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The end of “Catholic” sexuality in Italy?

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Abstract

Studies on sexuality in Italy conducted in recent decades show a significant relationship between adherence to Catholicism and sexual behavior. Yet, the last 20 years has also seen an acceleration in the decline of young practicing Catholics, and more and more young people do not follow Catholic teachings regarding sex. We assess whether and in which direction the association between sex and religion has changed by comparing two identical surveys of national samples of Italian university students carried out in 2000 and 2017. We test two sides of a same hypotheses: a weakening vs. a strengthening of the relationship between religion and several sexual behaviors/opinions on sexuality. We find that the reduced proportion of young Catholics has not been accompanied by a strengthened adherence to Catholic sexual morality: today religious youth are more similar to the non-religious than they were at the beginning of the twenty-first century. However, especially among individuals who are single and women, the differences between more or less religious young people continue to be relevant. Thus, despite a weakening of the relationship between sexuality and religion, it is too early to pronounce an end of “Catholic” sexuality in Italy.

Keywords: Sexuality, Religion, Catholicism, Young people, Italy

Introduction and background

As a result of the Second Vatican Council (1962–1965), the declared aims of Catholic marriage deeply changed, with greater importance placed on the relationship between groom and bride and less on the centrality of its reproductive function. Indeed, while the 1917 Canon Law (article 1013) states that “the primary goal of marriage is the procreation and education of children. Its secondary goal is mutual help and the allaying of concupiscence”, the 1983 Canon Law (article 1055) instead asserts that “the matrimonial covenant, by which a man and a woman establish themselves in union throughout their lives, and which by its very nature is ordered to the well-being of the spouses and the procreation and upbringing of children, has, among the baptized, been elevated by Christ the Lord to the dignity of a sacrament.” Moreover, numerous recent documents issued by the Catholic Church exalt the importance of sexuality within the marital relationship (see, for example, the apostolic exhortation *Amoris Letitia* [The Joy of Love] written by Pope Francis in 2016 at the conclusion of the Assembly of the Synod of Bishops on the family, especially points 150–152. See also the references, quoted in the same document, to the catechesis on this theme developed by Pope John Paul II).

This evolution suggests that even within the hierarchies of the Church and among Catholic theologians and moralists, a shift has occurred in the meanings attributed to sex, which have become more affective rather than merely procreative (Barbagli et al., 2010, p. 11–12; DeLamater, 1981). Nonetheless, Catholic doctrine on sexual, marital, and reproductive behavior has remained rather stable over the last century. Sexual intercourse is permitted only between heterosexual spouses, and in all other cases chastity is the proposed conduct. Masturbation, homosexual acts, and pornography are considered sins. Moreover, Catholic ethos permits only natural family planning, prohibits the dissolution of marital bonds, and encourages couples to have children.

These precepts—which apply equally to men and women—have not, however, stopped the spread of alternative behaviors among Catholics. In this regard, the title of this article takes inspiration from the famous study by Westoff and Jones (1979), who find that after the 1960s, the fertility behavior of US Catholics came to look much like that of their non-Catholic peers, unlike that observed in previous decennia.

Certainly, Westoff and Jones's findings cannot automatically be extended to other aspects of sexual, marital, and reproductive behavior, or to different territorial contexts. Therefore, the main purpose of this article is to verify, using new and unpublished data, if and how the relationship between religion and sexuality among young Italians has weakened in recent decades.

We focus here on Italy, where until recently, almost everyone was baptized, thus belonging to the Catholic Church from their early years, and where the influence of the Vatican and local churches was and continues to be strong in many aspects of social and political life. Livi-Bacci (1977) shows that in the long period from 1911 to 1961, the drop in fertility occurred earlier in provinces where the proportion of voters in favor of divorce was greater in the 1974 referendum. Moreover, the territorial statistical explanatory power of this indicator was stronger than other structural variables such as education, socio-economic status (SES), and level of urbanization. More recently, Castiglioni and Vitali (2019) demonstrate that a significant territorial connection persists between some behaviors (such as out-of-wedlock children and marital breakdown) and indicators of the strength of influence of the Catholic Church. The Italian National Institute of Statistics (Istat, 2016, p. 11) reports that the likelihood of marital breakdown for those who marry in church is lower than that for those who marry in the town hall. During the first years of the twenty-first century, the incidence of living together without being married and of having children out-of-wedlock is also lower for those who regularly attend religious services (Salvini & Vignoli, 2014). In addition, for both the male and female cohorts born in 1937–1988, a whole series of sexual behaviors—e.g., having first sexual intercourse before 16 or 18 years of age, having a high number of sexual partners, having oral and anal sex—are less widespread among people closer to Catholicism (Garelli, 2010). Although very few Italian Catholic spouses use natural family planning, their contraceptive and reproductive behavior over the period 1980–2005 is not the same as that of non-Catholics: coitus-related methods (condom and withdrawal) are more common, they less frequently use the pill and IUD, have fewer voluntary abortions, and have a higher number of children (Dalla-Zuanna et al., 2005). Finally, examining a national sample of young people interviewed in 2000, Caltabiano et al. (2006) show a strong interdependence

between the timing of giving up regular Church attendance and that of sexual initiation. When extending this query beyond Italy, a number of recent contributions in the West similarly find a persistence in the influence of religiosity on sexual, reproductive, and marital behavior (for religion and fertility see, for example, Guetto et al., 2015; Berman et al., 2018; Herzer, 2019; for religion and cohabitation see Perelli-Harris & Bernardi, 2015; for religious socialization and sexual behavior see James-Hawkins, 2018; for religion and pornography see Perry & Whitehead, 2019).

Indubitably, Catholic morality continues to differently influence a number of sexual, marital, and reproductive behaviors. In an effort to further understand this phenomenon, we assess the influence of religion on the sexual behavior of young Italian students in the early part of the twenty-first century, a period during which both sexuality and religious behavior have profoundly changed. In doing so, this article has no theoretical ambitions. That is, we do not seek to elucidate the psychological links between adherence to religion and sexual behavior (Hernandez et al., 2014). The data employed here do not, in fact, allow to clarify the cognitive dissonance between adherence to the Church, moral precepts in sexual matters, and actual sexual behavior (Caltabiano et al., 2006; Gibbs, 2020; Vasilenko & Lefkowitz, 2014). We do, however, endeavor to define an empirical framework that may allow other disciplines, in particular psychology, to discern the mechanisms underlying the deep entanglement between religion and youth sexual comportment in a context such as Italy, characterized by the strong presence of the Catholic Church.

