

Introducing lifestyle prevention to UK Family History Clinics: The Family History Lifestyle Study

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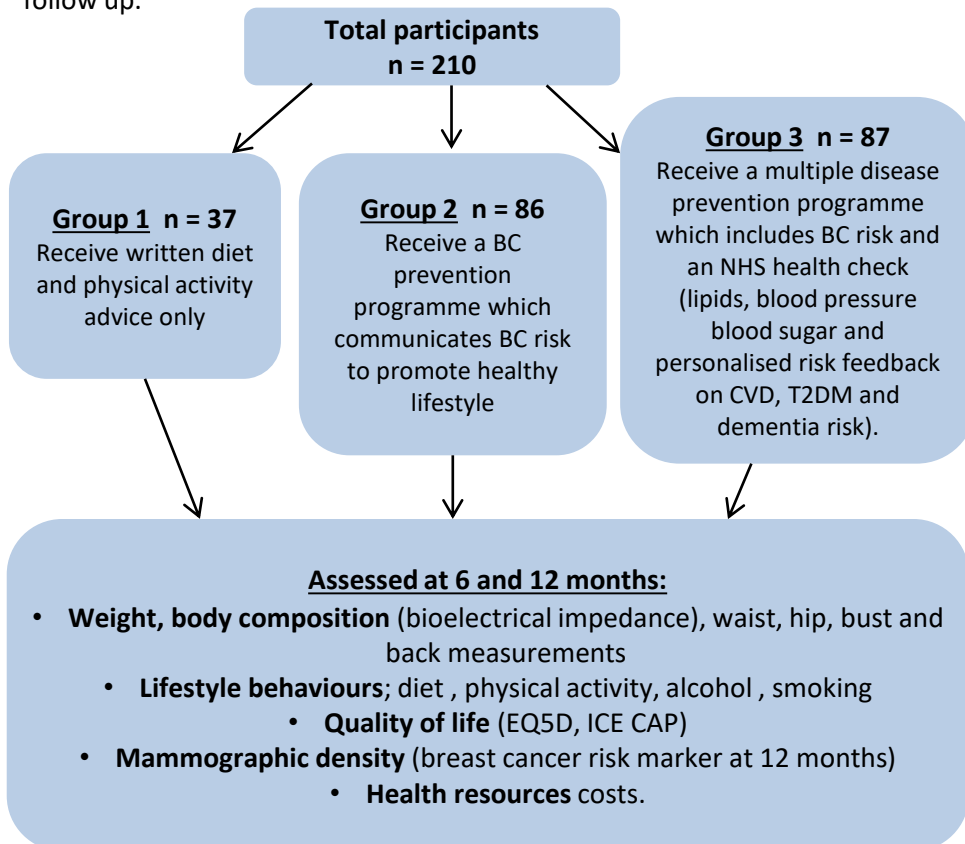
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Background

Overweight/ obesity, sedentariness and high alcohol intakes are common amongst women attending the Family History Clinic (FHC) (Pegington et al 2019). This increases their risk of breast cancer (Gramling et al. 2010) as well as other cancers, cardiovascular disease (CVD), type 2 diabetes (T2DM) and dementia. Currently around 90 FHCs in the UK provide BC risk assessment, surveillance, advice on chemoprevention and prophylactic mastectomy/oophorectomy. Standard care lifestyle support involves written advice which has a minimal effect on lifestyle behaviours (French et al 2017).

Aim and Study Design

This randomised trial will compare the efficacy of two different remotely delivered (phone/ e- mail/web) 12 month weight loss/ lifestyle programmes and a written advice comparison group to promote healthy diet and physical activity behaviours and weight loss amongst 210 overweight/obese women attending three UK FHC's (Manchester Foundation Trust (MFT), Tameside and Southampton). The study has successfully recruited and is currently in follow up.



Subjects

Inclusion criteria

1. Women aged >30 years, moderately increased / high risk of BC (i.e. \geq 17% lifetime risk).
2. Body Mass Index (BMI) \geq 25kg/m²
3. Access to and ability to use telephone and internet.

Exclusion criteria

1. Previous diagnosis of cancer, diabetes, CVD or receiving medication for raised cholesterol.
2. Current diagnosis of kidney disease.
3. Physical or psychiatric condition or alcoholism which precludes suitability or adherence to a home-based diet and exercise programme.
4. Pregnant, breast feeding or planning pregnancy.
5. Currently successfully losing weight.

Recruitment

- MFT (n= 186) Tameside (n= 19) Southampton (n = 5)
- Mailshot invitation at MFT (n = 1803) / Invited in clinic (n =111)
- Interest to join 383 (20%) / Ineligible 197 (10.3%)
- Recruited 186 (9.7%)

Baseline characteristics(n=210)

	Total N=210	Group 1 N = 37	Group 2 N = 86	Group 3 N = 87
Age	46.4 (7.4)	47.6 (7.3)	46.2 (6.4)	46.2 (8.3)
Weight	87.3 (15.2)	83.6 (11.1)	87.2 (15.1)	89 (16.6)
BMI	32.2 (15.2)	31.3 (4.1)	32.1 (5.1)	32.8 (6)
White (British, Irish or other)	95.2%	91.9%	95.3%	96.6%
Current Smokers	5.2%	8.1%	4.7%	4.6%
Score of deprivation 2015*				
Quintile 1-2 *most deprived	18.1%	13.5%	14.0%	24.1%
Quintile 3-4	15.2%	21.6%	14.0%	13.8%
Quintile 5-6	21.9%	21.6%	18.6%	25.3%
Quintile 7-8	19.5%	24.3%	19.8%	17.2%
Quintile 9-10 *least deprived	25.2%	18.9%	33.7%	19.5%
Menopausal status				
Pre/ post menopausal	72.9/27.1%	73.0/27%	75.6/24.4%	70.1/29.9%
BC risk :moderate \geq 17-30%, high(>30%)	57/43%	59.5/40.5%	57/43%	56/44%

Baseline NHS health check findings Group 3 (n=87)

	Mean (std deviation)	% Above risk level	Risk level
Total cholesterol/ mmol/L	4.7 (1.0)	32.3	>5.0
Non-HDL cholesterol /mmol/L	2.8 (1.1)	13.2	>4.0
CVD remaining lifetime score % (Q risk version 2018)	22.6 (1.6)	2.2	\geq 37
HbA1c / mmol/mol	34 (3.2)	1.2	>41
Qrisk category for diabetes % (Qdiabetes 2018)	7 (5.9)	6.6	\geq 16
BP systolic / mmHg	116.9 (12.9)	2.4	>139
Audit C score	5.7 (5.0)	27.3	> 7

Hierarchy of disease concerns at baseline (n=210)

Primary disease concern	N % of women
Breast cancer	131 (63%)
Cardiovascular disease	39 (19%)
Diabetes	13 (6%)
Dementia	26 (12%)

Summary

- At baseline there were high risk results for lipids and alcohol
- Breast cancer was the most cited major disease concern. However 37% of this high risk breast cohort were concerned about other lifestyle related diseases i.e. CVD, diabetes and dementia.
- The study has successfully recruited and is currently in follow up and is due to be completed in Spring 2020.

References

- Gramling R, et al.: Breast Cancer Res. 2010; 12(5):R82
 French DP, et al. Br J Cancer. 2018 Jun; 118(12):1648-1657.
 Pegington M, et al Eur J Cancer Prev. 2019 Nov; 28(6):500-506.