

Facts about Contraception in Adults from Mureş County

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Abstract

Objective: To establish knowledge level and behaviour regarding contraception in a group of adults in Mures County, in order to develop an efficient family planning programme.

Methods: It was a descriptive epidemiological study, performed in 2005. The collected data were statistically evaluated by the aid of Epi Info software. Were used distinctive self-evaluation questionnaires for males and females, completed by a total number of 991 subjects.

Results: Sexual education in Mures County is medium-level and presents deficiencies. Protection during the first sexual act is not an option for most of the interviewees. The first pregnancy is usually not planned because of lack of information regarding contraception but the second one is desired and expected. The Calendar method (Rhythm method) is the most widely used method in contraception. Women are less instructed regarding the use of condom. Barrier contraception methods are less familiar than intrauterine appliances. Hormonal methods are safely and efficiently used by a great number of persons. Unfortunately medical services are not sufficiently involved in alerting people regarding the side effects of combined oral contraceptives.

Conclusions: We can achieve an adequate level of knowledge in this field by individual sexual behaviour modeling and appropriate health education of the population. Adequate prevention services are also required in order to reduce morbidity and to improve the health status of the population.

Keywords: contraception, sexual behaviour, reproductive health, sexual education

Introduction

Demographical behavior is determined by legal limitations and at the same time by social, economical and educational factors in a couple's life, our country being a negative example in this case. Nowadays, abortion and natural contraceptive methods still prevail in our country in the detriment of instrumental and hormonal methods, which have a reduced economic accessibility. Therefore contraceptive education is a requirement in order to maintain reproduction health^(1,2).

The aim of this study was to establish the level of information and behavioral characteristics regarding contraception in a representative group of adults from Mures County, in order to develop an efficient family planning program in this region.

Method

This is a descriptive epidemiological study, conducted in 2005, in which was used self-evaluation questionnaires involving 991 adult subjects.

The group characteristics were: 548 (55.29%) female subjects, 443 (44.70%) male subjects; 324 (32.69%) from rural areas and 667 (67.31%) from urban areas. The surveyed subjects were predominantly females and from urban categories.

The surveyed population's educational level was as follows: 14.53% (144) attended 4 classes; 14.53% (144) attended 7-10 classes; 29.56% (293) graduated high-school; 19.17% (190) graduated trade school; 22.19% (220) had a university degree. Most of them graduated high-school. The number of persons who attended only 4 classes is almost 3 times higher in rural areas than in urban areas. After finishing their studies at a minimum required level, rural people's interest in continuing their studies decreases dramatically.

The interviewees belong to different social categories. Regarding their main occupation they were:

- 40.26% (399) farmers, laborers;
- 29.56% (293) technicians, foremen, office workers;
- 12.19% (120) people with occupations that require superior studies;
- 0.02% (2) employers;
- 8.77% (87) unemployed;
- 9.08% (90) students.

In rural areas the most common occupation is farming, their percentage being almost equal to that of office workers' in urban areas. In urban areas the percentage of unemployed people almost equals students' percentage.

The majority of our subjects were married with legal papers, while the proportion of those separated and divor-

ced was almost one third (1/3) of those who were married (18.46% and 66.70%).

The collected data were statistically evaluated using Epi Info 6.0 software.

Results

For this study the questions investigated the following aspects: sexual activity, birth-rate and contraception.

The collected data did not reveal a correlation between menarche, first ejaculation, first sexual contact and first marriage; these three are directly related to age.

Menarche appears later in girls from rural areas (102 cases, with their age ranking between 14-16 years) with $p=0.05$ not significant or using the difference between the two areas $D=0.0837$, 95% IC-0.0036 to 0.1701, while in girls from urban areas appears earlier (148 cases, with their age ranking between 12-14 years) with $p = 0,38$ not significant also for the difference between the two areas a $D = 0.043$, 95% CI-0.0445 to 0.1286. The difference between the 2 environments can also be caused by stress factors.

Most girls from either area started their sexual life at about the same age (16-18 years) with no significant sta-

Table 1

Distribution according to the time of menarche, first ejaculation, first sexual intercourse, first marriage, related to gender and environment

Environment	Sex	Total No. of cases %	Age (years)	Menarche/First ejaculation No. of cases	First sexual intercourse No. of cases	First marriage No. of cases
Rural area	F	216 66.66	10-12	24	0	0
			12-14	87	2	0
			14-16	102	21	0
			16-18	3	89	3
			18-20	0	74	167
			20-25	0	30	39
			25-30	0	0	7
	30-40	0	0	0		
	B	108 33.33	10-12	13	0	0
			12-14	49	4	0
			14-16	0	16	0
			16-18	0	52	3
			18-20	0	28	34
			20-25	0	8	51
25-30			0	0	20	
30-40	0	0	0			
No answer	46	0	0			
Urban area	W	332 49.77	10-12	51	2	0
			12-14	148	24	0
			14-16	129	85	0
			16-18	4	126	14
			18-20	0	41	52
			20-25	0	33	179
			25-30	0	14	81
	30-40	0	6	6		
	B	335 50.22	10-12	48	12	0
			12-14	178	34	0
			14-16	0	56	0
			16-18	0	113	0
			18-20	0	83	23
			20-25	0	37	128
25-30			0	0	97	
30-40	0	0	87			
No answer	109	0	0			

