# Influence of parent-adolescent relationship on early sexual debut and number of partners among Mexican youth

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#### Resumen

Objetivo: evaluar si la relación entre padres y adolescentes estaba asociada con el inicio sexual precoz y tener múltiples parejas, factores de riesgo para infecciones de transmisión sexual, en un barrio de nivel socioeconómico bajo de la Ciudad de México.

Métodos: 936 participantes, de entre 20 y 30 años de edad, respondieron un cuestionario anónimo sobre actividad sexual y relaciones con los padres durante la adolescencia. Se realizaron análisis de regresión logística.

Resultados: la mayoría de los participantes eran sexualmente activos (78.3%). De ello, 70% de los varones y 55% de las mujeres

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habían tenido su primera relación sexual antes de los 18 años. Una buena comunicación con los padres durante la adolescencia se asoció inversamente con el inicio sexual antes de los 18 años (OR=0.40; Cl95% 0.30-0.53) y con tener más de 2 parejas sexuales (OR=0.47; IC95% 0.33-0.68). El inicio sexual antes de los 18 años estaba asociado positivamente con haber tenido múltiples parejas sexuales (OR=6.69; IC95% 4.64-9.65).

Conclusión: una buena comunicación con los padres durante la adolescencia puede ayudar a los adolescentes a evitar el inicio precoz de las relaciones sexuales y la multiplicidad de parejas y, consecuentemente, a evitar la adquisición del VIH y de otras infecciones de transmisión sexual. Son necesarios más esfuerzos para apoyar a los padres en su relación con sus hijos adolescentes.

#### **Abstract**

Objective: To evaluate whether parents-adolescents relationships were associated with early sexual debut and having multiple partners, risk factors for sexually transmitted infections, in a low socioeconomic suburb in Mexico City.

Methods: Nine hundred thirty six participants, aged 20-30, responded to an anonymous questionnaire about sexual activity and relationships with parents during adolescence. Logistic regression was conducted.

Results: The majority of participants reported being sexually active (78.3%). Among them, 70% of males and 55% of females had first sex before age 18. Good communication with parents during adolescence was inversely associated with sexual debut <18 (OR=0.40; Cl95% 0.30-0.53) and with having >2 sexual partners (OR=0.47; IC95% 0.33-0.68). Sexual debut <18 was positively associated with having had multiple partners (OR=6.69; IC95% 4.64-9.65).

Conclusion: Good parental communication during adolescence may help prevent adolescents from choosing early sexual debut and having multiple partners and, consequently, from acquiring HIV and other STIs. Efforts are necessary to support parents in their relationship with their adolescent children.

Palabras clave: sexual behavior, sexually transmitted infections, HIV, Parent-Child Relations, adolescent

Key words: conducta sexual, infecciones de transmisión sexual, VIH, relación padre-hijo, adolescente

### Introduction

Sexually transmitted infections (STIs) are an important public health problem worldwide (1, 2). Youth aged 15-24 account for a high proportion of new STIs, i.e. 10 million each year in the USA (3).

Several risk factors for STIs are well known, such as early sexual debut, multiple sexual partnerships (concurrent or serial), or inconsistent condom use (4-7). The increased risk of STIs associated with early sexual debut is likely due to a subsequently increased number of sexual partners (8, 9). It has also been shown that inconsistent condom use is frequent among adolescents, increasing their risk of acquiring an STI (10, 11). In this context, the ABC strategy ("Abstinence, Be faithful/mutual monogamy, correct and consistent Condom use") was endorsed in an international consensus to reduce new sexually transmitted infections, including HIV (12). The ABC strategy has been useful in reducing HIV transmission, as shown in several countries (13, 14).

The consensus states that "parents should be supported in communicating their values and expectations about sexual behavior". Several studies have shown that not only parental supervision (15), but communication between parents and adolescents and also family religiosity can be considered protective factors against risky behaviors among youth (16-18).