The individual relationship with the transcendent is intimate and difficult to define and measure (Berger, 1969; Castegnaro et al., 2010; Pace, 2015). That said, quantitative indicators suggest that the early years of this new century have seen a rapid distancing of the Italian population from institutional Catholicism. The proportion of people who never go to Mass has increased and those who regularly go to Mass has decreased (Barbagli, 2016). In a detailed analysis of different sources, Bonarini (2013b, p. 40) shows that “the average level of Mass attendance at age 15–24 falls from 35% for generations born in 1976–78 to 26% for generations born in 1986–89, a decrease of almost one percentage point per year of birth.” Additional studies demonstrate that the number of people who claim to believe in God has diminished, as has that of people who pray, and those who claim to trust the Catholic Church (Berzano, 2014; Castegnaro et al., 2010; Garelli, 2016; Istituto Toniolo, 2014, 2015).

In her study on religion among Italian youth, Ruspini (2019, p. 16) summarizes recent research on this topic as follows:

Several studies have shown that [even in Italy] the Millennial generation is characterized by a growing distancing from institutionalized religion. The new generations are moving away from the Church: they struggle to understand institutional religious language; they criticize the simple passing down of norms, rules, and religious precepts, as well as the gap between the original religious message and the rigidity of religious institutions; they declare themselves strangers to religious institutions perceived as unjust and hierarchical (...). If young men and women find the Pope credible, attitudes towards the Catholic Church remain between the prudent and the suspicious.

Such detachment from the Church could lead to a proportional diffusion of sexual behavior that strays from the dictates of Catholic morality.

Furthermore, a decrease in the faithful could result in their selection and “purification”. In other words, a shift from a “religion of belonging” to a “chosen religion” could generate cohesive communities, comprising followers generally more aligned with the Church, as well as with its teachings relative to sexuality. Other scholars have put forth similar arguments regarding different intimate behaviors. McQuillan (2004), for example, observes that in contexts of controlled fertility, religious people have comparably greater numbers of children only when religion massively pervades their entire existence; for instance, when they form part of groups that strongly identify with a given faith.

This pattern contrasts, however, with other processes that are also deeply connected with the remarkable shift in norms and customs in Italy in recent decades. Up until the 1950s, a well-defined model of sexuality was almost obsessively communicated by the Italian Church. Respect of the Sixth and Ninth Commandments—*Thou shall not commit adultery* and *Thou shall not covet thy neighbor’s wife*—were key to defining one’s closeness to the Church. Yet in the decades that followed, with the spread of the sexual revolution in Italy and elsewhere, difficulty advising on these moral behaviors led to an increasing absence of practical pastoral activity in the area of sex. Although the magisterium of the Catholic Church made general mention of such issues, very little is said about sexuality, even within the ecclesial groups, with few exceptions. Such silence enabled full membership in the Church while practicing behaviors not necessarily in line with Catholic morality. Indeed, what has occurred worldwide among most Catholics in terms of contraceptive behavior—and what has happened among US Catholics relative to fertility—could also happen with regard to sexuality in Italy, as elsewhere. Some authors see this phenomenon as a reflection of the strength of Catholicism, proving to be sufficiently flexible to adapt to external changes without losing the adhesion of its members (Garelli, 2013). The practices adopted by the faithful (*sensus fidelium*) would thus be silently accepted as practical Catholic morality; perhaps different from orthodox ethics, but not perceived as questioning the Catholic faith or full loyalty to the Church. The question thus arises whether the relationship between religion and sex has consequently weakened, making the sexuality of the religious less distinguishable from that of their non-religious peers, as shown by Westoff and Jones for US fertility.

In what follows, we examine whether the statistical links between religion and sex have in recent years strengthened, remained constant, or weakened, using two databases of nationally representative Italian university students sampled and interviewed following identical procedures in 2000 and 2017. First, we describe the data, and introduce our statistical methodology. Then, we describe the changes that took place between 2000 and 2017 in terms of religion and sexuality, and the link between them. Finally, we present a summary and discussion of the results.

Data and methods

Data

This study is based on the SELFY (Sexual and Emotional Life of Youths) survey, coordinated by a group of researchers from the Universities of Florence, Padua, and Messina

(Minello et al., 2020). The investigation was carried out in the first half of 2017 in 28 Italian universities with the aim of drawing an updated picture of sexual and emotional opinions and behaviors among university students. It reiterated the almost identical SIS (Sexuality of Italian Students) survey carried out 17 years previously (Caltabiano, 2005). In 2000, 4998 students were surveyed and in 2017, 8094, all attending undergraduate courses in economics and statistics in Italian public universities. The degrees in economics and statistics were chosen because they both have a very high percentage of students attending classes regularly, and the numbers of male and female students are usually balanced (see Minello et al., 2020 for further details and an extended description of the survey methodology and data collected).

Although students are not representative of Italian youth as a whole, the direction of the selection is well known. A long tradition of studies on the sexual life of students shows that the latter more commonly delay sex compared to workers (see e.g., Denisenko et al., 1999; Kontula, 2004; Whitbeck et al., 1999). This is particularly true if, while attending university, they live with their parents (Castiglioni, 2004). In addition, the sexuality of the economics and statistics students is in line with, or only slightly delayed and less intense, than that of university students in other fields of study (see Minello et al., 2020 for detailed comparisons).

Finally, SELFY is the only recent nationwide survey that includes data on both behaviors and attitudes of young people. Other recent studies focus on local or regional samples (often limited to young people accessing medical services, attending discos, or visiting a certain web site), and thus offer a narrower picture of youth sexuality.

Statistical analysis

In the analysis that follows, we explore how the sexual behavior and opinions of religious and non-religious students changed during the first part of the twenty-first century, separately by gender. To this end, we look specifically at three aspects: (1) sexual behaviors that potentially all the students experienced; (2) the sexual behaviors of non-virgin students (3086 in 2000 and 6085 in 2017); (3) opinions about sex expressed by all the students. Religiosity is measured by the variable “Importance of religion in your life”, ranging from none/little to fairly/very. We consider those who responded that they give no or little importance to religion as not religious and those who declared giving moderate or great importance as religious. We also tested the variables “Mass attendance at age 13” and “Mass attendance at interview”, which provided results in the same direction, though were weaker predictors.

We begin by describing shifts in religion and sex by means of descriptive statistics, particularly proportions and cross-tabulations, weighted to render them representative of Italian university students of economics and statistics aged around 20 at the national level (see Minello et al., 2020). This procedure was applied to the 2000 and 2017 samples as a whole, as well as to two “extreme” groups of interviewees—the most and least religious—in 2017. Finally, we assess the relationship between two particular aspects (proportion of students who remain virgins on their 18th birthday and opinions on cheating when committed by a woman) and change in religiosity between 2000 and 2017, though without accounting for the possible influence of other covariates.

