A profile of sexually active male adolescent high school students in Lima, Peru

Perfil de los adolescentes varones sexualmente activos en colegios secundarios de Lima, Peru

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Abstract *To document knowledge and attitudes regarding sexuality and sexual practices of male adolescent high school students in Lima, Peru, a self-administered, anonymous survey was completed by 991 male adolescents aged 12-19 as part of a School-Based Sex Education Intervention model. Questions concerned sociodemographic information; family characteristics; personal activities; knowledge and attitudes regarding sexuality; sexual experience; and contraceptive use. Knowledge related to sexuality was limited. Males tended to mainly discuss sexuality with their male peers (49.8%). Attitudes towards sexual activity and condom use were largely positive, although some males expressed ambivalent feelings towards the latter. Of the sample, 43% had ever had sex; age at first sexual intercourse was 13 years. While 88% of the sample would use condoms, 74% also gave reasons for not using them. Sexual activity was related to age, ever having repeated a grade, living with only one parent or in a mixed family, activities such as going to parties, use of alcohol, tobacco, and drugs, and viewing pornographic videos or magazines. Many male adolescents were at risk of causing an unintended pregnancy or acquiring an STD.*
Key words *Adolescent; Sex Behavior; Contraception*

Resumen *Con el objetivo de documentar el nivel de conocimiento y las actitudes con respecto a sexualidad y las prácticas sexuales de los adolescentes varones de colegios secundarios en Lima, Peru, 991 estudiantes varones, entre los 12-19 años, completaron una encuesta autoaplicable y anónima dentro de un Programa de Prevención de Comportamientos Sexuales de Riesgo. Datos de la encuesta: sociodemográficos de la familia; de actividades personales; de conocimiento y actitudes con respecto a la sexualidad; de experiencia sexual y uso de anticonceptivos. El conocimiento sobre sexualidad es limitado. Los varones discuten principalmente sobre sexualidad con sus pares varones (49,8%). Las actitudes hacia la actividad sexual y el uso de condones fueron positivas, pero algunos expresaron sentimientos ambivalentes en cuanto a su uso. El 43% había tenido relaciones coitales alguna vez y la edad promedio del inicio sexual fue de 13 años. Mientras que el 88% de la muestra usaría condones, el 74% también dio razones para no usarlos. La actividad sexual se asoció a la edad, a haber repetido un grado, a vivir con uno de los padres o con una familia re-estructurada, con actividades como ir a fiestas, uso de alcohol, tabaco y drogas, y ver revistas o videos pornográficos. Muchos de los adolescentes varones estuvieron en riesgo de ocasionar un embarazo no planeado o adquirir una ETS.*
Palabras clave *Adolescente, Comportamiento Sexual, Anticoncepción*

Introduction

Sexuality-related problems, such as sexually transmitted diseases (STDs), including Acquired Immunodeficiency Syndrome (AIDS), and unintended pregnancies (UIPs) are issues of worldwide concern (CDC, 1992) and particularly in developing countries such as those of South America and the Caribbean. A number of population-based surveys document that adolescents initiate sexual relations at an early age without adequate use of contraception (Morris, 1988; ENJOVEN, 1992; ENDES, 1997). In Latin America, adolescents' level of knowledge about AIDS is high (80%-90%); however, many adolescents continue to feel that they are not personally vulnerable when they have sexual relations (CDC, 1992; Morris, 1994). The spontaneous nature of their initial sexual experience is reflected in the finding that one of the most important reasons for not using contraceptives is because they did not expect to engage in sex (ENJOVEN, 1992). Similar findings are documented in American adolescents with a co-occurrence of other health risk behaviors, such as drug and alcohol use (Weisman, 1989; Resnick et al., 1997; Brener & Collins, 1998).

In Peru, adolescents are also at risk of experiencing the negative consequences of their unprotected sexual relations (Loli et al., 1987; Wulf & Singh, 1991; ENDES, 1992). An important knowledge gap exists in Latin America as a result of the lack of systematic information about the participation and roles of adolescent males in sexual and contraceptive decision-making. This information is necessary in order to achieve a reduction in the high incidence of STDs and UIPs in both Latin America and the United States (Dryfoos, 1988; Edwards, 1994; Moore & Driscoll, 1997). Thus, while there are no data available about UIPs fathered by male adolescents and STDs, among female adolescents ages 15-19 (representing 21% of all reproductive-age women in Peru), the fertility rate is 55/1,000 women in urban areas and 139/1,000 in rural areas. Although birth rates are high, 97% of reproductive-age women know or have heard about at least one contraceptive method. However, there exists a substantial gap between knowledge and contraceptive use. For example, only 31% of sexually active adolescents have used a modern contraceptive method. The majority of adolescent women (53%) also expressed that they wanted to have a child in the next two years or beyond this period (ENDES, 1997), thus perhaps decreasing the likelihood of seeking contraceptive protection. In addition, social stigma related to adolescent sexual activity is often associated with contraceptives, resulting in additional barriers in seeking sexual and reproductive health care, since many adolescents hope to deny their sexual activity precisely by avoiding the contraceptive method which symbolizes their behavior (Aral, 1992; Brunham & Embree, 1992; Lande, 1993).

