners in past year				
0	5.5 (0.2)	5.3 (0.2)	6.0 (0.2)	5.4 (0.2)
1	68.2 (0.5)	64.3 (0.5)	76.5 (0.4)	70.7 (0.5)
2	16.6 (0.4)	18.7 (0.4)	10.6 (0.3)	17.0 (0.4)
≥3	9.7 (0.3)	11.7 (0.3)	6.9 (0.3)	7.0 (0.3)
Mean score of substance use with sex in past year (range, 1–5)				
Alcohol	1.8 (0.9)	1.9 (0.8)	1.8 (0.9)	1.7 (0.9)
Drugs	1.5 (0.9)	1.6 (1.0)*,††	1.5 (0.8)	1.2 (0.8)
Substance use at last sex				
Alcohol	6.5 (0.3)	6.3 (0.2)	8.6 (0.3)	4.8 (0.2)
Drugs	5.1 (0.2)	6.0 (0.2)	2.9 (0.2)	4.8 (0.2)
Alcohol or drugs	9.3 (0.3)	10.5 (0.3)	10.4 (0.3)	4.8 (0.2)
Always use condoms	6.9 (0.3)	4.7 (0.2)	10.7 (0.3)	9.2 (0.3)
Used condoms at last sex	36.7 (0.5)	41.5 (0.5)	30.9 (0.5)	28.8 (0.5)

*In chi-square test, significantly different from those who immigrated at age ≥6 at p<.05. †In analysis of covariance, significantly different from those who immigrated at age ≥6 at p<.05. ††In analysis of covariance, significantly different from those who immigrated at age ≥6 at p<.01. †††In analysis of covariance, significantly different from those who immigrated at age ≥6 at p<.001. ‡In analysis of covariance, significantly different from those who immigrated at age <6 at p<.05. *Notes:* All data are weighted percentages unless otherwise noted. Analyses of covariance controlled for ethnicity, socioeconomic status and age. Index of substance use with sex in past year was scored so that higher number indicates more frequent substance use.

*These interactions were statistically significant at the p<.10 level in all models except those involving any sexual activity, frequency of drinking in conjunction with sex, drinking during last sex and consistent condom use (results available upon request).

†Exceptions to this pattern are found (among sexually experienced respondents) for number of recent partners, recent anal sex, frequency of drug use during sex and consistent condom use (results available upon request).

We conducted additional ethnic group–specific analyses to determine whether this last finding held in both the Cuban and the Nicaraguan male subsamples (available upon request). Because of small cell sizes and a lack of power, the findings were inconclusive. Yet, they suggest that the association between age at immigration and oral sex may be largely driven by the Nicaraguan population; we found no differences among Cuban immigrants. Thus, we speculate that young Nicaraguan men who had immigrated to the United States at age six or older may be less likely to engage in oral sex than their Nicaraguan peers who had immigrated earlier.

DISCUSSION

Sexual activity was normative among our sample of young Hispanic adults in South Florida, many of whom had engaged in sexual behaviors associated with high risk of STDs, unintended pregnancy and substance abuse. In line with our hypotheses, foreign birth was generally associated with lower levels of risky sexual behaviors, and these associations were more pronounced among young women than among young men. Most women, regardless of nativity, were sexually experienced by early adulthood. Yet, compared with their U.S.-born peers, women who had immigrated before age six were less likely to have had recent vaginal and oral sex, and women who had immigrated at later ages had had fewer sexual partners and were less likely to have had oral sex and to have used drugs with sex in the past year. In contrast to our expectations, however, levels of these behaviors did not differ between the two groups of immigrant women.

These findings suggest that the relationship between foreign birth and sexual behavior is quite enduring for Hispanic young women. Even though we assume that most of the women who came to the United States before age six had few memories of living elsewhere, and many had none, their nativity continues to be associated with their behavior, even as they enter adulthood. Although we cannot identify the mechanisms at work, we speculate that the length of time that a young woman's family has lived in the United States may be important. On average, the parents and close relatives of foreign-born women had most likely immigrated more recently than those of U.S.-born women. As a result, the families of foreign-born women may be less likely than others to have "American" standards of childrearing or egalitarian notions of gender, and may be more likely to surround themselves with support networks composed of immigrants of the same ethnicity. This more "traditional" family environment may mean that young foreign-born women, regardless of their age at immigration, are more likely than their U.S.-born counterparts to be closely supervised by their families and to have been instilled with the belief that nonmarital sexual activity and substance use are inappropriate behaviors for women.