While this first series of elaborations shows a profound transformation in the religious and sexual behavior of university students, it does not suffice to determine whether or not change in the relationship between them is due to compositional effects of other relevant individual characteristics and experiences (also collected in the questionnaire) that could simultaneously influence both. Consequently, we fit several logistic models on the merged SIS-SELFY databases, modeling 35 different dichotomized sexual behaviors/opinions (listed in Table 9 in the Appendix), where the key explanatory variable is always the combination *religiosity at interview x gender x year of interview*, in eight possible combinations: (1) men 2000 not religious (reference); (2) men 2000 religious; (3) men not religious 2017; (4) men religious 2017; (5) women not religious 2000; (6) women religious 2000; (7) women not religious 2017; (8) women religious 2017. We also include a wide set of covariates to account for possible confounding factors. These include: age at interview, area of residence during teenage years, population size of the municipality of residence during teenage years, parents' education level, father's social class, whether mother worked during teenage years, relationship with father and mother, parents divorced before the respondent was 16, reaction to parents' rules as a teen, parents permitted respondent to return home late on Saturday nights during teenage years, body mass index at interview, had at least three health problems during teenage years (e.g., eating disorder, insomnia, strong acne issues, stuttering, serious hearing or vision problems, excessive sweating of the hands, enuresis, halitosis), satisfied with own physical appearance during teenage years, graduation score upon completion of middle school and high school, type of high school attended (response categories are presented in Table 10 in the Appendix). Full model estimates are not shown, but are available upon request.

We furthermore compared the 95% confidence interval of odds ratios (OR) for religious and not religious respondents of the same gender and interviewed in the same year, verifying whether or not the two intervals overlap. Comparisons of ORs based on two confidence intervals provide more conservative results than those that would be obtained by modifying the baseline modality. In other words, when the confidence intervals of two ORs do not overlap, we know that the difference between them would be statistically significant if either of the two modalities of the object of comparison were set as a baseline. Comparing the results of these logistic models allows for a sort of meta-analysis, providing insight into whether—distinctly for men and women—the statistical relationship between religiosity and sexual behaviors/opinions increases, remains constant, or decreases in a statistically significant way between 2000 and 2017.

Results

We open this section by briefly presenting an updated picture of the changes in the last 20 years in the sexual opinions and behaviors (§ 3.1) and in the religiosity (§ 3.2) of young Italians. Here, we present little known or still unpublished data. After considering these changes separately, we connect them in § 3.3, studying the behaviors of two particular groups of young people: the *Devout* and the *Non-religious*. Finally, in § 3.4 we extend our analysis to all young interviewed, analyzing by the means of logistic models the changing impact of religion on sexual behavior and opinions on sex. We focus our

reflection on the changes in the impact on three most relevant aspects: virginity, cheating, and homosexuality.

Sexual behavior and opinions concerning sex

We start by showing the main changes between 2000 and 2017 in the sexual behavior and opinions about sex among Italian students (see Table 9 in the Appendix, briefly summarizing in five points the results of the SIS-SELFY surveys, more extensively reported in Minello et al., 2020).

To begin, the behaviors and opinions of young men in stable relationships in 2017 largely resemble those that in 2000 were typical of the great majority of young women. First sexual intercourse occurs more and more often with a partner of the same age, within an affective relationship. Moreover, once in a couple, men tend to cheat less, converging with the behavior of women. This refusal to cheat is manifested in their opinions as well: among men as among women, sexual fidelity is increasingly considered indispensable within a couple relationship. This result confirms that reported by Garelli (2010, p. 289):

In fact, a vision of affectivity and sexuality that values the stability and exclusivity of the couple, the importance of sex as an expression of the quality of the relationship, the centrality of communication between partners, the exchange of pleasure, the care of the relationship, is now becoming quite common in Italy, with the emergence of issues typical of advanced modernity.

This shift is not specific to young Italians, but follows patterns already observed elsewhere, for example among Finnish and British youth (Kontula, 2009, p. 70; Mercer et al., 2013). In fact, Kontula specifically titles the eighth chapter of his book: “*From infidelity to the renaissance of romanticism...*”. Such changes reflect an ever-increasing diffusion of an affective meaning attributed to modern sexuality, which perhaps has little to do with religion. And yet, such transformations mean that the exclusivity of the couple relationship, a behavior traditionally supported by Catholic morality, has gradually become more common.

Second, when not in a couple relationship, the sexual behaviors and opinions among young women in 2017 converge with those that, in 2000, were typical of most young men. More specifically, there is a net drop in the number of women expecting other women to remain virgins until marriage, and their acceptance of casual sex has doubled. Moreover, during this period, women’s average number of occasional partners increases substantially. In other words, when outside of a couple relationship, even for young women, hedonistic rather than affective sexual behaviors and attitudes seem to be increasingly widespread. This change has been accompanied by a marked rise—among men, but especially among women—in unprotected sex with occasional partners, as well as contracting a sexually transmitted disease.

If Venus and Mars are perhaps closer than at the beginning of the century (Bertone, 2010), we do not, however, observe a complete gender convergence among students. While the early stages of sexual life (first petting, relationship, intercourse) take place at similar ages and in a comparable way for both genders, casual sex is still more common among men, who also use pornography, masturbate, and talk about sex with their

friends more often than their female peers. There are also marked differences between males and females in terms of opinions, with men being more in favor of casual sex and affairs.

Third, non-heterosexual behavior and opinions on homosexuality deserve special mention. The proportion of young people who have had homosexual experiences (or felt free to report them) increased over time, especially among women. In 2017, homosexuality and bisexuality among Italian university students also seems to be more common among women. Furthermore, acceptance of same-sex partnerships increased among both men and—again, especially—among women. This pattern also mirrors that observed in the UK and Finland during the first decade of the twenty-first century (Mercer et al., 2013, p. 1781; Kontula, 2009, pp. 118–121) and is likely connected to increased sexual freedom for women who are not in a couple. Indeed, for the latter, the change is more in behavior than in sexual identity (for a possible explanation of the higher diffusion of homosexual experiences among girls than among boys see Kimmel (2004)).

Fourth, among males the presence of a double standard in sexual attitudes remains much more rooted compared to females. Although less marked in 2017 than in 2000, many male students approved or rejected sexual behaviors differently depending on whether the protagonist was a man or a woman. While this double standard was present in 2000 among female students, it almost disappears in 2017.

The last important result is a lessening of territorial differences within Italy concerning age at first sexual intercourse for women. In 2000, in the two most southern regions (Calabria and Sicily) female students' first sexual intercourse took place 3 years later than that of their male peers. In 2017, both Sicilian and Calabrian men and women had had first intercourse by the age of 17–18, a figure in line with the national average. This trend forms part of the 'catching-up' of the South in terms of conjugal, sexual, reproductive and fertility behavior already widespread in the North of Italy (and—before that—in Northern Europe). This last result thus provides further evidence of a broad diffusive process, present as well in the SIS-SELFY data.

