CLINICAL SCIENCE

SOCIOECONOMIC STATUS AND REPRODUCTIVE HEALTH OF MOTHERS FROM DIFFERENT ETHNIC GROUPS IN NORTH MACEDONIA

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Abstract

A reproductive health framework would provide a broader programmatic focus that could bring needed attention to such issues as sexually transmitted diseases, infertility, abortion and women's empowerment generally. In order to analyze the elements of the reproductive health of our population, a one-year study was conducted that included 400 women in labor. Material and methods: Age, parity, number of pregnancies and deliveries antepartal controls, supplements intake, place of residence, etc. were analyzed. A descriptive analysis and statistical significance were made providing women's ethnicity. The results showed that the highest average age of women giving birth was registered among Macedonian women and it was 31.5 ± 5.4 years, and the lowest among Roma women 22.9 ± 5.4 years. The highest average number of deliveries among women in labor was observed in Roma and Bosnian women and it was 2.4±1.2 deliveries, and the lowest rate in Serbian women 1.3±0.6. The difference was statistically significant. It can be concluded that the emancipation of women, the level of education and the employment of women among all ethnic groups are the most important factors in the urban region. The traditions of religion and ethnicity are fundamental in family planning and have the main influence on women's reproductive life.

КЛИНИЧКИ ИСПИТУВАЊА

СОЦИОЕКОНОМСКИОТ СТАТУС И РЕПРОДУКТИВНОТО ЗДРАВЈЕ НА РОДИЛКИ ОД РАЗЛИЧНИ ЕТНИЧКИ ГРУПИ ВО РЕПУБЛИКА СЕВЕРНА МАКЕДОНИЈА

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Цитирање: Ливринова В. Социоекономскиот статус и репродуктивното здравје на родилки од различни етнички групи во Република Северна Македонија. Арх Ј Здравје 2024;16 (2) 18-25.

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Печатарски права: ©2024. Весна Ливринова. Оваа статија е со отворен пристап дистрибуирана под условите на нелокализирана лиценца, која овозможува неограничена употреба, дистрибуција и репродукција на било кој медиум, доколку се цитираа торигиналниот(ите) автор(и) и изворот.

Конкурентски интереси: Авторот изјавува дека нема конкурентски интереси.

Извадок

Со мерките за репродуктивно здравје би се обезбедил поширок програмски фокус со кој би можело да се привлече потребното внимание поврзано со сексуално преносливите болести, неплодноста, абортусот и генерално подобрување на состојбата на жените. Со цел да се анализираат елементите на репродуктивното здравје кај нашата популација, беше направена едногодишна студија во која беа вклучени 400 родилки. Следните варијабли беа анализирани: возраст, паритет, број на бремености и породувања, антепартални контроли, консумација на суплементи, место на живеење и др. Беше изработена дескриптивна анализа и определена статистичка значајност во зависност од етничката припадност. Резултатите покажаа: просечната возраст на родилките беше највисока кај Македонките и изнесуваше 31,5 ± 5,4 години, а најниската кај Ромките - 22,9 ± 5,4 години. Просечниот број на породувања кај родилките беше највисок кај Ромките и Босанките и изнесуваше 2,4±1,2 породувања, а најмалиот кај Србинките - 1,3±0,6. Разликата беше статистички значајна. Може да се заклучи дека еманципацијата на жените, нивото на образование и вработувањето на жените меѓу сите етнички групи се најважните фактори во урбаниот регион. Традициите на религијата и етничката припадност се фундаментални во планирањето на семејството кои имаат главно влијание врз репродуктивниот живот на жените.

Introduction

A reproductive health framework would provide a broader programmatic focus that could bring needed attention to such issues as sexually transmitted diseases, infertility, abortion, and women's empowerment generally[1]. One of the obvious benefits of economic development is the greater capacity of government to provide its people with basic social, material and other needs, such as food, clothing, shelter, education, access to basic health care and social services (Estes 1984, United Nations Economic and Social Commission for Asia and the Pacific - ESCAP 1998; World Bank 2006). As a result, social inclusion policies at both national and local levels have contributed to better maternity care and well-being of mothers and their infants. The UN Decade for Women (1975-1985) was a major impetus for all aspects of research on the role of women in society. It was during that period that demographic research began focusing on the links between women's status and fertility. High fertility was associated with low status, along with facts derived from various positive correlations of factors such as female education, literacy, and labor force participation, with smaller families, later marriage, and contraceptive use.

