

## PUBLIC HEALTH

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# Sexual Behavior Among Puerto Rican Adolescents

CARMEN NOEMI VELEZ, PhD

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**Objective.** The objective of this study is to compare the prevalence of several types of sexual behaviors among Puerto Rican adolescents living in New York City and in the Greater San Juan Metropolitan Area of Puerto Rico

**Background.** There is a scarcity of literature about sexual behaviors among Hispanic adolescents. The available literature has several limitations.

**Methods.** The data for the analysis was collected through personal interviews in two high schools, one in Puerto Rico and the other in New York City as part of multi-site Centers for Disease Control (CDC) study.

**Results.** To test whether the adolescent sexual behavior varied by site and more specifically to determine whether the Puerto Rican youngsters surveyed in New York are more sexually experienced, as measured by a sexual involvement scale, a set-wise

hierarchical multiple regression/correlation (MRC) analysis was done. It showed that the sexual involvement behavior of Puerto Rican students in N.Y. was higher than the involvement of students surveyed in Puerto Rico even when controlling by gender, age, mother's education and household composition.

**Conclusion.** Variations in the sexual behavior of Puerto Rican adolescents living in two socio-cultural environments (New York City and Greater San Juan in Puerto Rico) were documented. Differences were observed both in the patterns of sexual experiences reported in the two sites in the higher levels of sexual experience reported in the New York sample. The documented differences have important implications for the development of interventions for HIV/STD prevention strategies. *Key words:* Sexual behaviors, Puerto Rican adolescent, HIV prevention.

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The literature on adolescent sexual behaviors and its implication for preventing HIV infections has several shortcomings. First, is the scarcity of literature on sexual behavior among Hispanics. Most national and school surveys on adolescent sexual behavior do not include Hispanics in their sample or when they do the numbers included are too few to warrant separate analysis (1- 4). Even literature reviews on adolescent sexual behavior fail many times in discussing ethnicity (5-7).

The second fault is the tendency to clump different Hispanic groups under a single category. The surveys that include Hispanics, fail to acknowledge important differences among the various groups included under such a heading. (8-11). The use of overinclusive categories such as "Hispanics" in the literature concerning the study of behaviors that have an onset in adolescence (i.e., drug use and sexual behaviors) is frequently misleading. Such label groups people with different sociodemographic profiles, attitudes and behaviors. Data from the three largest Hispanic groups in the Continental United States (Mexican-Americans, Puerto Ricans and Cubans) census has documented important differences in level of education, income and age distribution (Current Population Reports, 1993). More importantly even when these differences are controlled for the analyses, variations in behaviors and disorders such as somatic disorders, alcoholism and depression persist (12-16).

The third limitation is the tendency to oversimplify adolescent sexual behavior in a dichotomy, indicating whether the youngster is sexually active or not (3, 4, 8, 10). Recently, various researchers have proposed stages and typologies to classify sexual interactions as transitional

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From the Department of Biostatistics and Epidemiology, Graduate School of Public Health, Medical Sciences Campus, University of Puerto Rico.

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**Address for correspondence :** Dr. Carmen N. Velez, Department of Biostatistics and Epidemiology, Graduate. School of Public Health, Medical Sciences Campus, University of Puerto Rico. P.O. Box 365067, San Juan, Puerto Rico 00936-5067  
Tel. 758-2525 ext.1462 Fax 7584575

steps associated varying degrees of risks for HIV transmission (17-19). These meaningful distinctions in the adolescent's sexual behavior should lead to more sensitive prevention and intervention programs in order to reduce adolescent pregnancies and HIV risk behaviors. Such interventions require detailed knowledge of the diversity of sexual practices among Hispanic teens and empirical measures of the social context in which those practices develop.