tistical difference ($p = 0.45$). In urban areas, the tendency to start sexual life at an early age is alarmingly high (85 cases out of 332 had their first sexual intercourse at the age of 14-16 years) ($p = 0.00001$). On the other hand, in rural areas most women started their sex life at the age of 18 to 20.

Regarding first marriage, the difference between the 2 environments is obvious: in rural areas this occurs as soon as young people are coming of age. Comparing with urban areas we have an extremely significant difference $p = 0.001$. In urban areas, marriages occur until the age of 25, comparing with rural areas we have also a significant difference $p = 0.01$. There is a discrepancy in cases where people married at the age of 25-30 years (there were 7 cases registered in the rural areas, while in the urban areas 81 cases) with a statistical significant difference ($p = 0.001$).

The optimal period for marriage in rural area is between 18-20 years while in urban area between 20-25 years.

There were a number of cases when the subjects did not answer the question, „At what age did your first ejaculation occur?“ (166 out of total number of 443 males = 37.47%; from both environments). The age period ranking between 16–18 years is the favored period to start sexual activity for both genders (table 1).

Protection during the first sexual act was not important for the questioned persons. 71.24% of them did not use protection during the first sexual intercourse. Even for those who conduct an active sexual life, protection is not priority: 30.37% of those interviewed use protection during sexual intercourse and 55.70% don't (figure 1). Only 13.92% did not start their sexual life yet.

The difference between persons who used protection during their last sexual intercourse and those who used protection during their first sexual act is 254 (15.54%), only a few of them understanding the importance of protection during sexual intercourse ($p = 0.00001$ and $D = 0.1554$, 95% IC 0.1125 to 0.1975).

Our interviewees declared that stability was an important element in their life. Therefore, more than half of the subjects, 649 (65.48%) declared that they have a stable life partner. Those who do not have a stable partner get to the number of 342 (34.51%).

The number of persons with 1 constant sexual partner in their whole life (40%) is significantly higher than those with 5-10 partners (133 subjects out of the total 835 sexually active persons - 15.6%), $p < 0.02$, but almost equal with the number of persons who had 1-5 partners (342 and 362). There was a predominance regarding persons with 1 sexual partner for a short period of time (in the last 3 months) - 649 (65.48%) with a significant difference of $p = 0.0001$.

The quality of the intercourse is determined by these 2 aspects: the frequency of sexual contacts and the duration of relationships.

The frequency of daily intercourses decreases with age, its peak being around the age of 19-25 years (23.71%). Weekly intercourses are maintained at a constant level, not more than 10% over the maximum percentage. The number of monthly intercourses increases with age and

it is the same situation with intercourses every 2 months or more.

The quality is determined by the duration of the relationship as well. Therefore, there is a direct correlation between the graphic of professional activities and the duration of sexual intercourses. Between the age of 19 and 25, the duration is between 5-15 minutes in most cases (17.05%). This duration is preferred by all age groups. Between the age of 25 and 30 a longer time is dedicated to intercourses (in 53 cases the usual duration is 15-30 minutes, 25 subjects declared a duration of over 30 minutes). In the peak of the subjects' professional activity, at an age rank of 30-45 we found numbers of certain equality between cases with duration of 1-5 minutes and those with 5-15 minutes. This duration is also the case of by subjects over 45 years.

In conclusion, the age group preoccupied with the quality of intercourse ranges between the age of 19 and 30 years: they have daily contact, lasting 5-15 minutes. Over 35 years, the frequency of sexual intercourses is weekly, with duration of 1-5 minutes. The quality of this is directly proportional with the quality life and with the duration of professional activities.

The first pregnancy was planned by 124 of the subjects (12.15%), the second pregnancy was planned in 239 cases (24.11%), third pregnancy in 57 cases (5.75%), other pregnancies were planned in 3 cases (0.30%), and 138 subjects (13.92%) had no children. We applied the Chi test between the first and second unplanned pregnancies with a $p = 0.0001$ and $RR = 3.454$, $IC (2.729-4.371)$.

In conclusion first pregnancy usually is not planned, while the second one it is, therefore we suspect that in case of the first pregnancy the couple lacked information regarding family planning, but the second pregnancy was expected and delivered on time (figure 2).

Family planning (defining the number of children) and opting for an appropriate contraceptive method are two aspects in the couple's life which raise discomfort in both partners. That is why communication is crucial.