Religion

Traditionally, young Italians have been socialized to religion through imitation of their parents' behavior, catechism and Mass attendance, a weekly hour of catholic religion in school, and participation in recreational activities organized by the Church. Through these activities, some develop an attachment to the Church, continuing to attend Mass as adults, and in certain cases joining Catholic associations or becoming Catholic volunteers (e.g., leaders of youth catechesis groups, heads of Catholic scouts or sport groups, etc.), and then in turn socializing their own children to the Catholic faith. Those who did not experience family-driven religious socialization rarely became devout as adults. A progressive detachment from Catholicism, in various forms, has, in fact, been observed for some time, with recent years seeing an acceleration: opportunities for religious socialization are less intense and varied due to a deficient or weak "offer", and the number of young priests and nuns has rapidly decreased (Bonarini, 2013a, 2013b; Dalla-Zuanna & Ronzoni, 2003; Diotallevi, 2005; Ufficio Centrale di Statistica della Chiesa, 2019a, 2019b). Moreover, generational transmission is increasingly absent as a result of the growing proportion of non-religious parents. Finally, religious socialization—when

Table 1 Mass attendance and importance of religion in life at interview (column %)

	Gender of the respondent			
	Male		Female	
	2000	2017	2000	2017
Mass attendance				
Never	28.3	53.9	13.6	36.9
Sometimes during the year	35.7	32.3	35.0	40.0
Once a month	8.4	3.6	9.2	6.3
2–3 times a month	10.3	4.1	13.7	6.5
Once a week or more	17.3	6.1	28.5	10.3
Total	100.0	100.0	100.0	100.0
Importance of religion				
Not	13.6	31.8	4.6	19.0
Little	25.9	34.5	19.9	33.6
Fairly	42.0	25.4	47.1	35.0
Very	18.5	8.3	28.4	12.4
Total	100.0	100.0	100.0	100.0

Source: authors' elaboration on SIS and SELFY surveys data

present—more rarely results in adherence to the Church as an adult (Ruspini & Nesti, 2019).

The rapidity of these processes over the early years of the new century is evident when comparing SIS and SELFY data. Particularly, the decline in Mass attendance is remarkable. As can be seen in Table 1, in 2017, the proportion of students who went to Mass at least once a month equaled 14% among men and 23% among women, values that more than halve those of 2000 (36% men, 51% women). With respect to previous generations (see also the citation from Bonarini, 2013b above), decline in Mass attendance notably accelerated, abundantly exceeding one percentage point for each annual cohort among the students born in 1980–1997. Also significant is the increase in students who say that religion is little or not at all important in their lives: while in 2000 they represented a minority (40% among men, 25% among women), in 2017 these respondents were the majority (66% among men, 55% among women).

The SIS-SELFY data also shed light on shifts in the process of religious socialization. Specifically, we match young students' Mass attendance at age 13 with that of his/her parents. Table 2 highlights three aspects. First, the number of parents who—when the student was 13—never went to Mass, or went only occasionally during the year, significantly increased, rising from 38% in 2000 to 51% in 2017 (see last column). Secondly, by 2017 it had become very rare for a 13-year-old child to attend Mass if his/her parents never go, showing the collapse of a religious socialization that in 2000 persisted even without the support of the family of origin. Finally, in 2017 the frequency of transmission of Mass attendance from parents to offspring decreased: in 2000, when both parents went to Mass every Sunday, only 16.6% did not attend with the same intensity at age 13; by 2017 this proportion has risen to 28.0%.

Another aspect of religious socialization is participation in youth groups organized by the Church during pre-adolescence and adolescence (Table 3). We exclude

Table 2 Mass attendance of parents and children when child was 13 years old

Parents	Children (row %)					Total	Mass attendance of parents (column %)
	Never	Sometimes during the year	Once a month	2–3 times a month	Once a week or more		
2000							
Both never	38.5	19.5	6.3	16.1	19.6	100	10
One never, one irregularly	4.6	29.7	13.2	25.9	26.6	100	28
Both irregularly	0.4	8.2	11.4	32.2	47.8	100	16
One regularly, one irregularly	3.5	10.3	11.8	24.4	50.0	100	26
Both regularly	1.1	2.5	2.8	10.2	83.4	100	20
Total	6.1	14.5	9.8	22.4	47.2	100	100
2017							
Both never	68.9	14.7	5.1	5.2	6.1	100	19
One never, one irregularly	13.8	49.9	11.5	13.9	10.9	100	32
Both irregularly	3.1	14.4	19.6	38.6	24.3	100	15
One regularly, one irregularly	7.8	19.7	16.2	28.9	27.4	100	21
Both regularly	1.7	4.9	3.8	17.6	72.0	100	13
Total	19.7	26.2	11.5	19.4	23.2	100	100

Source: authors' elaboration on SIS and SELFY surveys data

Table 3 Participation in religious groups at different ages (% of often or very often)

	Gender of the respondent			
	Male		Female	
	2000	2017	2000	2017
11–13	26.3	23.6	37.1	27.7
14–15	17.5	15.3	28.1	20.6
16–18	12.7	9.8	18.9	14.0
At interview	7.6	5.3	12.0	7.8

Source: authors' elaboration on SIS and SELFY surveys data

catechism as it is attended, in one way or another, between ages 6 and 13 by the large majority of Italian children and teenagers, reflected by the fact that in 1995–2000 more than 90% of children of Catholic parents were baptized, and around 90% of these baptized children received First Communion and Confirmation (Bonarini, 2013b, pp. 34–36).

Taking part in youth groups decreased between 2000 and 2017, both for the three age-classes covered by the retrospective question (11–13, 14–15, 16–18) and at interview, for men as well as for women. However, this decline is less strong than that observed for Mass attendance or the importance of religion, perhaps also due to the fact that these numbers were already small in 2000. Involvement in these groups at the time of interview decreased from 8 to 5% for men, and 12 to 8% for women.

Table 4 A comparison of devout and non-religious students' sexual behavior, differentiated between all students and non-virgin students, interviewed in 2017

Percentage of respondents who experienced the following behaviors	Gender of the respondent			
	Male		Female	
	Non-religious	Devout	Non-religious	Devout
All students				
Watched porn online during the last year (at least sometimes)	93.1	73.6	26.8	16.1
Masturbated (at least sometimes)	93.5	76.5	54.8	19.5
Homosexual attraction (at least once in life)	8.8	4.1	30.2	6.8
Homosexual experience (at least once in life)	5.9	5.4	28.1	11.3
First sexual intercourse before 16th birthday	25.3	8.6	27.8	6.1
First sexual intercourse before 18th birthday	54.6	31.6	61.4	37.0
Non-virgin students				
Cheated on partner (at least once)	26.3	16.2	19.2	6.2
Sex without loving a partner (at least once)	58.4	25.2	42.4	22.7
Had three sexual partners or more (in life)	61.2	32.5	57.3	16.8
Had only one sexual partner (in life)	25.5	57.4	23.8	63.5
The woman proposed to have first sex (at first sex)	15.5	15.1	8.0	3.2
Occasional partner (at first sex)	41.9	11.5	24.1	4.4

Source: authors' elaboration on SIS and SELFY surveys data

Devout students are those who report that religion is very important in their lives, that they go to Mass every week, and that they participate in religious groups often or very often. Conversely, the Non-religious students are those who report that Catholicism is not at all important, that they have never gone to Mass, both when they were 13 and in the year preceding the interview. In addition, their parents never went to Mass when they were 13 years old

Finally, it is also worth noting that in 2017 the proportion of young people participating in Catholic groups was almost the same as that attending Mass every week, while in 2000 a significant portion of those who went to Mass regularly were not part of any ecclesial group. These proportions could be a consequence of a further "selection": young people attending weekend Mass in 2017 are perhaps more involved in ecclesial life than those who went weekly to Mass in 2000. Moreover, the attitude of these selected students attending Mass and participating to Catholic groups may have "radicalized", including a full embracement of Catholic norms relative to sexual behavior.

