

Polish Women's Preferred Choices for Prenatal Screening

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ABSTRACT

Prenatal screening is a dynamically developing branch of perinatal medicine. The multitude of possible options of prenatal testing enables more and more accurate diagnosis. Also, it makes prenatal counseling more difficult and challenging for physicians and may be incomprehensible for patients. There is no doubt prenatal screening should be offered to all pregnant women. There are a few scientific studies analyzing patients' approach and attitude to prenatal screening. In Poland, a country considered conservative and Catholic, Polish women were asked in Kosinski et al. research study about their opinion and expectations towards prenatal diagnostic. As it turned out, almost all Polish women expect prenatal screening and would want to be informed about genetic and structural abnormalities. Over half of the women would consider termination of pregnancy if severe abnormality is detected. Willingness to be informed about genetic disorder and fetal abnormalities increases with maternal age and average household income and depends on severity of abnormality.

Keywords: Genetic screening, Noninvasive prenatal screening, Prenatal counseling, Ultrasound.

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INTRODUCTION

There is no doubt that major part of modern perinatal medicine is prenatal testing, which consists of prenatal screening dedicated to early detection of genetic and anatomical defects. A number of screening and testing options are available, and they are also rapidly changing with emerging technology. Screening options include ultrasound, maternal serum markers, and cell-free DNA. Diagnostic options include chorionic villus sampling, amniocentesis, or in selected cases cordocentesis.¹ The number of options complicates prenatal counseling for physicians and can be confusing for patients. It is important in prenatal counseling to carefully choose testing strategy that complies each patient's individual goals and to ensure adequate understanding of results. Expectations of prenatal tests may be different for health professionals who primarily require accuracy and for patients who put more emphasis on safety and comprehensiveness.²⁻⁴ Healthcare provider or genetic counselor should frankly discuss and explain patient's decision regarding risks, benefits, and limitations.^{1,5} Many different motivations for undergoing prenatal screening or testing are reported by women due to personal and religious preferences. Some of them want to prepare for caring for an affected newborn, discuss with partner and family, or even have psychological support.¹ The study of Kosinski et al. is the first to investigate Polish women's expectations and attitudes regarding prenatal screening.

PRENATAL SCREENING IN POLAND

It is recommended that all pregnant women should be offered prenatal testing.^{1,2} Prenatal screening in Poland is covered for pregnant women over 35 years old, with a history of chromosomal defect in a previous pregnancy or in cases of maternal or paternal confirmed chromosomal abnormality.⁶ Chromosomal defects and congenital structural malformations are present in approximately 3–5% of pregnancies and remain the leading cause of infant and childhood mortality.^{1,2} Considering the rate of 400,000 annual deliveries, each year about 12,000 newborns may be affected by genetic disorders. Such a high rate of affected pregnancies indicates a significant need for accessibility of prenatal testing in Poland.²

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It should be emphasized that Poland is considered a conservative Catholic country, so different attitudes exist due to personal and religious preferences.^{2,7,8}

POLISH WOMEN'S EXPECTATIONS REGARDING PRENATAL SCREENING

Overall conclusion from survey study by Kosinski et al. reveals that although social or religious background may influence final decision, most women in Poland (97%) stated that they would like to undergo prenatal diagnostics in the first trimester of pregnancy.² They also would like to be informed about fetal abnormalities. Only 3% women would not like to be informed about these abnormalities. However, the willingness to detect abnormalities depends on their severity. The authors of the study divided genetic defects into 5 types depending on severity: type I (lethal anomalies like trisomy 18 and 13), type II (moderate disability), type III (health problems in only some cases), type IV (intellectual disability), and type V (anomalies of unknown and uncertain meaning).² Most women would like to be informed during the pregnancy about the most serious defects. The less severe the defect, the lower the determination to be informed about it. Women justify this by the fact that the diagnosis of unknown or uncertain significance may be difficult and stressful experience during pregnancy, and they still may have chance to give birth to a healthy newborn.^{2,9-11}

The study by Kosinski et al. and some other authors confirmed that advanced maternal age is an important factor determining whether to undergo prenatal diagnostic testing.^{2,12,13}

The study by Kosinski et al. also shows the relationship between patient's income and their willingness for prenatal diagnosis. The higher average monthly income per household they have, the more often they would like to know about the diagnosis of genetic disorders or anatomical abnormalities.²

PATIENT'S PREFERENCES IN CASES OF CONFIRMED ABNORMALITY

While diagnostic modalities such as prenatal ultrasound, magnetic resonance imaging, and genetic testing have significantly improved prenatal diagnosis, physicians and their patients face ethical issue of terminating pregnancy. As study of Kosinski et al. shows over half of Polish women would consider terminating pregnancy in the case of the most severe abnormality like Patau and Edwards's syndrome. On the other hand, in cases of minor health problems like learning difficulties, short stature, infertility, or less severe abnormalities like autism, schizophrenia, or possibility of asymptomatic disease, only small percentage of patients would consider termination of pregnancy. There is also a relationship between woman's age and the willingness to terminate pregnancy in case of serious fetal defects. The more advanced maternal age, the more often termination of pregnancy is considered. In the group of women aged 40–44, the willingness to terminate the pregnancy in cases of confirmed fetal abnormality is most frequent. In the group of Polish women considering themselves Christian Catholics, the percentage of patients considering termination of pregnancy is lower than in the entire population (31.5% vs 41.5%).²

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