Regarding communication between partners and family planning, the results of the study were: 73.45% answered affirmatively, 22.53% answered negatively. Selecting the appropriate contraceptive method: is discussed in 64.44% of the cases, 27,8% do not wish to discuss about this matter (figure 3).

The act of selecting the appropriate contraceptive method is a difficult task for a couple, taking into account risks and benefits, its efficiency to prevent pregnancy and side-effects. The revealed morbidity of new contraceptive methods presents a further difficulty in choosing the right prevention method. That is why, information sources regarding birth control are very important.

In both environments, friends were the first choice to ask regarding information on birth control with a statistical significant difference between girls ($p = 0.001$). The choice for contraceptive methods is based on the friends' experiences. State institutions, especially medical and educational ones, do not deal with sexual education. Parents are an information source, especially for girls but

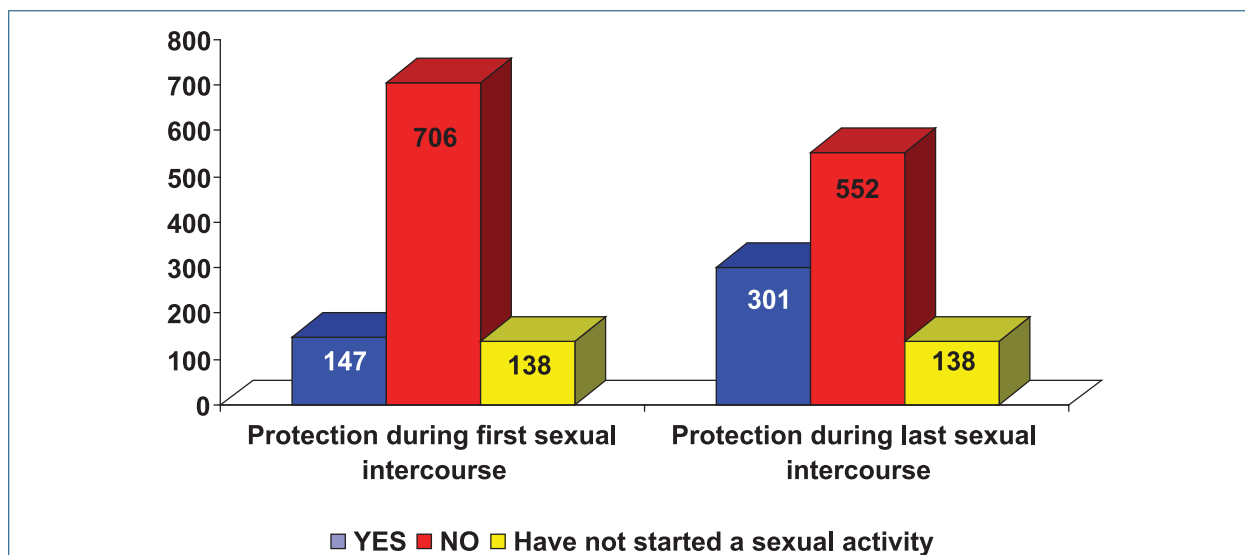


Figure 1. Case distribution according to protection during first and last sexual intercourse