Comparing "Extreme" groups

We further study the relationship between religion and sex by analyzing the sexual behavior of two "extreme" groups (Table 4): the *Devout* and the *Non-religious* in 2017 (the 2000 data are quite similar and is thus not shown here for simplicity's sake). The *Devout* (126 men and 163 women) report that religion is very important in their lives, that they go to Mass every week, and that they participate in religious groups often or very often. The *Non-religious* (336 men and 173 women) report that Catholicism is not at all important and that they have never gone to Mass, both when they were 13 and in the year preceding the interview. Moreover, when the student was 13 years old, his/her parents never went to Mass.

Table 5 examines change from 2000 to 2017 in terms of the relationship between the importance of religion and two variables related to sex (virginity at 18 years of age; personal opinions on cheating). The strong differences between these two clusters are

Table 5 Measuring the relationship between importance of religion on early sex and opinions on female cheating

	Importance of religion				Total
	Not	Little	Fairly	Very	
First sexual intercourse before 18th birthday (%)					
Men					
2000	49.8	39.1	33.4	26.3	35.8
2017	54.2	52.0	45.5	39.9	50.1
2017 ^a	–	–	–	–	47.3
Women					
2000	41.5	41.9	34.6	22.7	33.1
2017	59.0	56.0	43.2	37.1	49.9
2017 ^a	–	–	–	–	44.7
A young woman in a couple relationship has cheated (% agree)					
Men					
2000	25.7	10.5	11.1	10.7	13.0
2017	10.6	9.5	10.2	6.9	9.9
2017 ^a	–	–	–	–	9.5
Women					
2000	10.6	6.6	3.5	2.5	4.1
2017	6.3	3.9	3.1	1.4	3.8
2017 ^a	–	–	–	–	2.9

Source: authors' elaboration on SIS and SELFY surveys data

^a If in 2017 the distribution of students by the importance of religion remained identical to that recorded in 2000

in the expected direction. Only two variables show reduced differences for men: masturbation and women proposing to have first sexual intercourse. We also observe that in 2017 the sexual behavior of Catholic students actively engaged in ecclesial groups was different than that of non-religious students. We can therefore verify the extent to which the rapid detachment from the Church among Italian students in the period 2000–2017 influenced changes in sexual behavior (see Table 5).

In 2017, 50.1% of male students and 49.9% of female students were no longer virgins at their 18th birthday, a significant increase compared to 2000 (35.8% of men, 33.1% of women). If in 2017 the distribution of students by the importance of religion remained identical to that recorded in 2000, this change was not all that rapid for men (47.3%), and even less so for women (44.7%). Table 5 also shows that change has instead been more drastic among religious youth; here the discriminating force of religion thus loses strength, suggesting at least a partial end of Catholic sexuality. In the second part of Table 5 (opinions on female cheating), the increase in disapproval is slowed by the distancing from the Church, as religious youth—in both 2000 and 2017—negatively rate this behavior, and because variation is similar among those more or less religious. Thus, in this case, the shift towards the “post-modern romantic couple” is slowed, and not accelerated, by the progressive separation of young Italians from Catholicism.

We extend this analysis in the next section, systematically controlling for a large number of relevant covariates and assessing a wide range of sexual opinions and behaviors.

Persistence and change in the relationship between sex and religion

To clarify the mechanism used for measuring persistence and change in the relationship between sex and religion, in what follows we discuss in detail the results of logistic models for three relevant opinions and three behaviors related to these opinions (Tables 6 and 7): namely, virginity, cheating, and homosexuality.

The relationship between religion and the opinion that one should remain a virgin until marriage loses strength between 2000 and 2017. In 2017, the confidence intervals for the relative risk of agreeing with the statement “a young man/woman should stay a virgin until marriage” become overlapping between religious and not religious respondents both for men and women. As for the relative risk of respondents experiencing sexual intercourse before age 18, the confidence intervals become overlapping for men, but not for women. For the latter, religiosity remains, in 2017, relevant in postponing first intercourse. The second aspect we consider is cheating: here instead the influence of religiosity is minimal, as the confidence intervals for the odd ratios always overlap both for opinion and behavior, with the exception of male opinions in 2000. Finally, religion remains relevant in influencing respondents’ opinions on homosexual experiences: confidence intervals never overlap. However, the influence of religiosity is null for respondents’ homosexual experiences, as confidence intervals always overlap.

Extending our analysis to the full set of opinions and sexual behaviors, we compare confidence intervals for the odds ratio of agreeing with a certain opinion or having enacted a certain behavior for religious and not religious interviewees of the same gender, interviewed in 2000 or 2017 (listed in Table 10 in Appendix). When the two intervals overlap, at least in part—thus indicating a lack of connection between religion and sex—we designate this as NO. Where the two intervals are separated, a YES indicates a link that is statistically significant. YES/NO therefore means a decreasing influence of religion on opinion/behavior, NO/YES signifies an increasing influence, YES/YES indicates a persistent influence, and NO/NO a stable absence of influence.

The results of this analysis are summarized in Table 8. We see that the influence of religion on sex was already limited in 2000; in 32 out of the 61 models, the NO/NO pair prevails. We observe a further decline in 2017; in 15 models the YES/NO pair prevails. Only in one case (women having their first, not complete, sexual experience before age 16), is the influence of religion more intense in 2017 than in 2000. Finally, in both 2000 and 2017, the two confidence intervals never overlap between religious and non-religious students for only 13 out of the 61 models. Overall, the association between religion and sex is stronger for women than for men.

