

Research Journal of Pharmaceutical, Biological and Chemical Sciences

Sexual Health Quality Study of The Population of Kazakhstan.

M. Turganova *, A. Abduldayeva, and A. Kalinichenko

JSC "Astana Medical University", Astana, Kazakhstan

ABSTRACT

Sexuality is one of the fundamental factors that influences on quality of man's life. Sexual and reproductive functions disorders lead to emotional distress and physical suffering of a couple, strain in relations, depression, disharmonious marriages and even divorces. Researches on reproductive health were conducted in Kazakhstan earlier, but analysis of population awareness about issues of sexual health has not been studied yet. Study data on opinion research of population of Astana about reproductive and sexual health is presented in the article. 7135 respondents took part in the research, 3542 of them were men (48,2%) and 3593 of them were women (51,8%). The average age of men comprised $30,3 \pm 18,9$ years old, and women $37,4 \pm 11,2$ years old. Such social aspects as marital status, social background, living conditions of Astana population of reproductive age were studied. Reproductive attitudes and behavior, and other issues related to reproductive and sexual health of people of reproductive age were analyzed.

Keywords: reproductive health, sexual health, reproductive age, men's health, women's health, Kazakhstan.

**Corresponding author*

INTRODUCTION

There are many areas of science to study sexual health issues such as medicine, psychology, sociology, cultural studies, pedagogy, etc. Changes in labor and household activities of females and males have led to a change in sexual behavior. In addition, an enormous information flow in the Internet and television uncontrolled by government form children's misperception of sexual life change sexual behavior. Specialists of various fields very often face consequences of this change of attitude to sexual health and behavior accordingly. To prevent in particular to use right influence in family being a well-known fact of influence over a child is much more important [1].

It is important to mention that issues of modern sexual culture of various groups of population are studied actively in Western countries, while in Kazakhstan works devoted to the analysis of this problem began to appear only last 10-15 years. These works deal with only certain phenomena occurring in our society due to the liberalization of sexual morality, adoption of some standards of intimate behavior came from the West [1].

Kazakhstan assumed the obligations to implement the Programme of the International Conference on Population and Development, held in 1994 in Cairo and the Millennium Development Goals, including the provision of universal access to sexual and reproductive health services by 2015, in accordance with task 2 of purpose 5 (improving of maternal health) [2]. The "Roadmap on reproductive health improvement" was approved in December 2012. In recent years, reproductive and sexual behavior of young men and women are characterized by early onset of sexual activity ($14,15 \pm 0,52$ years), frequent change of sexual partners, low level of knowledge about sexually transmitted infections, HIV / AIDS, improper use of contraceptives, including condoms.

Moreover, there is no legislative provision of access to education on sexual and reproductive health in Kazakhstan, and existing education system does not fully ensure the awareness of young people in these matters. Initiated by Kazakhstan Association on Sexual and Reproductive Health in 1996 the school subject 'Valeology' is not mandatory at school and of optional nature.

Formation of public policy in the field of health protection of healthy and apparently healthy persons is one of the priority tasks of the national health care system [2].

Sexual health is considered one of the most important factors that influence on quality and expectancy of life. This thesis gains serious importance in relation to male population, which is confirmed by statistical analysis. In particular, in Russia, deterioration in sexual function is revealed in one third of healthy men [3]. Sexual health is very important factor which we usually neglect the importance [4].

In addition, several risk factors connected with sexual issues were revealed in two-thirds of surveyed men of reproductive age. Thus, those persons form a large group of risk in terms of sexual pathology. The observed changes in the selected group, though not prevent male sexual activity, however, impair its quality, besides being a poor prognostic sign. This and some other facts make it possible to state that in the conditions of the demographic crisis the problem of men's health "goes far beyond the actual health care and is closely connected with the state of national security" [5].

Researches on reproductive health issues were conducted in Kazakhstan, but analysis of people's awareness about sexual health has not been studied. Thus, we set objective.

Objective: to study opinion of population of Astana city about sexual health.

MATERIALS AND METHODS

We conducted questionnaire survey of the population of Astana for the period from 01/12/2014 to 31/08/2015. The observation unit: men and women of reproductive age who expressed their consent to take part in questionnaire survey. Subject of research: sexual health. Questionnaires were drawn up according to the criteria of sexual health of World Health Organization. A simple area sampling without repetition was carried out. Total population of Astana comprised 852 985 people at the time of study, including about 63,0% of people of reproductive age. 20% of respondents were selected. 7135 respondents out of 8000

questionnaires agreed to answer the questions anonymously, $mM=\pm 2,1$, among them 3542 men (48,2%) and 3593 women (51,8%). The average age of men comprised $30,3\pm 18,9$, $Me=28,1$ years old, and women – $37,4\pm 11,2$, $Me=31,7$ years old.

