Knowledge and Perception of the Role of Targeted Ultrasound in Detecting Down Syndrome among a High Risk Population

Ashley Marie Henriksen (Advisor: Jennifer Hoskovec M.S., C.G.C.)

The purpose of this study was to determine the perception and knowledge of targeted ultrasound in women who screen positive for Down syndrome in the first or second trimester, and to assess the perceived detection rate of Down syndrome by targeted ultrasound in this population. While several studies have reported patient perceptions’ of routine ultrasound, no study has specifically examined knowledge regarding the targeted ultrasound and its role in detecting Down syndrome. A targeted ultrasound is a special ultrasound during the second trimester offered to women who may be at a higher-than-average risk of having a baby with some type of birth defect or complication. The purpose of the ultrasound is to evaluate the overall growth and development of the baby as well as screen for birth defects and genetic conditions. Women under the age of 35 referred for an abnormal first or second trimester maternal serum screen to several Houston area clinics were asked to complete a questionnaire to obtain demographic and ultrasound knowledge information as well as assess perceived detection rate of Down syndrome by ultrasound. Seventy-seven women completed the questionnaire and participated in the study.

Our findings revealed that women have limited background knowledge about the targeted ultrasound and its role in detecting Down syndrome. These findings are consistent with other studies that have reported a lack of understanding about the purpose of ultrasound examinations. One factor that seems to increase background knowledge about the targeted ultrasound is individuals having a higher level of education. However, most participants regardless of race, education, income, and exposure to targeted ultrasound information did not know the capabilities of a targeted ultrasound.

This study confirmed women lack background knowledge about the targeted ultrasound and do not know enough about the technology to form a perception regarding its ability to detect Down syndrome. Additional studies to identify appropriate education techniques are necessary to determine how to best inform our patient population about targeted ultrasound.

Supervisory Committee:
Jennifer Hoskovec M.S., C.G.C., Chair
Stephen Daiger, Ph.D.
Lara Friel, M.D., Ph.D.
Syed Hashmi, M.D., Ph.D.
Joan Mastrobattista, M.D.
Cathy Sullivan, M.S., C.G.C.