A clear trend emerges relative to the opinions of young people on sex: the influence of religion declines over time. Furthermore, religion does not exert a stronger influence on any opinion in 2017 compared to 2000. Religion affects only two opinions both in 2000 and 2017 for both genders: religious people do not approve of homosexual experiences

Table 6 Opinions (I agree that...), Odds ratio, z, p(z), and 95% confidence intervals by gender and year of interview of logistic models

Gender of respondent	Year	Religiosity	Odds ratio	z	p (z)	95% CI		Odds ratio	z	p (z)	95% CI	
						Lower	Upper				Lower	Upper
A young man remains a virgin until marriage												
Male	2000	Not religious	1.000	-	-	-	-	1.000	-	-	-	-
		Religious	2.013	z=5.33	p<0.001	1.556	2.605	1.918	z=5.53	p<0.001	1.523	2.417
	2017	Not religious	0.957	z=-0.33	p=0.742	0.735	1.246	0.798	z=-1.87	p=0.061	0.630	1.011
		Religious	1.577	z=3.27	p=0.001	1.200	2.071	1.344	z=2.35	p=0.019	1.002	1.720
Female	2000	Not religious	1.868	z=4.34	p<0.001	1.409	2.478	1.218	z=1.48	p=0.138	0.939	1.581
	2017	Not religious	4.674	z=12.50	p<0.001	3.670	5.952	3.438	z=11.10	p<0.001	2.765	4.275
		Religious	2.022	z=5.28	p<0.001	1.557	2.626	1.314	z=2.25	p=0.025	1.036	1.667
		Religious	2.716	z=7.51	p<0.001	2.093	3.525	2.075	z=6.05	p<0.001	1.638	2.629
A young woman remains a virgin until marriage												
A young man in a couple cheats												
Male	2000	Not religious	1.000	-	-	-	-	1.000	-	-	-	-
		Religious	0.783	z=-2.08	p=0.038	0.622	0.986	0.687	z=-2.38	p=0.018	0.504	0.937
	2017	Not religious	0.505	z=-5.34	p<0.001	0.393	0.649	0.555	z=-3.57	p<0.001	0.401	0.767
		Religious	0.470	z=-5.36	p<0.001	0.357	0.619	0.433	z=-4.41	p<0.001	0.299	0.629
Female	2000	Not religious	0.093	z=-9.93	p<0.001	0.059	0.149	0.359	z=-4.79	p<0.001	0.236	0.546
		Religious	0.039	z=-14.13	p<0.001	0.025	0.062	0.197	z=-8.43	p<0.001	0.135	0.287
	2017	Not religious	0.079	z=-12.67	p<0.001	0.053	0.117	0.236	z=-7.06	p<0.001	0.158	0.352
		Religious	0.042	z=-12.27	p<0.001	0.025	0.070	0.127	z=-8.28	p<0.001	0.078	0.207

Table 6 (continued)

		A young man has homosexual intercourse				A young woman has homosexual intercourse				
Male	2000	Not religious	1.000	–	–	–	1.000	–	–	–
		Religious	0.517	$z = -4.75$	$p < 0.001$	0.394	0.479	$z = -6.40$	$p < 0.001$	0.382
	2017	Not religious	3.112	$z = 9.80$	$p < 0.001$	2.480	2.684	$z = 9.28$	$p < 0.001$	2.179
		Religious	1.442	$z = 2.87$	$p = 0.004$	1.123	1.386	$z = 2.86$	$p = 0.004$	1.108
Female	2000	Not religious	2.544	$z = 7.22$	$p < 0.001$	1.974	3.277	$z = 0.55$	$p = 0.585$	0.843
		Religious	1.142	$z = 1.14$	$p = 0.254$	0.909	0.473	$z = -7.02$	$p < 0.001$	0.384
	2017	Not religious	13.309	$z = 20.49$	$p < 0.001$	10.389	17.048	$z = 13.47$	$p < 0.001$	3.739
		Religious	5.142	$z = 13.41$	$p < 0.001$	4.048	2.052	$z = 6.45$	$p < 0.001$	1.649

Source: authors' elaboration on SIS and SELFY survey data

The reference category is being male, interviewed in the year 2000, not religious. In bold confidence intervals of Religious that do not overlap the confidence intervals of Not religious

Table 7 Behaviors (Respondent had...). Odds ratio, z, p(z), and 95% confidence intervals by gender and year of interview of logistic models

Gender of respondent	Year	Religiosity	Odds ratio	z	p(z)	95% CI	
						Lower	Upper
Sexual intercourse before age 18							
Male	2000	Not religious	1.000	–	–	–	–
		Religious	0.699	$z = -3.37$	$p = 0.001$	0.567	0.861
	2017	Not religious	1.628	$z = 4.78$	$p < 0.001$	1.333	1.989
		Religious	1.263	$z = 2.11$	$p = 0.035$	1.017	1.567
Female	2000	Not religious	1.163	$z = 1.27$	$p = 0.204$	0.922	1.466
		Religious	0.651	$z = -4.24$	$p < 0.001$	0.533	0.794
	2017	Not religious	2.282	$z = 7.68$	$p < 0.001$	1.848	2.817
		Religious	1.441	$z = 3.38$	$p = 0.001$	1.166	1.782
Cheated on his/her partner							
Male	2000	Not religious	1.000	–	–	–	–
		Religious	0.945	$z = -0.41$	$p = 0.684$	0.719	1.242
	2017	Not religious	0.878	$z = -0.98$	$p = 0.325$	0.676	1.139
		Religious	0.833	$z = -1.24$	$p = 0.214$	0.625	1.111
Female	2000	Not religious	0.475	$z = -4.30$	$p < 0.001$	0.339	0.667
		Religious	0.365	$z = -6.61$	$p < 0.001$	0.271	0.492
	2017	Not religious	0.559	$z = -3.95$	$p < 0.001$	0.418	0.746
		Religious	0.321	$z = -6.88$	$p < 0.001$	0.232	0.444
At least one homosexual experience							
Male	2000	Not religious	1.000	–	–	–	–
		Religious	0.975	$z = -0.12$	$p = 0.904$	0.646	1.471
	2017	Not religious	1.160	$z = 0.77$	$p = 0.443$	0.794	1.695
		Religious	1.464	$z = 1.81$	$p = 0.071$	0.968	2.212
Female	2000	Not religious	0.944	$z = -0.26$	$p = 0.798$	0.606	1.470
		Religious	0.564	$z = -2.70$	$p = 0.007$	0.372	0.854
	2017	Not religious	3.662	$z = 6.99$	$p < 0.001$	2.544	5.270
		Religious	1.992	$z = 3.49$	$p < 0.001$	1.352	2.935

Source: authors' elaboration on SIS and SELFY survey data

The reference category is being male, interviewed in the year 2000, not religious. Significance levels: in bold confidence intervals of Religious that do not overlap the confidence intervals of Not religious

and casual sex. Conversely, differences in agreeing that it is best to remain a virgin up until either adulthood or marriage lose importance. This is also true for early sexual intercourse though only for men; women who feel religion is important in 2017 still have a lower relative risk of approving early intercourse. Finally, religion does not at all influence opinions on partner cheating, which is viewed negatively by each and every group of respondents.