The purpose of this study was to document the level of knowledge and attitudes regarding sexuality and sexual practices among male adolescent students attending the third and fourth secondary school grades (equivalent to ninth and tenth grades in United States) in four high schools in Lima, Peru.

Research design and methods

An anonymous, self-administered survey was completed by students ages 12-19. The survey took approximately one hour to complete and required the signed consent of their parents and school administrators. From a pool of 12 eligible schools in an urban school district, four of these were randomly selected because they met overall criteria for participation, including similar mixture of low-income students, school size, and similar numbers of students who had been referred for health services by school administrators.

The adolescent male questionnaire was comprised of a 50-item instrument concerning six areas: 1) sociodemographic information; 2) family characteristics; 3) personal activities; 4) knowledge and attitudes regarding sexuality; 5) sexual experience; and 6) contraceptive use. The data were gathered as a part of a larger project to develop an intervention model entitled "Prevention of Sexual Risk Behaviors: A School-Based Sex Education Intervention" which was implemented by the *Instituto de Estudios de Población de la Universidad Peruana Cayetano Heredia* from April 1995 to December 1996, funded by the Ford Foundation. The study variables were:

- Sociodemographic information: age, grade, repeated grade, religion.
- Family characteristics: number of persons living at home, type of persons living at home, parents' marital status, parents' schooling, parents' occupations.
- Personal activities and frequency: sports, seeing friends, going to parties, seeing relatives, viewing pornographic videos or magazines, and alcohol, tobacco, and drug use.
- Sexuality

a) Information: with whom they talk about sexuality.

b) Knowledge: self-rating of level of knowledge.

c) Attitudes: preventing AIDS by use of protection when having sex; a child would be an obstacle to continuing studies; would be impossible to say no to having sex; can control sexual desire; it is difficult to become accustomed to using a condom.

d) Hypothetical situations: it is possible to: acquire an STD; become infected by HIV; get someone pregnant.

e) Couple relationships and sexual experience: having had a girlfriend; number of girlfriends; sexual attraction for and contact with males, females, or both; reasons for having sex; age at first ejaculation; age at first sexual intercourse; how long since last sexual intercourse.

f) Use of contraceptives and pregnancy experience: willingness to: use condoms; attend family planning center; have anal sex; reasons for not using a condom; perception of peers who have had sex; perception of peers who have used contraception. Used contraception in first sexual intercourse; type of contraceptive used. Last sexual intercourse: type of contraceptive. Ever gotten someone pregnant; fathered a child.

Age categories were defined statistically in order to weigh the cells, with early adolescence defined as 12 to 14, middle as 15, and late adolescence as 16 to 19 years old. These breakdowns reflect the age groups participating in this study and the pool of participants. Sexually active was defined by whether the teen had ever had sex. A logistic regression analysis was performed with sexually active as the dependent variable in order to create a profile of sexually active male adolescents. The independent variables were those with a significant OR equal to or larger than 1.5 in the bivariate analysis. These variables were fitted in a logistic regression model in order to identify the variables most predictive of sexually active males.

Results

A total of 1,020 surveys were administered in the selected schools, with 991 (97%) of the sample available for analysis. The remainder were eliminated because surveys were incomplete.

Sociodemographic information

Mean age of participants was 14.9 ± 1.15 (n = 991, range 12-19 and median = 15). Of the sample, 53.9% (n = 521/966) was in the third grade and 46.1% (n = 445) in the fourth; 38.4% (n = 372/969) had ever repeated a grade. The majority of students were Catholic: 87.4% (n = 850/ 973).

Family characteristics

The mean number of persons who lived in the household was 8 ± 5.4, with a median of seven (n = 885, range 1-28). The majority of students, 74.7% (n = 731/979), lived with both parents, with or without siblings, and with or without other relatives; 80.8% (n = 788/975) of their parents were married or lived together. As for educational level of parents, 58.3% (n = 561/962) of mothers and 69.4% (n = 648/934) of fathers had completed high school. The majority of mothers, 71% (n = 572/804), worked in the home. Almost half of fathers (49%) were either employed, merchants, or professionals; 47% (n = 332/706) were either farmers, factory workers, or had other occupations, such as carpenters or bricklayers; only 4% (n = 28) were unemployed or retired.

