

2022-RA-1465-ESGO RANDOMISED TRIAL OF POPULATION BASED BRCA TESTING IN ASHKENAZI JEWS: LONG TERM SECONDARY LIFESTYLE BEHAVIOURAL OUTCOMES

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Introduction/Background Ashkenazi-Jewish (AJ) population-based BRCA-testing is acceptable, does not detrimentally impact psychological well-being or quality of life, is cost-effective and amplifies primary prevention for breast cancer (BC) ovarian cancer (OC). However, prospective data describing lifestyle impact are lacking. We report long-term results of a population-based BRCA-testing randomised controlled trial (RCT) on lifestyle behaviour and cancer-risk perception.

Methodology We designed a two-arm RCT (ISRCTN-73338115, GCaPPS): (a)Population-Screening (PS) arm; (b) family-history (FH)/Clinical-criteria testing arm. Women and men >18-years in the North-London AJ-population were offered informed pre-test genetic counselling and BRCA testing. Participants were recruited through self-referral. Exclusions included: prior BRCA-testing or first-degree relatives of BRCA-carriers. The intervention included genetic-testing for three AJ BRCA-mutations: 185delAG(c.68_69delAG), 5382insC (c.5266dupC) and 6174delT(c.5946delT). This was undertaken for all participants in the PS-arm; and participants fulfilling FH/clinical-criteria in the FH-arm. Patients filled customised/validated questionnaires at baseline/1-year/2-years/3-years follow-up. Outcome measures included lifestyle/behavioural outcomes. Generalized linear-mixed models adjusted for covariates and appropriate contrast-tests were used for between-group and within-group analysis of lifestyle and behavioural outcomes along-with evaluating factors associated with these outcomes. Outcomes are adjusted for multiple testing (Bonferroni method), with $p < 0.0039$ considered significant.

Results 1034 participants were randomized to PS (n=530) or FH (n=504) arms. No significant difference was identified between PS and FH-based BRCA-testing approaches for dietary fruit/vegetable/meat consumption, vitamin intake, alcohol quantity/frequency, smoking behaviour (frequency/cessation), physical activity/exercise or routine breast mammogram screening behaviour, with outcomes not affected by BRCA test result. Cancer-risk perception decreased with time following BRCA-testing with no difference between FH/PS approaches. The risk was found to be lowest in

BRCA-negative participants. Men consume fewer fruits, vegetables and vitamins but more meat and alcohol than women ($p < 0.001$).

Conclusion Population-based and FH-based AJ BRCA-testing have similar long-term life-style impacts for smoking, alcohol, dietary fruit/vegetable/meat/vitamin, exercise, breast screening participation and reduced cancer-risk perception.

2022-RA-1467-ESGO DIGITAL HEALTH-RELATED APP SUPPORT OF PATIENTS WITH GYNAECOLOGICAL MALIGNANCIES: RESULTS OF A PILOT STUDY

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Introduction/Background Cancer diagnosis and treatment are linked to an increased risk of severe emotional distress, fatigue and mental comorbidity, such as depression. Given that access to psycho-oncological care is limited, evaluating the effectiveness of widely accessible digital psycho-oncology is paramount. Here, we performed a randomised, intra-individually controlled pilot study to examine the preliminary effectiveness and feasibility of the cancer app 'Mika'.

Methodology A total of $N = 70$ participants with gynaecological cancer (ovarian, cervical, and endometrial) receiving either postoperative care ($n = 35$) or routine outpatient chemotherapy ($n = 35$) were recruited via convenience sampling and randomly assigned to intervention ($n = 50$) (IG) and waiting-list control groups ($n = 20$) (CG). Primary outcome depression levels and secondary outcomes fatigue symptoms, health literacy, adherence, dropout-rate, and reasons for drop-out were assessed at baseline, 4, 8, and 12 weeks. Intraindividual effects of the app were measured from baseline to week 12.

Results The IG showed significant reductions in depressive symptoms by 42% ($d = 0.85$) and fatigue by 23.1% ($d = 0.5$). Participants in the IG undergoing chemotherapy even showed a reduction in fatigue by 31% ($d = 0.8$). The dropout rate was 37.1% (26/70) (IG: 8/20, 40%; CG: 18/50, 36%). Primary reasons for dropouts were death ($n = 10$) and health status deterioration ($n = 11$).

Conclusion The pilot study provides preliminary evidence of the effectiveness, feasibility, and acceptability of the Mika app in improving the psychological well-being in patients with gynaecological malignancies. A full-scale trial will allow a comprehensive evaluation of the effectiveness of the psycho-oncological mHealth intervention Mika relative to a CG.

2022-RA-1490-ESGO THE QUALITY OF LIFE OF FEMALE REFUGES PATIENTS FROM UKRAINE WITH MALIGNANT GYNAECOLOGICAL TUMORS BEFORE AND AFTER TREATMENT IN GERMANY

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