When comparing student behaviors, the results are even clearer. Among the young men of 2017, the two confidence intervals for the odds ratio always overlap between religious and non-religious students: the differences evident in 2000 disappear in 2017. Religion does, however, influence young women in 2017. Religious and non-religious women differ with regard to: masturbation, having their first sexual experiences

Table 8 Connection between religion and sex (logistic models) by gender and year

Connection between religion and sex	Men		Women	
	2000	2017	2000	2017
<i>Opinions (I agree with...)</i>				
A young man has very early intercourse	Yes	No	Yes	Yes
A young woman has very early intercourse	Yes	No	Yes	Yes
A young man cheats while in a couple relationship	Yes	No	No	No
A young woman cheats while in a couple relationship	No	No	No	No
Casual sex for a young man without a stable partner	Yes	Yes	Yes	Yes
Casual sex for a young woman without a stable partner	Yes	Yes	Yes	Yes
A young man remains a virgin until an advanced aged	Yes	No	No	No
A young woman remains a virgin until an advanced aged	Yes	No	No	No
A young man remains a virgin until marriage	Yes	No	Yes	No
A young woman remains a virgin until marriage	Yes	No	Yes	No
A young man has homosexual intercourse	Yes	Yes	Yes	Yes
A young woman has homosexual intercourse	Yes	Yes	Yes	Yes
<i>Behaviors (all respondents)</i>				
Talking about sex with friends (often or very often)	No	No	No	No
Masturbating (at least sometimes) (a)	–	No	–	Yes
Homosexual experience at least once in life	No	No	No	No
Homosexual attraction at least once in life (a)	–	No	–	No
Homosexual or bisexual orientation (a)	–	No	–	No
Visiting porn websites (often or very often)	Yes	No	No	No
Exchanging sexual material by mobile (often or very often) (a)	–	No	–	No
Feeling at risk for HIV (yes)	Yes	No	No	No
Had a sexually transmitted disease (at least once)	No	No	No	No
Had first sexual intercourse before 18th birthday	Yes	No	Yes	Yes
Had first sexual intercourse before 16th birthday	No	No	Yes	No
Had first not complete sexual experience before 16th birthday	Yes	No	No	Yes
Had first steady couple relationship before 16th birthday	No	No	No	No
<i>Behaviors (respondents who had sexual intercourse)</i>				
Condom, pill, or IUD at first intercourse	No	No	No	No
Casual partner at first intercourse	No	No	No	No
Female partner proposed to have intercourse	No	No	No	No
Having had only one sexual partner in life	No	No	Yes	No
Having had at least three sexual partners in life	No	No	Yes	Yes
Paid to have intercourse	No	No	n.a	n.a
Sex once a month or less (during the last 3 months)	No	No	No	No
Sex 2–3 times a week or more (during the last 3 months)	No	No	No	No
Had sexual intercourse without loving partner (at least once)	No	No	Yes	Yes
Cheated on partner (at least once)	No	No	No	No
Number of "Yes" (excluding (a))	15	4	13	10

Source: authors' elaboration on SIS and SELFY survey data

No indicates that the two confidence intervals for the odds ratio of agreeing with a certain opinion or having enacted a certain behavior for religious and not religious interviewees of the same gender, interviewed in 2000 or 2017, overlap, at least in part; conversely, Yes means that the two confidence intervals are entirely separated. Thus, Yes/No suggests a decreasing influence of religion on opinion/behavior, No/Yes signifies an increasing influence, Yes/Yes a persistent influence, and No/No a stable absence of influence

before the age 16, first sexual intercourse before 18, having had three or more sexual partners at interview, having sexual intercourse without loving the partner. That said, even for young women religion has partially lost its ability to influence sexual behavior: in 2017—unlike in 2000—the two confidence intervals overlap between religious and non-religious women for having had only one sexual partner in life and having had first sexual intercourse before the age of 16.

We conclude with two additional examples, which further highlight our results on the weakening relationship between religion and sex. Religious respondents, both male and female, always have lower relative risks for smoking marijuana and for getting drunk, and this difference is not smaller in 2017 than in 2000 (data available on request). This means that some (transgressive) behaviors are still strongly related to different profiles of religiosity, whereas this is less true in 2017 than in 2000 concerning sexual activities.

Discussion

In the period 2000–2017, among our sample of Italian students in their 20 s, the relationship between religiosity and sexuality weakened. More specifically, the sexual behavior and opinions on sex of religious and non-religious students are more similar in 2017 than in 2000. This is especially true among men, but also for women. The narrowing of the gap between religious and non-religious students in our sample is partly explained by a detachment from Catholic morality, which has been most intense among religious students. Thus, the rapid drop in adhesion to Catholicism has not seen a greater observance of the sexual morality proposed by the Church among the few remaining faithful. Our results consequently suggest that in this first part of the twenty-first century, among our sample of Italian university students, an important step has been taken towards “the end of Catholic sexuality”. Moreover, our observations closely resemble the findings of Wróblewska (2020) for Poland, based on two surveys employing the same SIS and SELFY questionnaires among Polish university students in 2001 and 2013. Similar results from the two European countries where the influence of the Catholic Church remains considerable, arguably supports the robustness of our findings.

These processes—together with the considerable increase in students who declare themselves to be non-religious—have accelerated a diffusion of sexual attitudes far from Catholic teachings. This finding represents the main contribution of our article to research on young Italian sexuality. Indeed, as underlined in the introduction, it is an indispensable premise for pursuing a deeper understanding of the sociological and psychological dynamics underlying the relationship between sex and religion, particularly (but not only) the cognitive dissonance that arises due to the discrepancy between moral doctrine, membership in the church, and sexual behavior. Such dissonance is but rarely resolved through recourse to the sacrament of confession, and often is simply not recognized as such. Indeed, that which has been observed for contraception in past decades seems to similarly manifest for sexual behavior: the *sensus fidelium* no longer identify behaviors sanctioned by orthodox morality as sin, and pastoral practice has simultaneously mostly fallen silent on these issues.

It would, however, be wrong to conclude that, in the Italian context, the Church's views on sexuality have become entirely irrelevant.

First, there remain several behaviors and opinions where differences persist between the more and less religious, particularly for Italian women. Specifically, young Catholic women are less oriented towards hedonistic sexuality, especially outside stable couple relationships.

Second, the sexual behavior of “extreme” groups (i.e., respondents who declare themselves non-religious and have not experienced religious socialization versus those who go to mass regularly, were socialized to Catholicism, and attend religious groups) is very different. The former lean strongly towards a hedonistic type of sexuality—especially if single—while the latter favor a sexuality associated more with affectivity. Again, these differences are more pronounced among women, but are also evident among men.

Third, young people who identify as more religious declare that they are satisfied with their sexual lives to the same extent of the less religious (regardless of religiosity that which appears to be most fundamental to sexual satisfaction at interview is being in a couple relationship). This result could indicate that among the most religious, a less hedonistic-oriented sexuality is not experienced as a limit, but forms part of still vital subculture. This idea is reinforced by data on couple homogamy drawn from the aforementioned 2006 National Sexuality Survey (Barbagli et al., 2010). Among cohorts born in the period of 1937–1988, Church attendance rapidly declined. Consequently, we might also expect that couple homogamy in terms of frequency of Mass attendance has decreased over time. That is to say, for the devout, in the absence of homogamy with respect to religion, the probability of having a non-devout partner would increase cohort after cohort. This has not, however, occurred, suggesting a growing tendency on the part of Catholics to look for a partner within their same religious circle.¹

Finally, some of the sexual behaviors that have become widespread—particularly growing consensus that the stable couple should be sexually exclusive—are objectively similar to the behavioral model proposed by the Catholic Church. This observed shift sees the progressive prevalence of an affective meaning tied to the sexuality of the couple, but does not reject a hedonistic orientation for those who are single. Indeed, in framing their sexuality as a couple, young Italians are not necessarily influenced by the teachings of the Pope, or more generally by the doctrine of the Church. Yet it is interesting to observe a partial convergence between two *Weltanschauungs* of sexuality—that proposed by the Catholic Church and the post-modern one—usually considered irreconcilable.

