

# Italian students in 2000 and in 2017 between health risk behaviors and family communication

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## Abstract

Sex remains too often a taboo in the dialogue between parents and children. And this is a problem because kids know little or nothing about sexually transmitted diseases, which, according to the Higher Institute of Health, are growing. Moreover, adolescents are not even concerned about HIV risk. On the other hand, the age of the first relationship seems to be decreasing, increasingly promiscuous and anafective: Adolescents seek pleasure but not falling in love. Even the school does little to provide information on the subject and therefore often, as indeed happened in the past generations, the source of (scarce) knowledge is friends, and social media. In this paper, we intend to analyze the relationship between sexual behavior of university students, risk behavior related to sexuality and the role of parents. Data derive from two surveys carried out in 2000 and 2017 and methods used is logistic regression. The aim of this paper consist therefore into verifying the following two hypotheses, also controlling the change over time in the behavior of young people: (i) The more the parents communicate with their children, the less are the risks for the adolescents; (ii) the more the risk behavior in the domains of alcohol, drug and driving, the more are the sexual risks for the adolescents.

## Introduction

The "sex talk" is often one of the most challenging conversations for parents and children during adolescence. Research has established that parent-adolescent communication about sex can greatly reduce adolescents' sexual risk; the development of interventions that support this process are vital [1-3]. However, many parents still avoid these conversations due to uncertainty or lack of confidence in how to best educate their children on topics such as sexual health and relationships. In addition, little is known about family communication about sex from the adolescent perspective [4]. Parents undoubtedly have influence on teens' sexual risk-taking behavior. Over three decades of research have established that parents can greatly increase youth' knowledge of sex-related topics and reduce the likelihood that adolescents will engage in risky sexual behavior [1,3,5,6]. In particular, parent-child closeness, frequency of conversation about sex, and parent-adolescent sex differences have emerged consistently as factors important to understand the link between parent socialization and child attitudes and behaviors towards sex [1,3,4].

Based on the forthcoming literature review, the parents variables often selected for the study as most likely to be related to adolescent sexual risk-taking are: parental approval of premarital sex, parents-adolescents communication about sexuality, and parental social support. However, other, less proximal, forces are also likely to be important. This combination of forces within an adolescent's course of life is expected to capture a greater proportion of variance in sexual risk-taking than has been captured by studies with other variable choices [7].

When young people feel unconnected to home, family, and school, they may become involved in activities that put their health at risk. However, when parents affirm the value of their children, young people more often develop positive, healthy attitudes about themselves. Although most adults want youth to know about abstinence, contraception, and how to prevent HIV and other sexually transmitted

diseases (STDs), parents often have difficulty communicating about sex. Positive communication between parents and children helps young people to establish individual values and make sexually healthy decisions.

A major study showed that adolescents who reported feeling connected to parents and family were more likely than other teens to delay initiating sexual intercourse. Teens who said their families were affectionate and caring also reported less marijuana use and less emotional distress than their peers did [8,9]. Teens whose parents are lovely and resolute and grant them psychological autonomy achieve more in school, report less depression and anxiety, and score higher on measures of self-reliance and self-esteem than teens whose parents fail to demonstrate these elements.

In this framework, the aim of this paper consist into verifying the following two hypotheses: (i) The more the parents communicate with their children, the less are the sexual risks for the adolescents;(ii) The more the risk behavior in the domains of alcohol, drug, smoking and speed the more are the sexual risks for the adolescents. The comparison of data deriving from two surveys carried out on university students in 2000 and in 2017, respectively amounting to a little less than 5000 and more than 7000<sup>1</sup>, will permit to verify the changing over time in the youth behavior. Both the surveys include questions on the parent-child communications on sexual items and other themes concerning

<sup>1</sup>Questionnaire is available on demand. Number of students interviewed in 2000 are 4762 and in 2017 7842.

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other risk behavior such as use of drugs, of alcohol, driving under use of dangerous substances and so on [10]. We intend to connect these relations with some covariates and the risk for early onset of sexual intercourse, considering different parents-child communications.