Our objective was to evaluate whether the relationship between parents and their children during adolescence is associated with early sexual debut and with having multiple partners among youth in a low socioeconomic suburb in Mexico City.

#### **Methods**

A cross-sectional study was conducted in "colonia América", a low socioeconomic suburb in Mexico City. Researchers targeted the 1,080 inhabitants aged 20-30 registered in the census of the suburb by utilizing a door-to-door recruitment strategy. An anonymous, 29-item questionnaire about family relationships, religiosity and sexual activity during adolescence was administered to the participants.

Questions about their relationships with parents during their adolescence included whether or not they lived with both parents, had good communication with them, spent time with them and had leisure time with them. Religiosity encompassed having a religion and the frequency of attendance of religious services. Questions about sexual activity such as the age of sexual debut, number of lifetime sexual partners, the person they start having sex with (spouse, boyfriend/girlfriend, friend, casual person), were self-administered to reduce interviewer bias.

Researchers explained to the participants that they were conducting a study about adolescence and sexuality, pointing out that the information would be anonymous and confidential. Responding to the questionnaire implied acceptance to participate in the study. The study was approved by the department of Bioethics from the School of Health Sciences of the Anáhuac University, in Mexico City.

Data were analyzed using STATA, version 12.1. Multivariate logistic regression was conducted to evaluate whether variables pertaining to relationships with parents during adolescence were independently associated with (1) sexual debut before age 18 and (2) having had >2 sexual partners. All analyses were adjusted for current age, sex and religiosity. Participants with inconsistent responses (for example, age of sexual debut greater than current age) were excluded from the analysis.

## Results

A total of 936 participants (86.6%) responded to the questionnaire. After excluding those with missing values and inconsistent responses, the sample size was 918, 51.5% of which were male and 48.5% female. Characteristics of the participants are presented in Table 1. Thirty eight percent of participants reported having had good communication with their parents (both mother and father) during adolescence. In general, communication with the mother was better than with the father, for both males and females. The majority of the surveyed participants, aged 20-30, were sexually initiated (78.3%). Among them, 70% of males and 55% of females had first sex before 18 years old. Sixty three percent of males and females began being sexually active with their girlfriend/boyfriend (Table 1).

In the multivariate analysis, good communication with parents and high religiosity during adolescence were inversely and independently associated with having sex before 18, while being male was positively associated with early sexual debut (Table 2). Among those sexually active, good communication with parents was inversely associated with having had >2 sexual partners, while sexual debut before 18 was positively associated with having multiple sexual partners (Table 2). We also estimated the Odds Ratio (OR) for the age of sexual debut as a continuous variable among those sexually initiated. The odds of having had >2 sexual partners in their lifetime decreased 21% for each year that sexual debut was delayed (OR=0.79; CI 95% 0.73-0.84).

#### **Discussion**

This study underscores that good communication with parents may help prevent adolescents from early sexual debut and having multiple sexual partners. It also confirms that the earlier a person begins having sex, the more sexual partners that person has upon reaching age 20-30. It has to be highlighted that youth aged 15-24 account for a high proportion of new STIs (3) and that the number of sexual partners is clearly a risk factor for STIs (9).

Our results are consistent with other studies conducted in other populations (18-23). For example, in a longitudinal study with patients aged 12-21 from a hospital in Wisconsin (USA), Karofsky et al. found that those who reported better levels of communication with their parents were less likely to be sexually active (21). Other data from adolescents in six urban high schools from Ohio (USA) showed that perceived parental trust was a protective factor (22). Our study was conducted in a low socioeconomic suburb of Mexico City and confirms the association between parental communication and adolescent sexual behavior in this setting as well. Parents have an important role in the education of their children, although some of them may erroneously think that they do not influence their teens' behavior (15, 23). Studies show that youth usually state that friends and the internet are their main sources of information regarding sexuality, but that they would prefer their parents as a source (24, 25). In addition, youth can value parents' opinions equally or more so than friends' opinions regarding affection and topics related to sexuality (24, 26, 27).