There is a substantial body of literature on the relationship between women's education and employment status and fertility, the status of women and family planning.

Moser (1989) proposes the strategy of empowerment. Empowerment is a process in which women become aware of and support by socioeconomic and cultural factors that decide their choices. Fertility care would include increasing understanding of the factors that figure out fertility[2].

At the Cairo Conference in 1994, reproductive health was defined as a state in which the reproductive process is brought to a state of complete physical, mental, and social well-being, and is not merely the absence of disease or disorders[3].

This implies that the right of women to make decisions related to reproduction and improving their socioeconomic status can enhance their reproductive health. Individuals admit imbalances in reproductive health services. Inequalities vary according to socioeconomic status, level of education, age, ethnicity, religion, and the resources available in their environment. It is possible, for example, that people with low incomes do not have the resources for proper health services and the knowledge to know what is proper for supporting reproductive health [4].

Ethnicity is associated in many ways with cultural and religious phenomena, so the concepts of culture, ethnicity and religion remain undefined in an exceedingly popular sense[5].

The aim of the paper was to identify the influence of demographic and socioeconomic factors on reproductive health in different ethnic groups.

Material and methods

This study analyzed women in labor who gave birth at the University Clinic for Gynecology and Obstetrics in Skopje during 2019. The study was designed as a cross-sectional study with random sampling. A total of 400 women in labor were included,

representing about 10% of the total number of births during 2019. Data for 30 to 40 parturient women were randomly selected. The randomization was done to avoid the influence of the seasonal nature of deliveries and the organization of work in maternity hospitals that refer patients for delivery to the University Clinic for Gynecology and Obstetrics in Skopje.

Data were taken from the obstetric histories of women, and the following parameters were analyzed: age, ethnicity, level of education, employment, place of residence (urban/rural), number of pregnancies, number of abortions, number of deliveries, stillbirths, infection.

The aim of the study was to evaluate the following parameters and their connection:

- Demographic data of patients (parturient women) - descriptive analysis;
- Elements of reproductive health in the study - descriptive analysis;
- Relation between ethnicity and reproductive health;
- Relation between socioeconomic status and reproductive health;
- Combined association of socioeconomic characteristics and ethnicity with reproductive health in parturient women.

Statistical analysis

The statistical program SPSS for Windows version 23 was used for data processing.

Numerical variables and qualitative variables were analyzed. They were processed with parametric and non-parametric tests and tests for comparison and correlation.

A p-value less than 0.05 was considered to be statistically significant.

The statistical significance of more than two variables and differences were analyzed with the analysis of variance – ANOVA. There is a wide selection of the so-called post-hoc tests that are performed after the ANOVA test presenting statistically significant results. These tests are also called multiple comparison tests. Their goal is to find out which difference (among most variables) manages the overall statistically significant result. The post-hoc Tukey HSD test was used in the study.

Results

Descriptive analysis of patients' data

A total of 400 women in labor took part in the study. According to ethnicity, the majority were Macedonian women - 50.5%, followed by Albanian women - 32.5%, Roma women - 10.5%, Turkish women - 3.75%, Bosniaks - 2.0% and Serbs - 0.75%

Of all patients, 71.5% were from the urban environment. According to the level of education, 44.0% had completed secondary education, 30.5% had higher education, 22.5% had primary education and 3.0% had no education.

Elements of reproductive health in the study - descriptive analysis

Infection was registered in 19.0% of women in labor, and 81.0% had no infection.

Supplements were taken by 92.25% of women in labor, and 7.75% did not take any supplements.

Malformations were registered in 4.5% of women giving birth, and 95.5% had no malformations.

Stillbirths were registered in 9.75% of women giving birth, and no stillbirths were registered in 90.25% of women.

In vitro fertilization was registered in 5.75% of women giving birth.