### Status of the art

Considerable evidence – a large part referring to USA context<sup>2</sup> – suggests that family and peer contexts provide the proximate nexus at which genetic and many other social-contextual factors converge to produce risk-taking behavior in adolescence. The core of adolescent risky behavior– such as drinking, reckless driving, sex without protection in young ages or delinquency - occurs in peer groups. However, the family provides the developmental foundation (or deficiencies) in social and emotional skills and values that, in turn, influence adolescents' selection or association with peers that ultimately determine risk behaviors [11].

Specifically, parent-adolescent communication about sex that is receptive, supportive, and open in moderate degrees is associated with later age of initiating sexual intercourse, diminished sexual risk-taking, and early adolescents' greater valuing of sexual abstinence [12]. Parents that speak of risks with their adolescent closely are relatively less likely to have offspring who associate with deviant peers [13]. Parents who display inconsistent and severe discipline have children who become at risk of engaging negative behaviors with peers.

Jaccard [14] introduced the argument about research on adolescent sexual behavior. Although there are numerous ways to examine what teenagers do and how their behaviors change over time, he noted that researchers studying sexuality have focused on four outcomes: frequency of sexual intercourse, consistency of condom use, number of partners, and age at first intercourse. Moreover, he underlined that researchers have proposed more than 500 covariates, and the findings are inconsistent. Some studies found that self-esteem is predictive of particular behaviors, and others found that it is not. Some found ethnic differences, and others did not. What is missing is a framework that could integrate thinking about the most important explanatory individual variables (such as personality, mental health, substance use, attitudes, cultural norms, and self-efficacy), and contextual factors, such as school and family, as well as the theoretical contributions from bio-behavioral research and other fields. This integrated approach would be the platform from which to consider ways to change adolescent behavior [15].

Dodge, *et al.* [16] have empirically described a dynamic model of how parents and peers influence each other in determining adolescent outcomes. Three broad categories of family influence have been studied in the literature on adolescent risk-taking: the quality of family interactions, parenting styles and practices, and family modeling and socialization of risky behaviors. These family factors are not exhaustive of the broad array of family influences that have been implicated in the prediction of adolescent risk-taking. Additional family characteristics, such as family psychopathology, parents' socioeconomic status, maternal age at the birth of the child, ethnicity, and family size and structure (for example divorced parents or intact families) play contributing roles as well.

Repetti, *et al.* [17] reviewed evidence showing children from families' experience disruptions in their physiologic functioning, especially in

response to stress, and develop deficits in emotion processing, social competence, and behavioral self-regulation. The hostile parent-child relationships cause children to become more reactive over time, with increased physiological reactivity, anger, anxiety and fear [18-20].

Research that assess these aspects of effective parenting report reliable negative associations between them and a broad array of high risk behaviors, including initiation of sex, failure to practice safe sex, and involvement in a pregnancy at an earlier age. Moreover, we may assist to aggressive, hostile, oppositional, and delinquent behavior; use and abuse of alcohol and illicit substances [21]. While most studies have focused on maternal parenting to the exclusion of fathers, emerging evidence suggests maternal and paternal influences are both important. Research also shows that teens are more willing to tell their parents about their activities if they have a strong parent-child bond [22], and the presence of strong bonds with parents and other family members moderates the negative influence of peer drug use and delinquency [23-26].

Although the potential benefit of parenting practices to reduce risk-taking has been of interest in the literature, findings have been notably weak and inconclusive. Numerous cross-sectional and longitudinal studies have found that parental practices, such as talking about sex, or family attitudes and rules that discourage different types of risk-taking, like smoking, can reduce these risky behaviors. However, an equal number of studies finds no effects or even contradictory effects [3,27,28]. One possible explanation is that findings may vary depending on when communication is initiated (e.g., before or after parents discover their children are sexually active or using drugs), the quality of the parent-child relationship, or the family values and models available in the household.

Rodgers [29] found an interaction between parental support and parent-child communication, such that adolescents of less supportive parents were less likely to benefit from the protective effects of parent-child communication about risk reduction strategies. Miller *et al.* [30] found that positive general parent-child communication was more strongly related to decreased sexual risk-taking than was parent-child communication about sexual topics. In general, the literature suggests that family communication and restrictions alone are not effective and that positive family relationships and parenting practices are more powerful deterrents to adolescent risk-taking [31,32]. It may be that open, supportive parent-child relationships are a necessary prerequisite for adolescents to be susceptible to parents' advice about risky situations and consequences [11,33].