Differences in sexual behaviors between adolescents of different race (blacks and whites or non-blacks) are well documented in the literature (20-22). Differences among Hispanic groups are less frequently documented. Comparison of sexual behaviors within the same Hispanic group living in their society of birth and in the continental United States (US) are rare (23). Among Puerto Rican adolescents living in Puerto Rico (PR) and in New York (NY) city (where the majority of Puerto Ricans in the continental US reside) the differences in the sociocultural settings they live in, have been associated to important and predictable differences in drug use behavior (24, 25). It is important to determine whether such differences are also related to their particular sexual behavior. In fact, the Problem Behavior Theory, which guided the drug use analyses mentioned earlier, also considers sexual behavior and predicts that the more the sociocultural environment of the adolescent facilitates deviant behavior (e.g. having multiple sexual partners at an early age) the more deviant the behavior of the adolescent will be (26, 27). Available prevalence data from the Youth Risk Behavior Survey (YRBS) shows that the standards for sex behavior among adolescents in the US and in PR are different. In the continental US the proportions of students at a national level reporting sexual intercourse (51% for females and 57% for males); being currently sexually active (75% for females and 64% for males) or having 4 or more sexual partners in their lifetime (14% for females and 23% for males) are higher than the proportions reported for PR. In PR 18% of the female students and 50% of the males reported ever having intercourse, 64% of girls and 49% of the boys who have initiated intercourse reported being sexually active and only 1 girl and 16% of the boys reported having 4 or more sexual partners in their lifetime (8). A comparison of the sexual behaviors of the students surveyed in PR with those surveyed in NY city yields similar findings to those of the national weighted data.

This paper will analyze the survey the data of high school students collected in PR and in NY city as part of multisite CDC study. The objective of the CDC multi-site study of adolescents and their mothers is to examine individual, familial, peer and environmental factors in relation to HIV risk-taking and risk reduction behaviors among

adolescents in terms of ethnic group and geographic location. This analysis will compare the prevalence of several types of sexual behaviors of Puerto Rican adolescents living in two different sociocultural environments: NY city and San Juan, PR. It hypothesizes that the sexual behavior of Puerto Rican youngsters will vary depending on the sociocultural environment where they reside. It is expected that the Puerto Rican youngsters surveyed in NY city will have higher prevalence of sexual behaviors such as intercourse and having multiple sexual patterns than the youngsters surveyed in PR. The behavior of the Puerto Rican youngsters surveyed in NY are expected to mirror the behavioral norms of the host society.

## Methods

**Population.** The sample selection and data collection procedures of the CDC multisite study and of the San Juan sample in particular, have been described in detailed elsewhere (17, 28). The NY city school was selected for its ethnic composition (large numbers of Hispanics and blacks) and access for recruitment. The school in PR was selected because it was the largest high school in the Greater San Juan Metropolitan Area and similar in size to the NY city school. Study eligibility criteria included: students who were between 14 and 16 years old, who lived with their biological mothers in the recruitment area for ten years or more. In PR high schools consist of grades 10<sup>th</sup> to 12<sup>th</sup>; 9<sup>th</sup> grade is considered part of the Junior high school. In PR grades 10<sup>th</sup> and 11<sup>th</sup> were targeted as the most likely to include the younger students, since in NY city, the high school surveyed did include 9<sup>th</sup> grade. Participation and recruitment rates were high in both sites (87% each). A total of 260 mother-offspring dyads were surveyed in San Juan and 216 students self identified themselves as Puerto Ricans in the NY city schools and were included in the analysis.

**Data collection procedures.** Parents of eligible students were sent letters describing the study, including a notice that an interviewer will be calling to set a time for the interviews. Mothers and adolescents were paid for the time spent in the interview; mothers were paid \$45.00 and adolescents \$25.00. The sex of the interviewees was matched to the sex of the interviewers and all interviews were checked and debriefed after completion. Interviewers obtained the informed consent from both mother and adolescents and used a structured questionnaire with parallel questions for the mothers and youngsters surveyed. It included detailed questions about demographics, alcohol and drug use, sexual practices, contraceptive and condom use and family communication. Only the data collected from the youngster's questionnaire is used in this analysis.

