



ATTITUDES OF WOMEN IN THE REPUBLIC OF MACEDONIA FOR PRENATAL TESTING AS A PREVENTIVE PUBLIC HEALTH PROCEDURE

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Abstract

Prenatal screening and diagnostic tests are associated with great anticipation, many questions, and different attitudes for the condition of the fetus, as well as providing important information about the health and condition of the future baby. The study included 507 respondents.

The aim of the research is to determine the attitudes of Macedonian women for prenatal testing as preventive public health procedures, depending on their demographic characteristics.

The research is an analytical sectional study whose results were collected by a questionnaire that was made for the purposes of the study, and included women-mothers with at least one pregnancy.

To follow the observation about attitudes toward prenatal screening and diagnostic procedures, a descriptive analysis of the total number of points was made, where we found that surveyed women in Macedonia don't have precisely built views (opinions) regarding prenatal screening and diagnostic procedures. The higher level of attitudes towards prenatal screening and diagnostic procedures associated with respondents of age group under 49 years, who are residing in the city, with high educational level, married, nationality Macedonians, have health insurance, those who have children with developmental disabilities and women with one to two pregnancies. But although there are differences in demographic characteristics, respondents in 67.1 % are unanimous in terms of attitude that prenatal screening tests should be used by all pregnant women. For this view is unspecified are 25.2%, 7.7 % of the respondents disagree.

Keywords: Attitudes of women-mother; Prenatal screening and diagnostic tests.

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Introduction

Periods of prenatal care refers to the time and connection with early and late pregnancy, which includes monitoring the health of the woman and the fetus, providing medical and psychosocial interventions, support and promotion of health.¹

Health care for pregnant women, known as antenatal care, is a set of interventions that woman gets by organized health system.²

Prenatal care in the Republic of Macedonia is mostly implemented at the primary healthcare within gynecological surgeries and polyvalent healths nursing while part of the women with high risk pregnancy are sent in the gynecological hospital departments for follow-up and tretman.³

Prenatal care in the U.S. is preventative health care for women, which provides regular reviews that enable specialists to detect, treat and prevent potential health problems during pregnancy as well as promotion of healthy lifestyles that benefit both mother and child.⁴

Almost one fifth of women in the United States approached the prenatal care during the first trimester of pregnancy, for this decision contributed the organization of the Health system, along with the personal views of mothers.⁵

In terms of attitudes to women, some studies have shown no differences between the views of women from different ethnic or social origin, in connection with prenatal care. Browner and Pressin their study which was conducted over two decades, proved no significant differences between the different demographics of women in relation to their own practice and prenatal care.⁶ McCormick et.al. noted that women, regardless of demographics, are evenly affected by certain health behaviors, stressful events, stressful environment, social support, mental health, and family history.⁷ Winston et. all. point out that attitudes had an impact of ethnicity, marital status, availability, rural vs. urban residence, distance of residence from clinics or before prenatal care from prenatal care. The first prenatal visit is about the woman related to awareness of care, and attitudes for better prenatal care when mothers have fewer children. But if they already have more children, prenatal care is based on their own opinion and their visit to health facilities during the prenatal period for them is considered as a waste of time, money and a physical effort.⁵

Attitudes significantly influence decisions to accept or not to accept the specific recommendations for prenatal care, and they are based on the basis of their knowledge gained from personal experience and information from social networks. One of the reasons that women do not follow the advice of doctors due to the perception that the information provided is not accurate.⁶

Women can often get information about experiences with prenatal tests, where health workers gave correct directions. Markens et.al. consider that many women who have negative attitudes toward medicine will drop the use of prenatal testing, drawing on their own knowledge as a more accurate interpretation than their doctor.⁸ Rayna R. consider that very small number of women may refuse prenatal care in full, to avoid unpleasant decisions related to prenatal testing and prenatal care.⁹

For mothers who have healthy children according to their attitudes the probability that they do not follow clinical recommendations increases, attributing the positive prenatal situations that they had with their past experience. For personal prenatal interventions could be determined if some feel different symptoms and determine that they should seek appropriate medical treatment.⁶

Some mothers due to lack of information have their own views and not willing to perform prenatal testing and counseling, hoping that the medical workers after they pointed out the need to recommend this.¹⁰

Considerations for prenatal tests are constructed based on the views back towards some information that had been presented to the mother, which may further affect its beliefs¹¹ or religious beliefs about equality live.¹² In this regard, the views of women on the outcome of pregnancy, can affect the final decision - whether to undergo diagnostic testing.