Many adults in the United States believe that sexuality education should begin in the home, even if a large part of people thinks that the school must be the first source of sexual knowledge [34].

Evidence suggests that families provide too little sexuality education and often provide it too late. Only 10 percent of families have any kind of on-going discussion about sex, and a significant majority of young people and parents report dissatisfaction with the quantity and quality of family discussions about sexual issues. Teenage women report more discussions with parents about sex than do teenage males, but both genders agree that parents talk less about contraception and STDs than about alcohol and drugs. Most teens who do discuss about sexuality with a parent report having them with their mothers. Finally, 43 percent of teenage men and 65 percent of teenage women say they have no talks with their fathers about sexuality [35]. Many teens believe that adults give inadequate information about birth control because adults: 1) think teens cannot make their own decisions; 2) approach the argument

<sup>2</sup>By my research, the largest part of the studies on the relationship between parents' communication and youth sexual risk behavior is conducted in the USA. It would be very interesting to analyze the link in European countries in a comparative view but we dispose only of Italian data and hope to clarify some aspects of the relationship at least in this country.

with teens too late; 3) do not listen and want to do all the talking; and 4) talk about things irrelevant to the situations teens actually deal with.

Sexually experienced Afro-American female teens living with their mothers in a perceived supportive family were 50 percent less likely than teens in non-supportive families to report unprotected sex in the past 30 days and to report sex with a non-steady partner in the past six months [9].

Over half of young people surveyed in USA in one recent poll, say there are times when they want to talk with their parents about sexuality issues but feel they will not be understood or that their parents are too busy to listen. Parents acknowledge that they are poorly prepared to discuss sexuality issues with their children-84 percent in one survey said they need help while 54 percent in another survey reported being unsure what to discuss with their children about HIV/AIDS [36]. At the same time, parents in nine out of 10 U.S. families understand that teaching the facts about contraception increases the use of protection among teens who are already sexually active. In fact, teens who have talked with their mothers about contraception are three times more likely to use protection at first intercourse than are teens who did not. Meanwhile, other studies among U.S. teens have found that students with the most parental support are five times less likely to be involved in risky behavior than those with the least support. Teen women with supportive families have an easier time accessing health services and less emotional stress associated with STD infection than do those with less supportive families. Finally, while teens who have only had conversations with parents about abstinence are likely to initiate sex later than are teens who have talked about contraception with parents, they are also less likely to use contraception when they become sexually active [36]. Studies suggest that the quality of parent-adolescent communication about sex uniquely predicts adolescent sexual behavior [12].

In Italy the previous studies on this topic are based on the survey of the Istituto Superiore di Sanità on sexual attitudes, knowledge and behavior in relation to HIV / AIDS [37]. Moreover, we cite a self-compiling questionnaire in the provinces of Bari, Milan, Parma and Perugia on 2000 individuals between 18 and 49 years old. It follows a survey on the sexuality of Italians [38] and a questionnaire administered in 2006-07, self-compiled on a representative sample of the Italian population. We remember also a study of human papilloma virus infections [39], but not specific on sexual behaviors at risk. All these researchs, nevertheless, have not young people as a specific target. Finally, we recall an auto compiled questionnaire in Genoa, Florence, Turin, Cagliari and Sassari on students aged 14 to 24.

## Data, variables and methods

In 2004 was published the book *Sexual Behavior of Italian Students* [40]. The core of the book is a survey carried out in 2000, collecting sexual behavior of young people enrolled at the university courses. 17 years later the scholars who have participated at the first survey and other colleagues joined in a new project on the same theme to understand if and how the change of Italian society had a strong influence also on the behavior in this particular domain. The two surveys are based on similar questionnaires, and we consider the questions inherent the dialogue parents-children on love life and sex and parents' attitudes on sexual freedom, together with some control, explicative variables and risk factors [41,42].

The control variables are year of birth and sex. The explicative variables are those referring to family and friendship context, such as level of education of parents, parents divorced or in union, work

status of mother in the adolescence and youth of the students, number of siblings. The variables referring to the students are frequency and province of university, living arrangement and religion. Finally, the variables describing the risk behaviors are frequency in the discotheques, smoking, alcohol, fast driving, sexual experiences, use of contraceptives, number and characteristics of partners and, finally, our fundamental explicative variable, dialogues with parents and peers on love life and sex.

