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# Knowledge, attitude and practice of breast self-examination in Khartoum State, Sudan

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#### Introduction

Globally, over 400,000 women die annually due to breast cancer. In Sudan, the National Cancer Registry showed that among all the cancer cases documented, breast cancer had an incidence of 25.1 per 100,000 per year.<sup>2</sup> This high incidence is thought to be compounded by late presentation, particularly in Sudan.3

Research into breast self-examination (BSE) may help us better understand the patient pathway to presentation and its role in facilitating the early diagnosis of breast cancer. BSE is a practice that aims to positively influence early health seeking behaviour. 4 Although many studies have detailed a link between BSE and early diagnosis of breast cancer, an equal number have failed to do so.5

This study was conducted from November 2016 to May 2017. It aimed to determine the knowledge, attitude and practice of BSE among both breast cancer and non-cancer patients, its possible relation to patient-related delay and the stage of breast cancer at diagnosis.

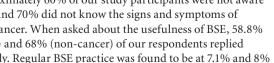
## Material and methods

Data were collected from 270 female participants via an interviewadministered questionnaire at two institutions: Burj Alamal Breast Clinic and Alban-jadeed Hospital (ABJ) in Khartoum, Sudan. This was a case–control study of 170 breast cancer patients sampled at the breast clinic, while 100 non-cancer patients were selected randomly from the Obstetrics and Gynaecology Department at ABJ Hospital during the same time period.

## Results and discussion

The mean age of breast cancer patients was 47.7 (standard deviation (SD) 13.0) years, representing 63% of our study population. The remaining 37% were non-cancer patients with an average age of 34.7 (SD 12.4) years.

Approximately 60% of our study participants were not aware of BSE and 70% did not know the signs and symptoms of breast cancer. When asked about the usefulness of BSE, 58.8% (cancer) and 68% (non-cancer) of our respondents replied positively. Regular BSE practice was found to be at 7.1% and 8% among cases and controls respectively (Fig 1).



65 3 70 60 50 Regular \* 27.6 40 % Irregular 30 No practice 20 7.1 10 Non Cancer patients Cancer patients

Fig 1. Breast cancer and non-cancer patients by breast self-examination **practice.** \* = once every month.

More than half of the breast cancer patients (54%) presented with advanced stage disease. BSE practice was found to be associated with reduced patient-related delays in diagnosis. Those who did not practise BSE took longer to recognise (p=0.000), become aware (p=0.001) and seek medical help (p=0.01) for their breast lump than those who practised regularly (Fig 2).

No correlation was found between BSE and early stage breast cancer (p=0.619).

### Conclusion

The prevalence of BSE practice among women in Khartoum from our sample study was inadequate at 8% and 7.1% for

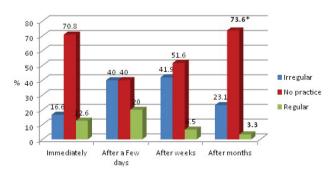


Fig 2. Relation between breast self-examination and behavioural delay. = behavioural delay: the time from becoming aware of a breast illness to deciding to seek help.

non-cancer and cancer patients respectively, as was their level of knowledge. However, their attitude was positive. We also found that regular BSE may play a critical role in:

- > increasing the awareness and perceived susceptibility to breast cancer
- > enhancing decision-making and motivation to seek help.

## **Conflicts of interest**

None declared.

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