Personal activities

Favorite activities, i.e., those that the adolescents most frequently engaged in were: sports (35.5%, n = 339/954), seeing friends (15.2%, n = 145), going to parties (14.7%, n = 140), seeing relatives (13%, n = 124), and other activities (i.e. playing video games; helping at home; using tobacco, alcohol, and drugs; and viewing pornographic videos or magazines) accounted for the remaining percent (21.6%).

The following activities were performed "daily to once a week": "watching pornographic videos or reading pornographic magazines" (34.8%, n = 294/844), "drinking alcohol" (28.8%, n = 241/836), "smoking cigarettes" (21.2%, n = 174/820), and "using drugs" (6.3%, n = 52/822). However, it is important to note that larger proportions of students indicated that they participated in these activities approximately once a month (37.9% "watching pornographic videos or reading pornographic magazines", 34.6% "drinking alcohol", 37.3% "smoking cigarettes", and 42.7% "using drugs").

Knowledge and attitudes regarding sexuality

When students were asked "With whom do you discuss topics related to sexuality?", they most often indicated that they talked with a male friend (49.8%, n = 493/990), with their fathers (20.8%, n = 206/990), with their mothers (13.9%, n = 138), with no one (12.8%, n = 126/988), and with their teachers (5.9%, n = 58/989).

When asked to rate their level of knowledge regarding sexuality and contraceptives, 79% stated that they had either an average or high degree of knowledge (63.4%, n = 621/980, and 15.6%, n = 153, respectively); 21% stated that they knew "little" or "nothing" in their self-ratings of knowledge (19.9%, n = 195 and 1.1%, n = 11 respectively). However, their perceptions regarding their level of knowledge were inconsistent with the factual findings as measured by their correct answers to 20 basic questions. Results showed that 66.9% of the sample provided ten or more correct answers, with a mean score of 10.6 ± 3.3 (n = 985, range 0-18 and median of 11).

A majority of respondents, 77.3% (n = 731/946), expressed an interest in "learning how to prevent AIDS", while 88.7% (n = 840/947) indicated that they "would protect themselves when they have sexual relationships". In part, the latter response reflects the fact that 64.1% (n = 609/950) indicated that "a child at this moment would be an obstacle to completing their studies". Of the group, 58.4% (n = 550/942) answered that if faced with the opportunity to have sex, "they could decline having sexual relationships", while 70.6% (n = 676/958) expressed that "they can control their sexual desires". Almost a third of students (29.2%, n = 276/945) expressed that if they were to have sex "it would be difficult to use a condom", while another third (30.5%, n = 288) indicated that they did not know what they would do.

In a series of hypothetical situations providing students with an opportunity to indicate their risk perceptions regarding "whether it is possible" to acquire a STD, to be infected with HIV, and to get someone pregnant, the majority of students indicated that they did not know if they were vulnerable or indicated that they were not at risk of STDs (34%, n = 323/946), HIV (61.8%, n = 584/945), or pregnancy (55.5%, n = 530/954). However, sexually active adolescent boys were more likely to indicate their self-perceived risk of acquiring an STD and getting a girl pregnant.

Sexual experience

The majority of respondents had had a girlfriend (73.5%, n = 706/961) and the mean number of relationships was 3.8 ± 3.6 (n = 580, range 1-21 and median of 3). Most respondents indicated that they were attracted to the opposite sex (88.6%, n = 851/960), while 5.7% disclosed that they were attracted to males or to both males and females. The majority of students reported that they had had a heterosexual contact (57.8%, n = 544/941) and 6.5% reported that they had had a sexual contact with a male or with both males and females.

Nearly three-fourths of the sample (70.1%, n = 650/927) had had their first ejaculation, with the mean age of 13.3 ± 1.36 (n = 606, range 8-17 and median of 13). Less than half of the sample indicated that they had initiated having sex (42.6%, n = 401/942), with the mean age of 13.2 ± 1.9 (n = 364, range 5-19 and median of 14).

First coitus had been with a female friend, girlfriend, or relative in 82.2% (n = 327/398) of the cases, while 17.8% had been with a casual acquaintance or prostitute. Although many of the adolescent males had initiated sexual relations, 39.5% (n = 162/410) had had their last act of sexual intercourse during the previous year, and the pattern of partner choice appeared to be consistent across time, i.e., girlfriend, female friend, or relative in 82.4% of cases (n = 324/393) and the remainder (17.6%, n = 69) with a casual acquaintance or prostitute.