In Table 1 we report the frequency distribution concerning some of the variables above cited and used in this paper coded from the raw factors, respectively for 2000 and 2017.

While the structure of the two samples is not so different concerning mean age, presence of sisters and brothers, the proportions of males and females are quite different. We can observe some behaviors' modifications in the period 2000-2017. The students with separated parents increase, (remaining stable the mean age of respondent at separation), such as the students who have parents with a high level of education and a mother who has worked during the whole adolescence of the child and is actually working. The religious practice declines, as in the whole population. The level of school preparation (measure by the score at matriculation exam) shows a worse performance in 2017 with respect to 2000. Risks factors also show some variability in the period. The frequency of students that smoke weakly diminishes (it was very low already in 2000), while drinking, drugs use and driving at high-speed increase.

Let us come to the analysis of the relationships with parents and friends. The variables measuring the dialogues with parents derive from the recoding of several items in the questionnaire. We have used the questions reported in the Scheme 1.

The analysis we perform to describe the link among the relationship between parents and children on one side, and adolescent sexuality and the risk factors associated to sexual life on the other, is based on logistic regression model and in some cases on linear regression model.

## Results

We comment the results of the regressions following an order related to the time ordering of the events in the sexual life course of the young people. The aim of our paper is to analyze the association of elements of sexual behavior with the relationship between parents and children on one side, and adolescent sexuality and the risk factors associated to sexual life on the other.

Firstly, we analyze the covariates of having a complete intercourse, secondly those of age at the first intercourse, thirdly the covariates of contraception at the first intercourse (condom or not condom), fourthly those of number of partners and finally the covariates of a satisfied sexual life. We report the results of the regression expressed as coefficients, standard errors and significance, and finally the odds ratios, exp (B).

Let us look to the factors associated at complete intercourse (Table 2). We note the coefficient of ANNO (reference category 2017) that is always negative, meaning that the propensity to complete intercourse increases with time. The variables concerning the relationships with parents are generally significant with positive signs, that is to say that generally talking with parents about sex and personal sexual experiences increases the probability to have complete intercourse.

Obviously, the relationship may be read in the opposite directions: having complete intercourses may be a reason to talk with parents about

**Table 1.** Synthesis of recoded variables\*, 2000 and 2017

Codes		2000 n=4762		2017 n=7842	
		YES=1	NO=0	YES=1	NO=0
ETA	Age (mean)	21.2		21.1	
AGE_SEP	Age at par. sep. (mean)	10.9		10.9	
IRAPP	Age at the first intercourse (mean)	17.8		17.2	
GENDER	Gender (female/male)	58.4	41.6	47.6	53.4
SEP	Parents separated	4.6	95.4	10.1	89.9
TIPPALTO	High Level of ed. father	50.6	49.4	64.2	35.8
TITMALTO	High Level of ed. mother	46.5	53.5	68.7	31.3
LAVMADRE	Work status mother (ever worked)	49.0	51.0	60.0	40.0
RAPP_GEN	Parents relationships	83.0	17.0	79.2	20.8
PARLA_SEX	Dialogue with parents about sex	50.7	49.3	48.1	51.9
PARLA_ESP	Dialogue with parents about own love experience	29.8	70.2	28.4	71.6
TARDI	Parents agree for delay	26.0	74.0	32.3	67.7
INTIMITA	Parents agree for intimacy moments	23.3	76.7	34.6	65.4
EARLIM	Parents approve early intercourse (male)	13.4	86.6	18.1	81.9
EARLIF	Parents approve early intercourse (female)	1.8	98.2	2.9	97.1
SIS	Older sisters	72.2	27.8	29.5	70.5
BRO	Older brothers	27.8	72.2	30.5	69.5
RELIG	Religion practice	68.1	31.9	42.5	57.5
VOTOALTO	High score matriculation exam	36.5	63.5	26.8	73.2
FUMO	Smoking	14.1	85.9	12.0	88.0
UBRIA	Drinking	46.3	53.7	64.3	35.7
MARIU	Light drugs	26.5	73.5	33.9	66.1
VELOCE	Fast driving	24.5	75.5	34.8	65.2
AMICI	Dialogue with friends about sex	47.7	53.3	42.6	57.4
COMPLE	Completed sexual intercourse	66.0	34.0	79.6	20.4
CONDOM	Condom at the first intercourse	68.0	32.0	71.7	28.3
NUM_PAR	Number of partners > 5	9.7	90.3	16.3	83.7
SATISF	Satisfaction with sexual life	55.0	45.0	56.0	44.0