RESULTS

We have studied the social aspects. According to the marital status, respondents were divided into: married - 27,76%, divorced - 20,42%, not married - 41,04%, in common law marriage - 10,78% (Table 1, Figure 1).

Table – 1. Number of respondents by marital status

Respondents n=7135	Total		Men (n=3542)				Women (n=3593)			
			<40		>40		<40		>40	
	total	%	abs.	%	abs.	%	abs.	%	abs.	%
Married	1981	27,8	714	26,4	206	24,6	827	27,2	234	42,5
Devorced	1457	20,4	512	18,9	171	20,4	546	17,9	228	42,4
Single	2928	41,0	1329	49,2	131	15,6	1429	47,0	39	7,1
Civil marriage	769	10,8	148	5,5	331	39,5	241	7,9	49	8,9
Total	7135	100	2703	100	839	100	3043	100	550	100

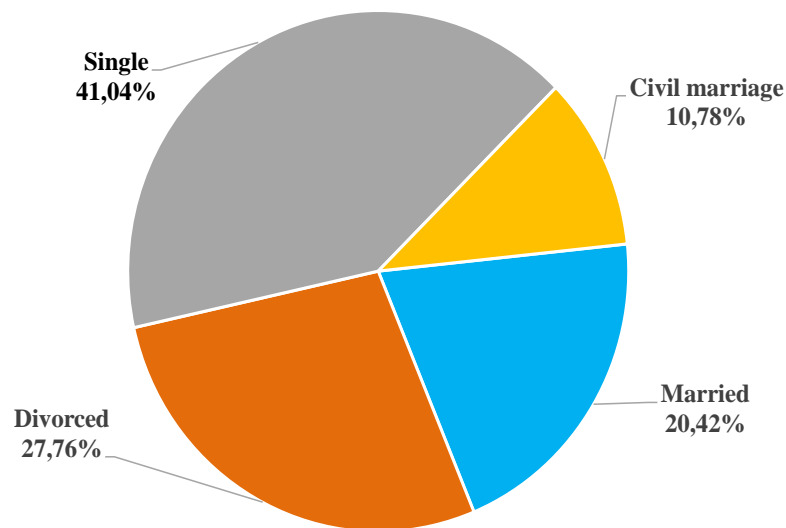


Figure – 1. Structure of respondents by marital status, n=7135

According to the social status, the respondents were distributed as follows: workers 32,8%, clerical employees 22,13%, entrepreneurs 16,8%, unemployed 13,7%, students 13,0%.

Living conditions of respondents: 67,5% of respondents rent housing, 16,8% live in their own accommodation, 15,7% live with their parents.

Analysis of reproductive attitudes and behavior of respondents showed difference of men/women between the actual age of marriage $27,5\pm 4,7/25,2\pm 5,9$ and desired age of marriage by women $25,6\pm 2,9/23,7\pm 3,1$, ($\chi^2 = 0,99$, $p<0,05$). The average result of differences comprised $26,4/23,6$. The age of sexual debut of respondents comprised $16,5\pm 9,1$ years old in men, and $18,0\pm 3,2$ years old in women (Table 2).

Table – 2. Reproductive attitudes and behavior, %

Behavioral factors	Total, n=7135	Men (n=3542)	Women (n=3593)
Age of first marriage	26,4	27,5	25,2
Standard deviation	5,3	4,7	5,9
Current marriage number	1,8	2,3	1,2
Standard deviation	0,8	1,7	0,6
Optimal age for marriage	24,6	25,6	23,7
Standard deviation	3,0	2,9	3,1
It is better for a young family to have children	3,2	3,1	3,3
Standard deviation	1,8	1,5	2,1
Current number of children	2,7	4,2	1,3
Standard deviation	2,1	2,2	2,0

Analysis of reproductive attitudes and behavior of respondents showed difference of men/women in the actual number of children $4,2 \pm 2,2 / 1,3 \pm 2,0$ and desired number of children by women $3,1 \pm 3,3 / 4,3 \pm 2,1$, ($\chi^2 = 0,67$, $p < 0,05$). The average result of difference comprised $2,7 / 3,2$. Further oral enquiry showed that failure to achieve the desired number of children is due to social economic reasons and growth of employment of women and increase of their educational level.

