

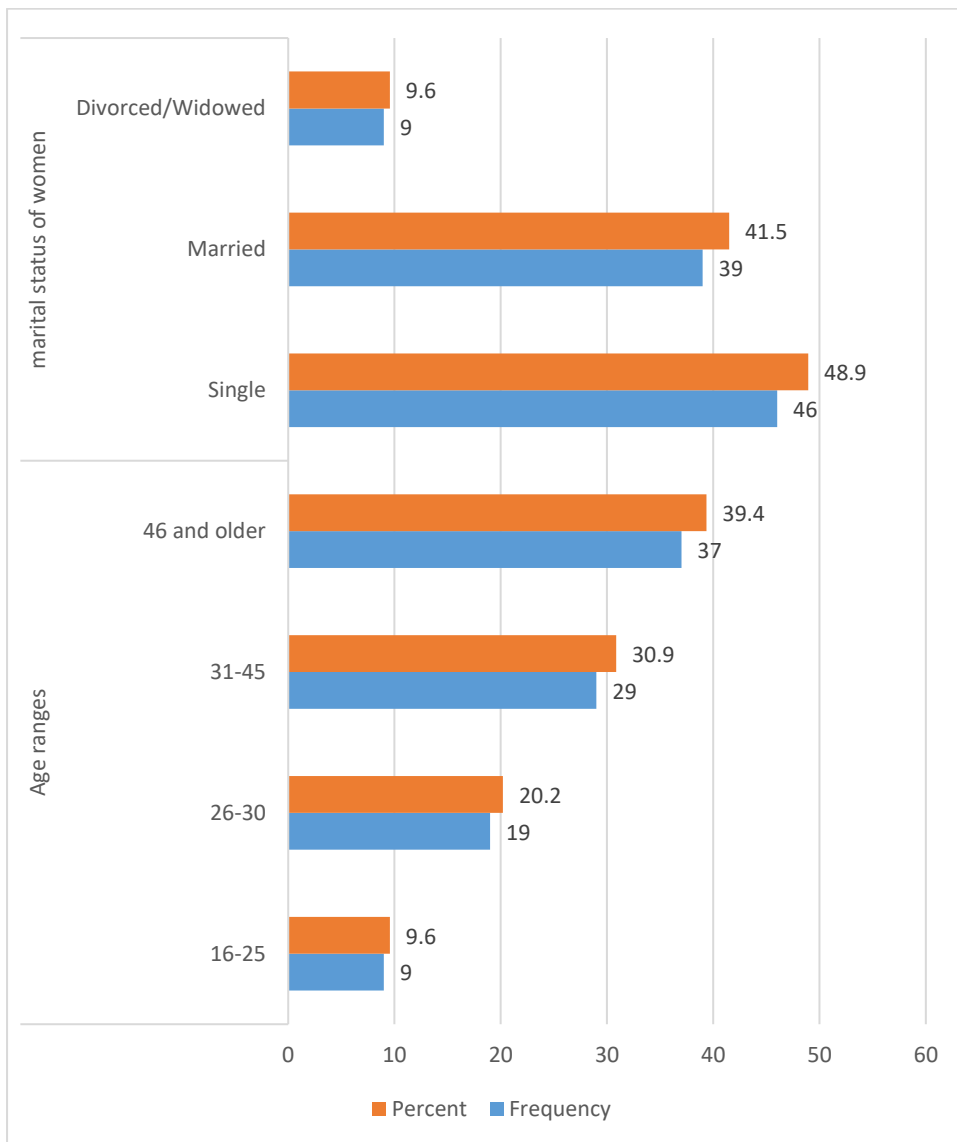
BREAST SCREENING DATA ANALYSIS

Introduction

This write-up follows a breast cancer awareness creation and screening programme organised as part of Breast Cancer Awareness Month, which occurred in October.

A graphical and tabular report on the breast screening programme is presented in this write-up. The results are shown using bar graphs, line graphs, and tables, with the rest in writing. Three groups of health workers collected data. These were nurses, doctors, and ultrasound technicians using the point-of-care ultrasound device. The demographic data and vital signs were taken and recorded by practise nurses, doctors took the history and performed an examination, and ultrasound technicians did a point-of-care ultrasound scan on participants who had masses detected in the breast, any unusual breast state, or a past personal or family history of breast disease, cervical cancer, or colorectal cancer. Females with a high-risk life pattern or occupational hazards were also screened using the point-of-care ultrasound scan.

