Knowledge and practice of contraception among Greek female medical students

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ABSTRACT

Objective  In Greece, modern contraceptive methods are used on a limited scale. This study aimed to investigate the knowledge as well as the practice of contraception among female medical students in Greece.

Study design  Knowledge and practice of contraception of 102 female graduating medical students were assessed with a self-administered, anonymous questionnaire.

Results  Most students were using condoms as the only contraceptive method (45.1%) and 16.7% were not applying any contraceptive method at all. Oral contraceptives were used as only contraceptive means by 4.9% of the students and in combination with condoms by another 4.9%. Condoms were thought to be the most effective contraceptive method available by 28.4% of the students, whereas 4.9% responded that they did not consider any contraceptive method to be effective. Only 55.9% of the students had ever asked their gynaecologist about contraception.

Conclusion  Much more time should be spent in teaching contraception in the Greek medical schools to ensure the delivery of adequate family planning guidance by future practitioners.

KEY WORDS  Contraception, Oral contraceptive pill, Greece, Medical students, Abortion, Condom

INTRODUCTION

Beyond the well-documented benefits of family planning (FP) to the health of women and the welfare of their children, contraception is a key factor for a better-balanced and rewarding life for both women and men. Greece follows the trends observed in many European and other developed countries of controlling family size and delaying childbirth; demographic studies have revealed a birth-rate reduction from 2.23 in 1980 to 1.30 in 1996. The fertility rate in the Greek population is estimated to have declined even further, reaching 1.24 for the period 2000–2005.

In developed countries, birth control was primarily achieved through a gradual transition from a culture of termination of pregnancy (TOP) to a culture of contraception. In Greece, modern contraceptive methods are used on a limited scale and many people continue to rely on traditional methods of birth
control (coitus interruptus or the rhythm method) and on TOP. This delay of Greece to complete the contraceptive transition can be attributed both to the relative lack of systematic information and education regarding sexual health and contraception and the lack of emphasis on adequate FP counselling.

Many studies have highlighted the important role of physicians as providers of knowledge on contraceptive methods. However, there is a paucity of data regarding the knowledge of contraceptive methods among Greek medical students, who are the future health care providers. The aim of this study was to investigate the knowledge as well as the practice of contraception among female medical students in Greece.

**Subjects and Methods**

Final year medical students of the Aristotle University of Thessaloniki are evenly allocated according to their registration number to one of the four University Departments of Obstetrics and Gynaecology. During this rotation, they attend a three-week clinical course pertaining to this specialty. The sample we assessed consisted of 102 female graduating medical students, with a median age of 25 years (range 24–26 years), attending this clinical course in the 1st University Department of Obstetrics and Gynaecology. The participants in our survey therefore represent a randomly selected one fourth of the total number of graduating female students of the Medical School. A self-administered, anonymous questionnaire was designed to explore students’ knowledge, attitudes, and practices regarding contraception and TOP. Members of the research team explained the purpose of the study and distributed the questionnaires to all female students. All gave written informed consent before receiving a questionnaire and approximately 95% (102/107) returned this latter. The study was approved by the ethics committee of our institution and was performed in accordance with the principles of the Declaration of Helsinki.

All data were analysed using the statistical package SPSS (version 10.0; SPSS Inc., Chicago, IL). The chi-square test was used for comparisons between groups and a p value smaller than 0.05 was considered as statistically significant.

**Results**

Ninety-seven of the 102 respondents were single (95.1%) and five were married; only one (married) student had a child. Except for the latter participant, all stated never to have been pregnant. Most students (91.2%) claimed that they were informed about FP. In addition, when they were asked to select from a list of contraceptive methods that they were aware of (sterilization, intrauterine contraceptive devices (IUDs), oral contraceptives (OCs), condoms, diaphragms, spermicides, periodic abstinence, coitus interruptus), 45.1% claimed knowledge of all FP methods (Figure 1). However, when they were asked which one of these methods they considered as the most effective, only 24.5% selected sterilization and only 2.0% selected IUDs; in contrast, 28.4% regarded condoms as the most effective contraceptive method available and 4.9% responded that they did not consider any contraceptive method to be effective (Figure 2).

Regarding contraceptive practice, condoms as only contraceptive means were used by the greatest number of students (45.1%), followed by condom and coitus interruptus used in alternation (13.7%). Some participants (7.8%) were using only coitus interruptus and 16.7% were not using any contraceptive method at all. Oral contraception was used as only method by 4.9% of the students and in combination with condoms by another 4.9% (Figure 3). Of those not taking OCs, 38.9% said that they would not agree to use these even if their gynaecologist suggested doing so, and 20.0% said they did not know what they would do in that case. One out of four (27.5%) answered that OCs increase the risk of cancer, while 16.7% had no opinion in this regard. The belief regarding the OCs’ association with cancer differed significantly neither between OC users and non-users (p = 0.64), nor between those who had been informed about OCs by their gynaecologist and those who had not (p = 0.08).

Most students (86.3%) stated that they discussed contraception with their sexual partner. Most (89.2%) also considered that decisions about contraception should be shared, whereas the rest (10.8%) believed that they should decide on their own; none of the students believed that their partners should make this decision alone.
Only 55.9% of the students had ever asked their gynaecologist about contraception. The contraceptive practice of students who had consulted their gynaecologist about contraception differed significantly from that of students who had not ($p < 0.05$; Figure 4). None of those who had not asked their gynaecologist about contraception were using an OC compared with 21.1% of those who had consulted their gynaecologist ($p = 0.003$; Figure 4).