**Table 2.** Logistic model. Dependent variable: complete intercourse

MODEL 1	B	S.E.	Sign.	Exp(B)
RAPP_GEN	-0.295	0.057	0	0.744
PARLA_SEX	0.222	0.045	0	1.249
PARLA_ESP	0.230	0.051	0	1.258
ANNO	-0.689	0.043	0	0.502
Constant	1.426	0.056	0	4.163
MODEL 2	B	S.E.	Sign.	Exp(B)
ANNO	-0.572	0.047	0	0.564
FUMO	0.966	0.103	0	2.626
UBRIA	0.638	0.051	0	1.892
MARIU	0.734	0.064	0	2.083
VELOCE	0.596	0.060	0	1.815
ETA	0.261	0.018	0	1.299
GENDER	-0.253	0.050	0	0.777
Constant	-4.845	0.374	0	0.008
MODEL 3	B	S.E.	Sign.	Exp(B)
ANNO	-0.533	0.046	0	0.587
RAPP_GEN	-0.178	0.059	0.002	0.837
PARLA_SEX	0.205	0.046	0	1.228
PARLA_ESP	0.287	0.052	0	1.332
ETA	0.271	0.017	0	1.312
GENDER	0.110	0.045	0.015	1.117
RELIG	-0.542	0.046	0	0.582
TITMALTO	0.258	0.046	0	1.294
Constant	-4.347	0.372	0	0.013
	B	S.E.	Sign.	Exp(B)

sex. Instead, the sign of the general relationship with parents is negative: may be that a deep feeling of closeness with parents pushes children to delay having sex? The covariates concerning health risk factors (smoking, drinking, drugs and driving very fast) seem all positively linked to intercourse in 2000 and 2017, even if the interpretation of the links are not so clear. It may be that a certain feeling of adventure distinguishes different behaviors, that is different risks accumulate to lead young people to little cautious. Males present a higher probability to have complete intercourse and to be religious lowers the same probability.

As it regards the age at the first intercourse the students interviewed in 2017 (reference category) have their first intercourse earlier than students in 2000 (Table 3). In the first model, where we have included both the group of variables referring to dialogue with parents and risk factors, we see that, while the association is almost always negative with the variables measuring dialogue with parents, risks factors are generally negatively linked with the age at the first intercourse. In the second model the impact of religion is positive, such as the score received in the exam of secondary school (proxy of the propensity to application at schooling), variables that increase the age at the first intercourse. The variable intimacy measures the attitude of parents to permit children moments of intimacy with their boy/girlfriends and naturally has a negative effect on age at intercourse.

An aspect strictly connected to sexual behavior is contraception. For this reason, we have analyzed if during the first intercourse people

**Scheme 1 - Dialogue with parents**

*Think back to your adolescence (age 14-18). Among the following sentences, indicate the one that best fits the emotional relationship between you and your parents (indicate a sentence for the mother; one for the father)*

- It was little here
- It was an aloof relationship
- It was a balanced relationship
- It was an intense relationship
- I never met her (or deceased)

**The respondent has spoken of his/her sentimental experience with parents)**

*Since when were you 11, did you talk to your parents about your emotional experiences? (One answer for each period: Ages 11-13 (during middle school), Ages 14-15 (higher first two years), Ages 16-18 (higher three years), At the present time)*

- Never
- Yes, so shallow
- Yes, so depth
- I did not meet them either (both deceased)

**The respondent has spoken of sexual aspects with parents**

*With reference to your adolescence (age 14-18), you have ever spoken to your parents (or one of your parents) about the following topics? (one answer for each topic: Sexual development, Sexually transmitted diseases, Contraceptive methods)*

- Never
- Yes, superficially
- Yes, in depth
- I did not meet them or both died

After recoding in binary variables, joining the different responses, we see that the differences between 2000 and 2017 are not several, but they seem describe a diminution of the opening of the general dialogue and about sex and love life between parents and children.