According to Frenchand ass. attitudes that a mother can form, significantly depend on the information they receive from institutions. Namely, when the test was presented by health professionals as a standard and routine health institution it was accepted without problem or questions.¹³

Even back in 1988. Kelly and ass. believed that, women who decided not to undergo screening and diagnostic procedures, generally agree that they have no attitudes on the value and importance of these decision.¹⁴

Material and methods

The research is an analytical sectional study in a randomized sample of 507 respondents. Respondents are in the age between 20-68 years, from various regions of the Republic Macedonia. Of 507 women surveyed, 250 are mothers to a child with difficulty in growth and development, and 257 mothers of healthy children.

The views are set depending on the age, place of residence, health, number of pregnancies, education, marital status and whether they have a healthy child or a child with difficulties in growth and development.

For obtaining the necessary data a questionnaire was used, which was made specifically for this purpose and suited to patients in the R. Macedonia. The questionnaire was made according to the questionnaire from Kristie et.al. which was used to obtain information on the attitudes, knowledge and experiences of women in Eastern Australia.¹⁵



The first part of the questionnaire consisted questions about demographic characteristics of the respondents , and the second part of the questionnaire include questions pertaining to attitudes toward early diagnosis in prenatal period .

RESULTS

Of the total number of respondents , 50.7 % of respondents' surveyed, are parents of children born without developmental difficulties and 49.3 % are parents of children born with developmental difficulties. According the developmental difficulties registered, the highest percentage of 49.6 % are difficulties in psychological development , followed by 21.2 % with difficulties in growth and development , 17.6 % had health problems , and 11.6 % were born with a syndrome . (Chart.1)

The average age of respondents accounted for $39.1 \pm 8.4g$. Respondents mostly live in the city (76.9%) compared to respondents who live in the country (23.1%). Most of them are highly educated (47.3%), followed by secondary -17.2%, with or without primary education is 10.5% and 16.2%. Heal 77.3% have health care and without healthcare are - 22.7%. The biggest part of the surveyed have two pregnancies-36.5% and 86.0% of the respondents are married. (Table 1)

The average overall score of questions regarding attitudes to prenatal diagnostic procedures and screening is 2 - neither agree nor disagree (unspecified respondents) .

The highest score in general register's position on attitudes that prenatal screening tests should be used by all pregnant women. For this paragraph 67.1 % agree, neither agree nor disagree - 25.2 % and 7.7 % disagree. (Chapter. 2a)

While the attitude that prenatal screening tests are needed 60.4 % of the respondents agree , - 37.1 % are vague, 2.5 % disagree .

The cost of prenatal screening test according to the attitudes of the respondents, should not affect their use , 56.0 % of respondents agree , neither agree nor disagree - 30.0 % and 14.4 % disagree .

The attitude that generally information on prenatal tests should be easily accessible to future mothers 57.8 % of respondents agree , neither agree nor disagree - 36.3 % and 5.9 % disagree .

The opinion , that during pregnancy mothers are concerned about the health of their baby , polled 54.2 % agree , neither agree nor disagree - 29.2 % and 16.6 % disagree .

The attitude that the results of prenatal screening tests will help to reduce anxiety during pregnancy , 50.7 % of respondents , agree , 37.1 % neither agree nor disagree and 12.2 % disagree .

Generally about whether the concern in future mothers is greater if there is a family member with severe abnormality , 61.9 % agree , - 30.0 % neither agree nor disagree and 8.1 % disagree .

53.6 % of the respondents agree that majority of information on the results of prenatal tests ensures the condition of the fetus , polled, neither agree nor disagree - 34.1 % and 12.2 % disagree .

With the general opinion that unwanted information from prenatal tests carry new decisions related to the mother 's future babies , 38.3 % of the respondents agree , neither agree nor disagree - 39.4 % and 22.3 % disagree .

Mothers should have enough time to apply the decision of prenatal tests, 41.0 % respondents agree , neither agree nor disagree - 36.7 % and 22.3 % disagree .