**Measurements.** Two approaches are used to measure the adolescent's sexual behavior. The first one has been proposed recently by Miller et al. (17) in response to an important limitation in the available literature: the simplistic categorization of adolescent sexual behavior as being either sexually active or not. To correct this situation, Miller et al. (17) proposed and analyzed a new typology for adolescent sexual behavior. For the sexually active teen, the typology takes into account initiation of sexual intercourse, the number of lifetime sexual partners and the number of sexual acts. It classifies the sexually active adolescent as "onetimers" those who have engaged in a penile-vaginal (P-V) intercourse only once. A "steady" reports only one sexual partner and has engaged in more than one P-V intercourses, or a "multiple" as those that reported more than one sexual partner and had engaged in more than one P-V sex act. For those not sexually active it relies in a categorization of expected likelihood of sexual initiation that describes not sexually initiated youngsters either as "delayers" (have not initiated P-V intercourse and reported probability of not initiating intercourse of 50% or more for the next year) or "anticipators" (have not initiated P-V intercourse and reports more than a 50% self reported probability of initiating sexual intercourse during the next year). The end result is a six-category typology.

The second approach is also based on Miller's al., (17) typology but transforms the categorical measure into an ordinal one. It takes from Guttman scaling the idea that certain behaviors (and attitudes) can be order in such a way that knowledge that adolescent has engaged in a certain type of behavior can be used to predict that the youngster has also been involved in behaviors of lesser intensity. In this case for example, knowing that the adolescent is a "steady" it can be assumed that he/she has gone through the steps of being a "onetimer" and "anticipator" and a "delayer". A similar Guttman scale has been developed to measure adolescent drug use behaviors (23, 24, 28, 29). In the drug use literature the notions of "stages of drug use" was based on lifetime use of several types of drugs. It measures no drug use, use of legal drugs and use of any illegal drug. In contrast, the proposed scale of adolescent sexual involvement takes into account several dimensions (i.e., expectations concerning sexual initiation, number of partners, number of sexual acts). It's categories are mutually exclusive and exhaustive by definition and furthermore can be arranged in an order of involvement in sexual behaviors such that it's lowest level reflect no sexual initiation and low expectation of initiation (coded as "1") to the highest level where multiple partners and multiple sexual acts are reported (coded as "6").

## Results

The sociodemographic characteristics of the adolescents studied in PR and NY are presented in Table 1. The youngsters surveyed in the Island were older and in higher grades than their counterpart in NY city. There were similar proportions of males and females in both samples. About half of the youngsters in both samples reported living in an intact household. The mothers of the youngsters in the PR sample reported a higher education level for their mothers than did the youngsters in the NY sample.

Table 2 presents Miller's et al. (17) sexual experiences typology for the Puerto Rican youngsters surveyed stratified by gender and site. For the females surveyed in PR and NY the modal pattern of sexual experience

Table 1. Sociodemographic Characteristics of Puerto Rican Adolescents by Site.

	Puerto Rican sample N= 260		New York sample N= 216	
	(n)	%	(n)	%
Grade <sup>a</sup>				
9th	(0)	0	(117)	54
10th	(174)	67	(96)	44
11th	(86)	33	(3)	1
Gender				
Females	(133)	51	(118)	55
Mean age <sup>b</sup>	15.53 (sd=.68)		14.94 (sd=.74)	
Household composition				
Intact	(141)	54	(108)	50
Other	(119)	46	(108)	50
Mother's education <sup>c</sup>				
No HS	(26)	10	(16)	7
Some HS	(19)	7	(65)	30
HS Graduate	(72)	28	(54)	25
Some College	(50)	19	(46)	21
Associate Degree or higher	(93)	36	(34)	16

a: X<sup>2</sup> =214.70; p<.01  
 b: T-Test =8.92; p<.001  
 c: X<sup>2</sup> =60.64; p<.01  
 HS: high school

reported was "delayers". It means that the majority of the girls surveyed in PR (63%) and NY (55%) had never engaged in P-V intercourse and reported less than 50% likelihood that they would initiate such a behavior in the next year. The next most frequent pattern of behavior ("multiples", 17%) observed for the girls surveyed in NY was that of having more than one sexual partner and more

than one P-V sexual act. In contrast the second most frequent pattern of sexual experience reported by girls surveyed in PR indicated that they have not engaged in P-V sex and felt there was a 50% chance or more on initiating such behavior during the next year (“anticipators”). There was only one girl in both samples who fits the pattern of a “onetime”. This seems to indicate that this is a very temporary stage for female adolescents.

The distribution of the patterns of sexual experience for the boys was somewhat different than the patterns observed for girls. The distribution of the male students surveyed in PR was bimodal with the same percentage of

Table 2. Sexual Experience Typology for Puerto Rican Adolescent Surveyed by Sex and Site.

