IDEAL AND PLANNED NUMBER OF CHILDREN OF THE BULGARIAN FAMILY

E. Hristova*, G. Iskrov, R. Stefanov

Department of Social Medicine and Public Health, Faculty of Public Health, Medical University – Plovdiv, Plovdiv, Bulgaria

ABSTRACT
The last decades have been characterized by important shifts in the reproductive behavior of Bulgarians – decrease number of children, higher age of marriage, later birth of first child, etc. The purpose of this study is to identify and analyze the factors determining the reproductive intentions of the modern Bulgarian family. A cross-sectional study of families was carried out at the time of submission of their documents for state registration of the marriage. Primary sociological information was collected through a direct individual survey of 73 questions. The study was conducted in Plovdiv in 2015-2017. A total of 243 couples were interviewed. There was a statistically significant difference in the ideal number of children between married couples in 1995 and 2015. The two-child model remains the most accepted concept of family. The similar values of the two indicators - ideal and planned number of children prove reduced reproduction intention and less motivation for children in future period of time.

Key words: family planning, family model, reproductive behavior

INTRODUCTION
The family is not just an abstract notion. It is a viable, fully functional organism. Dynamics in family members and role vary from country to country depending on a number of internal and external factors, such as legislation, religion, culture, traditions, society, etc. (1-2). Reproductive health and intentions are important elements of the overall health concept. These heavily impact on the demographic development of a country, as well as on the public health status. Reproductive intentions are associative with socio-economic development and a prerequisite for the future changes in the society (3-5). The last decades have been characterized by important shifts in the reproductive behavior of Bulgarians – decrease number of children, higher age of marriage, later birth of first child, etc. The current demographic crisis and its challenges require new analysis of the reproductive attitudes of Bulgarians (6-8). Attention should be drawn not only to objective factors, such as age of marriage, but also on variety of subjective factors from social, economic and medical nature (9-10). The purpose of this study is to identify and analyze the factors determining the reproductive intentions of the modern Bulgarian family.

MATERIAL AND METHODS
A cross-sectional study of families was carried out at the time of submission of their documents for state registration of the marriage. A total of 243 couples were interviewed. Primary sociological information was collected by a direct individual survey of 73 questions, grouped into seven sections: 1) socio-demographic characteristics of the family; 2) living conditions; 3) number of children; 4) factors for higher natality; 5) contraception knowledge; 6) role of general practitioner for family planning 7) intergenerational transmission of fertility behavior. The survey an updated version of an original questionnaire developed by Ivo Dimitrov in 1995 and later used by Rumen Stefanov in 2000. This standardized instrument provides a unique opportunity for comparative analysis of reproductive behavior and family

*Correspondence to: Eleonora Hristova, MD, Department of Social Medicine and Public Health, Faculty of Public Health, Medical University of Plovdiv, 15 A, Vasil Aprilov Blvd, 4002 Plovdiv, Bulgaria, E-mail: eleonora.hristova@gmail.com, Telephone number: 00359 88 601 8787
planning of young families in Bulgaria. The study was conducted in Plovdiv in 2015-2017. Descriptive statistics, nonparametric tests, ANOVA and Bonferroni post-hoc test were used for statistical analysis.

RESULTS AND DISCUSSION

Ideal number of children
Premarital attitude of partners towards the number of children in their future family plays an important role. The indicator of ideal number of children describes partner’s concept of optimal size of modern family. Respondents must abstain from the particular circumstances in which they live, and from any personal preferences and tendencies (9-10).

The high percentage of partners who plan the number of children in their future family is excellent mark that they have an opinion about the optimal family size – 100,0% (n=344) for the survey in 1995, 96,3% (n=366) in 2000 and 100,0% (n=239) in 2015.

The comparison with the previous studies shows that there have been a significant difference in the ideal number of children (F = 10,14; p = 0,000). There was an increase between the first (1995) and second (2000) studies (p = 0,003), but no differences between the second (2000) and third (2015) studies (p = 0,64). There was a statistically significant increase with 0,24 in the ideal number of children between married couples in 1995 and 2015 (p = 0,000). The two-child model remains the most accepted concept of family (Table 1).