The general opinion that even before conception is necessary to have enough information about prenatal screening tests , 35.9 % of the respondents agree , neither agree nor disagree - 38.5 % and 25.6 % disagree .

The general opinion that any information about prenatal screening should be clear and precise , 32.5 % of the respondents agree , neither agree nor disagree - 38.5 % and 25.6 % disagree .

Parent gynecologist should know enough about the tests that are available in our institutions , respondents agree with 39.3 % , neither agree nor disagree - 42.0 % and 18.7 % disagree .

Required knowledge can help in the correct decision for the type of diagnostic screening test , respondents agree 37.5 % neither agree nor disagree - 37.7 % and 24.9 % disagree .

The results of prenatal tests should evoke a sense of security among future mothers - 34.7 % of the respondents agree, for the most part neither agree nor disagree - 44.4 % and 20.9 % disagree .

The general opinion that the test results should be clearly explained with enough information, 38.5 % of the respondents agree , for the most part neither agree nor disagree - 44.6 % and 17.0 % disagree.

The level of attitudes towards prenatal screening and diagnostic procedures in relation to various socio - demographic characteristics of the patients is shown in Tab 2nd

According to Tab.2 analysis, higher levels of attitudes towards prenatal screening and diagnostic procedures associated with respondents age group under 49 years who lives in a city with high education, married , with health insurance , those who have children with disabilities and those who have the first pregnancy . For $p < 0.05$, analysis showed significant association with respect to all examined socio - demographic characteristics .

For perception of the general level of attitudes towards prenatal screening and diagnostic procedures , a descriptive analysis of the total number of points is made (Tab 3) . According to the analysis , the number of points varies in the range from minimum of 20 to maximum 48, and 50 % of respondents level of attitudes towards prenatal screening and



diagnostic procedures is 37 points . Frequently repeated number of points is 32. The average value of attitudes towards prenatal screening and diagnostic procedures surveyed accounted 37.1 ± 7.1 which indicates that patients generally "neither agree nor disagree ."

Discussion

The sample in this study includes respondents who had at least one pregnancy and gave birth to difficulty in growth and development (250) and healthy children (257). Among surveyed register where difficulties in children's average age 37.9 ± 6.5 g, and the average age of 40.4 ± 9.7 g. where the respondents are not registered difficulties in children at the time of the survey.

According to the analysis, the average value of attitudes towards prenatal screening and diagnostic procedures surveyed accounted for 37, suggesting that patients generally "neither agree nor disagree", or 50% of the respondents have their own views on proposed opinions regarding prenatal screening and diagnostic procedures.

Demographic characteristics showed statistical significance ($p < 0.05$) in determining the attitudes of women in the Republic. Macedonia

The relationship between age and consent to the attitudes associated with prenatal tests proved to be statistically significant. Education as variable proved significant in relation to the expressed views. Among respondents with higher education appear already built attitudes on the application of prenatal diagnostic tests while among those with lower levels of education are mostly vague answers. Similar results were obtained in the research of Janeva N. by which, ignorance is more prevalent among women about the need of consultation and review at the gynecologist in early stages of the pregnancy , especially in women with lower levels of education.¹⁶

Least constructed views on prenatal screening tests occurred in the respondents that live in rural areas, compared to respondents from the city.

In Macedonia women have insufficient coverage of gynecologists, especially in rural areas and small urban settlements i.e. 34.1% of all women reported that they have chosen a primary gynecologist, with 42.9% of women living in rural area, and 31.5% are women living in city environment.¹⁷

A higher level of built attitudes depending on marital status, have the respondents who are married.

The highest average of expressed views in terms of nationality, have Macedonian women ($x = 38.8$), and the lowest average is in mothers from Roma population ($x = 9.6$). 90.7% of the Romani women have no information on prenatal tests.

According to Pavlovski B. health care during pregnancy is inappropriate for Roma women, there are notes that 21% of Roma women didn't make any medical review during their last pregnancy, which is substantially larger percentage of 2% uncovered women with prenatal care on a national level.¹⁸

Respondents who have health insurance showed a higher level of expressed attitudes (agree or conflicted), compared to those who do not have health insurance. Mothers who have had two or three pregnancies have a higher level of built attitudes toward prenatal screening and diagnostic tests.

