

## **Development of a risk assessment tool for women with a family history of breast cancer**

**D Braithwaite, S Sutton, J Mackay, J Stein and J Emery**

**Cancer Detect Prev 29(5), 433-9 (2005)**

### **Introduction**

There has been an increased demand for cancer genetic services during the last 15y coupled with a scarcity of trained medical professionals. There is therefore a need for development of alternative and innovative methods for advising people about their inherited risk of breast cancer.

### **Issue addressed in paper**

In this study a computerized prototype GRACE (“genetic assessment in the clinical environment”) was created and tested. This is a patient self assessment tool that enables tailored predictions of breast cancer risk. It is aimed at women with an average to moderate risk of developing breast cancer because of their family history.

The study examined the acceptability of the GRACE prototype to women and tested the hypothesis that GRACE would perform as well as a nurse counsellor at improving women’s risk perceptions without causing adverse emotional reactions. 72 women participated. 38 were randomised to GRACE and 34 to a clinical nurse specialist.

The following measures were assessed: attitude toward the interventions; perceived benefits of the interventions; perception of the risk information in the interventions and satisfaction and risk communication preferences.

### **Summary of findings**

Participants held positive attitudes about all measures for both interventions with average scores lying between 4 and 5 on a 5 point scale. Therefore overall it is thought feasible to implement the GRACE tool in a clinical setting.

However nurse counselling did out perform GRACE on the majority of attitudinal and satisfaction indicators – particularly with regard to the power of intervention to address their concerns and enable them to make good choices.

The GRACE system was as effective as the clinical nurse specialist at improving the accuracy of women’s perceived risk of developing breast cancer. There is some evidence that the tool was even better than a nurse specialist at maintaining accurate risk estimates for women at follow up who were accurate at baseline.

**Results suggest that patient self assessment may not be the optimal method of intervention delivery. Integration into clinical consultations may provide a more effective platform for the application of a risk assessment tool such as GRACE.**