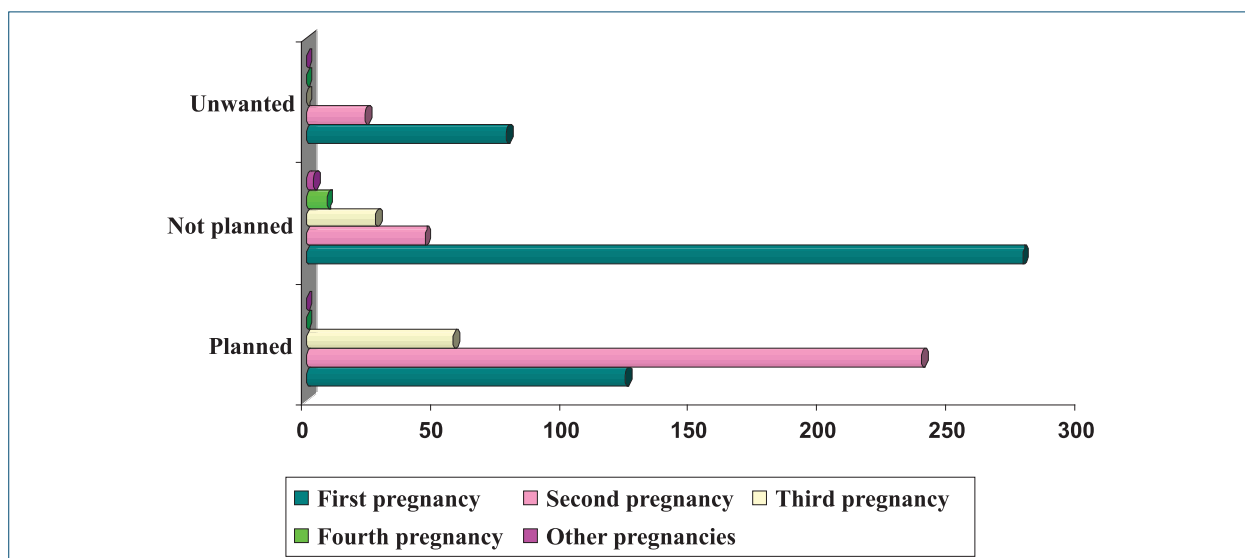


Figure 2. Case distribution (%) related to full-term pregnancy planning

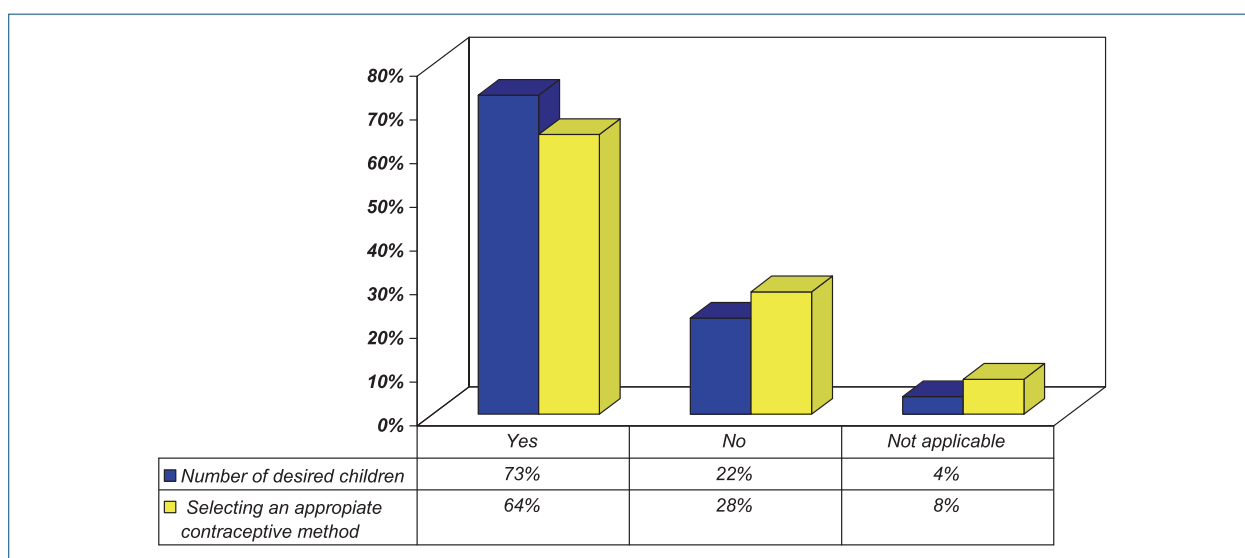


Figure 3. Case distribution (%) according to communication with their partner regarding family planning and selecting the appropriate contraceptive method

with no significant difference between the two areas $p = 0.88$ and for boys also ($p = 0.53$).

Books, magazines (for girls of two areas we have $p = 0.008$ significant) and mass media (also for girls $p = 0.05$ not significant) are mentioned as information sources in urban areas, because of easier access to them (table 2).

Henceforth, we tried to establish the minimum level of knowledge related to contraceptive methods.

Periodic abstinence method depends on the couple's ability to identify the fertile phases of every menstrual cycle and on the couple's motivation and discipline to practice abstinence when necessary.

Our statistical data shows an extremely significant difference ($p = 0.0001$ with $RR = 1.5$, $IC = 1.384-1.627$), between man and women regarding their level of knowledge of fertile stages, with a bigger risk for man to choose the wrong answer for about 1.5 times. Fertile stages are correctly recognized by a relatively low percentage of cases (29.66%). Therefore, appropriate and relevant counseling, proper understanding and assimilation of information and regular check-ups could represent a solid support, all of the above mentioned issues being the elements of an efficient method. Those who consider this method difficult to use, have other accessible options.

Most women have heard about, and know how to use, the calendar method. Men have heard about this method in 60.42% of the cases (598 subjects) and know how to use it in 43.97% of the cases (435) (figure 5). This shows that it is the most known and practiced method.

The interviewed people who have heard about the basal body temperature method are in almost equal percentage. The number of persons who know how to use it is about half of those who have heard about this method (figure 6).

The coitus interruptus method is known by the majority of subjects:

- 865 (87.38%) have heard about the method;
- 777 (78.54%) know how to use it.

Barrier contraceptive methods offer protection against pregnancy by blocking the entrance of sperm cells in the uterine cavity. Some of them, especially condoms, offer protection against sexually transmitted diseases, including HIV too^(3,4,5).