A similar study is conducted in Croatia, in order to assess the opinion of Croatian women about prenatal screening tests. The study encompassed 437 respondents. The average maternal age and level of education varies considerably between participants as in our study. The statistical analysis showed that age, education and previous information variables were significant variables for choosing a test, and the level of education and previous knowledge are significant in the application of the combined model.¹⁹

Among respondents who have children with developmental disabilities, largest number of responses are vague - neither agree nor disagree, while in respondents who have healthy children, appears higher level of expressed opinions , agree or conflicted about the proposed posts for prenatal screening and diagnostic procedures .

Conclusion

From the survey we can conclude that women surveyed in Macedonia depending on demographic characteristics have meticulously built views (opinions) regarding prenatal screening and diagnostic procedures. Their response on the indicated generally known positions is often ambiguous or "neither agree nor disagree" We believe that this uncertainty is due to their lack of information and lack of attendance at primary gynecologists during their pregnancy.

Especially the lack of views present among respondents from rural areas and those with lower levels of education. Experience with previous pregnancies affect the building of their personal views, but it's not a decisive factor. The existence of views on prenatal testing is most present in Macedonian women, and has the largest uncertainty among women from Roma population.

Most highly built attitudes (agree and conflicted) towards prenatal screening and diagnostic procedures of the respondents is related to age group below 49 years , residing in the city , high educational level; married , nationality Macedonians, those who have health insurance , those who have healthy children and first pregnancy .

But despite that lack of information, there are differences in attitudes depending on demographic characteristics, the largest percentage of Macedonian women surveyed (67.1 %) agree with the view that prenatal screening tests should be used by all pregnant women.



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Tables and chart

Chart 1 Flowchart of respondents according to whether, any of their children have difficulties

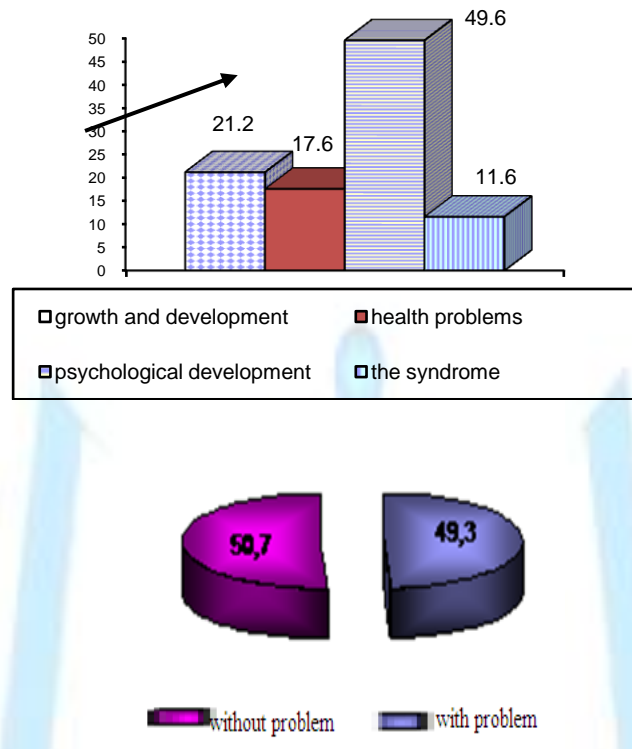


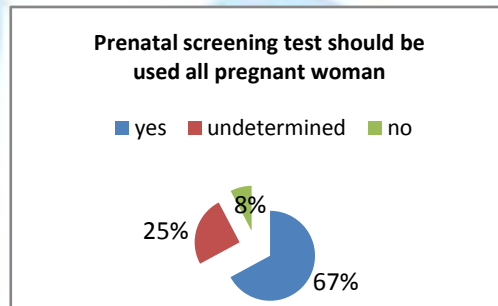
Table 1 Demographic characteristics of the sample

| Demographic characteristics of the sample | N | Total |
|---|-----|-------|
| Age | | |
| <29 | 45 | 507 |
| 30-39 | 245 | |
| 40-49 | 150 | |
| 50-59 | 58 | |
| >60 | 9 | |
| Place of residence | | |
| City | 390 | 507 |
| Village | 117 | |
| Education | | |
| Without education | 53 | 507 |
| Primary | 82 | |
| Secondary | 87 | |
| Higher | 45 | |
| High | 240 | |



| | | |
|------------------|-----|-----|
| Health insurance | | |
| Have | 392 | 507 |
| Not have | 115 | |
| Marital status | | |
| Not married | 71 | 507 |
| Married | 436 | |
| Pregnancy | | |
| 1-2 pregnancies | 282 | 507 |
| 3и > | 225 | |