	Females (N=260)		Males (N=216)	
	Puerto Rico (n=133)	New York (n=119)	Puerto Rico (n=127)	New York (n=97)
	%	%	%	%
<b>Not sexually active</b>				
Delayers	63	55	29	23
Anticipators	24	15	27	24
Total	87	70	56	47
<b>Sexually active</b>				
Onetimers	0	1	9	10
Steadies	9	12	6	8
Multiples	4 <sup>a</sup>	17 <sup>a</sup>	29	33
Total	13	29	44	51
Sexual Involvement Means <sup>b</sup>	1.66	2.20	2.79	3.05
(sd)	(1.11)	(1.59)	(1.62)	(1.62)

a:  $X^2=11.96$ ;  $p<.001$

b: Overall F test =24.83;  $p<.001$

Main effects:sex =64.68;  $p=.0001$

site =9.51;  $p=.0048$

boys (29%) classified as “delayers “ and as “multiples”. The modal sexual pattern of the boys surveyed in NY also consisted of having multiple sexual partners as did Puerto Rican females. The second most prevalent pattern endorsed by the boys studied in PR (27%) and in NY (24%) were that of “anticipators”. Similar proportion of boys in the PR (9%) and the NY (10%) samples fit the pattern of “onetimers”. The pattern of “steadies” was the least prevalent among the boys surveyed in PR (6%) and in NY (8%).

In order to analyze whether the sexual experiences of the youngsters surveyed differed between the sites for each of the sexes a  $X^2$  was performed to compare the proportions of youngsters reporting each of the categories

in the typology. Only one difference was found to be statistically significant, a smaller proportion of the females in the sample surveyed in PR reported having multiple sex partners when compared to their counterparts in NY city.

Table 2 also shows the means of the sexual involvement scale for each group of Puerto Rican adolescents surveyed. In contrast with the non-parametric analyses with the sexual experience typology, the 2X2 ANOVA with the sexual involvement scale, showed significant differences between the sites surveyed as well as gender differences. Youngsters in NY reported a higher level of involvement in sex practices than the adolescents surveyed in PR regardless of gender. In both sites surveyed, males scored higher in the sex involvement scale than did the females; no interaction of gender and site was observed.

For the sexually initiated teens, Table 3 shows other sexual and HIV related behaviors by gender and site of the interview. There were no significant differences in the age at the first P-V sex between the females students surveyed in PR and those in NY or between the male students surveyed in each site. The age of the person the student first had P-V sex with did not differ between the males surveyed in PR and in NY. However, the females surveyed in PR reported an older male (about 19) as their first partner when compared to the age of the first sexual partners reported by their NY counterparts (about 17). No differences were observed between the proportion of

Table 3. Mean Age of First Sexual Partner and Mean Age at First Intercourse by Gender and by Site.

	Females		Males	
	PR sample	NY city sample	PR sample	NY city sample
Age at first sex	n =117	n =35	n =56	n=52
Mean	14.4	13.9	13.6	13.6
(sd)	(1.0)	(1.1)	(1.7)	(1.4)
Age person first had vaginal sex with				
Mean	18.9 <sup>a</sup>	16.9 <sup>a</sup>	15.2	14.4
(sd)	(4.4)	(2.5)	(3.1)	(2.2)

a: T-Test= -2.07;  $p=.04$

students surveyed in PR and in NY (controlling by sex) in terms of reports of having sex in the first date and using birth control always (see Table 4).

Table 4 also shows that consistent use of condoms, was significantly higher among the boys surveyed in NY (50%) than among the boys surveyed in PR (27%), even though there were similar proportions of boys reporting having multiple sexual partners. No significant difference between the NY and the PR girls in consistent use of condoms was