As highlighted above, having multiple partners is one of the most important risk factors for acquiring HIV infection and other STIs, and it is closely related to early sexual debut (4). Our results confirm this latter association. It has also been demonstrated that adolescents who believe that "most peers are having sex" are more likely to consider initiating sexual activity during adolescence (28). If delaying sexual debut is important component of reducing the prevalence of STIs, it can be helpful to emphasize to youth that sexually-active peers under 18 are not "the majority" (29-31). Furthermore, messages such as those using "average ages of sexual initiation" can be misleading as they do not always reflect the real proportion of sexually active teens (32). For example, in Mexico,

the average age of sexual initiation is approximately 15 years old, whereas 33.6% of 15-19 year-old youth –a distinct minority– reported being sexually active (33). It therefore seems important that messages about STIs prevention from different sources (mass media, community-based associations, schools, religious groups, family, etc.) display consistent regard for the scientific evidence and avoid equivocal interpretations. In several countries, the combination of waiting longer to become sexually active, having fewer sexual partners and increasing consistent condom use have been shown to be useful and sensible prevention strategies (14, 34). A lack of complete information about STIs prevention measures could jeopardize the right that youth have to make informed choices about their sexual health. Parents can surely play an important role by conveying these prevention strategies at home and need to be reinforced in doing so.

In our study, several limitations need to be considered. First, the study was conducted among a convenient sample and our results are not necessarily representative of Mexican youth. But the data regarding living with parents, religiosity, and sexual experience are similar to nationally representative surveys (33). Second, recall bias cannot be completely ruled out, as participants were asked about their adolescence and they were older when they responded to the questionnaire. Those with an early sexual debut or with multiple sexual partners might have under-reported these risky sexual behaviors. If so, this possible bias would more likely lead associations toward the null. In spite of this potential bias, we did find significant associations between parental communication and the outcomes assessed in the study. In addition, we also did find a significant association between early sexual debut and the number of sexual partners, consistent with other studies (6, 30).

The study also has several strengths. A very sizeable proportion of the inhabitants in the suburb, aged 20-30, participated in the study and the sample size was sufficient to adjust for a multivariate analysis. To decrease social desirability bias, sensitive questions

about sexual life were self-administered and questionnaires were put into a sealed box to assure privacy.

#### Conclusion

In conclusion, good parental communication during adolescence may help prevent adolescents from early sexual debut and having multiple partners and, consequently, from inconsistent condom use and from acquiring HIV and other STIs. Efforts are still necessary to support parents in their relationships with their adolescent children, including by having evidence based information to convey to their children.

#### Conflict of interest statement: None declared

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Table 1. Characteristics of study participants, by sex

Characteristics	=-	Males N=473)	=	emales N=445)
	n	(%)	n	(%)
Age (mean, SD)	24.49	(3.29)	24.40	(3.26)
During adolescence:				
He/She lived with:				
Mother	77	(16.3)	73	(16.4)
Father	18	(3.8)	14	(3.2)
Both	357	(75.6)	344	(77.5)
Other relative	20	(4.3)	13	(2.9)