Chapter 2a Prenatal screening tests should be used by all pregnant women,



Chapter 2b Prenatal screening tests are needed

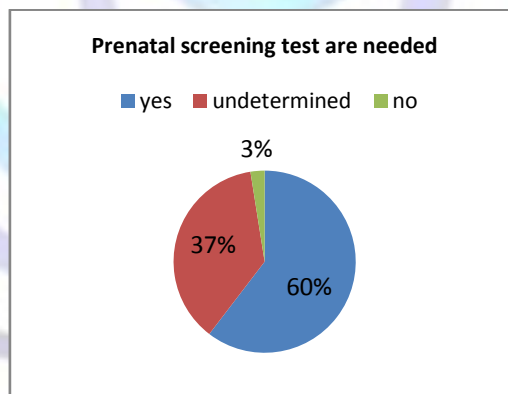




Table 2 Comparison of average score in terms of questions about attitudes toward prenatal screening and diagnostic procedures with demographic characteristic

| Variable | Total points for attitudes | | | p |
|----------------------------|----------------------------|-----|----------|---|
| | average | N | SD | |
| Age | | | | |
| <30 | 39.31111 | 45 | 6.204186 | One way - ANOVA F=15.59911 p=0.000000 |
| 30-39 | 38.83265 | 245 | 6.966000 | |
| 40-49 | 35.64000 | 150 | 7.230881 | |
| 50-59 | 32.27586 | 58 | 5.399133 | |
| >60 | 32.00000 | 9 | 1.118034 | |
| Residence | | | | |
| Town | 38.11026 | 390 | 7.003535 | Studentov t-test=6.269566 p=0.000000 |
| Village | 33.55556 | 117 | 6.503904 | |
| Education | | | | |
| No education | 35.33962 | 53 | 6.545531 | One way - ANOVA F=33.05184 p=0.000000 |
| Primary | 30.67073 | 82 | 5.544556 | |
| Secondary | 36.70115 | 87 | 6.050399 | |
| College | 36.55556 | 45 | 6.538542 | |
| Highly | 39.84583 | 240 | 6.696435 | |
| Marital status | | | | |
| unmarried / single | 42.00000 | 7 | 3.741657 | One way - ANOVA F=3.479257 p=0.000000 |
| married | 37.27752 | 436 | 7.481997 | |
| Divorced | 34.45000 | 40 | 4.230233 | |
| widower | 31.42857 | 7 | 0.975900 | |
| extramarital | 37.88235 | 17 | 1.053705 | |
| health Insurance | | | | |
| Yes | 38.12500 | 392 | 7.080262 | Studentov t-test=6.441899 p=0.000000 |
| No | 33.42609 | 115 | 6.134545 | |
| Pregnancy | | | | |
| One | 41.83505 | 97 | 6.342122 | One way - ANOVA F=28.07479 p=0.000000 |
| Two | 37.61622 | 185 | 6.838888 | |
| Three | 34.76667 | 120 | 7.251466 | |
| more than four | 34.28571 | 105 | 5.735708 | |
| Developmental difficulties | | | | |



| | | | | |
|-----|----------|-----|----------|--|
| Yes | 34.69200 | 250 | 6.957497 | Studentov t-test=-7.77437 p=0.000000 |
| No | 39.36187 | 257 | 6.566173 | |

Table 3 Descriptive analysis of scores for attitudes toward prenatal screening and diagnostic procedures

| N | Mean | Median | Mode | Frequency | Min. | Max. | Std.Dev |
|----------|-------------|---------------|-------------|------------------|-------------|-------------|----------------|
| 507 | 37.05917 | 37.0 | 32.0 | 79 | 20.0 | 48.00 | 7.14809 |