Table - 3. Analysis of reproductive health - the frequency of sexual activity, number of sexual partners

Factors of reproductive health (frequency of sexual activity, number of sexual partners)	Total, n=7135	Men (n=3542)		Women (n=3593)	
		<40 (n=2703) average age 27,5±9,7	>40 (n=839) average age 49,3±8,9	<40 (n=3043) average age 23,7±11,9	> 40 (n=550) average age 43,9±4,8
%					
The sexual life at the moment, %					
regular	55,2	59,5	67,9	27,5	65,9
irregular	38,9	31,9	28,3	65,4	30,1
absent	5,9	8,6	3,8	7,1	4,0
sexual partners:					
one permanent	52,9	27,1	45,1	61,1	78,1
several	36,3	49,4	49,9	36,7	9,3
accidental	8,4	19,3	3,1	1,2	10,1
absent	2,4	4,2	1,9	1,0	2,5

Then, we analyzed the reproductive health - 55,2% of respondents have a regular sexual life; 52,9% have one sexual partner. Analyzing differences between men and women, we see that men in age groups under 40 years old (n = 2703) with an average age of $27,5 \pm 9,7$ and over 40 years old (n = 839), the average age of $49,3 \pm 8,9$ have almost identical results: 49,4% and 49,9% of men have more than one sexual partner, in addition casual relationships among men over 40 are counted to 3,1%, and 10,1% of women in the same age group. 61,1% of women under 40 years old and 78,1% of women over 40 years old have one sexual partner, while number of men of these age groups comprise 27,1% and 45,1% respectively (Table 3).

Table - 4. Analysis of reproductive health (contraceptive methods)

Factors of reproductive health (contraception)	Total	Men (n=3542)		Women (n=3593)	
		<40 (n=2703) average age 27,5±9,7	> 40 (n=839) average age 49,3±8,9	<40 (n=3043) average age 23,7±11,9	>40 (n=550) average age 43,9±4,8
%					
Most used contraception:					
-physiologic cycle	2,8	-	-	4,4	6,9
-coitus interruptus	18,7	29,2	17,9	9,8	17,8
-intrauterine device	5,2	-	-	19,0	1,8
-condoms	29,3	42,2	49,2	12,0	13,8
-hormonal	16,9	-	-	35,4	32,4
-spermicide	9,5	-	-	17,4	20,4
-use but not always	11,3	15,9	21,7	1,7	6,0
-do not use	6,3	12,7	11,2	0,3	0,9

The most important factor in protection of women reproductive health is a solving of the problem of unwanted pregnancy, and in this respect the responsibility equally lies in men and women.

Analyzing obtained data on contraceptive methods by ranking the "three" of the most frequently used are condoms - 29,3%, then coitus interruptus follows – 18,7% and hormonal method - 16,9% (Figure 2). Additional oral survey revealed low level of public awareness campaign organized by family physicians and medical personnel of educational organizations (schools, universities, colleges) for women about hormonal contraception. Females of both age groups had wrong idea of side effects of hormonal contraceptives such as blastoma, cancer, increased body weight, varicose veins of lower extremity (Table 4).