A negative association between foreign birth and risky sexual behavior was not evident among the young men in our sample. The finding that Hispanic men do not accrue "protection" from foreign birth in the way that Hispanic women do suggests that men may be less closely supervised by family members or less enmeshed within environments that maintain social norms and expectations prohibiting such behaviors.

TABLE 4. Risky sexual behaviors reported by Hispanic young men aged 18–23, by nativity and age at immigration

Behavior	All	U.S.-born	Foreign-born	
			Age <6	Age ≥6
ALL YOUNG MEN	(N=393)	(N=224)	(N=80)	(N=89)
Any sexual activity	85.8 (0.4)	86.2 (0.4)	92.5 (0.3)*	78.7 (0.4)
Mean no. of sex partners	6.0 (9.7)	5.5 (8.4)	7.2 (14.2)	6.0 (7.6)
No. of partners				
0	15.5 (0.4)	15.2 (0.4)	10.0 (0.3)	21.4 (0.4)
1	12.2 (0.3)	12.5 (0.3)	11.3 (0.3)	12.4 (0.3)
2	12.2 (0.3)	14.7 (0.4)	10.0 (0.3)	7.9 (0.3)
≥3	60.1 (0.5)	57.6 (0.5)	68.8 (0.5)	58.4 (0.5)
SEXUALLY EXPERIENCED	(N=337)	(N=193)	(N=74)	(N=70)
Sex in past year				
Vaginal	87.8 (0.3)	88.1 (0.3)	90.5 (0.3)	84.3 (0.4)
Anal	20.8 (0.4)	16.6 (0.4)	27.0 (0.5)	25.7 (0.4)
Oral	83.1 (0.4)	83.9 (0.4)	90.5 (0.3)*,††	72.9 (0.5)
Mean no. of partners in past year	2.3 (2.9)	2.0 (1.9)	2.5 (2.6)	2.9 (4.7)
No. of partners in past year				
0	7.4 (0.3)	8.3 (0.3)	4.1 (0.2)	8.6 (0.3)
1	45.1 (0.5)	44.6 (0.5)	47.3 (0.5)	44.3 (0.5)
2	19.9 (0.4)	23.8 (0.4)	17.6 (0.4)	11.4 (0.3)
≥3	27.6 (0.5)	23.3 (0.4)	31.1 (0.5)	35.7 (0.5)
Mean score of substance use with sex in past year (range, 1–5)				
Alcohol	1.9 (0.9)	1.8 (0.9)	1.9 (0.8)	2.0 (1.2)
Drugs	1.4 (0.8)	1.5 (0.8)	1.3 (0.8)	1.4 (0.9)
Substance use at last sex				
Alcohol	14.8 (0.4)	14.5 (0.4)	13.5 (0.3)	17.1 (0.4)
Drugs	8.0 (0.3)	8.8 (0.3)	6.8 (0.3)	7.1 (0.3)
Alcohol or drugs	20.2 (0.4)	20.2 (0.4)	18.9 (0.4)	21.4 (0.4)
Always use condoms	9.5 (0.3)	7.3 (0.3)	8.1 (0.3)	17.1 (0.4)
Used condoms at last sex	53.7 (0.5)	52.3 (0.5)	54.1 (0.5)	57.1 (0.5)

*In chi-square test, significantly different from those who immigrated at age ≥6 at p<.05. ††In analysis of covariance, significantly different from those who immigrated at age ≥6 at p<.01. *Notes:* All data are weighted percentages unless otherwise noted. Analyses of covariance controlled for ethnicity, socioeconomic status and age. Index of substance use with sex in past year was scored so that higher number indicates more frequent substance use.

However, some interesting differences emerged in the sexual risk-taking of foreign-born men by age at immigration. Compared with men who had come to the United States before age six, those who had immigrated later were less likely to be sexually experienced and to have had oral sex. The former finding appears to be explained by the higher representation of Nicaraguans among the later-arriving group of men. Young Nicaraguan men were less likely than young Cuban or other Hispanic men to have engaged in certain sexual behaviors. However, ethnicity and other background characteristics do not fully explain why a smaller proportion of sexually experienced men who came to the United States at age six or older than of those who immigrated earlier had had oral sex.