Regarding TOP, the majority responded that they were afraid to undergo such a procedure and that they believed that induced abortions are associated with complications (96.1% and 99.0%, respectively). None of the students stated ever to have undergone a TOP.
Figure 3 Contraceptive practice in the entire study population (n = 102). *Condom, periodic abstinence and coitus interruptus (2.9%); periodic abstinence (2.0%); oral contraceptive and coitus interruptus (1.0%); oral contraceptive, condom and coitus interruptus (1.0%)

Figure 4 Students’ contraceptive practice according to previous consultation of their gynaecologist about contraception. *After gynaecological consultation: condom, periodic abstinence and coitus interruptus (5.3%); oral contraceptive, condom and coitus interruptus (1.8%); oral contraceptive and coitus interruptus (1.8%). Without gynaecological consultation: periodic abstinence (4.4%)
DISCUSSION

Our study shows that the pattern of practice of contraceptive methods among medical students during the last year of their studies is similar to that observed in the general population in Greece (Figure 3)1. This can be partly attributed to some of the students’ erroneous perception of the relative efficacy of the contraceptive methods. In a study conducted in an English Medical School, the mean percentage of correct answers on sexual health issues was only 60%. Most English medical students grossly underestimated the failure rate of condoms12. One can hypothesize that a relative lack of focus on contraceptive issues in medical schools, limited teaching hours and even ethical and religious issues could contribute to these rather alarming results. This inaccurate knowledge of medical students with regard to important sexual health issues will hamper the provision of accurate information to their future patients, as well as to their social environment.

According to a recent survey, only 4.8% of Greek women of reproductive age were using an OC and only 3.7% were wearing an IUD13. Condoms represented the most commonly used method (33.9%)1. A considerable proportion of Greek women relied on ineffective methods such as coitus interruptus (28.8%) and as many as 23.8% used no contraception at all1. A study among Greek university students gave similar results, condoms being the contraceptive method most frequently resorted to (64.2%), followed by coitus interruptus (24.0%)13. Thus, it appears that current contraceptive practices among Greek women resemble those in Eastern and some Southern European countries5,14. According to an earlier study, coitus interruptus was the most frequently used method of contraception in Southern Italy13. In a recent study, the condom was found to be the main means of contraception in Italy and Spain; in addition, 17% of women in Italy were using less reliable methods (cap/diaphragm, chemical methods and coitus interruptus)5. In contrast, in Western European countries, 60–72% of women of reproductive age apply effective methods5,14. For instance, oral contraception was the method most often used in France, Germany and the United Kingdom5.

A major factor contributing to the inadequate utilization of appropriate contraception in Greece is the relative lack of information on FP issues6,8. In a recent countrywide survey, only 30.6% of women and 14.7% of men were able to answer correctly 50% or more of the questions on knowledge of basic contraceptive issues8. Many factors contribute to this knowledge gap. Sex education is not widely implemented in the Greek educational system7,10. Family does not play a strong influence either, since parents are often reluctant to discuss sexual issues with their children10. Additionally, formal counselling by state institutions and social services lacks behind and the advisory system for adolescents and young couples run by the National Health Service is inefficient7,10. The FP centres (FPCs) are currently operational mainly in the large cities, and not in the more rural and remote areas, with associated lower-than-average income and education7.

Significant findings of our study were that many medical students were concerned about the potential of OCs to cause cancer and that many stated that they would not use OCs even if their gynaecologist suggested so. A large proportion of the general Greek population is also unaware of current information regarding OCs’ safety15. These findings, in combination with the fact that most Greek women consider safety as the most important feature of the ideal contraceptive (75.6%), probably account for the rather low popularity of OCs among Greek women.

A direct consequence of the low prevalence of modern contraceptive use in Greece is the great number of surgical TOPs carried out in our country compared with other European countries.6,7 One in four women of reproductive age in Greece had had at least one induced abortion.7 In our study, no medical student admitted to ever have had a TOP; however, it is possible that some of them would not have disclosed such information, even in an anonymous questionnaire.

Other important findings of this study were that the majority of our sample felt that decisions regarding contraception should be shared and that most discussed contraception with their sexual partner. In contrast, 52.0% of the women in the general Greek population believed that the man was the one who should decide on contraceptive matters, and this rate was even higher (64.3%) in the younger age group (19–24 years)1. Thus, it appears that female medical students adopt a more active role in the practice of contraception, and this might be attributed to their educational and socio-economic status, but also to
their perceived knowledge of FP issues. In the general Greek population, women with a higher level of knowledge about contraception considered more frequently that women should decide about the method of contraception. The fact that most female medical students are aware of the importance of their participation in decision-making regarding the practice of contraception is the most encouraging finding of this study; however, it stresses even more the importance of women’s knowledge of contraceptive issues, which allows them to make the proper choice of a method.

Our study has several limitations. The most important shortcoming is the small number of subjects assessed. It is questionable whether this small sample of a single medical school represents the entire population of Greek senior female medical students. Furthermore, social desirability might have driven the participants to provide more ‘socially acceptable’ answers to several questions, such as those related to a previous TOP and to decision-making over contraceptive use. Thus, our findings should be interpreted with caution and require confirmation in larger studies.

In conclusion, it appears that some future health care providers in Greece have insufficient knowledge of major contraceptive issues and this is reflected in their contraceptive practice. Much more time should be spent in teaching contraception in the Greek medical schools in order to ensure the delivery of adequate FP guidance by future medical practitioners.

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