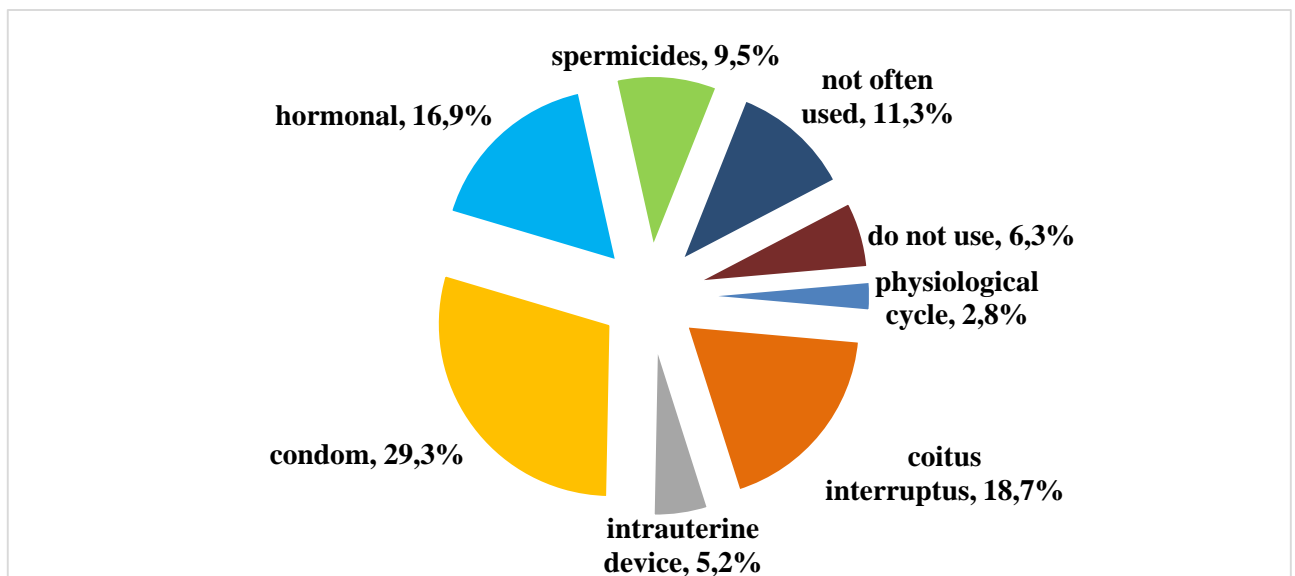


Figure – 2. Analysis of respondents reproductive health (contraceptive methods), n=7135

Analysis of awareness of marriage hygiene showed 72,7% of respondents did not receive (and did not remember) information about the hygiene of marriage and 89,1% of respondents find it more appropriate before marriage. As sources of obtaining the information about issues of marriage hygiene 45,9% of respondents pointed to Internet, 24,5% of respondents marked friends, and 21,5% mentioned doctor (Table 5, Figure 3). Comparing age groups of men and women under and over 40 years old, we see that parents take part in raising awareness only in 4,3% of cases in all age groups ($\chi^2 = 9,8, p < 0,05$).

Table – 5. Analysis of respondents’ reproductive health (awareness of marriage hygiene)

Factors of reproductive health (awareness of marriage hygiene)	Total	Men (n=3542)		Women (n=3593)	
		<40 average age 27,5±9,7	> 40 average age 49,3±8,9	<40 average age 23,7±11,9	>40 average age 43,9±4,8
		%			
Have you received advice on the eve of the marriage on the issues of marriage hygiene, contraception, etc.?					
Yes	27,3	21,1	10,3	37,1	7,8
No	72,7	21,3	46,5	10,6	30,8
Do you consider it appropriate to receive such information before marriage or now?					
Yes	89,1	47,8	27,6	37,1	7,8
No	10,9	13,8	10,8	10,6	30,8
Who provided you with the information of marriage hygiene?					
- doctor	21,5	1,9	26,0	9,1	49,1
- parents	4,3	7,8	2,8	4,1	2,4
- friends	24,5	18,1	12,8	38,4	28,9
- Internet	38,5	54,1	50,0	38,2	11,7
- I did not receive (s)	3,8	7,0	2,3	3,1	2,7
- lessons at school	7,4	11,1	6,1	7,1	5,2
Total	7135	2703	839	3043	550