Characteristics		<b>⁄lales</b> √l=473)	_	emales N=445)
	n	(%)	n	(%)
Communication with father				
Good/excellent	218	(46.1)	190	(42.7)
Normal Rad/yan/had	126	(26.6)	148	(33.3)
Bad/very bad Null	66 63	(14.0) (13.3)	49 58	(11.0) (13.0)
Communication with mother				
Good/excellent	337	(71.2)	337	(75.7)
Normal	98	(20.7)	68	(15.3)
Bad/very bad	16	(3.4)	18	(4.1)
Null	22	(4.7)	22	(4.9)
Time spent with parents	E 4	(44.0)	20	(0.0)
≤5h/week 10h/week	51 93	(11.0) (20.1)	36	(8.3)
74 (17)	93	(20.1)		
15h/week	223	(48.2)	210	(48.3)
20h/week	96	(20.7)	115	(26.4)
Enjoyed time with parents Religion	170	(36.6)	192	(44)
Catholic	423	(90.4)	370	(84.3)
Christian (Protestant, Evangelical, Methodist)		(4.0)	44	(10.0)
Other	6	(1.3)	10	(2.3)
None	20	(4.7)	15	(3.4)
Religious services attendance				
Never	28	(6.0)	20	(4.6)
Sometimes Weekly or more	403	(86.1)	343	(78.5)
Weekly or more	37	(7.9)	74	(16.9)
Sexual experience: <sup>a</sup>	000	(70.4)	400	(55.0)
First sex <18 years old	262	(70.4)	193	(55.3)
Had first sex with Spouse	23	(6.3)	37	(10.9)
Boyfriend/girlfriend	231	(63.1)	216	(63.3)
Friend	78	(21.3)	62	(18.2)
Casual person	35	(9.3)	26	(7.6)
Lifetime sexual partners				
1	90	(24.3)	106	(30.4)
2 >2	136 144	(36.8)	123 120	(35.2)
<b>~</b> L	144	(38.9)	120	(34.4)

SD: standard deviation aData from those who were sexually initiated (370 males and 349 females)

Table 2. Adjusted Odds Ratio for Sexual debut before age 18 and for having >2 sexual partners in lifetime<sup>a</sup>

	-	71.		4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
Independent variables	Sexual debu	sexual debut <18 years old	Having >2 sexua	Having >∠ sexual partners in litetime"
	(%) N/u	Adjusted OR (CI 95%)	n/N (%) A	Adjusted OR (CI 95%)
<b>Age (years)</b> 20-25 26-30	276/551 (50.1) 154/319 (48.3)		150/374 (40.1) 93/281 (33.1)	
<b>Sex</b> Female Male	183/420 (43.6) 247/450 (54.9)	1 (Ref.) 1.54 (1.16-2.03)	108/316 (34.2) 135/341 (39.6)	
Lived with both parents° No Yes	108/198 (54.5) 322/672(47.9)		70/161 (43.5) 173/496 (34.9)	
Communication with parentsc Normal/bad Good/excellent	309/530 (58.3) 121/340 (35.6)	1 (Ref.) 0.40 (0.30-0.53)	186/437 (42.5) 57/220 (25.9)	1 (Ref.) 0.56 (0.38-0.82)
Time spent with parentsc <15h/week ?15h/week	140/245 (57.1) 290/625 (46.4)		82/187 (43.8) 152/455 (33.4)	
Enjoy time with parentsc No (N=516) Yes (N=354)	286/516 (55.4) 144/354 (40.7)		158/407 (38.8) 77/236 (32.6)	

	Sexual debu	Sexual debut <18 years old	Having >2 sex	Having >2 sexual partners in lifetime <sup>b</sup>
independent variables	(%) N/u	Adjusted OR (CI 95%)	(%) N/u	n/N (%) Adjusted OR (CI 95%)
Religiosity <sup>c.d</sup> No/Low/Medium High	394/762 (51.7) 35/108 (33.3)	394/762 (51.7) 1 (Ref.) 35/108 (33.3) 0.56 (0.36-0.88)	222/599 (37.1) 21/58 (36.2)	
Sexual debut <18 years old c No Yes	AN AN		44/243 (18.1) 199/414 (48.1)	1 (Ref.) 3.86 (2.60-5.73)

<sup>&</sup>lt;sup>a</sup> Adjusted for all the variables in the table. Only statistically significant OR are shown.

<sup>&</sup>lt;sup>b</sup> Data from those sexually initiated.

<sup>°</sup> During adolescence.

d High religiosity: those with a religion and weekly o more frequently religious services attendance.

NA: not applicable

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