

Knowledge of risk factors for breast cancer and awareness of breast cancer symptoms among female university students

Jia Xin Kiew, Ping Lei Chui*, Roslina Zakaria

Department of Nursing Science, Faculty of Medicine,
Universiti Malaya, Kuala Lumpur, Malaysia

Background & Aim

- ❑ Malaysia has a high prevalence of breast cancer (BC), which is 1 in 19 women is at risk with BC (MOH, 2019).
- ❑ Almost 50% of BC cases in Malaysia were diagnosed late at stage III and IV (MOH, 2019).
- ❑ Cancer survival rates remain below the global average due to delays in screening until a diagnosis is made.
- ❑ A total of 339 young adults from the age group 20 to 29 in Malaysia had been first diagnosed with breast cancer in 2019. (Malaysia National Cancer Registry, 2019)
- ❑ Early detection of patients with symptoms of cancer allows for early intervention which is made possible by the early discovery of cancer or precancerous changes (Crosby et al., 2022)

Aim–

to assess the knowledge of breast cancer risk factors and symptom awareness among female university students.

References:

Malaysia National Cancer Registry. (2019). Malaysia national cancer registry report 2012-2016. Retrieved from [https://www.moh.gov.my/moh/resources/Penerbitan/Laporan/Umum/2012-2016%20\(MNCRR\)/MNCRR_2012-2016_FINAL_\(PUBLISHED_2019\).pdf](https://www.moh.gov.my/moh/resources/Penerbitan/Laporan/Umum/2012-2016%20(MNCRR)/MNCRR_2012-2016_FINAL_(PUBLISHED_2019).pdf)

Crosby, D., Bhatia, S., Brindle, K. M., Coussens, L. M., Dive, C., Emberton, M., Esener, S., Fitzgerald, R. C., Gambhir, S. S., Kuhn, P., Rebbeck, T. R., & Balasubramanian, S. (2022). Early detection of cancer. *Science (New York, N.Y.)*, 375(6586), eaay9040. <https://doi.org/10.1126/science.aay9040>

Research Method

| | |
|----------------------|--|
| Design | Non-experimental, quantitative study, cross-sectional approach |
| Study setting | University Residential College |
| Sample size | Recommended N = 371 with 20% attrition rate (N = 445) |
| Sampling | Convenience sampling |

| |
|---|
| Ethics clearance |
| UMREC (Ref No.: UM.TNC2/UM REC_2532) |
| Inclusion criteria |
| Female undergraduate students |
| Exclusion criteria |
| Postgraduate students International students Medical students |

Instrumentation

Breast cancer risk factors (Hussain et al., 2022)

19 items (“yes” = 1, “no” & “no comment” = 0)

Pilot study ($\alpha = 0.906$)

Breast Cancer Awareness Measure

(Cancer Research UK, King’s College London, University College London, 2009)

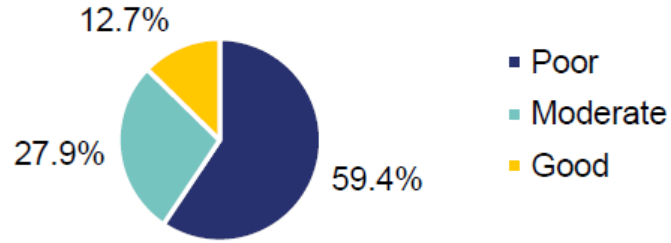
17 items (“yes” = 1, “no” & “not sure” = 0)

Pilot study ($\alpha = 0.928$)

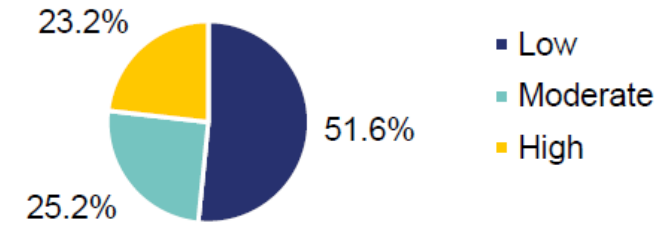
| | | Bloom’s cut-off point | Total score |
|-------------------------|----------|------------------------------|--------------------|
| Knowledge levels | Good | 80% - 100% | 16 – 19 |
| | Moderate | 60% - 79% | 12 – 15 |
| | Poor | <60% | <12 |
| Awareness levels | High | 80% - 100% | 14 - 17 |
| | Moderate | 60% - 79% | 11 – 13 |
| | Low | <60% | <11 |