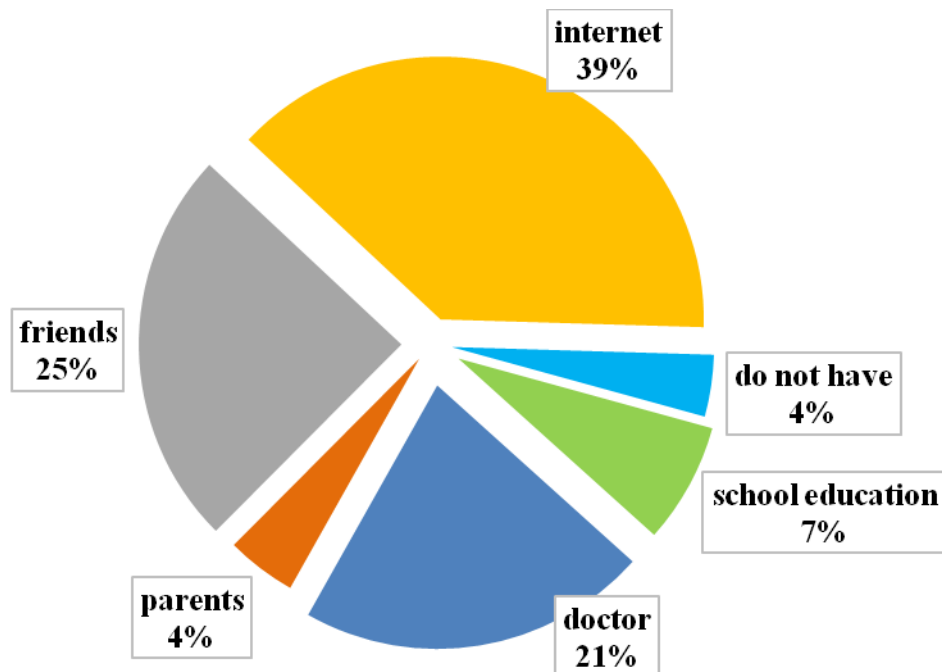


Figure – 3. Analysis of awareness of marriage hygiene, n=7135

Assessment of sexual health was studied on the basis of anonymous questionnaire details. Sexual interest was high among respondents, and comprised 44,1% in all age groups. Comparing group of men and women under and over 40 years old, women over 40 years old have the greatest sexual interest and comprise 53,9%, while men have the most interest under 40 years old and comprise 47,3% ($\chi^2 = 0,19$, $p < 0,05$). Opinions about the opposite sex ($\chi^2 = 0,25$, $p < 0,05$) (Table 6).

Table - 6. Sexual health (sexual interest)

Factors of sexual health (sexual interest)	Total (n=7135)	Men (n=3542)		Women (n=3593)	
		<40 (n=2703) average age 27,5±9,7	> 40 (n=839) average age 49,3±8,9	<40 (n=3043) average age 23,7±11,9	>40 (n=550) average age 43,9±4,8
%					
What opinion have you developed about the opposite sex:					
-strongly negative	6,9	6,4	9,1	7,5	4,5
-I do not like men / women	15,4	17,8	19,6	11,5	13,0
-Usually I avoid sexual contacts					
-I treat sex as a very important and interesting part of my life	30,3	28,5	30,9	41,3	20,6
- neutral	36,5	32,2	30,4	39,7	43,9
-I do not have opinion	14,7	15,1	10,5	15,2	18,0
Sexual attraction to a partner					
-I feel that I am sexually attractive to a partner	44,6	39,5	59,1	28,3	51,5
-I do not feel sexually attractive for a partner	37,9	33,2	29,7	56,3	32,6
I do not have opinion	17,5	27,3	11,2	15,4	15,9
Partner and I share the same sexual interest					
-I agree	20,2	10,4	3,9	1,6	4,3
-I do not know	49,3	18,9	10,9	2,7	16,8
-I do not agree	11,4	5,2	1,1	1,2	3,9
-I do not have opinion	19,1	7,8	1,5	6,8	1,8
Total, abs.	7135	2703	839	3043	550

