

Web-Based Intervention for Alcohol Use in Women

Principal Investigator:	Delrahim-Howlett, Katia, M.P.P., M.B.A., Ph.D.
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Target Population: Low SES/Low Income*, Women*

Summary: Fetal alcohol spectrum disorders (FASDs) arise from prenatal exposure to alcohol and are among the most common developmental disabilities in the United States, occurring in as many as one in 100 children. Despite widespread educational efforts about the fetal health risks associated with prenatal alcohol use, recent estimates from the Centers for Disease Control and Prevention indicate that 10 percent of women who know they are pregnant report alcohol use. Thus, there is a need for more effective primary prevention and intervention programs to reduce alcohol intake before conception and during pregnancy. This need is amplified among low-income women who may be more vulnerable to prenatal alcohol use and whose children, therefore, are at higher risk of alcohol-related developmental abnormalities. From a public health perspective, the use of health information technology to develop self-administered, cost-efficient methods for conducting alcohol assessments and delivering targeted interventions has broad-based appeal for integration into maternal and child primary care. Furthermore, if such methods are applied to low-income populations, the recognized health disparities associated with alcohol use in pregnancy will be better addressed.

This project worked with women whose children or dependents receive services through the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) in San Diego County, California. A small-scale, randomized controlled trial tested an adapted version of an existing Web-based program to reduce alcohol consumption in non-pregnant women who drink at risky levels. A second objective evaluated the sustainability in the reduction of alcohol consumption between women who received the Web-based feedback intervention and women who did not. Qualified and consenting participants were randomly assigned to complete the Web-based assessment and receive generic information about FASDs, or to complete the Web-based assessment and receive a personalized feedback intervention. All participants completed followup assessments on reported alcohol consumption at 1 and 2 months post-baseline.

The results of this study contributed to: 1) knowledge of the feasibility of using a Web-based medium to efficiently and accurately assess alcohol use in vulnerable populations; 2) identification of potentially cost-effective prevention and intervention strategies that can address health disparities in preconception and prenatal education and health care; 3) validation of the effectiveness of an existing Web-based program that may have wide-ranging applicability in maternal and child health primary care; and 4) extension of theoretical frameworks involved in using an innovative intervention delivery medium to further advance the science of eHealth.

Specific Aims:

- Evaluate the effectiveness of the adapted Web-based assessment and intervention program in reducing risky alcohol consumption in non-pregnant women who have children or dependents enrolled in WIC by comparing rates of reduction in alcohol consumption between women who receive the Web-based feedback intervention and women who do not at 1 month post-baseline. The rates of reduction were measured by analyzing mean drinks per occasion and number of risky-drinking occasions. **(Achieved)**
- Evaluate the sustainability of reduction in alcohol consumption (number of risky-drinking occasions) between women who receive the Web-based feedback intervention and women who do not at 2 months post-baseline among women reporting a reduction at 1 month post-baseline. **(Achieved)**

In addition to the specific research project aims, this grant for a Health Services Research Dissertation Award supported Katia Delrahim-Howlett, a student in the Joint Doctoral Program in Public Health at San Diego State University and University of California, San Diego.

2010 Activities: The focus of activities was on final analysis of the intervention in which a total of 150 binge-drinking participants completed a Web-based assessment and were randomly assigned to receive either a personalized feedback intervention or general health information about alcohol consumption and fetal alcohol syndrome. Followup assessments on reported alcohol consumption were conducted via telephone at 1- and 2-months post-baseline.

Impact and Findings: Participants ranged from 18 to 44 years-of-age and 44 percent were Hispanic or Latina. Outcome data were available for 131 participants. The main outcome measure was reduction in number of risky-drinking occasions, and did not differ significantly between treatment conditions. However, more than 70 percent of the participants reported a reduction in risky-drinking occasions regardless of treatment condition (control 68 percent; experimental 72 percent). Furthermore, after controlling for confounding in a multivariate hierarchical logistic regression model, the estimate of treatment effect reached borderline significance. The results of the present study demonstrate that Web-based assessment of alcohol consumption among low-income women of reproductive age, as represented by WIC clients, is feasible and acceptable. The findings also suggest that detailed and interactive assessments of alcohol consumption may be sufficient for the reduction of risky drinking within this population and personalized feedback may provide additional benefits for some individuals.

Strategic Goal: Develop and disseminate health IT evidence and evidence-based tools to improve health care decisionmaking through the use of integrated data and knowledge management.

Business Goal: Knowledge Creation

* *AHRQ Priority Population*