Demographic information of females



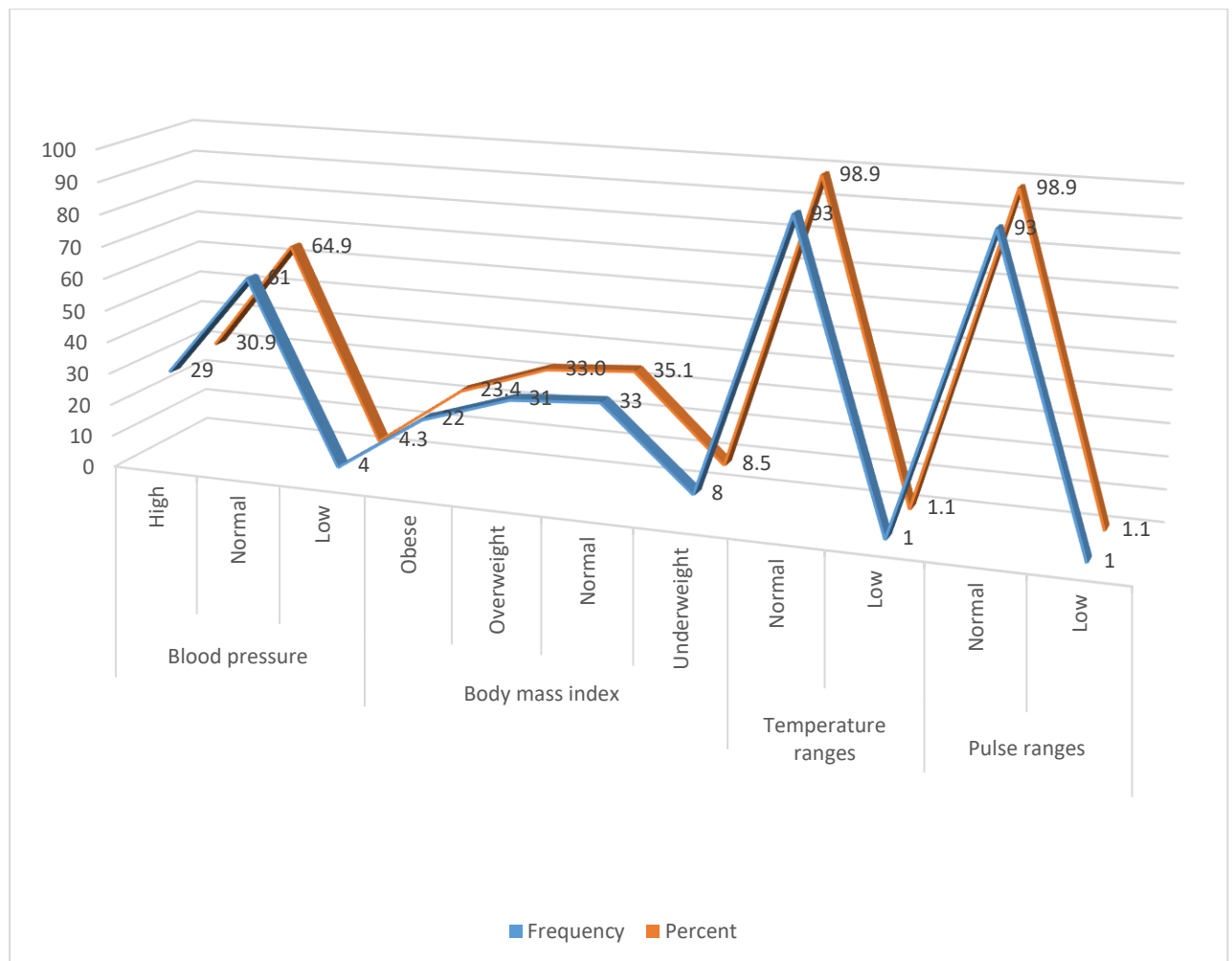
Source: Screening Data, October, 2022

Figure 1.1 marital statuses and age ranges of females screened.

A total of 94 females were screened, ranging in age from 16 to 74 years, with the majority—37, representing 39.4%—being 45 years of age or older and the least—9, representing 9.6%—being 16 to 30 years of age. The majority of the females who were screened were single, with 46 (48.9%) being single and 39 (41.5%) being married. Nine (9.6%) of them were divorced or widowed.

Vital signs of women

As part of the screening process, vital signs were checked and recorded for each female who attended the program. This was necessary as it gave a good picture of the current health state. Vital signs checked were blood pressure, body mass index, temperature, and pulse rate, after which comparisons were made with the normal ranges. The combined line graph shows the results from the 94 participants screened in the programme and is presented in frequency and percentages.



Source: Screening Data, October, 2022

Figure 1.2 Vital sign results from 94 females screened.