**Table 4. Sexual Behaviors by Gender and by Site**

	Females		Males	
	P R sample (n=17)	N Y city sample (n=35)	P R sample (n=56)	N Y city sample (n=52)
	(n) %	(n) %	(n) %	(n) %
Ever had sex on first day (Yes)	(1) 6	(2) 5	(8) 14	(9) 17
Always use birth control	(5) 4	(10) 8	(16) 12	(14) 14
Always use condoms	(2) 11	(13) 37	(15) 27 <sup>a</sup>	(26) 50 <sup>a</sup>
Ever been tested for HIV	(7) 5 <sup>b</sup>	(18) 15 <sup>b</sup>	(8) 6 <sup>c</sup>	(14) 14 <sup>c</sup>
Currently sexually active	(14)	(25)	(31)	(34)

a:  $X^2=6.17;p=.01$   
b:  $X^2=7.21;p=.007$   
c:  $X^2=44.03;p=.045$

observed. Interestingly, although there were no significant differences in the proportion of youngsters reported being sexually active in the last six months, more than twice as many boys (14%) and girls (15%) in the NY sample reported having an HIV test than did their respective counterpart in PR.

To test whether the adolescent sexual behavior varied by site and more specifically to determine whether the Puerto Rican youngsters surveyed in NY are more sexually experienced, as measured by the sexual involvement scale, a set-wise hierarchical multiple regression/correlation (MRC) analysis was done. The models of MRC used in this analysis were based in those elaborated by Cohen & Cohen (31). Since significant differences in the level of sexual involvement of the adolescents surveyed were observed by gender and age these variables were entered as the first set in the equation. Tables 5 and 6 presents the results of the multiple regression/correlation (MRC) analysis with the appropriate test of significance. Table 5 shows the total variance explained by each successive set of demographic variables entered hierarchically in the equation to explain the youngsters sexual involvement. As can be expected gender as well as the age of the students surveyed was related to the adolescent's sexual involvement explaining 14% of the variance of the sexual involvement index. The T-tests for the partial regression coefficients of each of the variables entered in each successive step are shown in Table 6. The B weights in dummy coded variables in the regression analysis gives the mean difference between the group coded as reference and each of the other groups being compared. Gender was

associated with sexual involvement with girls scoring significantly lower than boys were (0.79 points lower). Age was also significantly associated with increases in the sexual involvement scale each year was associated with an additional 0.23 in the scale. The interaction of age by sex did not increase the proportion of variance explained in the sexual involvement index as shown in Table 5.

The site where the youngsters reside was the next set entered into the equation with PR coded as the reference group. It increased the proportion of variance explained in the sexual involvement by 4%. Since the variance accounted by gender and age have already partialled out;

**Table 5. Total Variance Explained and Increments in Variance by Each Successive Set of Demographic Variables for Puerto Rican Youngsters' Sexual Involvement (N=471)**

Added variance explained By each set of variables	R <sup>2</sup>	IR <sup>2</sup>	df	F
Set A: $X_1=Age, X_2=Sex$	.1451	.1451	2/469	39.76 **
+ Set B: $X_3=Sex * Age$	.1452	.0001	3/468	.23
+ Set C: Site ( $X_4=N.Y.C.$ ) (reference group=PR.)	.1861	.0409	4/467	4.84**
+Set D: ( $X_5=Site * Gender$ ) ( $X_6=Site * Age$ )	.2397	.0536	6/465	5.59**
+Set E: Household Composition ( $X_7=Not\ intact$ ) (reference group= Intact)	.2398	.0001	7/464	.21
+Set F: ( $X_8=H.H\ Composition * Site$ )	.2451	.0053	8/463	1.76
+Set G ( $X_9=Mothers' Education$ )	.2451	-----	-----	-----
+Set H. $X_{10}=Mo. Education * Site$	.2451	-----	-----	-----

\*\* p< .001

the proportion of variance explained is uniquely accounted by different sites. A closer look at the partial raw regression coefficients for each of the two samples surveyed in Table 6 shows that the groups ranked as expected. The sexual involvement mean of the group surveyed in NY is 0.51 points higher than the group surveyed in PR.

The next sets to be entered into the regression equation were a set representing the interaction between site and age and another one representing the interaction between site and gender. These sets were entered into the equation in order to determine whether the relationship between gender and age and sexual involvement varied with the site of residence of the students surveyed. Table 5 shows that a significant proportion of the variance in the students sexual involvement scale was explained when these sets entered into the equation. Table 6 indicates that the relationship between gender and sexual involvement is

similar for both sites. The partial regression coefficient for the interaction term between age by site however, was found to be significant. It indicates that for the Puerto Rican students residing in NY each additional year is associated with a much larger increase (0.75) in the sexual involvement scale when compared with their counterparts in PR.