Students were able indicate their reasons for being involved in a sexual relationship; 68.4% (n = 611/894) indicated that their "fear of losing their partner, to get closer to their partner, if their partner had asked to have sex, for love, if both of them decided to have sex, or both of them are prepared" as the principal reasons for being in a sexual relationship. The remaining 31.6% of students mentioned "for pleasure, because it is fun, because of peer pressure, in order to know how it feels, because men do it, or to satisfy bodily needs" as their motivation to be in a sexual relationship.

Contraceptive use

Facing the possibility of having sexual relationships, 87.7% (n = 822/937) indicated that they would use a condom and 80% (n = 722/902) would seek information from a family planning center. Perhaps reflecting a concern regarding pregnancy, a large proportion of students indicated that they would have "anal sex" (32.5%, n = 279/859) or that they did not know what they would do (27.2%, n = 234). Although students expressed that they would likely use a condom, a clear majority of them (73.6%, n = 644/875) provided a number of reasons why they would not use protection: expense, reduction in pleasure, condoms were seen as being used only by adults, as ineffective, or dangerous to their health. The remainder (26.4%) indicated that they would use a condom.

Perceptions regarding peers' experience with sex was also documented: nearly half of the sample (42.5%, n = 412/970) perceived that

many of their male peers had already had sex. Only a low proportion of the sample (19%, n = 185/974) perceived that many of their peers use condoms.

Contraceptives had been used in the first coitus by 32.1% (n = 126/392) of the sexually active males, increasing to 37.5% (n = 156/416) during their most recent sexual intercourse. Condoms were the most common birth control method used: 78% (n = 85/109) of students stated that they had used a condom in their first sexual experience and 84.1% (n = 106/126) in the most recent sexual intercourse.

A small number of students reported that they had ever gotten a girl pregnant (7.7%, n = 31/401); of this number, 27.8% (n = 5/18) had fathered a child, 13 girls had miscarried, and there was no information available on the remaining 13 sexual partners.

Bivariate and multivariate analysis

All variables were crossed with age groups in order to observe if there were any differences by age. The results show differences as age increases (Table 2). A larger number of girlfriends at earlier ages, younger age at first ejaculation, and younger age at first coitus were found to be associated with age.

"Sexually active" was analyzed as a dependent variable, and statistically significant differences were noted among those who were sexually active and those who were not. As shown in Tables 3 and 4, those who had repeated a grade, lived with one parent only, smoked tobacco, drank alcohol, or used drugs frequently, and/or had more girlfriends were more likely to be sexually active. Logistic regression results identified the following variables as the best predictors of sexually active males: repeated a grade, spoke with their girlfriends regarding sex, had first ejaculation at an early age, and currently had a girlfriend (Table 5).

Discussion

Results from this study document a number of biological, social, and contextual factors which appear to be associated with sexual activity among Latino males living in Peru. Study results clearly show a relationship between a male's age, social and sexual maturation, and level of sexual and contraceptive knowledge. Sexual activity was also found to be significantly associated with a variety of activities including use of tobacco, alcohol, and drugs, having had a girlfriend and overall number of girlfriends, age at first ejaculation, and peers who were sexually active. The association between sexual activity and high incidence of failure in school, as reflected in the number of boys who had repeated a school grade, is consistent with other studies of adolescent risk-taking behaviors (Upchurch & McCarthy, 1990; Resnick et al., 1997).

Table 1

Number of girlfriends, age at first ejaculation, and age at sexual debut by age.

Variable	n	%	Mean	Median	SD	Range	p
Number of girlfriends	580	59	3.84	03	3.63	(01-21)	0.0000*
≤ 14	221		3.22	02	2.84	(01-15)	
15	186		3.60	02	3.37	(01-20)	
≥ 16	173		4.90	03	4.50	(01-21)	
Age at 1st ejaculation	106	61	13.29	13	1.36	(08-18)	0.0000*
≤ 14	190		12.76	13	1.05	(09-17)	
15	215		13.21	13	1.24	(08-16)	
≥ 16	201		13.89	13	1.50	(08-17)	
Age at sexual debut	364	37	13.24	14	1.96	(05-19)	0.0000*
≤ 14	93		12.33	13	1.64	(05-16)	
15	122		13.13	14	1.79	(07-15)	
≥ 16	149		13.89	14	2.05	(07-19)	

n = number, (%) = percent, SD = standard deviation.
K – W means comparison. * significant.

Table 2

Sociodemographic information, family characteristics, and personal activities by age.

