

MEDICAL STUDENTS' ATTITUDES TOWARDS CONTRACEPTION

Martin Kajić¹, Vajdana Tomić², Marko Martinac¹, Matija Mikulić-Kajić² & Martina Orlović²

¹School of Medicine, University of Mostar, Mostar, Bosnia and Herzegovina

²Department of Obstetrics and Gynecology, University Hospital Mostar, Mostar, Bosnia and Herzegovina

SUMMARY

Background: The student population is at higher risk of acquiring sexual transmitted diseases (STDs) and accounts for a higher incidence of unplanned pregnancies due to a combination of lifestyle and environmental reasons.

Aim: To determine the attitudes of medical students towards contraception.

Methods: A total of 190 students of the School of Medicine of University of Mostar attending four different-academic years participated in this cross-sectional study. Attitudes of participants towards contraception were examined using an anonymous questionnaire.

Results: Sexually active students accounted for 61.1% of participants, of which 52.6% regularly used contraception. The most common method of contraception was male condom (90.3%). The main reason for contraception was to avoid pregnancy (64.1%). Students with higher medical education ($p < 0.001$) and students with non-religious views ($p = 0.004$) had positive attitudes towards contraception. There were no gender differences on contraception views.

Conclusion: Students with higher medical education and those with non-religious views had positive attitudes towards contraception. Therefore, education on contraception assumes its wider use, which is an important measure to reduce the incidence of STDs and unwanted pregnancies in high-risk population.

Key words: contraception - attitudes - medical students

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INTRODUCTION

Young adults are uniquely susceptible to social and environmental influences which, to a lesser or greater extent, affect their knowledge, attitudes and behavior in the area of sexuality and reproduction (Radovanović 2010). Sexually transmitted diseases (STDs) have become a major public health problem in most developed countries. The World Health Organization (WHO) estimates that, each year, there are over 500 million new cases of STDs worldwide (see WHO 2013). *Adolescents and young adults (15-24 years old) make up only 25% of the sexually active population, but represent almost 50% of all new acquired STDs (Da Ros 2008).*

Education about the importance of *contraceptive use* has an *important role* in protection against sexually transmitted diseases, as well as in the prevention of morbidity and mortality of women *due to* complications associated with *abortion* procedures (Berisavac 2009).

Since many students have been sexually active, it is important to be informed about contraceptive options.

The aim of this study was to determine the attitudes of medical students at the University of Mostar on contraception, and the connection of these attitudes with the length of study, gender and religion.

SUBJECTS AND METHODS

The study was conducted in April, 2014 at the University of Mostar. It included a total of 190 students attending four different-academic years: 53 first-year students, 44 second-year students, 50 fifth-year students and 43 sixth-year students.

Data were collected using a questionnaire consisting of two parts. The *first part of the questionnaire* was consisted of ten *questions* which were related to gender, year of study, religion, sexual orientation, romantic relationship status, sexual activity, number of sexual partners, contraceptive use, the most commonly used method of contraception and the most common reasons for using contraception (Heisler 2012).

The second part of the questionnaire consisted of a scale on contraception (Contraceptive Attitude Scale) developed by Dr. Kelly Black (Handbook of Sexuality-Related Measures 2011). This scale was used to measure general attitudes on contraception. The scale consisted of 17 positively and 15 negatively worded items to which respondents indicated their agreement or disagreement using a Likert scale. Possible responses ranged from 1-strongly disagree, 2-partially disagree, 3-undecided, 4-partially agree and 5-strongly agree. Respondents were asked to answer each question and to circle one out of five offered responses that reflected their personal attitude.

For positive assertions answer "strongly disagree" received a score of 1, and the answer „strongly agree" received a score of 5. For negative statements it was the other way around, where the answer "strongly disagree" received a score of 5, and the answer "strongly agree" received a score of 1.

The total score was a sum of the responses to each item. The higher scores indicated more positive attitudes towards contraception while lower scores indicated more negative attitudes towards contraception.

A score of 5 of the final result indicated a very positive attitude.

Prior to the administration of the questionnaires, all the participants gave informed consent. It was emphasized that the test was anonymous and that the results would be used exclusively for research purposes. Respondents who agreed to participate in the study were given a questionnaire and they filled it out individually.