Family household composition and mothers' education were two additional sets entered into the regression analyses. Nor these variables or their interaction with site of residence of the students surveyed turned to be statistically significant as can be observed in Tables 5 and 6.

Almost a fourth of the sexual involvement scale was explained by the gender, age and site of residence of the students interviewed. In the final equation (not shown) site and the interaction of site by age remained statistically significant.

Table 6. Regression Weights for Each Set of Variables Entered Hierarchically in the Equation for Sexual Involvement Among Puerto Rican Youngsters

	B weights <sup>a</sup>	t <sup>a</sup>
Set A: $X_1$ =Age	.2322	3.57*
$X_2$ =Sex	-.7975	7.97*
+ Set B: $X_3$ =Sex * Age	.0264	.20
+ Set C: Site ( $X_4$ =N.Y.C.) (reference group=PR.)	.5144	4.84*
+ Set D: ( $X_5$ =Site * Gender)	.2285	1.11
( $X_6$ =Site* Age)	.7534	5.59*
+ Set E: Household Composition ( $X_7$ =Not intact) (reference group=Intact)	.0205	.21
+ Set F: Interaction Terms ( $X_8$ =H.H Composition * Site)	.3693	-1.79
+ Set G ( $X_9$ =Mothers' Education)	-.0023	-.07
+ Set H. $X_{10}$ =Mo. Education * Site)	.0054	.08

<sup>a</sup> Regression weights and t-values are for each set of variables entered at each step in the hierarchy

\* p <.05

## Discussion

The prevalence of the sexual experiences measured in this study are consistent with those of the Youth Risk Behavior Survey (YRBS) conducted by the Centers for Disease Control (CDC) in 1991 and based on a representative sample of high school students in PR. In the present study 13% of the female students surveyed in PR reported having engage in P-V sex and 18% reported the same thing in the YRBS conducted in PR. In terms of

having multiple partners only 1 girl in both surveys reported having 4 partners or more (lifetime). For the boys 50% reported having engaged in P-V sex in the YBRS conducted in PR and 44% reported the same thing in the present study. Twelve percent of the boys surveyed in PR reported 4 partners of more in their lifetime as compared to 16% of those surveyed as part of the YBRS project. The prevalence of the various sexual behaviors measured in the current study are somewhat smaller that those of the YBRS, this was to be expected, considering that the YBRS project included seniors and the study in PR excluded seniors and had an oversample of tenth graders.

The prevalence of the sexual behaviors of the Puerto Rican students residing in NY city are more difficult to compare since at least two populations could arguably serve as a comparison group: the Hispanics in the national sample of the YBRS (the problem is it include mostly Mexican-Americans and it has been argued that there are important differences among Hispanics); or the local NY city High Schools survey reported by CDC as part of the YBRS which included a very wide array of ethnic groups. When compared to the YBRS conducted in NY city the Puerto Rican students residing in NY city and analyzed in this study reported lower rates for having initiated sex (for females 29% in this study and 47% for the NY city-YBRS; for boys 51% in this study and 67% in the YBRS in NY city). Other studies have reported similar findings (10, 32).

As expected, different patterns in the sexual experiences of Puerto Ricans surveyed in PR and in NY was documented using Miller's et al. typology of sexual experiences. The modal sexual experience for girls on both sites was that of "delayers". However, the second most frequent pattern expressed by the girls was very different between sites. For the girls surveyed in PR it was that of "anticipators" (never had P-V sex and with a 50% chance of initiating sex in the following year) while for the girls surveyed in NY it was the pattern of "multiples" (have engaged in sex with more than one partner in more that one occasion). The sexual experiences of the Puerto Rican boys surveyed in San Juan and in PR were similar. The modal sexual experience in both samples was that of being "multiples" and similar proportions of students endorsed each category in Miller's et al., typology. When the sexual involvement scale was used in a 2 X 2 ANOVA, significant differences were found by gender and by age. Those differences indicate that in both sites boys had a higher involvement than girls and that for both genders, sexual involvement was higher among those surveyed in NY than the ones surveyed in PR.