Variables	≤ 14		15		≥ 16		Total	
	n	%	n	%	n	%	n	p
Sociodemographic Information								
Age	394	39.8	327	33	270	27.2	991	
Repeated a grade	34	8.8	125	39.1	213	80.7	969	0.000*
Family Characteristics								
Type of persons in home							979	0.000*
Both parents and others	313	80.3	248	76.3	170	64.4		
Father or mother/others	77	19.7	77	23.7	94	35.6		
Marital status of parents							975	0.0246*
Married or live together	324	83.9	264	81.5	200	75.5		
Other	62	16.1	60	18.5	65	24.5		
Educational level – mother							962	0.0059*
Elementary/incomplete high school	147	38.7	123	38.6	131	50.0		
Completed high school	234	61.4	196	61.4	131	50.0		
Educational level – father							934	0.0013*
Elementary/incomplete high school	100	26.5	88	28.4	98	39.7		
Completed high school	277	73.5	222	71.6	149	60.3		
Father's occupation							706	0.0027*
Unemployed/worker/farmer	137	55.1	121	48.5	102	38.6		
Employed/merchant/professor	168	44.9	114	51.5	64	61.4		
Personal Activities								
Favorite							954	0.3956*
Sports	143	37.5	112	35.8	84	32.3		
Friends/going to parties	91	23.9	107	34.2	87	33.5		
Frequency of activities								
Drink alcohol							836	0.0000*
Daily – once a month	179	53.0	185	67.5	174	74.1		
Never	159	47.0	89	32.5	58	25.9		
View pornographic videos or magazines							844	0.0004*
Daily – once a month	229	66.2	215	76.2	170	78.7		
Never	117	33.8	67	23.8	46	21.3		
Use tobacco							820	0.0000*
Daily – once a month	169	50.5	169	61.4	142	67.6		
Never	166	49.6	106	38.5	68	32.4		
Knowledge								
Self-rating							980	0.7934
Average – great deal	309	79.0	260	80.5	205	77.0		
Little – nothing	82	20.9	63	19.5	61	23.0		
Actual level							985	0.6545
≥ 10 correct answers	259	66.1	216	66.1	184	69.2		
≤ 9	133	33.9	111	33.9	82	30.8		

Table 2 (continued)

Variables	≤ 14		15		≥ 16		Total	
	n	%	n	%	n	%	n	p
Attitudes								
A child would be an obstacle to continuing studies							950	0.0020*
Yes	272	70.6	189	59.4	148	59.9		
No	81	21.0	83	26.1	76	30.8		
Don't know	32	8.3	46	14.5	23	9.3		
Hypothetical situations								
Acquire an STD							946	0.0380*
Yes	136	35.9	131	40.8	116	47.2		
No	142	37.5	114	35.5	67	27.2		
Don't know	101	26.6	76	23.7	63	25.6		
Partner relationships and sexual experience								
Ever had girlfriend	248	64.6	237	74.3	221	85.7	961	0.0000*
Sexual contact							941	0.0036*
Male	5	1.3	7	2.2	4	1.6		
Female	189	50.7	186	59.0	169	66.8		
Male and female	18	4.8	15	4.8	12	4.7		
None	161	43.2	107	34	68	26.9		
Ever had sex	110	29.5	134	43.2	157	60.6	401	0.0000*
Pregnancy and contraception								
Ever gotten someone pregnant	6	5.4	5	3.7	20	12.7	401	0.0845*
Woman should protect herself							860	0.0013*
Yes	60	17.4	53	18.5	70	30.6		
No	212	61.4	182	63.6	126	55.0		
Don't know	73	21.2	51	17.8	33	14.4		
Know peers who have sex							970	0.0000*
A lot	126	32.8	147	45.4	139	53.1		
Few – no one	135	35.1	99	30.6	79	30.2		
Don't know	123	32.0	78	24.1	44	16.8		
Know peers who use contraception							974	0.0000*
A lot	60	15.6	56	17.2	69	26.2		
Few – no one	177	45.9	178	54.6	145	55.1		
Don't know	148	38.4	92	28.2	49	18.6		

* significant. p value for χ^2

Family structure was also seen to bear a relationship to sexual activity. One-fourth of the sample lived in either a single-parent or mixed family; this group was more likely to be sexually active as compared to students living with two parents. Similar patterns have been noted in other research, which predicts earlier sexual debut with non-traditional family structures (McCarthy & Menken, 1989; Kieman & Hobcraft, 1997). Many of the participants were also being raised in low socioeconomic family environments, which were further strained by the pressure to support extended family members. These factors may have contributed to the limited contact between parents and their children and fewer opportunities to discuss sex information. It may also reflect parents' ambivalence towards parental messages provided to males in cultures where social norms may support a man's early sexual experience. These findings are somewhat consistent with studies demonstrating that an adequate family context, defined as the presence of both parents and a sense of connectedness within the fami-

Table 3

Profile of sexually active and non-sexually active male students.