Correlation of ethnicity with patients' data

The highest average age of women giving birth was registered among Macedonian women and it was 31.5±5.4 years, and the lowest among Roma women - 22.9±5.4. The age ranged was from 15 years (Turkish and Roma women) to a maximum of 47 years (Macedonian women). According to the analysis of variance U test, the difference regarding the average age between ethnicities was statistically significant for $p<0.05$ ($p=0.000000$) (Table 1).

Table 1. Ethnicity and age of parturient women

Ethnicity	average	N	SD	minimum	maximum
Turkish	29.4	15	7.72	15.0	42.0
Macedonian	31.5	202	5.44	17.0	47.0
Albanian	29.0	130	5.43	19.0	45.0
Roman	22.9	42	5.40	15.0	36.0
Bosniaks	28.6	8	3.33	25.0	36.0
Serbians	33.7	3	1.52	32.0	35.0
total	29.7	400	6.03	15.0	47.0

The highest average number of pregnancies among women in labor was registered among Roma women and it was 2.8±15 pregnancies, and the lowest number among Serbian women - 1.7±1.1. The number of pregnancies ranged from one pregnancy among all ethnic groups taking part in the study to a maximum of 9 pregnancies among Albanian women. According to the analysis of variance U test, the difference in terms of the average number of pregnancies between ethnicities was not statistically significant for $p>0.05$ ($p=0.113517$).

The number of births ranged from 0 among Macedonian women to a maximum of 6 births among Albanian women. According to the analysis of variance U test, the difference regarding the average number of births between ethnicities was statistically significant for $p<0.05$ ($p=0.000786$) (Table 2).

Table 2. Ethnicity and number of births

Ethnicity	average	N	SD	minimum	maximum
Turkish	2.0	15	1.19	1.0	4.0
Macedonian	1.8	202	0.85	0.0	5.0
Albanian	2.2	130	1.14	1.0	6.0
Roman	2.4	42	1.16	1.0	5.0
Bosniaks	2.4	8	1.30	1.0	5.0
Serbians	1.3	3	0.57	1.0	2.0
total	2.0	400	1.03	0.0	6.0

The highest average number of abortions among women giving birth was among Macedonian women and it was 0.5±0.8 abortions, and the lowest among Bosnian women - 0.1±0.4. The number of abortions ranged from 0 among all ethnicities to a maximum of 5 abortions among Albanian women. According to the analysis of variance U test, the difference in terms of the average number of abortions between ethnic groups was statistically insignificant for $p>0.05$ ($p=0.687505$).

The highest average number of prenatal check-ups among women giving birth was found among Macedonian women and it was 9.1±2.1 check-ups, and the lowest among Roma women - 5.3±3.1. The number of prenatal check-ups ranged from 0 among Albanian and Roma women to a maximum of 15 prenatal check-ups among Macedonian women.

According to the analysis of variance U test, the difference regarding the average number of prenatal controls between ethnicities was statistically significant for $p<0.05$ ($p=0.000000$) (Table 3).

Table 3. Ethnicity and antenatal check-ups

Ethnicity/number of antenatal check ups	average	N	SD	minimum	maximum
Turkish	8.3	15	1.48	6.0	10.0
Macedonian	9.1	202	2.10	1.0	15.0
Albanian	8.5	130	1.81	0	12.0
Roman	5.3	42	3.14	0	10.0
Bosniaks	8.3	8	2.49	4.0	12.0
Serbians	8.7	3	1.52	7.0	10.0
total	8.5	400	2.40	0	15.0

The highest percentage of infection was registered among Roma women - 35.7%, followed by Macedonian women - 19.3%, Albanian women - 15.6% and Turkish women - 13.3%. A significant association was registered between infection onset and ethnicity of women giving birth for p<0.05 (Pearson Chi-square: 11.6338, df=5, p=.040166).

Over 94% of pregnant women took supplements as an addition to food. 23.8% of Roma women and 25.0% of Bosnian women did not take supplements. A significant association was registered between intake of supplements and the ethnicity of women giving birth for p<0.05 (Pearson Chi-square: 21.9354, df=5, p=.000539) (Figure 1.)

