

Correlates of the non-use of contraception among female university students in Italy

Il mancato uso della contraccezione tra le studentesse universitarie in Italia

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Abstract The present paper scrutinizes the correlates of the non-use of contraception among young women in Italy. To this end we consulted two releases of *Selfy (Sexual and Emotional LiFe of Youths) survey*, which offer information for a nationally sample of university students. The results reveal that the likelihood of non-using contraception is higher among women living in the South and among those with previous experience of unsafe sexual behaviours. The risk of unprotected sex is also higher within a group of students who are relatively older than the others and live in a stable cohabiting union.

Abstract *Questo paper studia il comportamento contraccettivo delle giovani donne in Italia sulla base di due indagini campionarie condotte su un campione nazionale di studenti universitari: Selfy (Sexual and Emotional LiFe of Youths). I risultati rivelano che la probabilità di non utilizzare la contraccezione è più alta tra le donne che vivono nel Sud Italia e tra quelle con precedenti esperienze di comportamenti sessuali non sicuri. Il rischio di rapporti sessuali non protetti è anche più alto tra le studentesse più grandi e che convivono con il partner.*

Key words: Contraception; University students; Risky behaviours; Low fertility; Selfy Survey; Ital

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1 Introduction and aim

Information about the contraception behaviours of Italian youths are scarce or outdated [2,3]. Despite the persistent use of “non-technological” contraceptive methods, Italian fertility declined to lowest-low fertility levels. The contraceptive behaviours of Italians remained very different from that of most European countries for a long time, and the “contraceptive revolution” is far to be completed. During the last decades, the sunset of *coitus interruptus* was very slow, the diffusion of the pill postponed, and the IUD (Intra-Uterine Device) never caught on. Within couples, withdrawal had been the most popular method until mid-1990s, when Italy became the country with the lowest fertility in the world with an average of 1.19 children per woman in 1996. We know very little about contraceptive behaviours in more recent years, and, above all, few information are available on the youngest people behaviour. Namely, an issue of concern is the persistency of a relative high frequency of unprotected sex which is often associated with other dangerous sexual behaviours [8,9] or with drug and alcohol abuse; as such, it has to be considered as a public health policy issue [4].

The present paper addresses this knowledge gap by exploring the correlates of the non-use of contraception among young women on a nationally representative survey of Italian university students (*Selfy - Sexual and Emotional LiFe of Youths survey*).

2 Data on contraception in Italy

According to the United Nations [11], a relevant share of Italian women in a union (37.3%) were not using modern methods¹ in 1996. This is in sharp contrast to other European countries: for instance, the value is 29.9% in Germany in 1992; or 25.5% in France in 1994; or 21.2% in Finland in 1992; or 18.9 in Spain in 1995. In 2013, the percentage declined in Italy to 34.9%, still much higher than in the majority of European countries: the percentage of people in couple who did not use any modern method is quite high (51.8%), and 13.3% were still relying traditional contraception.

Focusing on women exposed to the risk of a pregnancy – that is women aged 18-49 who had at least one sexual intercourse in the last 12 months and who declare to be not sterile, not pregnant and not in menopause – data from the Italian National Office of Statistics 2013 survey [7] revealed that the contraceptive prevalence raised to 76% (82% excluding women actively seeking for a pregnancy) and that the most used contraceptive method was the pill (27%), followed by condom (25%); still 20% relied on *coitus interruptus*. Among sexually active women but not in a cohabiting union, the percentage of not using any contraceptive methods is lower but not

¹ Modern methods include: female sterilization; male sterilization; IUD; implant; injectable; pill; male condom; female condom; vaginal barrier methods; lactational amenorrhea method (LAM); emergency contraception; other modern methods. Traditional methods include: rhythm; withdrawal; other traditional methods [11].

The non-use of contraception among Italian university students negligible (14.4%), and the practice of withdrawal was as equally diffused as among cohabiting women. The no-use of any methods increases with age, reaching 31% among women aged 39-45. The younger segments of the population – aged 18-29 – show a relatively high share of (effective) contraceptive prevalence, with more than 70% using condom, but still 11% do not use any methods.

The nationally representative¹ survey of Italian university students (*Selfy*), reveals that the usage of modern contraceptive methods increased up to 77.3% in 2017 and the “traditional” methods (e.g., withdrawal and other natural methods, such as the billings ovulation method) reduced from 23.5% in 2000 to 15.1% in 2017, and the percentage of female students who did not use any method slightly increased from 4.5% in 2000 to 7.6% in 2017. This *Selfy* survey was carry out in the first half of 2017 on undergraduate students attending undergraduate courses in Economics and Statistics in 28 Italian public universities, and is almost identical to a survey carried out 17 years before [1]. The two sample involve 12,604 students (4,998 students in 2000 and 8,094 in 2017) who self-completed an anonymous² questionnaire during a one-hour lesson of a compulsory course. This process resulted in a practical nonexistence of refusals to fill out the questionnaire in class in both the surveys that, at the end, is representative³ of the university students of the Italian undergraduate course in economics and statistics.