Other factors are related to the following questions:

*In that same period (when you were 16-18 years old): your parents allowed you to (one answer per line: Return late for meals without notifying, Come back late on Saturday evening, Return late the other nights, Have moments of intimacy with your boyfriend (your girlfriend) at home )*

- Never or never posed the problem
- Sometimes
- Often
- Very often

The perception of students is relative to an improvement of the behavior of parents concerning the eventual delay at the family events and the tolerance of situation of intimacy in the household.

We also observe an increase of the frequency of the approval of early intercourse both for females and males, even if the frequency remains low.

As it regards the dialogues with friend about sexual topics, here are the questions linked to this aspect.

*With your friends did you explicitly talk about sex? (one answer for each period: ages 11-13, age 14-15, age 16-18, at the present time)*

- I had no friends
- Never
- Sometimes
- Often
- Very often

Friends only for a half seem to collect the confidence of people interviewed and the proportion between the two dates seem to decline a little.

Finally, we look at the variables concerning the sexual life of the students.

People having lived a complete intercourse have increased passing from 66 to 79.6% such as the use of the condom at the first intercourse and the frequency of boys and girls having many sexual experiences. The perception of a good sexual life does not change: the proportion of students declaring to live the own sexuality with satisfaction is stable between the two surveys and a little higher than the half of the sample.

have o not used condom, that represents the desire to avoid pregnancy but also the fear of sexually transmissible diseases. In Table 4 we show the results of the models with use of the condom as dependent variable. Both in model 1 and in model 2 students in 2017 (reference category)

**Table 3.** Linear regression models. Dependent variable: age at the first intercourse

MODEL 1	Standard coeff.	t	Sign.
	Beta		
Constant		44.822	0.000
ETA	0.179	16.725	0.000
GENDER	0.041	3.459	0.001
RAPP_GEN	0.030	2.758	0.006
PARLA_SEX	-0.027	-2.435	0.015
PARLA_ESP	-0.046	-4.091	0.000
FUMO	-0.103	-9.213	0.000
UBRIA	-0.085	-7.175	0.000
MARIU	-0.088	-7.384	0.000
VELOCE	-0.069	-5.869	0.000
ANNO	0.127	11.641	0.000
MODEL 2	Standard coeff.	t	Sign.
	Beta		
Constant		42.352	0.000
ETA	0.176	16.336	0.000
GENDER	0.008	0.708	0.479
RAPP_GEN	0.040	3.770	0.000
PARLA_SEX	-0.009	-0.803	0.422
PARLA_ESP	-0.037	-3.333	0.001
ANNO	0.116	10.567	0.000
RELIG	0.049	4.448	0.000
INTIMITA	-0.127	-11.277	0.000
VOTALTO	0.032	2.972	0.003
TITPALTO	-0.003	-0.241	0.810
LAVMADRE	-0.011	-0.996	0.320

**Table 4.** Logistic model. Dependent variable: use of condom at the first intercourse

MODEL 1	B	S.E.	Sign.	Exp(B)
ANNO	-0,181	0,056	0,001	0,835
RAPP_GEN	0,178	0,062	0,004	1,194
PARLA_SEX	0,207	0,054	0,000	1,230
PARLA_ESP	-0,087	0,058	0,136	0,917
ETA	-0,084	0,016	0,000	0,919
GENDER	0,261	0,058	0,000	1,299
RELIG	-0,034	0,054	0,523	0,966
TITMALTO	0,054	0,061	0,377	1,055
FUMO	-0,318	0,070	0,000	0,727
UBRIA	0,015	0,060	0,796	1,016
MARIU	-0,248	0,059	0,000	0,780
VELOCE	-0,131	0,058	0,024	0,877
AMICI	-0,064	0,053	0,227	0,938
TITPALTO	0,060	0,059	0,309	1,062
Constant	2,552	0,367	0,000	12,827
MODEL 2	B	S.E.	Sign.	Exp(B)
ETA	-0,077	0,017	0,000	0,926
GENDER	0,271	0,055	0,000	1,312
RAPP_GEN	0,165	0,062	0,008	1,180
PARLA_SEX	0,220	0,054	0,000	1,247
PARLA_ESP	-0,070	0,059	0,234	0,932
RELIG	0,002	0,054	0,975	1,002
LAVMADRE	0,070	0,052	0,181	1,072
ETA_PRIMO	0,004	0,015	0,772	1,004
AMICI	-0,085	0,054	0,112	0,918
NUM_PAR	-0,375	0,079	0,000	0,687
ANNO	-0,227	0,055	0,000	0,797
Constant	2,238	0,407	0,000	9,376