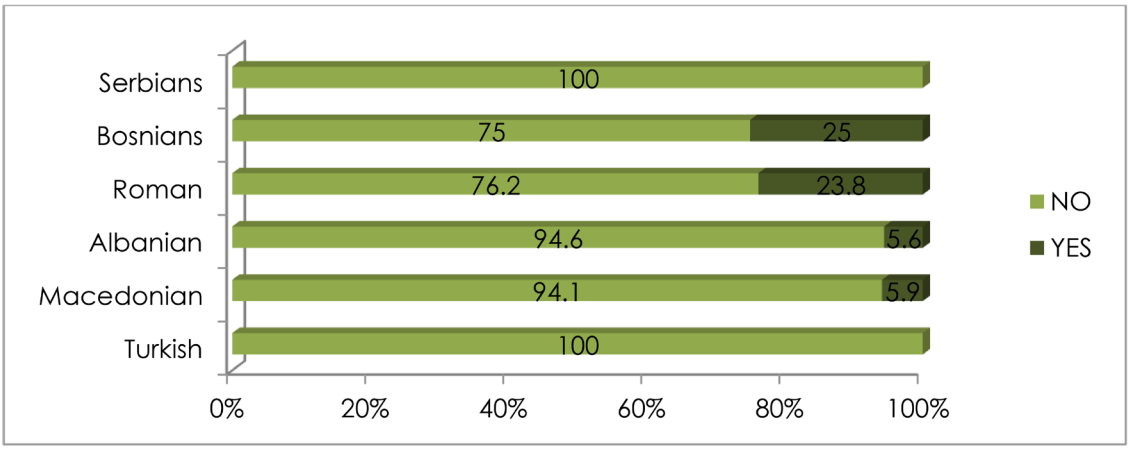


Figure 1. Ethnicity and supplements intake

Figure 1. Ethnicity and supplements intake

In 5.4% of Macedonian women, in 4.8% of Roma women - and in 3.8% of Albanian women malformations were registered-. No significant association was found between detected malformations and ethnicity of women giving birth for p>0.05 (1.78140, df=5, p=.878489).

Among women giving birth, 10.8% of Albanian women had stillbirths , 9.4% of Macedonian women, and 4.3% of Roma women -, and among women from other ethnicities, stillbirths were not registered. No significant association was registered between stillbirth and ethnicity of women giving birth for p>0.05 (Pearson Chi-square:.97146, df=5, p=.553532).

In vitro fertilization among women giving birth was registered among 3.1% of Albanian women, 8.9% of Macedonian women, and 12.5% of Bosnian women; such fertilization was not registered among women from other ethnicities. No significant association was registered regarding stillbirth and ethnicity of parturient women for p>0.05 (Pearson Chi-square: 9.77119, df=5, p=.081984).

Discussion

Religion and ethnicity tradition are predominant in family planning and they have the main impact on women's reproductive life [6,7], which has been shown in our studies, too.

Regarding literature data, the highest average number of deliveries among women in labor was reg-

istered among Roma and Bosnian women and it was 2.4±1.2 deliveries, and the lowest number was registered among Serbian women - 1.3±0.6. Our results with regard to number of pregnancies are similar to those in our neighborhood. In Albania, the birth rate is 2.05; it is under 1.5 in Bosnia, Serbia and Russia, and the highest rate is registered in Turkey-2.2 [8]. The descriptive analysis of data in this study suggests that ethnic affiliation of patients did not correlate absolutely with their representation at the national level. There is a wide range of reproductive age among female individuals, from 14 to 47 years.

The highest average age of women giving birth was recorded among Macedonian women and it was 31.5 ± 5.4 years, and the lowest among Roma women - 22.9 ± 5.4.

A study in Ethiopia discussed antenatal check-ups among all women, and one antenatal check-up visit was registered in 92.3% of pregnant women, four or more visits in 28.8%, but aur data suggest that our pregnant women had at least 4 antenatal check-ups[9].

Conclusion

The traditions of religion and ethnicity are fundamental in family planning. The efforts of the health care system in our country should be focused in providing preventive measures. It is necessary to reduce the number of giving childbirth under the age of eighteen in Roma population. There is increase in the age of women who give birth after 35 years when comorbidities are present. National strategies should promote a positive approach to maternal health and wellbeing, reducing the risk of complications in vulnerable populations.

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