The Student's t-test was used to test the differences among variables. The software system SPSS for Windows (SPSS Inc, Chicago, Illinois, USA) and Microsoft Excel (Microsoft Corporation, Redmond, WA, USA) were used in the statistical analysis.

RESULTS

We have included 190 students in the study, and 131 of them or 68.9% were female. More than two-thirds, or 85.3% (n=162) of the students stated that they were religious and 61.1% (n=116) stated that they were sexually active.

The average age of the first sexual intercourse among female students was 18.7±1.9, and male students 17.5±1.7 years. Among all sexually active students (n=116), 61 of them or 52.6% regularly used contraception.

The frequency of use of various types of contraceptives among sexually active participants is shown in Figure 1. It can be seen that 90.3% of all respondents used the male condom as a contraceptive (Figure 1).

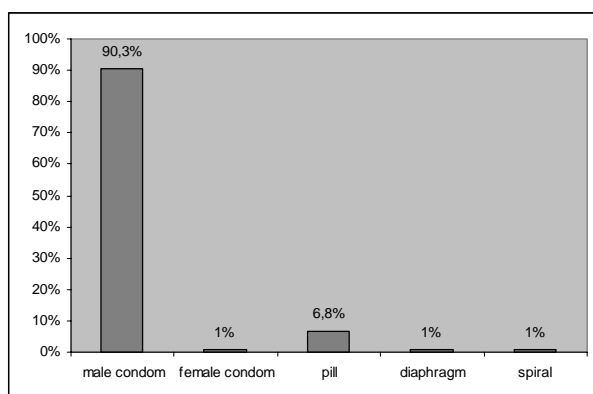


Figure 1. The frequency of use of contraceptives by the students of the School of Medicine at University of Mostar

Among sexually active participants 64.1% of them use contraception for pregnancy prevention.

Table 1. Comparison of students with shorter and students with longer medical training in relation to attitudes towards contraception

	Year of study				t	p
	1 and 2		5 and 6			
	\bar{X}	SD	\bar{X}	SD		
CAS	3.64	0.64	4.04	0.60	4.471	<0.001

CAS-Contraceptive Attitude Scale

The comparison of attitudes towards contraception in relation to gender, length of study and religion, showed

a statistically significant difference in the two studied variables. Students with higher medical education (t=4.471; p<0.001) and non-religious students (t=2.877; p=0.004) (Table 1 and Table 2) had a positive attitude towards contraception. There were no gender differences in attitudes (Table 3).

Table 2. Comparison of religious and non-religious students in relation to attitudes towards contraception

	Religion				t	p
	Important		Not important			
	\bar{X}	SD	\bar{X}	SD		
CAS	3.78	0.65	4.16	0.59	2.877	0.004

CAS-Contraceptive Attitude Scale

Table 3. Comparison of male and female students in relation to attitudes towards contraception

	Gender				t	p
	M		F			
	\bar{X}	SD	\bar{X}	SD		
CAS	3.75	0.66	3.87	0.65	1.159	0.248

CAS-Contraceptive Attitude Scale

DISCUSSION

Our study showed a significant connection of medical students' attitudes towards contraception and their level of medical education and whether they are religious or not. Previous studies have also shown that students' attitudes on contraception were largely influenced by medical education they gain; as the education is longer and the clinical experience larger, attitudes on contraception were more likely to be positive (Ugoji 2013). A significant change in attitude during the study could be further researched by examining the same group of students at the beginning and at the end of the study. Such research could clearly determine whether students' attitudes become more positive as they progress in their medical training.

A statistically significant difference was observed in our study when the position on contraception was compared to whether students are religious or not. Non-religious students had more positive attitudes toward contraception. These findings are consistent with previous studies on the relationship between religion and contraceptive use (Odimegwu 2005). Religious people generally have more conservative attitudes compared to non-religious.

It is known that religious commitment is more important than religious affiliation in affecting adolescent sexual attitudes and behaviors. Thus, individuals who follow the teachings of his or her religion are more likely to develop sexual attitudes and behaviors that are consistent with their religious teachings (Odimegwu 2005).

Sexual behavior that is absolutely in line with religious teachings eliminates the need for contraception. The comparison of students' attitudes towards contraception and their gender did not result in any statistically

significant difference. These findings are consistent with previous studies in which women and men share similar attitudes towards sexual behavior (Speizer 2001).