It is obvious that women are less informed regarding the use of condoms (figure 7). Older men are also less informed than younger ones regarding this method. Older men did not have any contact with this information and learn to cope without condoms, as this opportunity was not available when they began their sexual activity.

Concerning awareness of the existence and use of diaphragm and spermicides, females and our urban subjects are better informed than males and rural subjects.

When asked the question „Have you heard about IUS (intra-uterine system)” the results were:

- 453 (45.83%) answered „yes”;
- 145 (14.72%) answered „no”;
- 391 (39.55%) did not answer.

To the question „Do you know how to use it?” the results were:

- 86 (8.66%) answered „yes” ($p = 0.0001$);
- 423 (42.71%) answered „no”;
- 480 (48.53%) did not answer.

„Do you know where to purchase such a device?” revealed the following answers:

- 557 (56.34%) answered „yes”;
- 214 (21.62%) answered „no”;
- 219 (22.16%) did not answer.

A significant part of the group has heard of these devices and knows where to purchase one, but have minimal knowledge regarding its use and control (figure 8).

When inquired about the surgical contraceptive method in men (vasectomy), only 34% of the subjects were

Table 2 Case distribution according to birth control information sources

Environment	No. of cases %	Gender	No. of cases %	Birth control related information sources					
				Doctors	Parents	Friends	Books, magazines	Radio, TV	School
				No. of cases %	No. of cases %	No. of cases %	No. of cases %	No. of cases %	No. of cases %
Rural	324 32.7	M	108 33.33	0 0.00	0 0.00	63 6.35	26 2.62	19 1.91	0 0.00
		W	216 66.66	24 2.42	46 4.64	103 10.39	26 2.62	11 0.01	0 0.00
Urban	667 67.3	M	335 50.22	12 1.21	9 0.90	184 18.56	58 5.85	63 6.35	9 0.90
		W	332 49.77	31 3.12	69 6.96	104 10.49	86 8.67	32 3.22	10 1.009

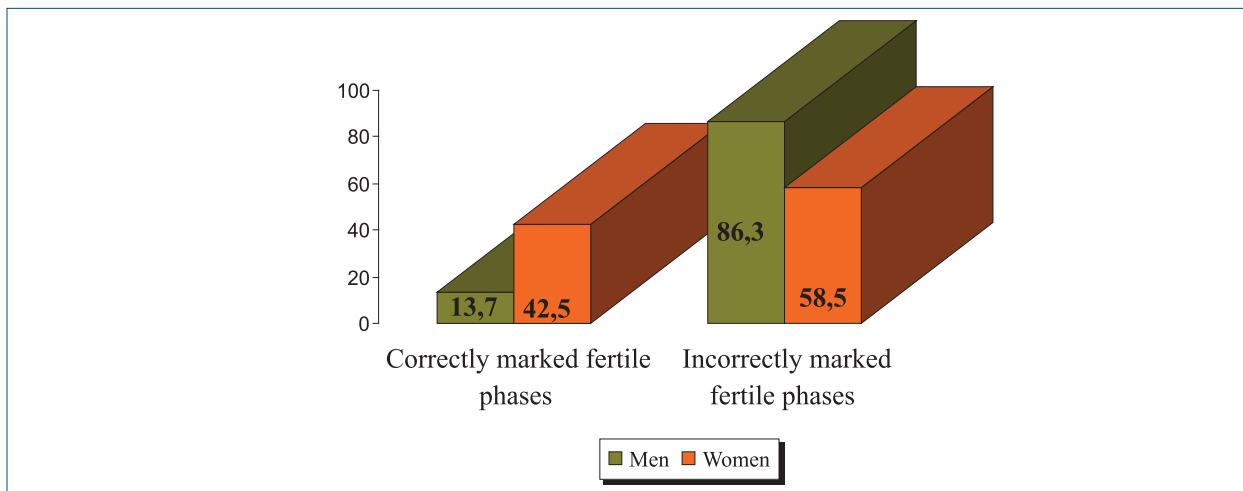


Figure 4. Frequency of cases according to knowledge level regarding the menstrual cycle's fertile stages

