Effect of Miscarriage Risk on Amniocentesis Decision-Making

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Amniocentesis is the most common prenatal test used to diagnose chromosome abnormalities. However, amniocentesis is an optional test for pregnant women because it is associated with a risk for miscarriage. Traditionally, the risk for miscarriage associated with amniocentesis was quoted as 1 in 200, but recent studies have shown the risk may be lower than previously thought. This study explored how quoting a lower amniocentesis related miscarriage risk to patients affects the decision-making process. We hypothesized that anticipated amniocentesis uptake would increase as the quoted risk for miscarriage decreased. The aims of this study were to determine whether women perceive a difference in the spectrum of risk figures for amniocentesis-related miscarriage, and to determine the impact of the risk figure on the decision making process and to identify other major demographic, ideological, and situational factors that influence the decision-making process. The results from 96 completed anonymous surveys showed that the quoted miscarriage risk was a major factor in the amniocentesis decision-making process. Women perceived a difference in the spectrum of miscarriage risks (p<0.001) and were more likely to show interest in amniocentesis if the miscarriage risk is lower (p<0.001). It can be extrapolated from these findings that more women will choose to undergo amniocentesis if they are quoted a lower miscarriage risk. No significant differences were seen between various demographics explored. A subset of respondents did not appear to comprehend the risk figures presented. These non-comprehenders were more likely to be from lower income groups (p<0.05). Therefore, additional counseling may be necessary for individuals in lower socio-economic groups to ensure understanding of the risks and benefits of amniocentesis. Information provided by this study will help clinicians better understand how the new evidence of a lower miscarriage risk associated with amniocentesis will affect the uptake of amniocentesis.