3 Correlates of non-use of contraception

Based on *Selfy* data, we focus on female students who had engaged in sexual intercourse at least once over the three months preceding the interview, and who declared themselves as being in a stable and intimate relationship. Our analytical sample comprised a total of 2,915 female students (N = 1,224 in 2000 and N = 1,691 in 2017). We explored several factors potentially associated to the non-use of contraception, as well as the reasons behind this choice. In particular, we estimated a logit model to predict the likelihood of non-use of contraception during the last sexual intercourse among female students. We include a set of covariates referring to key socio-demographic factors, i.e. age (from 17 to 26 ys); area of residence; year of the survey (2000 or 2017) and living arrangement at the time of interview (in the parental home, alone, with friends or in a residence, and with a partner). We also took into account students’ characteristics and lifestyles (i.e. diploma graduation mark; drug habits; importance attached to religion) and other covariates concerned

¹ For both 2000 and 2017, the data were post-stratified at the macro-regional level to obtain representative results of these university students at the national level [2,5].

² Students were reassured about anonymity and the use of the data (note that after completion, the questionnaires were sealed in an envelope by the students and all the envelopes were mailed to the directors of the survey for data entry).

³ It is noteworthy to say that interviewing students in their first year of undergraduate studies minimizes the selectivity of future eventual dropouts, but affect the survey by limited external validity as the sample is not representative of the population of young Italians as a whole. Minello *et al.* [1] deeply discuss pro and cons of their sampling choices.

the sexual life of female students (i.e. the frequency of sexual activity in the last three months; having experienced first sexual intercourse with an occasional/casual partner; and having used contraception during the first sexual intercourse). Finally, we included a dummy variable indicating whether the student had experienced their parents' breakup.

The logit model (table 1) shows the profile of female students that have had unprotected sex: older women (24–26 years) and those cohabiting with their partner were more likely to have not used contraception at the last sexual intercourse compared, respectively, to younger women and those who lived in the parental home.

The results of our models show that students' non-use of contraception at first intercourse is strongly associated with a higher risk of not using any contraception at the last sexual intercourse. Conversely, having had sex with an occasional partner at the first experience is associated with a lower risk of not using contraception. The frequency of sexual intercourse is also significant: the higher the number of sexual intercourses during the previous three months, the higher the probability of the non-use of contraceptive methods. The risk of having unprotected sex is elevated among those living in the south of Italy and in the islands (i.e., Sicily and Sardinia). In 2017, the likelihood of not using contraception was significantly pronounced among female students, and the situation is slightly but significantly worse than in 2000. Interestingly, neither religiosity nor parental breakups display statistically precise estimates.

The non-use of contraception among Italian university students

Table 1 The non-use of contraception at the last sexual intercourse: results of the logistic regression model (odds ratio).

Y=1 Non-use of contraception at the last sexual intercourse	OR
Y=0 use of contraception	
Age (ref. 17-19 years)	
20-21 years	0.855
22-23 years	0.894
24-26 years	2.011**
Geographical Area (ref. North-West)	
North-East	0.912
Centre	0.967
South	1.982**
Islands	2.623***
Year of the survey 2017 (ref. 2000)	1.036***
Living arrangement (ref. living in parental home)	
Alone, with friends or in a residence	1.089
With partner	1.616**
Graduation mark (ref. 60-75)	
76-89	0.999
90-100	0.856
Drugs (ref. Never)	
Sometimes	1.113
Often	1.376
Religion is important (ref. Non important)	0.902
Frequency of sexual intercourses	3.102***
First sexual intercourse with occasional partner	0.567*
Non-use of contraception at 1st sexual intercourse	12.11***
Parents live together	1.007
Wald chi2(19)	364.54
Pseudo R2	0.1825
Log pseudolikelihood	-567.86205
Observations	2,693

Note: Since not all the female students answered every questions considered in the model, the number of observations in the logit model is lower than in the descriptive analysis.

Significance level: *** p < 0.01, ** p < 0.05, * p < 0.1

4 Discussion

The non-use of contraception is not an emergency in Italy, at least among University students. Less than 10% of sexually active people take no measures to avoid pregnancy or an STI, and the same holds for young adults. Having unprotected sex is however associated with other dangerous sexual behaviours [8,9].

Our results highlight the salience of several demographic and social correlates of the non-use of contraception among female Italian university students. We find traces of cumulative disadvantage over the life course with respect to the risk of contracting a sexually transmitted infection: our findings show that the non-usage of contraception at first intercourse is strongly associated with a higher risk of not using any contraception at the last sexual intercourse. This accords with prior

research. Indeed, multiple sexually-related health risk behaviours have been identified as a problem during early adulthood [4], especially among university students, an exceptionally high-risk category for sexual behaviour and reproductive health [6]. Some studies suggested that sexual risky behaviours are reciprocally associated among them. In particular, having a non-protected sexual debut, and with an occasional partner, and a higher number of partners over a person's lifetime are predictive of a risky behaviour later in life, that is an exposition to sexually transmitted infection, to the non-use of contraceptives and also to unwanted pregnancy [10].

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