Variable	SA n	SA %	NSA n	NSA %	Total n	Total %	RR (CI)	p
Age					942	100.0	1.47	0.0000*
≤ 14	110	29.5	263	70.5	373	39.6	(1.2–1.79)	
15	134	43.2	176	56.8	310	32.9	1.4	0.0000*
≥ 16	157	60.6	102	39.4	259	27.5	(1.19–1.65)	
Repeated grade					922		1.65	0.0000*
	203	56.9	154	43.1	357	38.7	(1.42-1.9)	
Type of persons living at home					931		1.25	0.0000*
Father or mother or others							(1.07-1.47)	
	118	49.8	119	50.2	237	25.5		
Both parents and others	276	39.8	418	60.2	694	74.5		
Personal activities								
Friends/going to parties					910		1.19	0.0354*
	130	47.4	144	52.6	274	30.1	(1.02-1.39)	
							0.81	0.0104*
Sports	116	36.5	202	63.5	318	34.9	(0.68-0.96)	
Frequency of activities								
Go to parties					862		1.4	0.0165*
Daily – once a month	339	44.4	425	55.6	764	88.6	(1.04-1.9)	
Never	31	31.6	67	68.4	98	11.4		
Drink alcohol					796		1.63	0.0000*
Daily – once a month	249	49.1	258	50.9	507	63.7	(1.34-1.99)	
Never	87	30.1	202	69.9	289	36.3		
Use drugs					784		1.3	0.0020*
Daily – once a month	181	47.3	202	52.7	383	48.9	(1.1-1.53)	
Never	146	36.4	255	63.6	401	51.1		
View pornographic videos or magazines					807		1.83	0.0000*
Daily – once a month	282	47.9	307	52.1	589	73.0	(1.44-2.32)	
Never	57	26.1	161	73.9	218	27.0		
Help out at home					857		0.67	0.0088*
Daily – once a month	328	40.3	486	59.7	814	95.0	(0.52-0.86)	
Never	26	60.5	17	39.5	43	5.0		
Use tobacco					782		1.41	0.0001*
Daily – once a month	213	46.5	245	53.5	458	58.6	(1.17-1.69)	
Never	107	33.0	217	67.0	324	41.4		

Table 3 (continued)

Variable	SA n	SA %	NSA n	NSA %	Total n	Total %	RR (CI)	p
Sexuality information								
With whom talk about sex								
Mother					941		0.78	0.0363*
	46	34.3	88	65.7	134	14.2	(0.61-1.0)	
Girlfriend					941		1.87	0.0000*
	56	74.7	19	25.3	75	8.0	(1.6-2.19)	
Male friend					941		1.29	0.0009*
	225	48.0	244	52.0	469	49.8	(1.11-1.5)	
Female friend					941		1.29	0.0343*
	44	53.7	38	46.3	82	8.7	(1.04-1.6)	
No one					939		0.69	0.0061*
	35	30.7	79	69.3	114	12.1	(0.52-0.92)	

SA = sexually active, NSA = non-sexually active.
RR = risk ratio.
95% CI = 95% confidence interval
P value for M-H χ^2
* significant

ly, can prevent poor health and social outcomes, including unintended pregnancies and STD/AIDS, although the research does not demonstrate a relationship between family connectedness and delays in sexual debut (Huerta-Franco et al., 1996; ENJOVEN, 1997; Resnick et al., 1997; Emmons et al., 1998).

Participating in sports (selected as one of the most favorite activities among students) was shown to be a protective factor against early sexual debut. Helping at home was also shown to be a protective factor, perhaps indicative of a connected relationship to the adolescent's family. However, other co-occurring activities, such as going to parties, seeing friends, watching pornographic videos and reading pornographic magazines, and use of tobacco, alcohol, and drugs were found to be associated with being sexually active (McLean & Flanigan, 1993; Capaldi et al., 1996; ENJOVEN, 1997; Califano, 1998; Emmons et al., 1998). These risk behaviors, which have often been noted to co-occur, are cumulative and increase with age (Brener & Collins, 1998).

