



## LETTER TO THE EDITOR

# Knowledge of sexually transmitted infections and risky behaviors among undergraduate students in Tirana, Albania: comparison with Italian students

G. CICCARESE<sup>1</sup>, F. DRAGO<sup>1</sup>, A. HERZUM<sup>2</sup>, A. REBORA<sup>3</sup>, L. COGORNO<sup>4</sup>, F. ZANGRILLO<sup>5</sup>, A. PARODI<sup>3</sup>

<sup>1</sup> Dermatologic Clinic, Policlinico San Martino, Genoa, Italy; <sup>2</sup> Section of Dermatology, Department of Health Science, University of Genoa, Italy; <sup>3</sup> Section of Dermatology, Department of Health Science, University of Genoa, Italy; <sup>4</sup> Department of Experimental Medicine-Medical Pathophysiology, Food Science and Endocrinology Section, Sapienza University of Rome, Italy; <sup>5</sup> Section of Hygiene Department of Health Sciences, University of Genoa, Italy

## Keywords

Students • Sexually transmitted infections • Sexual education

Dear Editor,

Reading the results of the survey on the knowledge of sexually transmitted infections (STIs) and risky behaviors among Sicilian high-school and university students recently published in your journal [1] prompted us to report our survey on this topic among a group of Albanian students. In a previous study, we analyzed the knowledge of STIs and risky behaviors among Italian adolescents by distributing a questionnaire to a sample of 2867 secondary school students in Genoa (northern Italy) and Lecce (southern Italy): we found a serious lack of knowledge of STIs and considerable exposure to risk factors for STI transmission, such as alcohol and recreational drug use [2]. We subsequently administered the same anonymous questionnaire to undergraduate students at a university in Tirana, Albania, with the aim of assessing knowledge of STIs and risky behaviors among young Albanians and comparing these with the Italian data. The questionnaire, which was written in Italian, comprised 39 questions divided into three sections concerning the social context, knowledge of STIs, and sexual behavior [2]. It was distributed by one of the authors (A.P.) in April 2016 to students attending the first year of the Nursing and of the Physiotherapy degree courses held in the Italian language at the Catholic University “Our Lady of Good Counsel”, a private University in Tirana.

Seventy Albanian students (42 from the Nursing course and 28 from the Physiotherapy course) completed the questionnaire: 49 females and 21 males. Their average age was 21.8 years (ranging from 18 to 29 years), which was slightly higher than that of the Sicilian students interviewed by Visalli et al. (most of whom were aged 17-19 years) [1] and the Italian students involved in our previous research (average age 17 years) [2].

Regarding the sources of information on STIs, unlike the Sicilian school students [1], but in line with our previous survey [2], the Albanian students obtained information mostly from teachers (49%) and parents (44%). Indeed, 77% of the Albanian students stated that they were sufficiently informed about STIs: sex

education received at school was considered good or sufficient by 53%, and communication with parents excellent by 51.4% and good by 37.2%. Conversely, most of the Italian students complained about the lack of information on STIs provided by qualified staff [1, 2]. This difference may reflect the fact that in Albania education in “sexuality and life skills” has been mandatory for students aged 10-18 since 2015, despite opposition from certain segments of the Muslim population [3]. In Italy, by contrast, there are no laws regarding this subject, even though many proposals have been made over the last 30 years. Indeed, the headteacher of each school is in charge of the school’s policy on sex education [4]. Another substantial difference between Albanian and Italian students regards communication with parents, probably because talking about sex in a family setting is considered a taboo in Italy, especially in the southern regions. However, several studies have demonstrated that parents have the potential to protect adolescents against sexual risks, including early sexual behavior, inconsistent condom use and outcomes such as pregnancy and STIs [5, 6]. Notably, Albanian students showed a better knowledge of STIs than their Italian counterparts: 20% of the Albanians recognized all the STIs in a list of diseases, versus only 0.5% of the students from Genoa and Lecce [2] and 7.9% of those from Messina, Sicily [1]. In line with other European and non-European studies, HIV/AIDS was the best-known STI among those listed [1, 2, 7-9]. Furthermore, most of the Albanian students (79%) reported knowing what a PAP test was, while awareness of HPV as an STI and of HPV vaccination proved poor in other European studies [1, 2, 7]. The differences between the Albanian and the Italian students reflect the different national policies on sex education in the two countries and highlight the urgent need to introduce sex education as a proper subject in Italian schools. Nevertheless, knowledge of STIs remains unsatisfactory in Albania [10], as in other European countries where sex education programs are compulsory in schools. In Hungary, for instance, al-