**Table 5.** Logistic model. Dependent variable: number of partners

	B	S.E.	Sign.	Exp(B)
ETA	0,315	0,024	0	1,371
GENDER	0,685	0,092	0	1,983
RAPP_GEN	-0,304	0,091	0,001	0,738
PARLA_SEX	0,134	0,082	0,104	1,143
PARLA_ESP	0,104	0,088	0,237	1,11
LAVMADRE	0,086	0,080	0,281	1,09
AMICI	0,169	0,080	0,035	1,184
ANNO	-0,586	0,089	0	0,557
FUMO	0,721	0,091	0	2,056
UBRIA	0,452	0,104	0	1,571
MARIU	0,703	0,085	0	2,02
VELOCE	0,462	0,082	0	1,587
TITPALTO	-0,019	0,081	0,813	0,981
INTIMITA	0,289	0,081	0	1,335
Constant	-10,014	0,548	0	0
	B	S.E.	Sign.	Exp(B)
ETA	0,321	0,024	0	1,378
GENDER	0,692	0,094	0	1,997
RAPP_GEN	-0,309	0,095	0,001	0,734
PARLA_SEX	0,197	0,085	0,02	1,218
PARLA_ESP	0,152	0,091	0,093	1,164
LAVMADRE	0,160	0,084	0,055	1,174
AMICI	0,135	0,084	0,108	1,144
ANNO	-0,583	0,093	0	0,558
FUMO	0,745	0,094	0	2,107
UBRIA	0,509	0,109	0	1,663
MARIU	0,680	0,088	0	1,973
VELOCE	0,466	0,086	0	1,593
TARDI	0,062	0,085	0,463	1,064
GEN_PRECOCI	0,397	0,098	0	1,487
GEN_PRECOCI2	0,595	0,216	0,006	1,813
Constant	-10,278	0,567	0	0

are more prone to use condom than their counterparts in 2000. Talking about sex with parents appears significant and positive, and we read this result as an association strong enough to interpret the fact that children learn from parents how important condom use is. Age has a negative coefficient (the higher the age, the lower the probability to use condom), perhaps because older students prefer other types of contraceptives, and males has a higher probability to use condom, method substantially masculine.

The last aspect of sexual behavior we take into account is the number of partners, recoding the number in a binary variable (1 = more or equal 5; 0 = less than 5, a threshold that may be arbitrary but that collects a sufficient number of frequencies in the two modalities) to consider a sexual life of promiscuous type. The factors associated to this variable are listed in Table 5. We have fitted two models; in the first we have inserted, near the variables of dialogue with parents and intimacy (parents permit intimacy with boyfriend/girlfriend of their children), the risk factors, that are all positively associated with number of partners (evidencing a propensity to an “adventurous” life), age and gender of respondent.

The variables ANNO (reference category 2017) shows a negative coefficient, meaning the higher propensity to have more partners in 2017. The relationships between number of partners and talking with parents about sex and experiences is practically not significant, while the link with the general relation appears significant. All risk behavior are related with the number of partners: the higher the propensity to smoke, to use drugs, to drink alcohol and to drive speedy the higher propensity to have many sex experiences. Obviously, we cannot find a

causal relationship but only assume that there are common covariates due to different psychological aspects.

The second model excludes the risk factors different from precocious sex and consider all variables connected to relationships with parents. To note that the factors related to the approval of precocity of sex of sons and daughters are linked positively with numbers of partners. Finally, we remark that the relationship between general dialogue and number of partners is negative, meaning that risk behavior of promiscuity may be related to the conversations parents-children.