Regarding information on sexuality, nearly one-half of students reported that they talked with their male friends, 20% with their fathers, and 5.9% with their teachers. These findings point to the value of peers and fathers in the transmission of information when there is a good level of interpersonal communication (Gonzalez et al., 1994; Huerta-Franco et al., 1996). In addition, talking about sexuality with peers of both sexes, as well as their girlfriends, was associated with sexual activity. This relationship may reflect increased peer pressure, lack of personal risk perception, and/or because the adolescent had already decided to engage in a sexual relationship (Moran & Corley, 1991; Millan et al., 1995; Capaldi et al., 1996; Alexander & Hickner, 1997). In contrast, speaking with their mothers or relying on themselves for information were found to be protective factors in delaying the onset of sexual activity. This may reflect a closer relationship with a parent who likely would discourage sexual activity and a personal quality of shyness that could also discourage sexual activity. However, the limited reliance on teachers does not bode well for the current state of trust with this potential source of support and information about such crucial topics. In order to assure the implementation of successful programs, it will be imperative to attract teachers who can establish a non-judgment and trusting relationship with their students.

Although the majority indicated that they had an "average" to "high" degree of knowledge regarding sexuality, clearly the level of accurate knowledge is relatively limited (11 correct answers out of 20 questions). While students who felt they had an average or high degree of knowledge tended to have sexual relations, the actual level of knowledge was not found to be associated with sexual activity. High self-ratings of knowledge, rather than their actual levels, were associated with sexual activity, and these findings are somewhat consistent with other studies who found a limited relationship between knowledge and sexual activity (ENJOVEN, 1997; Goldfarb, 1997; Ruusuvaara, 1997).

Table 4

Profile of sexually active and non-sexually active male students.

Variable	SA n	SA %	NSA n	NSA %	Total n	Total %	RR (CI)	p
Knowledge								
Self-ratings in knowledge					931		1.24	0.0299*
Average – great deal	324	44.1	410	55.9	734	78.8	(1.01-1.52)	
Little – nothing	70	35.5	127	64.5	197	21.2		
Actual level					936		0.89	0.1468
≤ 9 correct answers	120	39.0	188	61.0	308	32.9	(0.75-1.05)	
≥ 10	276	43.9	352	56.1	628	67.1		
Attitudes								
Difficult to use a condom					905		1.2	0.0255*
	128	48.1	138	51.9	266	29.4	(1.03-1.4)	
Impossible to say no to having sex					911		0.78	0.0017*
	137	36.2	241	63.8	378	41.8	(0.66-0.91)	
Can control sexual desire					917		0.81	0.0097
	260	39.9	391	60.1	651	71.0	(0.7-0.95)	
Hypothetical situations								
Acquire an STD					908		1.28	0.0017*
	179	48.5	190	51.5	369	40.6	(1.1-1.48)	
Get someone pregnant					915		1.52	0.0000*
	214	52.5	194	47.5	408	44.6	(1.31-1.77)	
Sexual experience								
Ever had ejaculation					897		2.94	0.0000*
	336	53.2	296	46.8	632	70.5	(2.25-3.83)	
Ever had a girlfriend					926		2.85	0.0000*
	350	51.3	332	48.7	682	73.7	(2.16-3.76)	
Number of girlfriends					559		1.84	0.0000*
> 2	182	63.2	106	36.8	288	51.5	(1.53-2.22)	
≤ 2	93	34.3	178	65.7	271	48.5		
Reasons for having sex					852		1.35	0.0004*
Pleasure/fun	134	49.4	137	50.6	271	31.8	(1.15-1.58)	
Love/fear of loss partner	213	36.7	368	63.3	581	68.2		
Contraception								
I would have anal sex					826		1.64	0.0000*
Yes	161	60.5	105	39.5	266	32.2	(1.38-1.94)	
No	124	37.0	211	63.0	335	40.6	1.28	0.0463
Don't know	65	28.9	160	71.7	225	27.2	(1.00-1.64)	

SA = sexually active, NSA = non-sexually active.
RR = risk ratio.
95% CI = 95% confidence interval.
p value for M-H χ^2.
* significant.

The majority of participants had positive attitudes towards sexual activity and the use of a contraceptive if faced with an opportunity to engage in sexual relations. However, they also expressed ambivalent feelings regarding both sexual and contraceptive behavior. While stating that "it would be difficult to get accustomed to using a condom" and "it would be impossible to say no to having sexual relations", they also often expressed the opposite view: "I would protect myself when I have sexual relations" and "I could control my sexual desire". Thus, there are many conflicting or ambivalent attitudes and beliefs that influence sexual risk-taking behaviors that need to be considered in developing effective interventions (Hodges et al., 1992; Leland & Barth, 1992; Huerta-Franco et al., 1996; ENJOVEN, 1997).