though sex education for pupils aged 14 to 18 years was introduced in 1978, high-school students' knowledge of and attitudes towards STIs remain poor [11]. Moreover, in Germany, where sex education at school begins at the age of 9 years, a recent study involving 1771 secondary school students in Berlin documented suboptimal levels of knowledge of STIs other than HIV [7]. This widespread lack of awareness is particularly noteworthy if we consider that HPV and *Chlamydia trachomatis* are, respectively, the most frequent viral and bacterial STIs. They have a particularly high incidence among adolescents and young adults, and can cause infertility; HPV can also cause cancers of the mucosa and skin [12].

The percentage of Albanian students who currently used contraceptive methods (51%) was lower than that of the Italians (58% of the students interviewed by us [2] and 76.8% of those interviewed by Visalli G. et al. [1]). In the latter study, however, condom use was investigated specifically with regard to sexual intercourse with a casual partner [1], a risky behavior that seems common (45.5%) among Sicilian students [1], but which was not investigated in the Albanian study. Regarding other risk factors for the transmission of STIs, the Albanian students reported using alcohol (43%) and recreational drugs (21%) much less than their Italian counterparts [2]. Nevertheless, these percentages are not negligible and are a cause for concern, as both alcohol and recreational drugs reduce self-control and increase risky behaviors, such as unsafe sex and violence. In this regard, a recent study on adolescent drinking found that adolescents were more likely to start using alcohol and to experience intoxication at an earlier age when living in families in which alcohol was more readily available [13].

In conclusion, our study emphasizes the importance of sex education in improving young people's knowledge of STIs and behaviors. Sex education may have a life-long, positive effect on the health and well-being of young people, and is an investment that is likely to pay off later in the form of reduced health-care and social-support costs. Indeed, those European countries that have a long tradition of sex education can boast the lowest teenage pregnancy rate in Europe (The Netherlands) and a very low prevalence of HIV infections (Sweden) [4].

We are aware that the Albanian population studied was smaller and slightly older than the Italian groups used for comparison. However, having had the opportunity to administer to Albanian students the same questionnaires that had been completed by their Italian peers prompted us to compare these two populations.

## Acknowledgements

Funding sources: this research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

## Conflict of interest statement

The authors declare no conflict of interest.

## Authors' contributions

AP collected data, GC and FD wrote the article, AP, AH, LC, AR, FZ provided support and suggestions.