A total of 61.1% of the students involved in the study were sexually active. The average age they had the first sexual intercourse was 18.7±1.9 years for females and 17.5±1.7 years for males. According to previous research, the average age of becoming sexually active in Croatia is about 17 for both, males and females, or for males a year earlier (Gilliam 2004, Juhović 2003). Thus, the average age of the first sexual intercourse in our participants was higher in comparison with the general population of young people in Croatia as well as in other European countries (Greenland, Denmark, Belgium, Bulgaria, Wales and Scotland).

However, young people are likely to have their first sexual intercourse earlier. That is why education and attitudes towards youth sexuality should be adjusted (Kuzman 2014).

The most popular method of contraception among the tested students was the male condom (90.3%). Students used other contraceptives: pills (6.8%), diaphragm (1%), the female condom (1%) and spiral (1%). During the sexual intercourse 11.2% of the respondents didn't use any contraception, which was, compared to other studies, significantly different or unsatisfactory (Heisler 2012). Thus, in a study conducted at the "University of New Hampshire," 58.4% of the students as the primary form of contraception used the pill, 24.7% of students used the male condom, and only 3.7% of students had unprotected sex (Heisler 2012).

It was stated in the University of New Hampshire study that 64.9% of respondents used contraception to prevent pregnancy and 35.1% for the prevention of STDs. The data above showed that the main reason for the use of contraceptives was to prevent unwanted pregnancy and not STDs. This should concern all because the university students are at the highest risk for unplanned pregnancy and sexual transmitted diseases due to a combination of lifestyle and environmental factors. Moreover, medical students are assumed to be the most educated on contraceptive use and STDs.

In contrast, attitudes towards contraception were strongly associated with contraceptive use: those who used contraceptives consistently had the most positive attitude. In addition, higher educated students had a positive attitude towards contraception and it could be assumed that appropriate training could improve attitudes about contraception, which would eventually lead to its wider use.

Correspondence:

Martin Kajić, MD

School of Medicine, University of Mostar

Splitska 20, Mostar, Bosnia and Herzegovina

E-mail: martinkajic@gmail.com

CONCLUSION

Students with higher medical education and non-religious students had positive attitudes towards contraception. Therefore, education on the use of contraception and responsible sexual behavior would be an important measure to reduce the incidence of STDs and unwanted pregnancies in high - risk population.

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Conflict of interest : None to declare.

References

1. Berisavac M, Sparić R, Argirović R: *Contraception: modern trends and controversies. Spr Arh Celok Lek* 2009; 137:310-19.
2. Black KJ, Pollack RH: *The development of a contraceptive attitude scale. In: Fisher TD, Davis CM, Yarber WL, Davis SL, editors. Handbook of Sexuality-Related Measures. 3rd ed., 179-80. New York: Routledge, 2011.*
3. Da Ros CT, Schmitt CS: *Global epidemiology of sexually transmitted diseases. Asian J Androl* 2008; 10:110-14.
4. Gilliam ML, Warden MM, Tapia B: *Young Latinas recall contraceptive use before and after pregnancy: a focus group study. J Pediatr Adolesc Gynecol.* 2004; 17:279-87.
5. Heisler K, Van Eron DM: *A descriptive study of undergraduate contraceptive attitudes among students at the University of New Hampshire. Honors Theses, 2012.*
6. Juhović MV, Koder KI, Jureša V: *The knowledge about sexuality and sexual behavior of the Zagreb high-schoolers. U: Proceedings. XII Congress of European Union for School and University Health and Medicine. Ljubljana, 2003: 51.*
7. Kuzman M, Posavec M, Marić I: *School health services in the City of Zagreb-do we meet adolescents' needs? Psychiatr Danub* 2014; 26:476-84.
8. Odimegwu C: *Influence of religion on adolescent sexual attitudes and behaviour among Nigeria University Students: affiliation or commitment? African Journal of Reproductive Health.* 2005; 9:125-40.
9. Radovanović S, Kocić S, Sorak M, Milić C: *Attitudes and behaviour of students related to reproductive health. Med Pregl* 2010; 63:859-62.
10. *Sexually transmitted infections (STIs). Available at: <http://www.who.int/mediacentre/factsheets/fs110/en/>*
11. Speizer IS, Mullen SA, Amagee K: *Gender differences on adolescent reproductive behaviors in Togo. International family planning perspectives* 2001; 27:178-85.
12. Ugoji FN: *An examination of University Students Attitude to Contraceptive Use. Am J of Social Sci* 2013; 2:18-22.