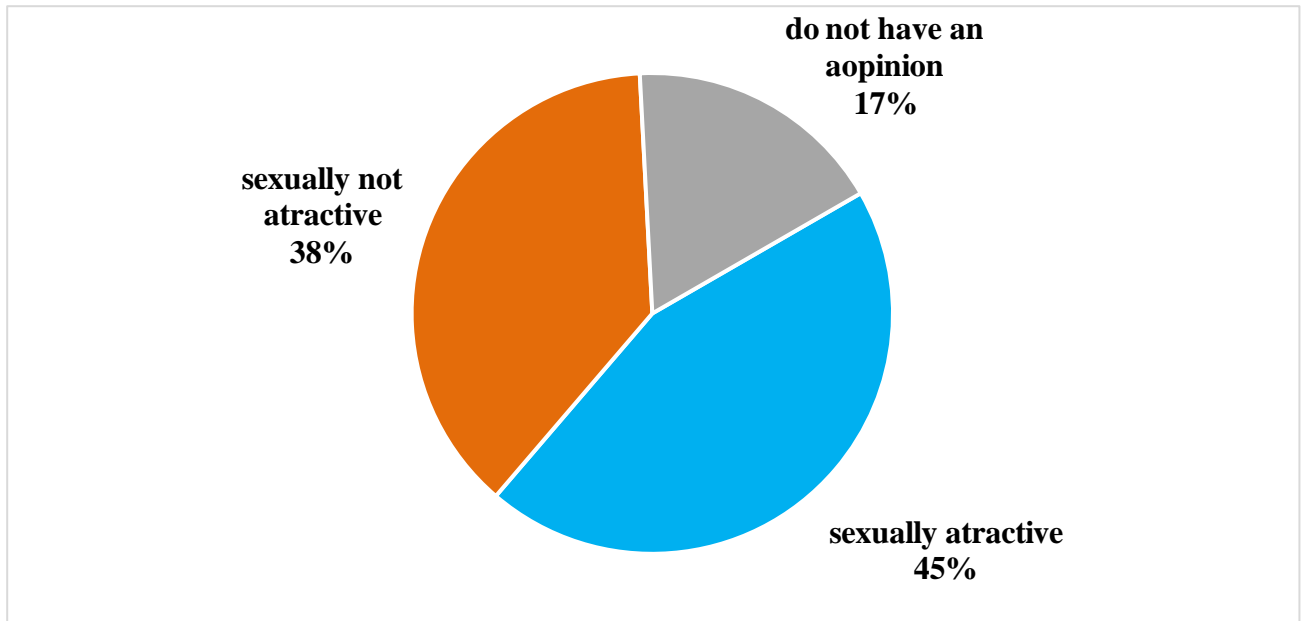


Figure - 4. Sexual health (appeal for a partner), n = 7135

Analysis of sensuous charm for a partner showed that 44,6% of respondents count themselves attractive for a partner, and 49,3% of respondents are unaware of and not interested in sexual interest of a partner (Figure 4).

Table - 7. Sexual health (satisfaction with sexual life)

Factors of sexual health (satisfaction with sexual life)	Total, n=7135	Men (n=3542)		Women (n=3593)	
		<40 (n=2703) average age 27,5±9,7	> 40 (n=839) average age 49,3±8,9	<40 (n=3043) average age 23,7±11,9	>40 (n=550) average age 43,9±4,8
%					
Satisfaction with the frequency of sexual relations					
- Yes	57,6	31,7	73,5	74,1	51,2
- No	42,4	68,3	26,5	25,9	48,8
Satisfaction with sex life in general (5-point scale)	3,1±2,03 Me 2	3,9±1,87 Me 3	2,8±1,07 Me 2	3,8±2,05 Me 2	2,6±1,17 Me 2

Satisfaction with the frequency of sexual acts of respondents comprised 57,6%. With regard to the above mentioned women under 40 years old and men over 40 are defined as most satisfied with their sexual life ($\chi^2 = 5,8, p < 0,05$) (Table 7).