Further analyses suggest that foreign-born Nicaraguan, but not Cuban, men's engagement in oral sex may be influ-

enced by age at immigration. Age at immigration may be related to the socialization experiences of young Nicaraguan males in ways that continue to shape their decisions regarding specific sexual behaviors during early adulthood. Moreover, because the observed differences by age at immigration are seen between Nicaraguan men who had immigrated before they were of school age and those who had arrived while in elementary school, the socialization experiences of these young men may diverge at a very young age. More research on ethnicity's relationship, as well as the interaction between ethnicity, nativity and age at immigration is clearly warranted.

Most sexually experienced youth in our sample did not use condoms consistently, although we found no differences in condom use by nativity and age at immigration among males or females.* By contrast, previous studies have found elevated rates of condom use among U.S.-born and more acculturated Hispanics.[23,24] One explanation may be that our sample consisted primarily of Cubans and Nicaraguans, whereas most previous research has been among Mexicans. There may be important ethnic variations in condom use that our analysis could not detect; at least one previous study has indicated that this may be the case.[8] Another possible explanation is that many previous studies have relied on samples that mix adults of various ages and durations of U.S. residency or include only teenagers. Our sample was limited to 18–23-year-olds living in the United States for at least seven years. They were all educated in U.S. schools throughout their adolescence, the period during which young people are most likely to receive formal and informal education about reproduction and contraception. Through school curricula and interaction with peers, U.S.-born and foreign-born Hispanics likely have had similar exposure to information about condoms. We speculate that individuals who immigrate during late adolescence or early adulthood are unlikely to be targeted for sex and reproductive health education, and thus may be less likely than earlier arrivers to have accurate knowledge of condoms or approve of condom use.

Whatever the explanation may be, young Hispanic adults who lived in South Florida throughout their adolescence appear to be similar in their proclivity to use condoms when sexually active, regardless of their country of birth or their age at immigration. We conclude that foreign birth may have a more significant and enduring relationship with young adults'—particularly women's—decisions about whether to engage in sexual activity than with their decisions about how to protect themselves once they start having sex.

Strengths and Limitations

Because of data limitations, we were unable to assess the countries of origin of our respondents' parents. Yet, given that the data were drawn from an area in which the vast majority of Hispanic residents are immigrants or the children of immigrants,[37] we can assume with relative confidence that our U.S.-born respondents consisted largely of second-generation immigrants raised by at least one foreign-born parent. Furthermore, all of the foreign-born individuals in this sample had lived in the United States throughout their adolescence. Any statistically significant differences in the behaviors of U.S.-born and foreign-born respondents, therefore, are essentially differences between the behaviors of second-generation and 1.5-generation immigrants. This makes our findings of differences in sexual behavior by nativity and age at immigration especially striking.

We must acknowledge, nonetheless, several limitations of this study. First, the data were collected between 1998 and 2000. Although they are a bit dated, we know of no other data that can address the research questions posed here. Second, we conducted secondary analysis of data derived from a community-based sample rather than a nationally representative sample. As a result, we cannot make claims of generalizability to populations outside the Hispanic community in South Florida. Furthermore, although this study includes larger numbers of Cuban and Nicaraguan respondents than most previous studies, our limited sample size precludes detailed exploration of the association between sexual behavior and other Hispanic backgrounds. Thus, our unique findings (e.g., on condom use) may reflect that our sample comprises different ethnic groups than most samples used in previous studies. Furthermore, we cannot clearly explicate the interaction between ethnic background, nativity and age at immigration, and how the combination of these characteristics may be associated with engagement in particular sexual behaviors.

Because our sample includes only respondents who had been living in the United States prior to sixth or seventh grade, we were unable to explore whether levels of risky behaviors differ among those who immigrated as adolescents or young adults and those who came during childhood. We speculate that the sexual behavior of young people whose education and socialization took place primarily outside of the U.S. context may be even more conservative than that of youth who immigrated prior to adolescence. At the same time, immigrants who arrived in their teens and 20s—after the age at which most people receive formal sex and reproductive health education—may be less likely than other youth to have accurate knowledge about or approve of contraception. This limitation does not, however, diminish the significance of our conclusions regarding differences by age at immigration among youth who immigrated at an earlier age.

CONCLUSIONS

Our results suggest the need for future large-scale, national-level research. This work should strive to examine the familial and community contexts that may underlie the association between foreign birth and the sexual behavior of young Hispanic women, as well as the factors that explain ethnic differences in the behavior of young Hispanic men. An understanding of these factors could

*We also found no differences among respondents of either Cuban or Nicaraguan descent (results available upon request).

help professionals develop effective education and prevention programs for Hispanic teenagers and young adults, many of whom engage in sexual behaviors that place them at risk for physical and emotional health problems.

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