

Evaluating the acceptance and usability of an app promoting weight gain prevention and healthy behaviours amongst young women with a family history of breast cancer: Protocol for an observational study

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Background

Breast cancer is the most frequent female cancer worldwide^[1].

20% of breast cancer cases in the UK are linked to:

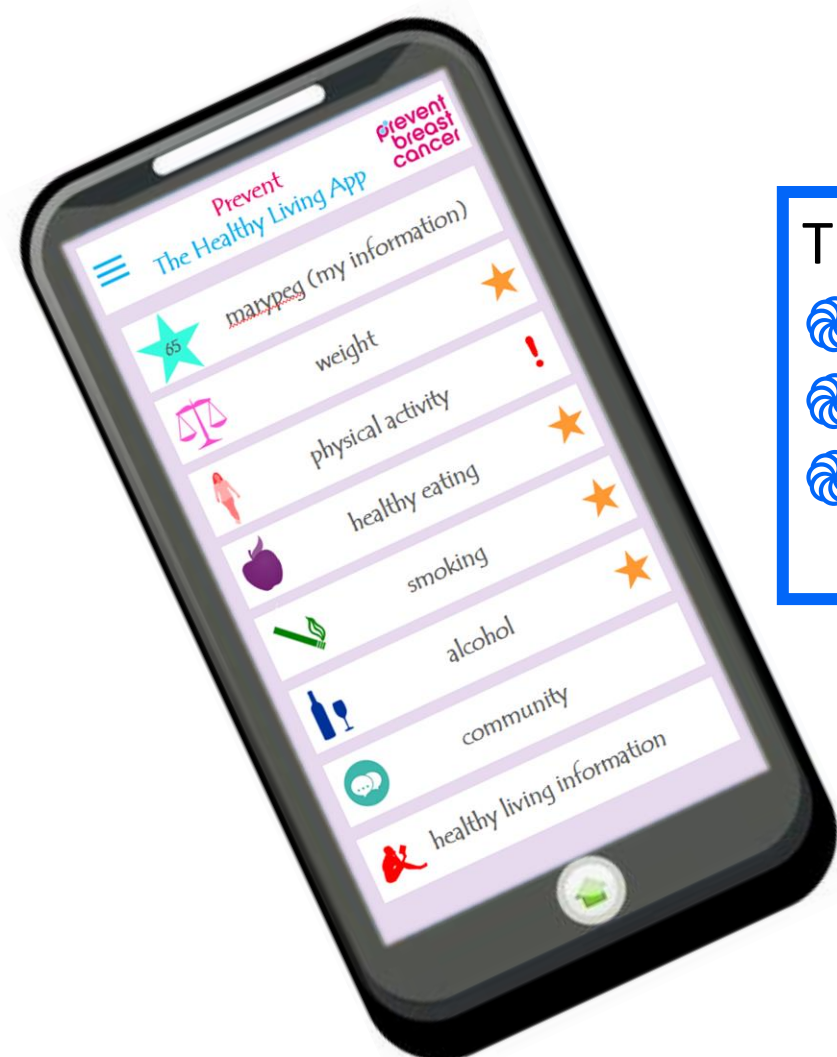
- 🌀 Weight gain during adulthood
- 🌀 Excess weight
- 🌀 Potentially modifiable health behaviours such as:
 - 🌀 Alcohol
 - 🌀 Smoking
 - 🌀 Absence of breastfeeding
 - 🌀 Lack of physical activity^[2,3]

Targeting health behaviour interventions to women with a family history of breast cancer could lead to a reduction in breast cancer cases.

The Health Behaviour App

We have developed an app promoting weight gain prevention and healthy behaviours for use by young women at increased risk of breast cancer.

We used a co-design process involving women from the breast cancer Family History, Risk and Prevention Clinic at Wythenshawe Hospital (MFT).