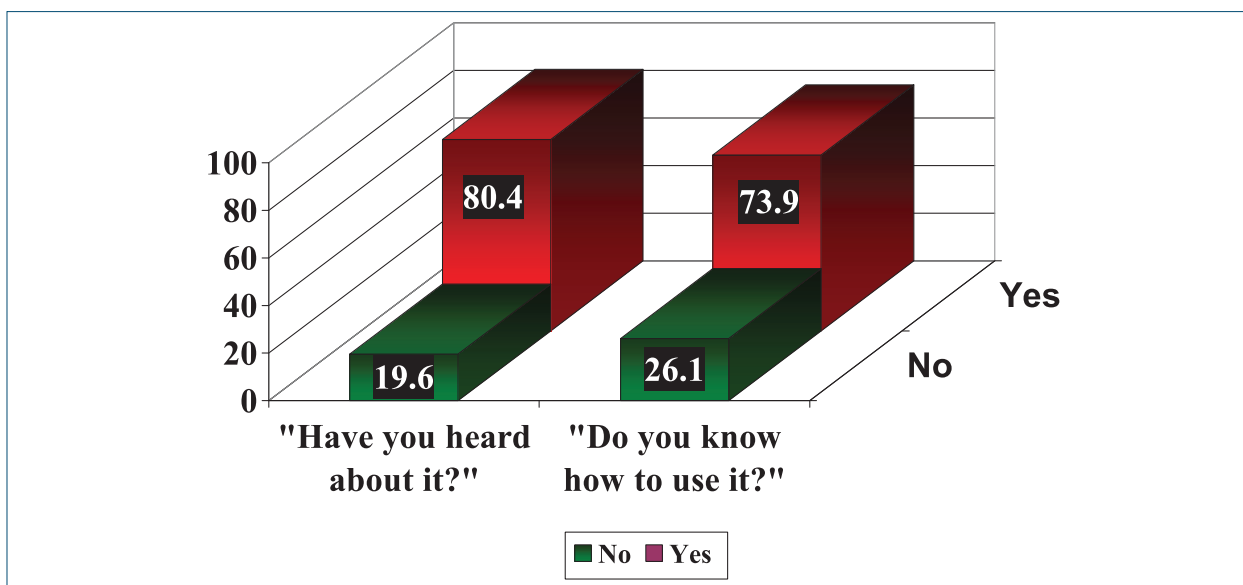


Figure 5. Case distribution with age range between 19-55 years, sexually active, according to their level of knowledge regarding the calendar method

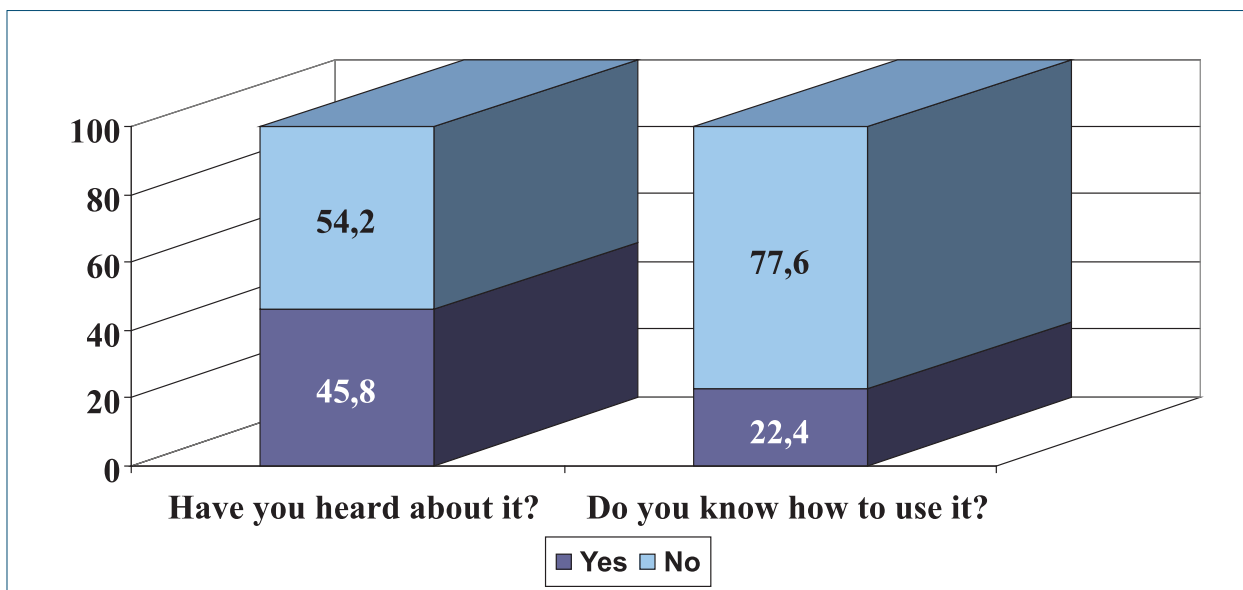
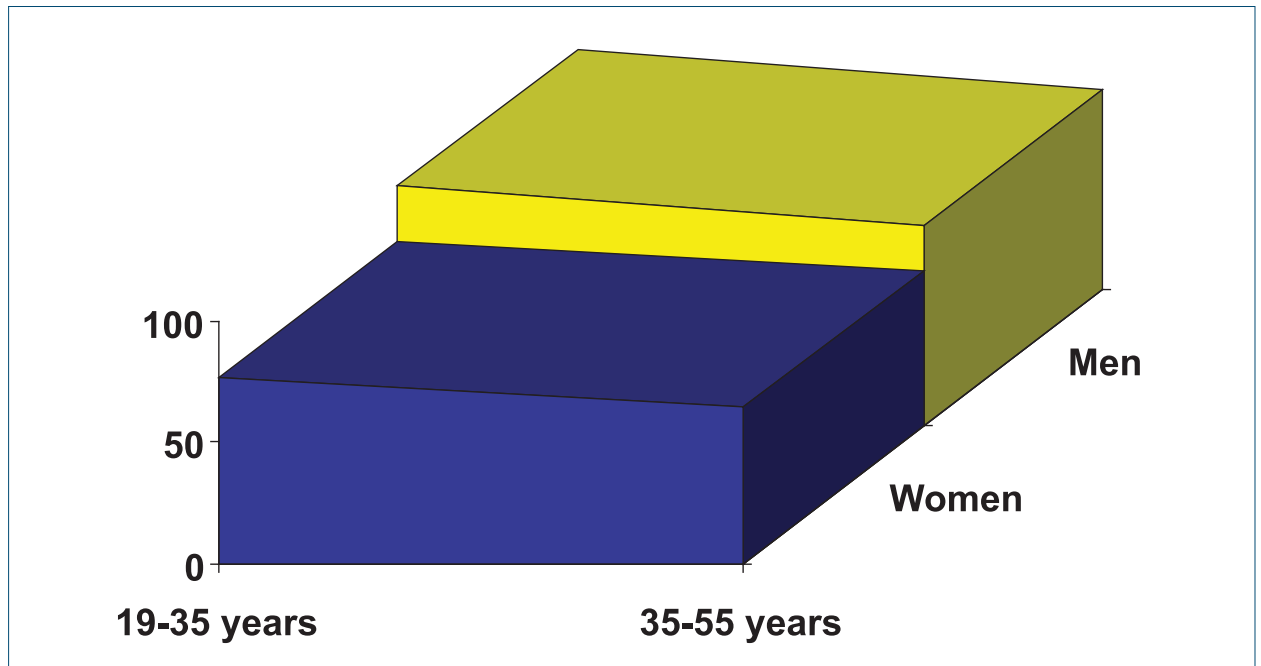