Blood pressures recorded showed that the majority of participants, 61, representing 64.9%, had normal blood pressure, which is from 120/80 mmHg to 90/60 mmHg; 29 (30.9%) had high blood pressure; and the rest, 4 (4.3%), recorded low blood pressure. With regards to body mass index (BMI), more of the females had a normal BMI, as recorded by 33 (36.1%), 31 (33.3%) were overweight, 22 (23.4%) were obese, and 8 (8.5%) were underweight. All the females who showed up had normal body temperatures at the time of recording their vital signs. Lastly, 93 (98.9%) of the females had a normal pulse rate, and the remainder (1.1%) had a low pulse.

RESULTS ON HISTORY TAKEN FROM PARTICIPANTS BY DOCTORS

As part of medical practice, a thorough inquiry is made into almost all facets of life aside from the medical overview. This is to identify personal dispositions, past medical histories, family histories of disease, and other risk factors. The history investigates the current medical condition, its impact, and the treatments used. In this screening process, this was also done to identify those participants and further investigate them with a more potent point-of-care ultrasound scan to observe tumours and abscesses. This section covered the current complaints, past medical history, family history, risky practices, and any breast pathology identified.

Table 1.1 Current medical complaints of participants

		FREQUENCY	PERCENT
CURRENT COMPLAINTS	Breast pains	14	14.9
	Breast swelling	1	1.1
	Breast engorgement	2	2.1
	Breast discharge	1	1.1
	No symptoms	73	77.6
	Vaginal discharge and itching	2	2.2
	None-specific symptoms	1	1.1
	Total	94	100.0

Source: Screening Data, October, 2022

Among the participants, the majority of them had no symptoms and were 73 (77.6%); however, 14 (14.9%) had breast pains that were either cyclical or not, breast engorgement and vaginal discharge both recorded 2 (2.1%), while breast swelling, breast discharge, and non-specific symptoms such as back pain that were related to occupation scored 1 (1.1%) of the 94 participants.

Table 1.2 Past Medical History

		FREQUENCY	PERCENT
PAST MEDICAL HISTORY	Breast disease	3	3.2
	Cervical cancer	2	2.1
	Hypertension	6	6.4
	None	80	85.1
	Others	3	3.2
	Total	94	100.0

Source: Screening Data, October, 2022

For past medical history, 6 (6.4%) reported having hypertension, 3 (3.2%) had had breast disease before, and 2 (2.1%) had cervical cancer. Other medical conditions included occupational-related pains such as leg pain and back pain, which were both 3.2%. It was also found that the majority, 80 (65.1%), had no past medical history.

Table 1.3 Family Medical History

		FREQUENCY	PERCENT
FAMILY MEDICAL HISTORY	Breast cancer	7	7.4
	Cervical cancer	1	1.1
	Hypertension	11	11.7
	Diabetes	1	1.1
	None known	70	78.7
	Total	94	100.0

Source: Screening Data, October, 2022

Among the 94 participants who took part in this screening process, 7 (7.4%) had a family history of breast cancer, 1 (1.1%) had a family history of cervical cancer, 11 (11.7%) had a family history of hypertension, and 1 (1.1%) had a family history of diabetes, while 70 (78.7%) did not know of any family history of any medical condition.

Table 1.3 Risky social activities

		FREQUENCY	PERCENT
RISKS AND SOCIAL ACTIVITIES	No risky practices	94	100.0

Source: Screening Data, October, 2022

None of the participants indulged in any risky practices, as shown by table 1.3.

Table 1.4 Breast pathologies picked up in history.

		FREQUENCY	PERCENT
BREAST	Fibroadenoma	2	2.1
PATHOLOGY	None	92	97.9
	Total	94	100.0

Source: Screening Data, October, 2022

According to the history taken, two participants had fibroadenoma and were 2.1% of the 94 (100%) participants.

RESULTS ON PHYSICAL EXAMINATIONS OF PARTICIPANT

The physical examinations were done under inspection and palpation. The breasts were inspected thoroughly and palpated professionally, and finally, the lymph nodes of the head, neck, and axillary regions were palpated.

According to the doctors who conducted the physical examinations on the participants, two of them had some masses palpated in their breasts and were referred to the ultrasound point-of-care device. Also, a special case of uterine mass was picked up in history and was also investigated using the point-of-care ultrasound device. Aside from these findings, None of the participants had any physical abnormalities. There were no identified breast swellings, ulcerations, scars, engorgement, tenderness, or discharges among the majority of the participants (more than 90 out of 94).

Lymphadenopathies were also not identified among all doctors who performed physical examinations.