## References

- Visalli G, Cosenza B, Mazzù F, Bertuccio MP, Spataro P, Pellicanò GF, DI Pietro A, Picerno I, Facciola A. Knowledge of sexually transmitted infections and risky behaviours: a survey among high school and university students. *J Prev Med Hyg* 2019;60:E84-E92. <https://doi.org/10.15167/2421-4248/jpmh2019.60.2.1079>
- Drago F, Ciccicarese G, Zangrillo F, Gasparini G, Cogorno L, Riva S, Javor S, Cozzani E, Broccolo F, Esposito S, Parodi A. A Survey of Current Knowledge on Sexually Transmitted Diseases and Sexual Behaviour in Italian Adolescents. *Int J Environ Res Public Health* 2016;13:422. <https://doi.org/10.3390/ijerph13040422>
- Ketting E, Ivanova O. Sexuality Education in Europe and Central Asia: state of the art and recent developments. An overview on 25 countries. Federal Centre for Health Education. 2018. Available at: [https://www.bzga-whocc.de/fileadmin/user\\_upload/Dokumente/BZgA\\_Comprehensive%20Country%20Report\\_online\\_EN.pdf](https://www.bzga-whocc.de/fileadmin/user_upload/Dokumente/BZgA_Comprehensive%20Country%20Report_online_EN.pdf) [Accessed on: October 2, 2019].
- Beaumont K, Maguire M. Policies for sexuality education in the European Union. European Parliament; 2013. Available at: [http://www.europarl.europa.eu/RegData/etudes/note/join/2013/462515/IPOL-FEMM\\_NT\(2013\)462515\\_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/note/join/2013/462515/IPOL-FEMM_NT(2013)462515_EN.pdf). [Accessed on: October 2, 2019].
- Deptula DP, Henry DB, Schoeny ME. How can parents make a difference? Longitudinal associations with adolescent sexual behavior. *J Fam Psychol* 2010;24:731-9. <https://doi.org/10.1037/a0021760>
- García F, Gracia E. Is always authoritative the optimum parenting style? Evidence from Spanish families. *Adolescence* 2009;44:101-31.
- von Rosen FT, von Rosen AJ, Müller-Riemenschneider F, Damberg I, Tinnemann P. STI Knowledge in Berlin Adolescents. *Int J Environ Res Public Health* 2018;15. pii: E110. <https://doi.org/10.3390/ijerph15010110>
- Saraçoğlu GV, Erdem İ, Doğan S, Tokuç B. Youth sexual health: sexual knowledge, attitudes, and behavior among students at a university in Turkey. *Noro Psikiyatir Ars* 2014;51:222-228. <https://doi.org/10.4274/npa.y6768>
- Almeida RAAS, Corrêa RDGCF, Rolim ILTP, Hora JMD, Linard AG, Coutinho NPS, Oliveira PDS. Knowledge of adolescents regarding sexually transmitted infections and pregnancy. *Rev Bras Enferm* 2017;70:1033-1039. <https://doi.org/10.1590/0034-7167-2016-0531>
- Burazeri G, Roshi E, Tavaxhi N, Rrumbullaku L, Dasho E. Knowledge and attitude of undergraduate students towards sexually transmitted infections in Tirana, Albania. *Croat Med J* 2003;44:86-91.
- Gyarmathy VA, Thomas RP, Mikl J, McNutt LA, Morse DL, DeHovitz J, et al. Sexual activity and condom use among Eastern European adolescents - the Study of Hungarian Adolescent Risk Behaviours. *Int J STD AIDS*. 2002;13:399-405.
- Shannon CL, Klausner JD. The growing epidemic of sexually transmitted infections in adolescents: a neglected population.

Curr Opin Pediatr 2018;30:137-43. <https://doi.org/10.1097/MOP.0000000000000578>

[13] Chan GCK, Leung J, Kelly AB, Connor J, Edward S, Hall W, Degenhardt L, Chiu V, Patton G. Familial alcohol supply, ado-

lescent drinking and early alcohol onset in 45 low and middle income countries. Addict Behav 2018;84:178-85. <https://doi.org/10.1016/j.addbeh.2018.04.014>

Received on October 21, 2019. Accepted on November 21, 2019.

**Correspondence:** Giulia Ciccarese, Dermatologic Clinic, Policlinico San Martino, largo Rosanna Benzi 10, 16132 Genoa, Italy. Phone: +39 010 5555753 - E-mail: [giuliaciccarese@libero.it](mailto:giuliaciccarese@libero.it)

**How to cite this article:** Ciccarese G, Drago F, Herzum A, Rebora A, Cogorno L, Zangrillo F, Parodi A. Knowledge of sexually transmitted infections and risky behaviors among undergraduate students in Tirana, Albania: comparison with Italian students. J Prev Med Hyg 2020;61:E3-E5. <https://doi.org/10.15167/2421-4248/jpmh2020.61.1.1413>

© Copyright by Pacini Editore Srl, Pisa, Italy

*This is an open access article distributed in accordance with the CC-BY-NC-ND (Creative Commons Attribution-Non-Commercial-NoDerivatives 4.0 International) license. The article can be used by giving appropriate credit and mentioning the license, but only for non-commercial purposes and only in the original version. For further information: <https://creativecommons.org/licenses/by-nc-nd/4.0/deed.en>*