Figure 6. Case distribution according to level of knowledge of the basal body temperature method

Figure 7. Comparative results in gender and age groups according to an affirmative answer criterion to the question „Do you know how to use a condom?“



informed, while about female surgical procedure (tubal ligation) only 28% were informed.

Hormonal contraception is safely and efficiently used by millions of persons. In our group, the frequency of usage is higher in contraceptive pills compared to others ($p < 0,001$ compared to injections and $p < 0,004$ compared to emergency contraceptives) pills are used more frequently urban areas than in rural areas (figure 9).

When asked „Why do you think you need family planning services?“ the subjects answered the following:

- I don't need them = 434 (43.83%);
- Pregnancy limitation = 135 (13.78%);
- Birth spacing = 74 (7.58%);
- Abortion avoidance = 445 (45%).

According to these answers, the inquired women don't consider they need family planning services, unless to avoid abortion.

Discussions

The start of sexual activity is directly related to menarche and first ejaculation, which is wrong assumption. Studies reveal that sexual activity in teenagers shows an increasing tendency^(6,7).

Sexual education in Mures County is of medium to low level and needs immediate „invigorating“^(8,9).

The beginning of sexual activity is directly related to the presence of menarche and first ejaculation.

Protection during the first intercourse is not taken into consideration by the interviewed subjects and stability is considered a necessity in their sex life.

The quality of sexual contact is directly proportional with life quality and the duration of their professional activities^(10,11).

The first pregnancy is not planned, while the second one is, therefore we suspect that in case of the first pregnancy

the couple lacked information regarding family planning, but the second pregnancy was expected and came at the proper time.

Selecting the appropriate contraceptive method is a difficult task for a couple, taking into account risks and benefits, its efficiency to prevent pregnancy and side-effects. The calendar method is the most commonly used periodic abstinence method. Women are less instructed regarding the use of condoms. Barrier contraceptive methods are less known than intra-uterine systems^(12,13,14).

The hormonal contraceptive method is safely and efficiently used by an important percentage of people. Unfortunately medical services do not reveal enough information to the population regarding the side effects of combined oral contraceptives^(15,16).

Our subjects did not benefit from sexual education classes at school. The majority of them consider that the commencement of sexual education should be around the age of 14.

Conclusions

In the field of reproductive health an adequate knowledge level and appropriate sexual behavior modelling can be achieved by efficient sexual education activities. Prevention services are also needed, with their main objectives to decrease morbidity and improve the population's health status.