RESULTS ON ULTRASOUND SCANS AND IMPRESSION

Out of the 94 women screened, 23 warranted further investigation using the ultrasound scan. Among these 23, three of them had positive findings. Two of the 23 had fibroadenoma, and one had a myoma. The investigation was done using a point-of-care ultrasound device.

Ultrasound reports

Report 1

There is a round well defined hypoechoic right breast lesion noted at 12 o'clock position in the sub areolar region.

Impression: fibroadenoma of the right breast (BIRADS II)

Report 2

There is a well-defined wider than tall oval hypoechoic left breast lesion noted at the 7 o'clock position in the subareolar region of the left breast. It shows no flow in colour Doppler interrogation.

Impression: left breast fibroadenoma (BIRADS II)

Report 3

Uterine myoma (subserous, anterior wall)

Impression: uterine myoma

DISCUSSION OF FINDINGS

The results of the breast screening process mark the start of World Breast Cancer Awareness and Screening Month. The discussion further analyses the results presented in the results section of this write-up. In all, a total of 94 female participants were screened after a short education on breast cancer risk factors and ways to prevent a serious end-stage disease of the breast.

With regards to the demography, more of the patients who showed up were above 35 years old, which indicates that more women who are young do not really give attention to breast screening, and therefore there is a need for more sensitization of the general public. The majority of them were also single, though the majority were over the age of 35. It was found that some were divorced, had lost their husbands, or had not been in a formal marriage. Marriage, if it resulted in children, also reduced the risk of breast cancer issues, and breastfeeding was widely practiced. This reduces oestrogen exposure in women and decreases the risk of breast cancer, cervical cancer, and colorectal cancer.

The vital signs taken pointed out that almost all of the participants were in good health, as almost all of them had normal temperatures and pulse rates; however, a significant percentage of them had high blood pressure, at 30.9%, compared to 4.3% who had low blood pressure. These measures indicated a significant cardiovascular condition that might have occurred with ageing or a particular etiology. Also, it was identified that participants had high BMIs: 33% were overweight, 23.4% were obese, and 8.5% were underweight. The significantly high percentage of those who were obese or overweight was alarming, as it could predispose them to cardiovascular diseases.

History taken from participants yielded information that pointed out that generally, the participants did not have any symptoms of breast disease, as indicated by 77.6% of them. It was discovered, however, that a significant percentage (14.9%) had cyclical or non-cyclical breast pain, which they treated with pain relievers such as paracetamol or non-pharmacologically with a warm or cold compress. Breast swellings and engorgement were not significant and foretold low levels of an infectious state or post-weaning breast engorgement and the pain associated with it.

It was also identified that a significant percentage of the participants, 11/7% and 7.4%, had family histories of hypertension and diabetes diseases, respectively, and were counselled on preventive lifestyle choices and treatment adherence if they had already been diagnosed with these conditions.

It was encouraging that none of the participants mentioned any risky social lifestyles such as smoking or using alcohol. They were also advised not to start a life of smoking and alcohol use, despite the situation or the stress they are going through. They were advised to seek help where necessary. Finally, it was found from history that two participants had been diagnosed with breast disease, which was found to be fibroadenoma, while coincidentally, a uterine myoma was also picked up from history.

Findings from the physical examination upon consideration found abnormalities in the breasts of two participants as well as a myoma during a special gynaecological assessment. The rest of the participants did not have any masses or lumps in their breasts and were advised on general health issues. The patients who had a family history of breast cancer or a past history of any breast disease or breast pain were directed to the point-of-care ultrasound investigation. The three cases were thus confirmed accordingly, and they were given referrals to hospitals near them for further management.

Access to a point-of-care ultrasound device proved very useful, allowing for high-definition and high-quality investigations in a non-hospital setting and removing the fear and anxiety associated with health investigations. This device made it possible to carry out very specialised medical investigations anywhere, as was seen in this current screening program. The device gave very accurate findings with a high-definition view, which made the diagnostics much more to the point.

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CONCLUSIONS

The write-up concludes with a strong sense of accomplishment in contributing to the screening for breast cancer, making available basic health advice, and contributing to the prevention of serious breast disease due to neglect and a lack of early detection. This was made possible by the support and donations made available, devoted and skilled health personnel, the availability of the point-of-care ultrasound device, and a willing general public.

RECOMMENDATIONS

We recommend that such health outreach be conducted more frequently and should reach out to different age populations, the less endowed, and even people whose movement has been restricted by law or for other reasons. This can be made possible through general donations needed for wider coverage.

Of great note is the availability of the point-of-care device, which aided in conducting a full and conclusive diagnostic; it is also recommended that this device be available at all times and in good numbers to help increase the efficiency of health diagnostics.