Although the majority of respondents indicated that they would be willing to use a condom if they wanted to prevent a pregnancy and others indicated that they would be willing to seek information in a family planning center before they became sexually active, bridging intentionally into action is still evasive. In part, this reflects a belief, held by 40% of the participants, that it is the female partner who must protect herself against pregnancy and STDs. Fully one-third of participants reported that they would have anal sex rather than use a condom (McGuire et al., 1992; Langille et al., 1994; Witwer, 1997).

Two-thirds of students reported that they had had their first ejaculation at 13 years of age. Biological development has been associated with earlier exposure to sexual activity and having gotten someone pregnant (Halpern et al., 1993). There is also an increased probability of acquiring an STD. Furthermore, many adolescents did not see themselves as vulnerable to negative consequences, based on the high percentages of adolescents who did not know or did not believe that it was possible for them to get an STD, become infected by HIV, or get someone pregnant. Similar findings have been observed among adolescents from other South American countries (Morris, 1988; Milan et al., 1995), as well as in the United States (Weisman, 1989; Resnick et al., 1997). These findings may in part relate to lack of risk perception among their peers, adolescent developmental issues pertaining to not understanding the consequences of their actions, and the fact that their risk behaviors have been reinforced by their positive short-term effects (e.g., pleasure or group approval of sexual activity), rather than more immediate negative consequences (e.g., a pregnancy scare) (Hunter & Schaechner, 1992).

Table 5

Profile of sexually active adolescent males.

Variable	Odds Ratio	95% CI
Ever repeated a grade	1.94	1.38-2.74
Having had a girlfriend	2.74	1.74-4.29
Talking about sex with girlfriend	2.76	1.45-5.24
Having had first ejaculation	4.5	2.84-7.12
Impossible to say no to having sex	0.8	0.55-1.17

CI = confidence interval.

Almost half of male students had had sex, with early age at sexual debut. These findings are consistent with data from several population-based surveys conducted in South America and the Caribbean, in which 21% to 63% of respondents had had premarital sexual experience, with a mean age of 15 years for males (Morris, 1988; CDC, 1992; Walrond et al., 1993; ENJOVEN, 1997).

These findings further reinforce the need for specifically targeting males when they are young and creating tailored, gender-specific prevention strategies aimed at modifying attitudes and risk behaviors. Such interventions have been found to be successful in modifying male behavior in other settings, resulting in an incremental use of condoms over time (Strunin & Hingson, 1987; Hingson et al., 1990; Witwer, 1997). Such efforts may be especially challenging with these adolescents, because only one-fourth of students expressed their willingness to use a condoms. Many participants gave multiple reasons for not using condoms, demonstrating the strong feelings that must be overcome to increase successful condom use among this population group. For example, the majority expressed the opinion that condoms decrease sexual pleasure (Hingson et al., 1990). Nevertheless, significant changes in condom use have been shown as they have become more widely accepted both for protection against STDs and HIV/AIDS and for preventing unintended pregnancy (Kegeles et al., 1988; Pleck et al., 1993; Millan et al., 1995; Witwer, 1997).

Half of students believed that "many of their male friends have already had sex" and the majority believed that "few or none had used a condom". These perceptions are important to consider insofar as they place additional pressure on the male. They also have implications for developing interventions aimed at adolescents and helping to substantiate that the numbers of sexually active students may be far less and the

use of contraceptives, particularly condoms, may be significantly higher than imagined by the youth (Lauritsen & Swicegood, 1997).

Some of the perceptions regarding contraceptive use may in fact be accurate, as reflected in the low reported use of contraceptives in both the first and most recent acts of sexual intercourse. Despite the ambivalence regarding condom use, the majority of those who used contraceptives relied on this method for protection. This clearly points to the need to address efforts to expand and improve programs which lead adolescents to increase their sexual and contraceptive knowledge and establish the correct and consistent use of condoms among sexually active male adolescents.

This study has some design limitations, so that the findings can only be generalized to those male adolescent students with similar characteristics. In addition, we should consider the reliability of responses and potential under-reporting of sexual activity, given that data were collected in school settings. Finally, caution is necessary in interpreting the "do not know" responses, which may reflect either not knowing what they would do under different circumstances or not knowing anything at all about the subject.

As documented by this profile of sexually active male adolescent students, interventions should be tailored to fit this import age/gender group. We must also pursue strategies that reach males before they become sexually active. Strategies are needed to improve established education programs on sexuality and to make condoms and other contraceptive methods more readily available, as well as to reinforce active involvement by males in contraceptive decision-making. Perhaps most importantly, programs should focus on changing underlying, often contradictory and ambivalent, sexual attitudes and risk-taking behaviors, as well as preventing the co-occurrence of risk behaviors, such as reducing alcohol and drug use along with sexual behavior in order to promote the norm of responsible sexual activity.

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