THE INFLUENCE OF DRAINAGE IN THE TREATMENT OF CHRONIC PILONIDAL SINUS DISEASE USING MIDLINE CLOSURE

Nikica Šutalo¹, Martina Šoljić¹, Davor Kozomara¹, Joško Petričević², Daniela Bevanda Glibo³, Ante Bošnjak¹ & Vjekoslav Čuljak¹

¹Department of Surgery, University Clinical Hospital Mostar, Mostar, Bosnia and Herzegovina

²Department of Pathology, Cytology and Forensic Medicine, University Clinical Hospital Mostar, Mostar, Bosnia and Herzegovina

³Department of Internal Medicine, University Clinical Hospital Mostar, Mostar, Bosnia and Herzegovina

SUMMARY

Unsatisfactory postsurgical end results in the treatment of chronic pilonidal sinus disease caused by long term healing, pain, inconvenience and recurrences of the lesion still remain problem after various surgical techniques have been described and used. This study was designed to show results of several aspects of midline closure technique with respect for surgical complications, hospitalization length and recurrence. This study included 90 patients with pilonidal sinus treated by surgery with midline closure at the department of General surgery of Clinical Hospital Mostar between January 2004 and January 2009. The patients were divided in three groups considering the type of drainage used. Data collected retrospectively included demographics, positive diagnosis of chronic pilonidal sinus, operative technique, type of drainage, complications, hospital stay and recurrence of the disease. Mean hospital stay after excision and midline closure technique was 4.68 days. Complication rate was 18/90 (20%). Infection occurred in 18 patients (20%), dehiscence occurred in 10 patients (11.1%). Mean recurrence rate during follow up period was 12/90 (13.3%); range, 24-84 months. There was no statistically significant difference among three groups in hospital stay length ($p>0.05$), in complication rate ($\chi^2=1.66$, $p>0.05$), nor in recurrence rate ($\chi^2=1.91$, $p>0.05$). Statistically significant difference was shown between complication rate among non drained and actively drained patients ($\chi^2=1.11$, $p<0.05$).

Primary midline closure is not a satisfactory method in the treatment of chronic pilonidal sinus, especially without drainage, leading to numerous complications and high rate of recurrence.

Key words: pilonidal sinus disease – surgery - midline closure

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INTRODUCTION

Pilonidal sinus is a disease that most commonly arises in the hair follicles of the natal cleft of the sacrococcygeal area (AL-Khamis et al. 2010). It is a common disabling disorder that causes considerable suffering, inconvenience, and time lost from work. Unsatisfactory postsurgical end results caused by long term healing, pain, inconvenience, long time off work and finally, recurrences of the lesion, still remain problem after various surgical techniques described and used. An operation that results in reliable primary wound healing and few wound management problem, a short period of hospitalization, minimal postoperative pain and morbidity, rapid return to normal daily activity and low risk of recurrence are seen as requirements to optimal therapy (Sakr et al. 2006). Numerous surgical procedures have been described, but treatment failure and disease recurrence are frequent, leading to considerable morbidity in these otherwise healthy patients (Bendewald et al. 2007).

In our institution two procedures have been in wider use for a respectively long time: wide excision and open granulation which had been abandoned recently due to a long healing process and unsatisfactory cosmetic results and sinus excision with primary midline closure, with or without drainage. Only recently we have started to use

asymmetric or oblique closure techniques or plasty techniques.

This study was designed to show results of several aspects of midline closure technique with respect for surgical complications, hospitalization length and recurrence.

SUBJECTS AND METHODS

This study included 90 patients, with pilonidal sinus surgically treated with midline closure at the department of General surgery of Clinical Hospital Mostar between January 2009 and January 2014. There were 9 (10%) women and 81 (90%) men. Data collected retrospectively included demographics, positive diagnosis of chronic pilonidal sinus (CPS) and operation technique, type of drainage, complications, hospital stay and recurrence of the disease.

Patients were categorized in three groups, in each group there were 30 patients. Patients in group one were treated with excision and midline closure technique without drainage. Patients in group two were treated with the same operative procedure using active drainage whereas patients in group three were under passive drainage, using Penrose drains. All patients received postoperative antibiotic therapy (metronidazole + first generation cephalosporin).