Results

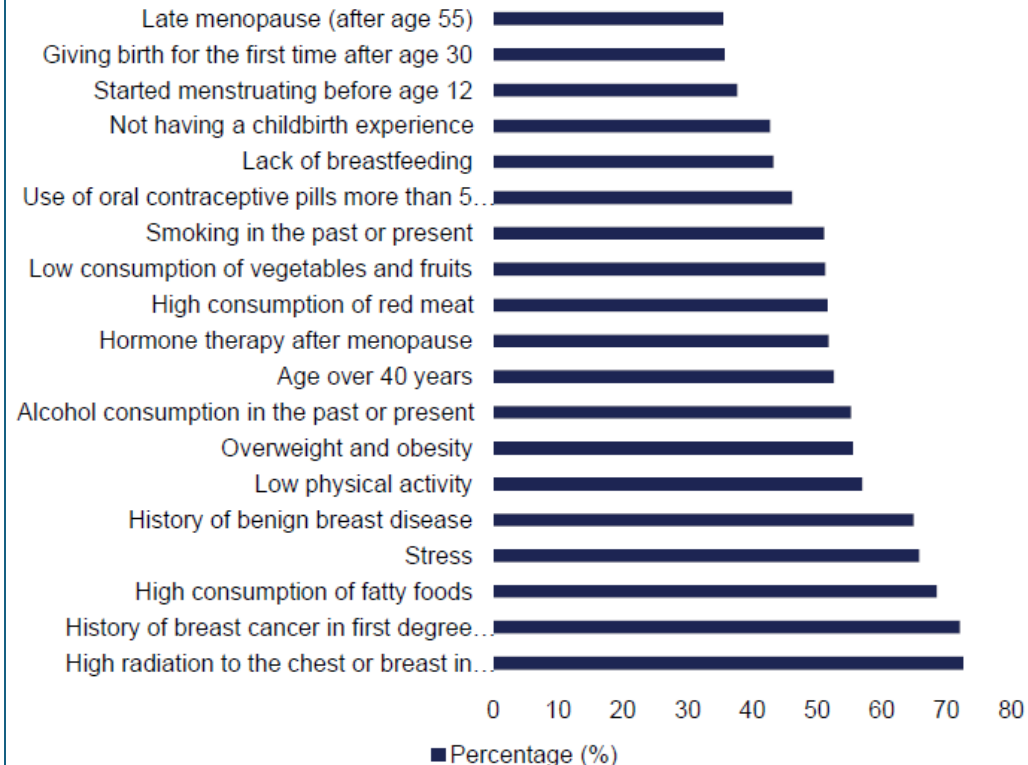
Level of knowledge of breast cancer risk factors (N = 409)



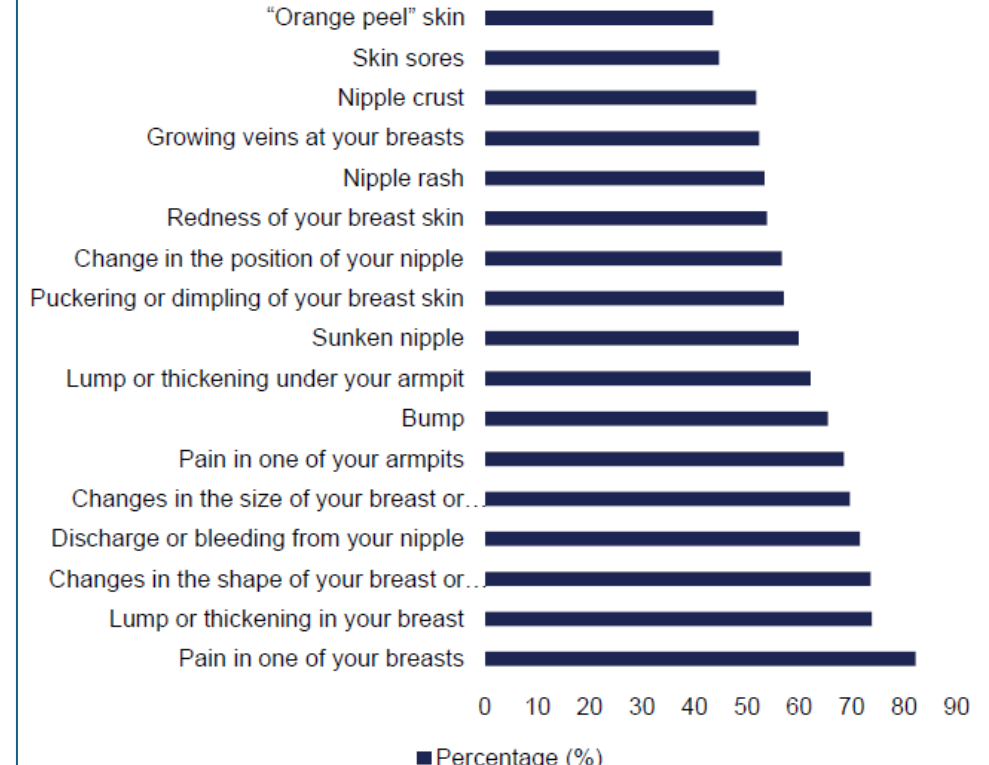
Level of awareness of breast cancer symptoms (N = 409)



Breast cancer risk factors



Breast cancer symptoms



Conclusion & Implications

- ❑ More than half exhibited poor knowledge towards breast cancer risk factors and its symptoms.
- ❑ Academic years, educational field, and monthly BSE practice are significantly associated with knowledge of breast cancer.
- ❑ Knowledge of risk factors for breast cancer is significantly correlated with awareness of breast cancer symptoms.
- ❑ This highlights the urgent need for targeted educational interventions to enhance breast cancer literacy among young women in higher education settings.
- ❑ Initiatives such as workshops, peer-led campaigns, and mandatory health modules can foster consistent BSE practices and improve overall awareness.
- ❑ Addressing this knowledge gap can empower young women to engage in early detection practices, thereby potentially reducing breast cancer morbidity and mortality.