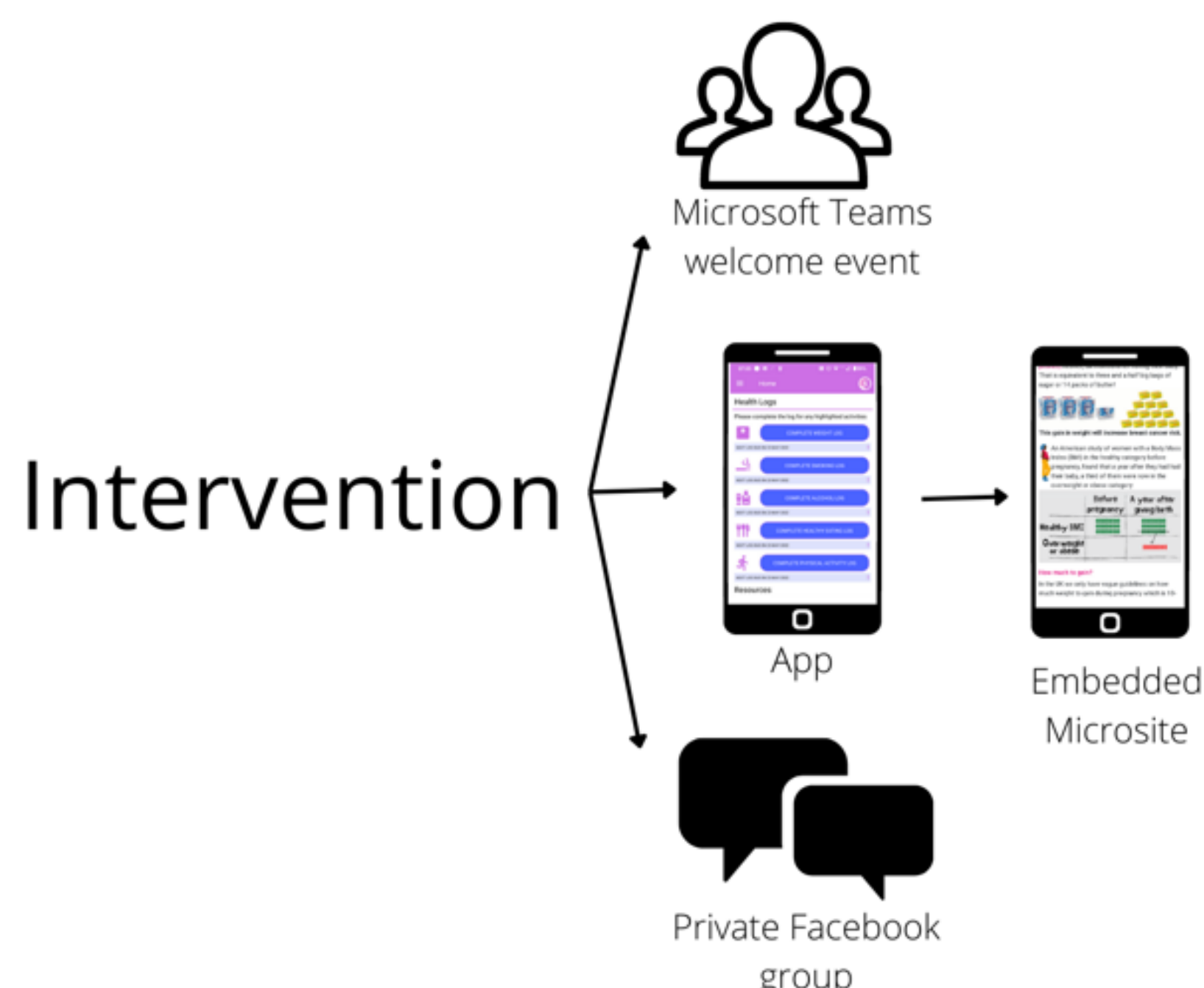
The app includes:

- 🌀 Behaviour change techniques
- 🌀 Goal setting
- 🌀 Education about health and breast cancer topics via an embedded microsite

The Health Behaviour Intervention

The app is part of a wider intervention:

- 🌀 A group welcome event on Microsoft Teams to give background to the project and allow study participants to meet each other virtually
- 🌀 Social/peer and health care professional support for study participants provided by a private, hidden Facebook group.