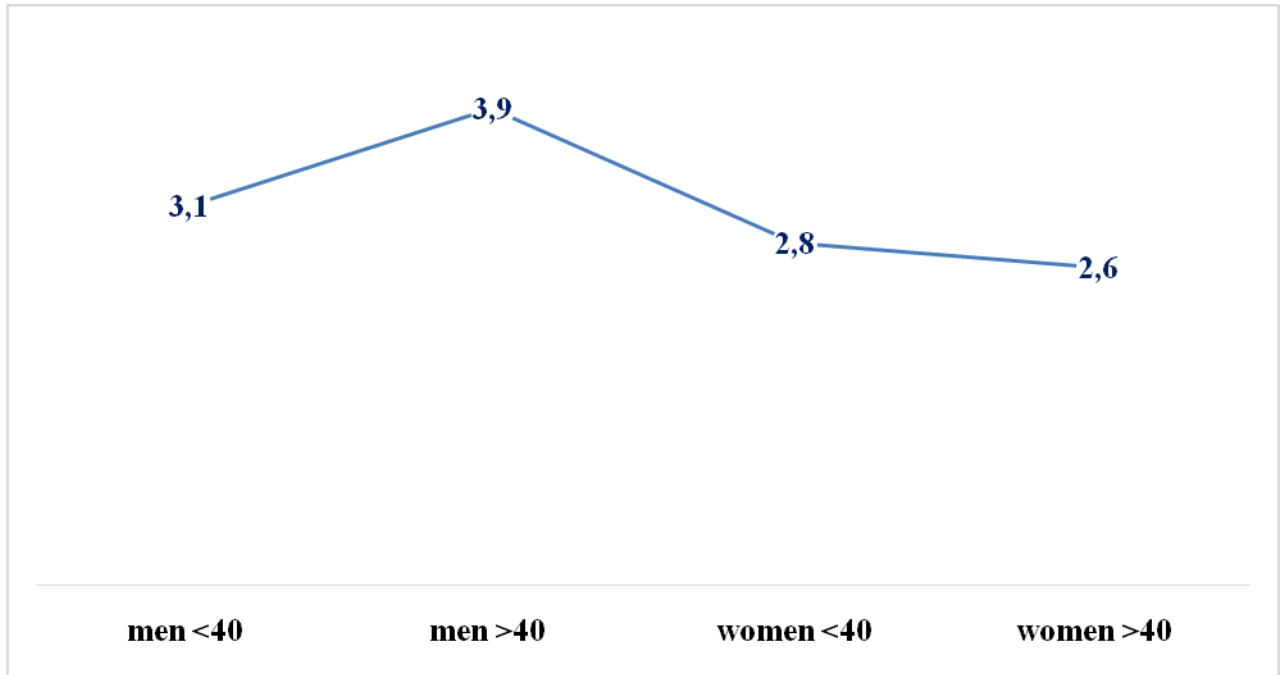


Figure - 5. Satisfaction with sexual life in whole on a 5-point scale.

Respondents were asked to rate their satisfaction with sexual life in whole on the 5-point scale: 1 - I do not know, 2 - unsatisfied, 3 - satisfied, 4 - good, 5 – excellent. The greatest satisfaction was revealed in men under 40 years old - 3,9 and the lowest in women over 40 years ($\chi^2 = 0,72, p < 0,05$). Results of average scores in different age groups are represented graphically (Figure 5).

Next, we analyzed the sources of information respondents received about sexual life. The findings are presented in Table 8.

Table - 8. Analysis of respondents seeking help about sexual relations for the first time,
n = 7135

Factors of sexual health (first consultation)	Total, n=7135	Men (n=3542)		Women (n=3593)	
		<40 (n=2703) average age 27,5±9,7	> 40 (n=839) average age 49,3±8,9	<40 (n=3043) average age 23,7±11,9	>40 (n=550) average age 43,9±4,8
		%			
For the first time asked for help and advice on sexual life:	10,0	6,1	9,8	12,8	11,3
-family member	34,2	39,6	42,1	20,2	34,7
-friends	29,5	45,2	21,8	37,6	13,2
-Internet	1,3	1,3	0,1	2,2	1,6
-family doctor	1,2	1,1	0,3	2,1	1,4
-trainings	2,5	1,2	0,5	3,2	5,0
-psychologist	19,5	3,4	24,1	20,2	30,5
- urologist/gynecologist					
-haven't asked for help/advice	1,8	2,1	1,3	1,7	2,3

Chart presented in the Figure 6 shows that primarily friends are the most authoritative, credible and available source of information on sexual life and comprise 34,2%, then Internet goes 29,5%, and in the third place urologist/gynecologist – 19,5%.

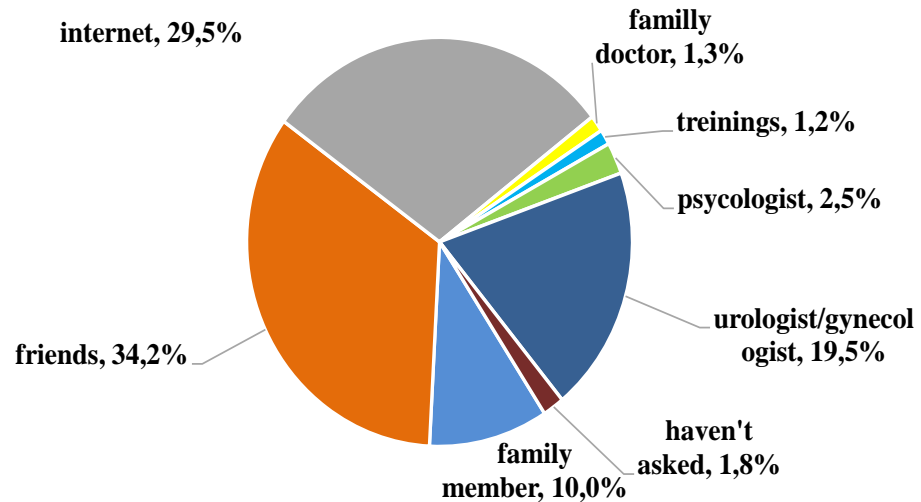


Figure - 6. The first sources of information for the respondents about their sexual life, n = 7135

Analyzing the differences in the age groups, the results showed that the Internet occupied leading position among men and women under 40 years old. Friends are on the first place among men and women over 40 years old ($\chi^2 = 7,3, p < 0,05$).

