

## 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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