Aims of the study

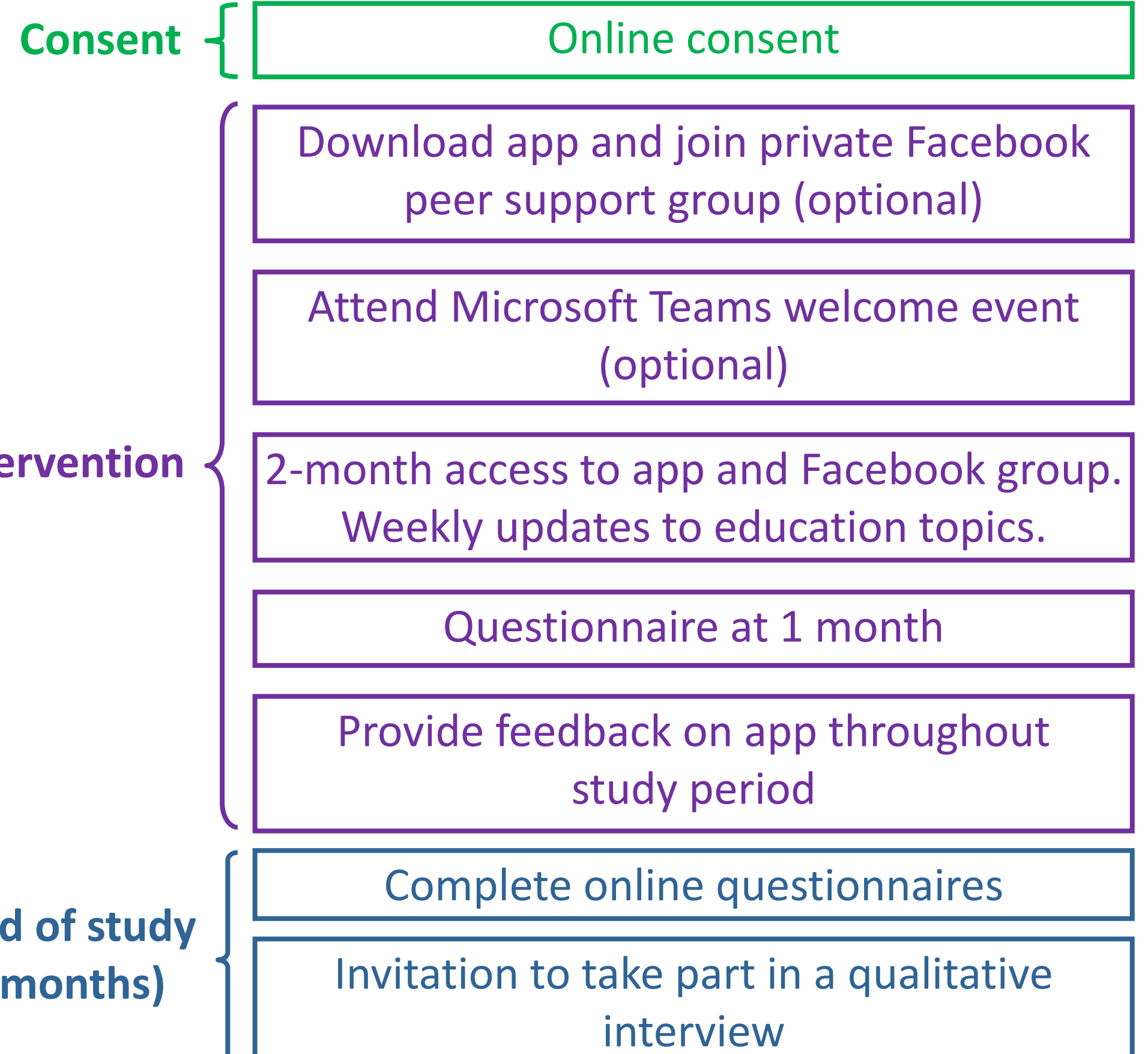
To assess the acceptability and usability of the intervention to participants, and feasibility of study procedures for a larger future study.

Methods

Participants

The study will recruit 35 female participants, age 18-35 years, at moderate or high risk of breast cancer (>17% lifetime risk).

Study pathway



Outcome measures

Though qualitative interviews, questionnaires and app/Facebook usage data we will assess the following outcomes for acceptability and feasibility:

- 🌀 Recruitment and online consent methods
- 🌀 Participant views on the app
- 🌀 Participant app usage
- 🌀 Health care professional time required for participant support
- 🌀 Engagement with the Facebook group

Future steps

The study is ongoing and results are expected in 2023.

Following this we will run a full feasibility study before running a randomised, multi-centre efficacy study.

References

1. Cancer Research UK, <https://www.cancerresearchuk.org/health-professional/cancer-statistics/statistics-by-cancer-type/breast-cancer/incidence-invasive>.
2. Brown, KF, et al., Br J Cancer, 2018. 118(8): p. 1130-1141.
3. World Cancer Research Fund and American Institute for Cancer Research, <https://www.wcrf.org/wp-content/uploads/2021/02/Summary-of-Third-Expert-Report-2018.pdf>