The benefits of family planning are numerous: decrease in requested and empirical abortions, therefore in maternal morbidity and mortality; decrease in the maternal morbidity and mortality by spacing births, decrease in pregnancy and birth related complications, prevention of sexually transmitted diseases and improvement in a couple's relationship^(16,17). ■

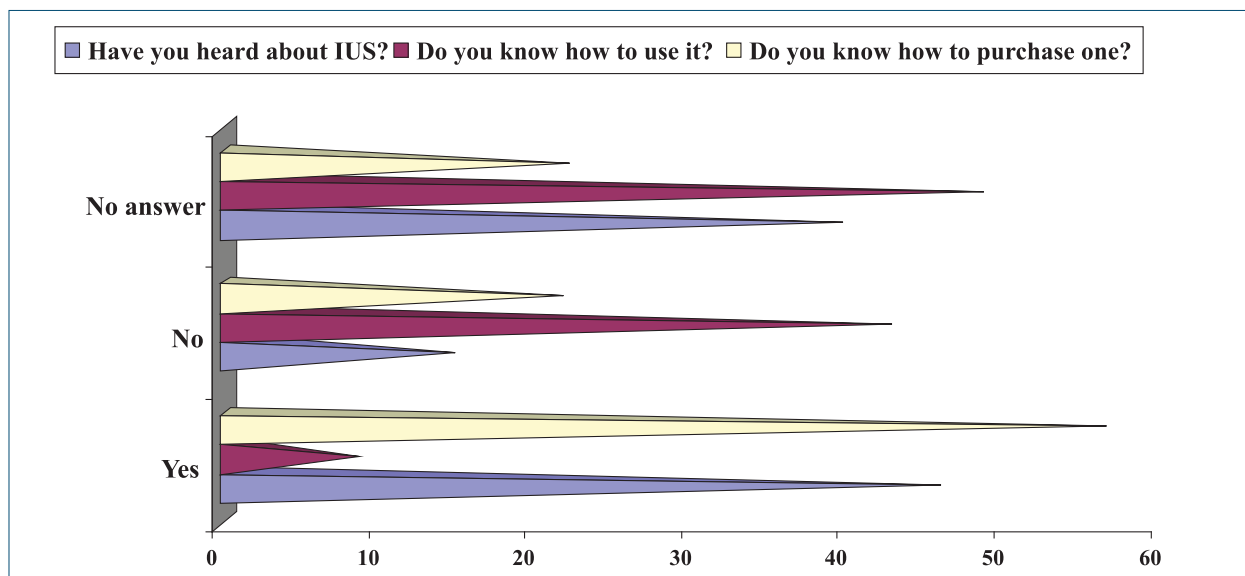


Figure 8. Frequency of sexually active subjects according to their knowledge level related to IUS (intrauterine devices)

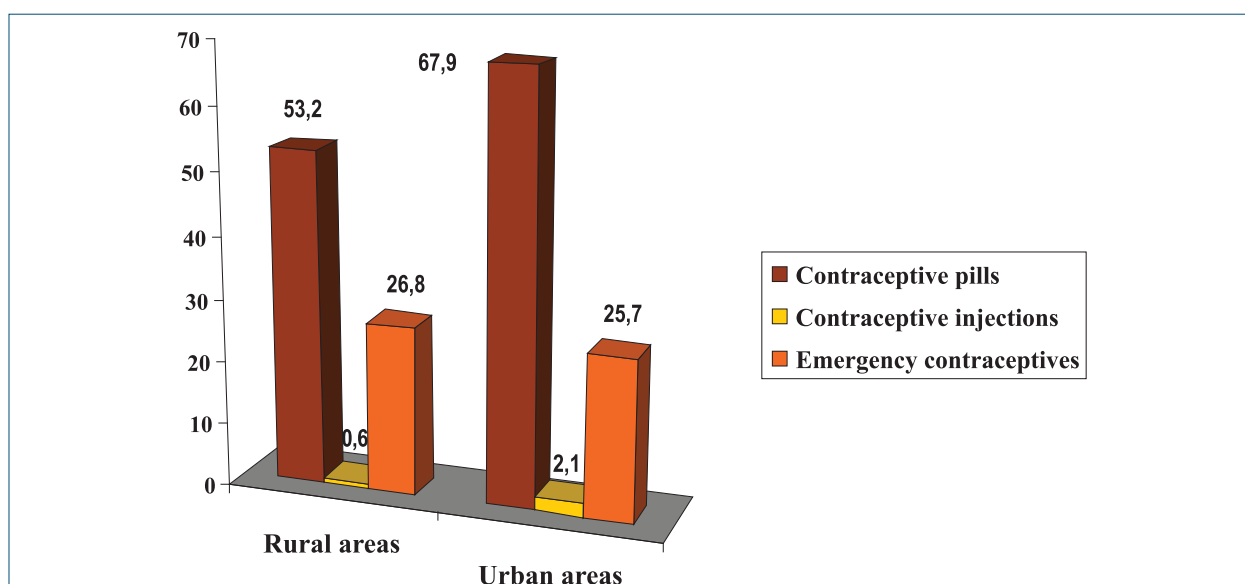


Figure 9. Case distribution according to usage of hormonal contraceptive methods

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