As hypothesized, the sexual involvement behavior of Puerto Rican students in NY is higher than the involvement

of students surveyed in PR even when controlling gender, age, mother's education and household composition. One of the eligibility criteria to participate in the study was that the students surveyed had to live for at least 10 years in the survey site. This guaranteed that the teens have been consistently exposed to different norms concerning sexual behavior. The results of the YRBS for NY clearly shows higher percentages of youngsters reporting having had sex, being sexually active and having multiple partners as compared to the data collected in PR. The effects of the varying sociocultural environments with different norms of what is considered appropriate sexual behavior are documented both by the differences in the patterns of sexual experiences between the two sites and by the higher levels of sexual experience reported in the NY sample. In addition, the significant interaction found between age and site indicated that for each additional year of age the youngsters surveyed in NY reported a higher level of involvement in the stages of sexual experience studied.

The lack of relationship of maternal education and family structure with the adolescent sexual behavior was not surprising. Other researchers (9, 20, 32, 33), have reported similar findings. In addition even in analyses based on the three sites included in the CDC study (of which the one analyzed here is a subsample) the lack of correlation between mother education and family structure and adolescent sexual behavior have been also documented (16).

Other patterns of sexual behavior are worth discussing. It is interesting that only one girl in each site reported to be a "onetime". This is apparently a very temporary stage and therefore less prevalent behavior in girls than in boys in both sites. It would be important to study whether adolescents when they initiate P-V intercourse actually perceive themselves as quickly moving to a "multiple status" with the increase HIV risk it implies or whether they expect they will retain their "onetimes" or "steady" status for a longer time. Only longitudinal studies will be able to determine the timing and duration of this transition.

Another interesting finding is that the girls surveyed in PR reported an older male (about 2 years older) as their first sexual partners as compare to the girls surveyed in NY. A previous analysis by Miller, Clark and Moore (35) of a data set that included the sample studied in this analysis in addition to 99 black girls interviewed in the NY city sample yielded consistent results. It was found the hispanic girls (surveyed in NY and PR) reported having an older sex partner (3 years older) in their first sexual encounter more often than did the black adolescent surveyed. Those who reported an older male in their first sexual encounter also reported been sexually active longer, less likely to use condoms in their last sexual encounter and more likely

to have been pregnant. It would be important to analyze whether the girls reporting older males in PR share the risky sexual behaviors reported by Miller, Clark and Moore (35) for the Hispanic girls as a whole.

The diversity of sexual practices of the same ethnic group when socialized in different settings has been documented in this analyses. This has important implications for the development of prevention and interventions strategies in HIV prevention. The level of sexual involvement of the youngsters that are the target of such efforts need to be measured and studied prior to any intervention. This will facilitate designing custom-made interventions for the specific sexual patterns of a given population. As discussed by Miller et al. (17), prevention strategies that prove to be effective with a "delayer" who is not even thinking in engaging in sex are bound to be very different from the strategies needed with a population of "multiples" which can be more receptive to messages about the need to use condoms.

Furthermore the study suggest that the sexual practices and therefore the prevention needs of youngsters of a given ethnic group socialized in the continental US can not be inferred from the behaviors of their counterparts living in their country of origin. The exposure to different norms and behavior more likely than not will change those from the country of origin.

## Resumen

El objetivo de este estudio es comparar las prevalencias de varios tipos de comportamientos sexuales en adolescentes puertorriqueños asistiendo a una escuela superior en la ciudad de San Juan, Puerto Rico y a otra en la ciudad de Nueva York. La información fue recogida con entrevistas personales. Para determinar si la conducta sexual de los adolescentes variaba por lugar de residencia y para determinar si los adolescentes puertorriqueños entrevistados en Nueva York eran más experimentados sexualmente que los entrevistados en Puerto Rico se llevó a cabo un análisis de regresión múltiple por conjunto y jerárquico. Este demostró que el involucramiento sexual de los jóvenes puertorriqueños en Nueva York era más alto que el involucramiento de aquellos estudiantes encuestados en Puerto Rico, aun cuando se controló por género, edad, educación de la madre y composición familiar. Las diferencias documentadas tienen implicaciones importantes para el desarrollo de estrategias de intervención para la prevención del VIH o de las ETS.

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