Scottish Government Health Directorates Chief Scientist Office

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FOCUS ON RESEARCH

Working together to support **act**ive living and **well**being (**ActWELL**) in the health promoting health service - feasibility trial to reduce breast cancer risk factors

Researchers
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Aim
To assess the feasibility of delivering a minimal contact, behaviour change intervention programme initiated via the NHS Breast Cancer Screening programme (NHSBCSP) in order to inform the design of a definitive randomised control trial (RCT) for weight management.

Project Outline/Methodology
The prototype ActWELL programme and study design was further developed following semi-structured interviews carried out with NHS Scotland breast screening staff and representatives from cancer charities and focus group discussions (FGDs) with women who had attended routine screening clinics. A feasibility trial of the minimal contact intervention programme (ActWELL) which focussed on modifiable risk factors for breast cancer (body weight, physical inactivity and alcohol) was then carried out to assess recruitment, retention and *indicative outcomes* from a 12 week intervention period. Process measures were undertaken to assess study acceptability.

Key Results
There was overwhelming support for lifestyle interventions to be offered in the breast cancer screening setting with endorsement from radiographers. Potential challenges for recruitment included raising the topic of body weight, the nature of engagement and lack of time. The FGD participants reported interest in personalised weight management that takes account of individual circumstances. However, suspicion and confusion was expressed about the role of lifestyle in breast cancer risk and the way messages are communicated.

These findings were used to inform the intervention, which was delivered by a lifestyle coach through one, face-to-face visit and up to 6 fortnightly phone calls using interactive, personalised, educational approaches (including pedometer based walking programme) and behavioural change techniques (goal setting, implementation intentions and self-monitoring). The recruitment process involved written endorsement from NHSBCSP staff and personal interaction with the clinic radiographers.

A pre-set target of 80 women were recruited from routine breast screening and recall clinics in Dundee and Glasgow (in 7 and 12 weeks, respectively) and 65 (81%) participants (29 intervention, 36 control) completed 12 week follow up assessments.

The participants came from a wide range of social backgrounds. The mean age was 58$\pm$5.6 years and mean BMI was 29.2$\pm$7.0.kg/m^2. Many (44%) reported a family history of breast cancer.

The primary analysis (with adjustment for baseline body weight) showed a significant group difference in weight loss of 2.04 kg (95%CI -3.24kg to -0.85kg). Significant between group differences were also detected for body mass index, waist circumference, physical activity and sitting time.

Women rated the programme content and delivery highly and 70% said they would recommend it to others. The pedometer was rated "very helpful" by 84%, followed by face-to-face contact and telephone support (both 79%).

Largely due to time constraints, the radiographers' reported fidelity to their prescribed role was low.

Conclusions
Recruitment, retention, treatment fidelity, indicative results and participant acceptability measures support the development of a fully powered trial to measure long term intervention effects. Amendments are needed to the current protocol to address issues raised by radiographers and improvements in retention.

What does this study add to the field?
Within the model of the health promoting health service, women attending breast screening are interested in accepting invitations to participate in minimal contact, lifestyle interventions which have significant impact on body weight and physical inactivity over a 12 week period.

Implications for Practice or Policy
The reach provided by the breast screening service and indicative effects highlight a unique opportunity to reduce disease burden related to body weight, physical inactivity and alcohol intake in women.

Where to next?
Funds are now being sought to take this forward in a fully powered definitive RCT with a one year follow up period.

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