¹ From the 2006 National Sexuality Survey sample (Barbagli et al., 2010), the respective proportions of respondents regularly attending Mass are: 44% (1937–1946 cohort), 35% (1947–1956), 32% (1957–1966), 27% (1967–1976), 17% (1977–1988). For these same cohorts, the proportion of respondents regularly attending Mass who report having had their most important couple relationship with a partner that also attends Church regularly does not vary significantly over time: 65% (1937–1946 cohort), 60% (1947–1956), 61% (1957–1966), 55% (1967–1976), 60% (1977–1988). For comparison, consider a variable that has a similar time trend; the respective proportions of respondents with a low level of education (8 years of school or less) are: 82% (1937–1946 cohort), 73% (1947–1956), 59% (1957–1966), 46% (1967–1976), 38% (1977–1988). However, for these same cohorts, the proportion of low-educated individuals who report having had their most important couple relationship with a partner that also is low-educated decreases strongly over time: 84% (1937–1946 cohort), 78% (1947–1956), 67% (1957–1966), 55% (1967–1976), 45% (1977–1988). For a more detailed analysis—in the US context—on the subject of homogamy according to religion, see Braithwaite et al. (2015).

Appendix

See Tables 9, 10.

Table 9 Sexual opinions and behaviors (%)

	Men		Women	
	2000	2017	2000	2017
<i>Opinions (I agree with...)</i>				
A young man has very early intercourse	50.2	52.2	13.7	21.3
A young woman has very early intercourse	28.8	27.4	8.5	13.6
A young man has cheats while in a couple relationship	26.0	17.9	2.4	2.9
A young woman cheats while in a couple relationship	13.0	9.9	4.1	3.8
Casual sex for a young man without a stable partner	67.4	71.5	21.8	24.3
Casual sex for a young woman without a stable partner	46.1	53.3	16.1	30.5
A young man remains a virgin until an advanced aged	35.6	38.1	51.9	48.3
A young woman remains a virgin until an advanced aged	43.6	44.8	59.0	54.2
A young man remains a virgin until marriage	26.5	21.7	37.0	35.4
A young woman remains a virgin until marriage	36.0	25.7	52.9	38.5
A young man has homosexual intercourse	19.0	42.4	28.1	69.5
A young woman has homosexual intercourse	31.5	59.5	27.0	66.7
<i>Behaviors (all respondents)</i>				
Talking about sex with friends (often or very often)	67.1	67.0	48.3	46.3
Masturbating (at least sometimes)	n.a	87.7	n.a	34.6
Homosexual experience at least once in life	6.4	7.2	4.3	14.9
Homosexual attraction at least once in life	n.a	5.7	n.a	10.4
Homosexual or bisexual orientation	n.a	3.0	n.a	3.7
Visiting porn websites (often or very often)	10.4	39.5	0.4	2.8
Exchanging sexual material by mobile (often or very often)	n.a	18.4	n.a	3.2
Feeling at risk for HIV (yes)	32.1	37.8	24.2	34.3
Had a sexual transmitted disease (at least once)	4.2	7.0	6.3	11.6
Had first sexual intercourse before 18th birthday	35.8	50.1	33.1	49.9
Had first sexual intercourse before 16th birthday	12.5	18.6	9.1	18.9
Had first not complete sexual experience before 16 th birthday	52.5	53.2	42.1	46.3
Had first steady couple relationship before 16th birthday	44.8	47.5	51.6	52.6
<i>Behaviors (respondents who had sexual intercourse)</i>				
Condom, pill, or IUD at first intercourse	74.6	79.9	65.2	78.5
Casual partner at first intercourse	35.5	29.4	9.1	11.8
Female partner proposed to have intercourse	17.6	13.7	9.8	6.6
Having had only one sexual partner in life	38.7	32.2	58.2	42.3
Having had at least three sexual partners in life	30.7	37.3	12.9	23.8
Paid to have intercourse	8.2	11.6	0.3	0.4
Sex once a month or less (during the last 3 months)	43.8	44.8	29.4	30.9
Sex 2–3 times a week or more (during the last 3 months)	27.6	25.9	30.7	34.0
Had sexual intercourse without loving partner (at least once)	47.4	52.7	14.9	27.6
Betrayed the partner (at least once)	27.2	22.7	12.1	12.7

Source: authors' elaboration on SIS and SELFY survey data

n.a., not available

Table 10 Response categories for the covariates included in the models of Tables 6 and 7

Covariate	Response categories
Age at interview	Continuous variable
Area of residence during teenage years	North-west of Italy (ref.), north-east, center, south-islands, abroad
Population size of the municipality of residence during teenage years	Less than 10,000 (ref.), between 10,000 and 100,000, more than 100,000
Parents' education level	Both low (junior high school or lower) (ref.), father low/mother high (high school diploma or higher), father high/mother low, both high
Father's social class	High (manager, entrepreneur, executive, professional) (ref.), medium (employee, teacher, shopkeeper, artisan), low (agricultural worker, manual worker, shop assistant)
Mother worked during teenage years	Yes (ref.), no
Relationship with father	Absent/deceased (ref.), distant, balanced, intense
Relationship with mother	Absent/deceased (ref.), distant, balanced, intense
Parents divorced before the respondent was 16	Never or after age 16 (ref.), yes
Reaction to parents' rules as a teen	Accepted (ref.), negotiated, refused, did not live with parents
Parents permitted respondent to return home late on Saturday nights during teenage years	No (ref.), yes
Body mass index at interview	Underweight (ref.), slightly underweight, normal, overweight, obese
Had at least three health problems during teenage years (e.g., eating disorder, insomnia, strong acne issues, stuttering, serious hearing or vision problems, excessive sweating of the hands, enuresis, halitosis)	No (ref.), yes
Satisfied with own physical appearance during teenage years	No (ref.), not much, almost, yes
Graduation score upon completion of middle school and high school	Both low (ref.), high/low, low/high, both high
Type of high school attended	Lyceum (ref.), technical school, vocational school

Source: authors' elaboration on SIS and SELFY survey data

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Authors' contributions

MC conceived the study, participated in its design and coordination, and helped to draft the manuscript. GDZ conceived the study, participated in its design and coordination, and helped to draft the manuscript. All authors read and approved the final manuscript.

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Declarations

Ethics approval and consent to participate

All authors have read and approved the manuscript for submission.

Competing interests

The authors declare that they have no competing interests.

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