CONCLUSIONS

Thus, the results of our preliminary research led to the following conclusions:

- 1) 67,5% of respondents rent houses. Oral questioning of the reasons revealed unavailability of housing for young people, especially in the case when only one person earns money;
- 2) Analysis of reproductive attitudes and behavior of respondents showed a difference of men/women between the actual age of marriage $27,5 \pm 4,7 / 25,2 \pm 5,9$ and desired age of marriage by women $25,6 \pm 2,9 / 23,7 \pm 3,1$, ($\chi^2 = 0,99, p < 0,05$). The average result of differences comprised $26,4 / 23,6$;
- 3) The age of sexual debut of respondents comprised $16,5 \pm 9,1$ years old in men, and $18,0 \pm 3,2$ years old in women;
- 4) Analysis of reproductive attitudes and behavior of respondents showed difference of men/women in the actual number of children $4,2 \pm 2,2 / 1,3 \pm 2,0$ and desired number of children by women $3,1 \pm 3,3 / 4,3 \pm 2,1$, ($\chi^2 = 0,67, p < 0,05$). The average result of difference comprised $2,7 / 3,2$. Further oral enquiry showed that failure to achieve the desired number of children is due to social economic reasons and growth of employment of women and increase of their educational level;
- 5) Analysis of awareness of marriage hygiene showed 72,7% of respondents did not receive (and did not remember) information about the hygiene of marriage and 89,1% of respondents find it more appropriate before marriage. As sources of obtaining the information about issues of marriage hygiene 45,9% of respondents pointed to Internet, 24,5% of respondents marked friends, and 21,5% mentioned doctor (Table 5, Figure 3). Comparing age groups of men and women under and over 40 years old, we see that parents take part in raising awareness only in 4,3% of cases in all age groups ($\chi^2 = 9,8, p < 0,05$);

6) Evaluation of sexual health allowed to reveal high sexual interest among respondents in 44,1% of cases. Comparing group of men and women under and over 40 years old, women over 40 years old have the greatest sexual interest and comprise 53,9%, while men have the most interest under 40 years old and comprise 47,3% ($\chi^2 = 0,19$, $p < 0,05$);

7) Analysis of sensuous charm for a partner showed that 49,3% of respondents are unaware of and not interested in sexual interest of a partner;

8) Satisfaction with the frequency of sexual acts of respondents comprised 57,6%. With regard to the above mentioned women under 40 years old and men over 40 are defined as most satisfied with their sexual life ($\chi^2 = 5,8$, $p < 0,05$);

9) Assessment of satisfaction with sexual life in whole on the 5-point scale showed the greatest satisfaction in men and 40 years - 3,9, and the lowest in women after 40 years ($\chi^2 = 0,72$, $p < 0,05$).

10) The first sources of information about sexual life are friends – 34,2%, then Internet goes 29,5%, and in the third place urologist/gynecologist – 19,5%.

We offer management decision solutions for the health care system of Kazakhstan:

- include into the health assessment of population sexual health along with the physical and mental;
- increase family doctors availability and credibility on the issues of sexual health;
- conduct short-term workshops for family doctors on the issues of sexual health;
- while receiving applications for registration of marriage Civil Registry Office suggests consultation/advice on marriage hygiene;
- increase publication of booklets on sexual health by organizations promoting healthy living for delivering them in Civil Registry Offices, state and private clinics, and public gathering places.

REFERENCES

- [1] Pichugina T.A. Features of sexual culture in modern Russia: the sociological analysis. Abstract of disser.kand. 2-5.
- [2] The Constitution of the Republic of Kazakhstan dated from August 30, 1995. Article 27.
- [3] Ter-Avanesov G.V., Frolova O.G., Nazarenko T.A. Reproductive Health at the turn of the 20th centuries // The social and clinical problems of sexology and sexual pathology. M., 2003. - S. 154-155.
- [4] Razumov A.N. Health of healthy person. M., 2007. - 546 p.
- [5] Galimov Sh.N. The state policy in the field of men's health // Men's Health and Longevity. M., 2008. - P. 32-32.