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Web-based app to raise awareness of breast and cervical cancer screening

Submission date 23/11/2021	**Recruitment status** No longer recruiting	[X] Prospectively registered [_] Protocol [_] Statistical analysis plan [X] Results [_] Individual participant data
Registration date 24/11/2021	**Overall study status** Completed	
Last Edited 30/01/2026	**Condition category** Cancer	

Plain English summary of protocol

Background and study aims
Breast and cervical cancers are the two most common cancers among women in Malaysia. Although screening has contributed significantly to reducing deaths due to these cancers in other countries, this has not been the case in Malaysia. Women still present with late-stage disease and very few attend screening, even when screening is offered for free or at hugely discounted rates. Our goal is to develop an interactive web app to promote early detection for breast and cervical cancers in Malaysian women and to determine the impact of the web app on the intention to uptake screening.

Who can participate?
Women aged 20 years and above and married or have a partner (sexually active), or aged 50-75 years old, regardless of previous/current sexual activities will be invited to participate in the study.

What does the study involve?
The participants will answer a questionnaire on the intention of breast and cervical cancer screening, awareness on breast and cervical cancer, and barriers to help-seeking as well as using the web-based MAwar app.

What are the possible benefits and risks of participating?
The possible benefits of the study included improved early detection of breast and cervical cancer among women in Malaysia and allow contribution to the development of an intervention to improve early detection of breast and cervical cancer which contribute to the larger body of medical knowledge in the field of cancer prevention and early detection. There is minimal risk involved in this study as the participants will only need to answer some questions that are related to using the application and about their intention to attend cancer screening which does not provoke any unpleasant feelings or any unnecessary concern to them. If any of the participants express worry about the potential outcome of the assessments, they will be counselled by the clinic’s registered nurse.

Where is the study run from?
Ministry of Higher Education, Malaysia

When is the study starting and how long is it expected to run for?
May 2021 to April 2024

Who is funding the study?
This study was funded by Fundamental Research Grant Scheme, Ministry of Higher Education, Malaysia

Who is the main contact?
Prof Dr Sazlina Shariff Ghazali, sazlina@upm.edu.my

Contact information

Type(s)
Scientific

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Additional identifiers

Protocol serial number
FRGS/1/2020/SKK05/UPM/02/5

Study information

Scientific Title
The effectiveness of an interactive web application to motivate and raise awareness on screening of breast and cervical cancers (The MAwar study)

Acronym
MAwar

Study objectives

1. The Web app is a useful tool to be used in clinical practice to improve intention to uptake on cervical cancer and breast cancer screenings.
2. The Web app could significantly improve the intention to uptake on cervical cancer and breast cancer screenings among women.

Ethics approval required
Old ethics approval format

Ethics approval(s)
Approved 04/05/2021, Medical Research Ethics Committee Ministry of Health, Malaysia (National Institute of Health, No.1, Jalan Setia Murni U13/52, Section U13 Bandar Setia Alam, 40170 Shah Alam, Selangor, Malaysia; +603-33628888/ 33628205; mrecsec@moh.gov.my) ref: NMRR-21-951-58339 (IIR)

Primary study design
Interventional

Study design
Quasi-experimental pre-post study

Study type(s)
Screening

Health condition(s) or problem(s) studied
Screening for breast and cervical cancers

Interventions
Participants will be systematically recruited. Eligible and agreed participants will use a web-based application called MAwar app upon recruitment. Primary and secondary outcomes will be measured at 3 and 6 months after being introduced to the web-based application.

Intervention Type
Behavioural

Primary outcome(s)
Intention for screening will be measured using the using the stages of readiness to go for screening that will be adopted from the Transtheoretical Model Stages of Change (Prochaska & DiClemente, 1984; Krok-Schoen et al., 2016) at baseline, 3 and 6-months follow up

Key secondary outcome(s)
1. Awareness of breast cancer risk factors will be measured using the Breast Cancer Awareness Measure at baseline, 3 and 6-months follow up (Cancer Research UK, 2014; Linsell et al., 2010; Htay et al., 2020).
2. Awareness on cervical cancer risk factors will be measured using measured using the Cervical Cancer Awareness Measure (Cancer Research UK, 2014; Simon et al., 2012) at baseline, 3 and 6-months follow up

Completion date
30/04/2024

Eligibility

Key inclusion criteria
Women aged 20 years and above and married or have a partner (sexually active), OR aged 50-75 years old, regardless of previous/current sexual activities

Participant type(s)
Healthy volunteer

Healthy volunteers allowed
No

Age group
Adult

Sex
Female

Total final enrolment
0

Key exclusion criteria
1. Those on regular follow up for breast and/or cervical cancer screening
2. Those who attended the health clinics to investigate for symptoms or signs related to cervical or breast cancers
3. Age 20 years and above with painless lump, persistent rash around nipple, bleeding or unusual discharge from nipple, changes of skin (swollen, dimpling, puckering), nipple retraction,
4. Age 30 years and older with history of benign breast disease with atypical hyperplasia
5. Does not reside in Klang District
6. Acutely ill patient

Date of first enrolment
01/09/2022

Date of final enrolment
31/01/2023

Locations

Countries of recruitment
Malaysia

Study participating centre
Bandar Botanic Health Clinic
Bandar Botanic
Klang
Malaysia
42000

Study participating centre
Pandamaran Health Clinic
Jalan Raja Muda Musa
Kawasan 10
Klang
Malaysia
42000

Study participating centre
Bukit Kuda Health Clinic
Jalan Batu Tiga Lama
Kawasan 15
Klang
Malaysia
41300

Sponsor information

Organisation
Ministry of Higher Education

ROR
https://ror.org/05mcs2t73

Funder(s)

Funder type
Government

Funder Name
Malaysian Ministry of Higher Education

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary

Data sharing statement to be made available at a later date

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article		28/03/2025	30/01/2026	Yes	No