## Discussion

In the relationship between parents and children, the role of parents may be active or not. There are families where talks on sensitive topics such as sex, drugs, alcohol, driving, in short all risky behavior for adolescents are frequent and sincere, and others where dialogue is scarce and considered a taboo. This lack of dialogue can have many reasons. Teenagers often refuse to open up with their parents, either due to shame or because they are prevented from going out and enjoying ample freedom; parents often, out of ignorance or shame, continue to think of their sons and daughters as children who are still far from feeling the impulses and desires that parents attribute to a higher age. Many scholars have focused their attention on this topic but, according to my knowledge, are very few those on Italian context, a country interesting for the strong family ties that characterize it.

Our paper is based on two surveys conducted on Italian students enrolled in university courses in various Italian Universities in 2000 and 2017 and cannot be defined a representative sample, even if the width of the groups interviewed assures a certain robustness of the results. The comparison of the two periods suggests some contradictory considerations. While some behaviors toward "more free" habits become radicalized, certain attitudes seem to come back. Let us exemplify these considerations. In this period age at the first intercourse decreases and conversely different risk behaviors such as drinking, driving fast and use of light drugs spread. However, during these seventeen years, dialogue with parents and friends on sex and sentimental life diminish, and this decrease is difficult to explain. It might be casual or derive really from a true trend of children to be more introvert or remain more detached from the opinions of parents and friends, denouncing a tendency to isolation in making intimate decisions. Perhaps not all young people desire to confide themselves in mother or father about their sexual and sentimental life.

## Conclusion

The analysis of the relationship between sexual behavior of students, risk behavior related to sexuality and the family communication has only in part confirmed our initial hypotheses, that is: (i) The more the parents communicate with their children, the less are the risks for the students. (ii) The more the risk behavior in the domains of alcohol and drug, the more are the sexual risks for the students.

Generally, the second assumption is verified, and our results show that the risky habits linked to drinking and assuming drugs may be related to risk sexual behavior, that is a lower age at the first intercourse, a lower use of condom, a higher number of partners. Less clear is the relationship with family communications. The role of talk with parents seems important in relating with behavior of students having lived various sexual experiences, but also with contraceptive behavior. Talking with parents of this theme seems strongly related with the use of condom. Perhaps recommendations of mother and father about the

sexual behavior (i.e. risk of pregnancy or of contracting STDs) have an important role in the sexual life of students.

The characteristics concerning social context have often a strong relationship with individual sexual behavior. Religion is negatively linked in a significant way with risk sexual behavior, even if the persons declaring themselves "religious" decrease during the time. High education and work of the mother (but also high education of father) seem to describe a "more free" environment giving to children the permission of intimacy (and consequently to complete intercourses) with boy/girlfriend, and consequently exposing them more to risks than environments characterized by lower social classes.

This brief summary cannot avoid evoking some limits of this research. The first is the problem of time. Data are referred at the time of interview, and this fact first prevents inferring cause-and-effect links between conversations with parents and the behavior of students. This is the reason for which we speak about association among the variables but we avoid to refer to causal models.

The second limit is the lack of some variables that are not included in the questionnaire, such as the reference to lectures (newspapers or books) concerning the themes of love or sex (not pornographic lectures), or university performance. The questionnaire asks for the score reported in final examination of secondary school but not the results of the university examinations. The attention to this aspect might be important to evaluate the attitude of the student in education life course.

Thirdly, we consider issues that refer to the past of the respondents, and it may be that this fact implies errors due to lack of memory or rationalization ex-post.

Finally, in the survey questions concerning the use of the social media are not collected but I think that there exists correlation between this theme and the approach to sexuality in the dialogue between parents and adolescents. According many sociologists, young people are much more influenced by the social media than by the family of origin and friends. Teenagers are among the most prolific users of social network sites. Emerging studies find that youth spend a considerable portion of their daily life interacting through social media. Subsequently, questions and controversies emerge about the effects of social networks have on adolescent development [43]. This influence can affect both school and family life, but we must not forget that sexual choices can also be conditioned by the so-called "influencers" that are so popular today especially among young people.

Despite the various limitations, this paper presents some relevant points. For Italy, we do not have many studies on this topic, and Italy is an example of a "strong family" context in which the parent-child ties are an important step for adult life. This paper, consequently, reaches some of the proposed targets, showing that the sexual life of adolescents has some relationships with family and friend talking, and this result can help to evaluate policy of information for both parents and children.

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