Table 1. Ideal number of children in the Bulgarian family

<table>
<thead>
<tr>
<th>Year</th>
<th>Total number</th>
<th>Ideal number of children</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean &amp; Std. Error</td>
<td>1 child</td>
</tr>
<tr>
<td>1995</td>
<td>344</td>
<td>2.09±0.04</td>
</tr>
<tr>
<td>2000</td>
<td>366</td>
<td>2.26±0.04</td>
</tr>
<tr>
<td>2015</td>
<td>239</td>
<td>2.33±0.04</td>
</tr>
</tbody>
</table>

These results do not differ significantly from the 2011 census official data. About 70% of the population in 1995, 2000 and 2015 considered that it was optimal ideal to have two children born and raised. Twenty years later the family and children continue to be a basic moral value for the Bulgarians (7-8). However, most of them do not believe that they will do it.

Family income is an important consideration for higher ideal number of children (F = 6,074; p = 0,000). There was a weak positive correlation between income and ideal number of children (r = 0,14; p = 0,03) (Figure 1). The families without income reported as ideal a family with two children. When family income is 2600 lv. or more, the ideal number of children was near three. The intentions of having a second or third child is formed only after parents are assured that they can raise children without risking family members’ health, financial or psychological status.

Figure 1. Association between the ideal number of children and the income of the family in 2015

Using linear regression analysis to control the effect of wife’s age, it was found that the ideal number of children was greatly associated on the combined effect of wife’s education and family income (F = 2.44; p = 0.004) (Table 2).
Table 2. Association between ideal number of children and combined impact of wife’s education and family income

<table>
<thead>
<tr>
<th>Income</th>
<th>without income</th>
<th>less than 360 lv.</th>
<th>361 – 1080 lv.</th>
<th>1081 – 2600 lv.</th>
<th>2600 lv or more</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-primary and elementary education</td>
<td>2</td>
<td>2,33</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Secondary education</td>
<td>2</td>
<td>2,8</td>
<td>2,29</td>
<td>2,4</td>
<td>2,67</td>
</tr>
<tr>
<td>Bachelor's higher education</td>
<td>-</td>
<td>3</td>
<td>2,2</td>
<td>2,3</td>
<td>-</td>
</tr>
<tr>
<td>Master’s and doctoral degrees higher education</td>
<td>-</td>
<td>-</td>
<td>2,29</td>
<td>2,3</td>
<td>2,7</td>
</tr>
</tbody>
</table>

A number of studies have demonstrated the impact of family income, education and women’s participation in work force, as well as population control and higher tax rates on the number of children in the family (11-15). Previous studies show the same dynamics (9-10).

Planned number of children
The indicator of planned number of children reflects the number of children the couple intends to have in their future family at the time of marriage. This indicator allows to determine how women and men separately plan the size of their family (9-10).

Nearly 80% of women and men in 2015 have planned the number of children in their future families. For the interviewed husbands, the planned number of children is 2,22 ± 0,06 children (n=205). For the wives, this indicator is 2,10 ± 0,05 children (n=200) (p> 0,05). In all surveys there is a strong positive association between planned number of children by men and women (r2015 = 0,49; r2000 = 0,60; r1995 = 0,75; p <0,001).

There is a strong positive correlation between planned number of children and ideal number of children indicated by men (r = 0,3; p <0,001) and women (r = 0,61, p <0,001). A linear regression analysis demonstrated that the ideal number of children is associate the planned number of children by men (F = 34,265; p = 0,001) and women (F = 116,911; p = 0,001) (Figure 3).

![Planned number of children by men and women as a function of the ideal number of children](image_url)

Figure 3. Planned number of children by men and women as a function of the ideal number of children
About 70% of spouses agreed on the planned number of children. In the 30% of disagreement cases, men tended to indicate a 1.69±0.14 higher planned number of children. These were mainly husbands who were students or freelancers.

**CONCLUSION**
The similar values of the two indicators - ideal and planned number of children prove reduced reproduction intention and less motivation for children in future period of time. Further studies are necessary to fully analyze all factors on the reproduction process.

**REFERENCES**