

ABSTRACT

Introduction

Breast cancer is the most common cancer diagnosed among women in Sri Lanka and early detection can lead to reduction in morbidity and mortality. The objective was to evaluate selected aspects of breast cancer screening services implemented through well woman clinics (WWCs) in the Gampaha District and to assess the effectiveness of an educational intervention on Public Health Midwives (PHMs) and target community in improving the coverage and quality of the breast cancer screening services.

Methods

Study was conducted in two phases. Phase 1: a descriptive cross sectional and Phase II: a community based intervention study.

Phase 1

Breast screening coverage was assessed in all the WWCs in Gampaha district since 2003 to 2007. The WWC registers were used to collect the relevant variables using a check list developed for the purpose. Assessment of quality of breast cancer screening was conducted using Lot Quality Assurance Sampling. The lot size and threshold value computed were 20 and six clinics. Check lists were used in assessing physical facilities and clinic activities. Delphi technique was used in developing check lists to assess performance of clinical breast examination (CBE) and health education on self breast examination (SBE). Client satisfaction was assessed regarding overall and follow up services using interviewer administered questionnaires.

Phase II

Four focus group discussions (FGD) were conducted among 38 PHMs to identify deficiencies in relation to existing services. For the purpose of intervention two MOH areas one as study (IA) and the other as control (CA) were selected using random sampling. The intervention was meant for both PHMs and the target community. All PHMs in the IA participated in the intervention which was a training program on breast cancer screening. The community was involved through the PHM who was trained for the purpose. The main tool for the intervention on the target group women was the “checklist on breast cancer

screening". It was used as a tool to promote breast cancer screening practices among women in the community based on the assessed risk of breast cancer in the individual client. It had a colour code to assess screening status periodically. Pre and post intervention knowledge, attitudes and practices were assessed using questionnaires. The quality of WWCs was assessed using the same check lists used for pre intervention assessment. Coverages six months before and after intervention were compared.

Results

Phase 1

Overall breast cancer screening coverage in the Gampaha district for 2007 was 2.2%. Overall detection rate of breast abnormalities and referral rates were 1.8% and 86.8% respectively. With regard to physical facilities (structure) the number of clinics that were rated substandard varied between 7 to 18 (35% - 90%) and the items that were lacking included dust bins, notice boards stationary, furniture and linen. Cleanliness of outside premises and toilets was not satisfactory in 7 (35%) clinics and 11 (55%) respectively. With regard to clinic activities/ processes punctuality of staff, late commencement of clinics, provision of health education, supervision, CBE and SBE were found to be substandard in 7-20 clinics (35%- 100%).

Overall client satisfaction for services in general was 45.2% (IQR: 38.7 - 54.8%) and only 11% had a score of $\geq 70\%$ which was the cut off score set for satisfaction. For follow up services, client satisfaction score was 62.1% (IQR: 41.4 - 69.0%) and only 11 (13.9%) had a score $\geq 70\%$.

Phase 11

The four focus group discussions (FGDs) among PHMs revealed non availability of guidelines, lack of training, lack of skills and material to provide health education, inability to provide privacy during clinical examination, shortage of stationery and lack of community awareness and motivation.

KAP survey:

PHMs: The overall percentage median score on knowledge in IA at pre intervention, post intervention at 1 month and 6 months respectively were 57.8% (IQR: 53.3- 69.4%), 95.6% (IQR: 93.3-96.1%) and 93.3% (IQR: 90.6-93.3%). Median attitude scores for the above

were 90% (IQR: 70-100%), 100% (IQR: 100-100%) and 100% (IQR: 90-100%) and median practice scores were 62% (IQR: 57-70%), 85% (IQR: 81-89%) and 81% (IQR: 77-89%) respectively which were all statistically significant in comparison to the CA at both post intervention stages ($p < 0.001$).

Target community:

The median overall knowledge scores of the target community of the IA at pre intervention and post intervention (only at 6 months) respectively were 54% (IQR: 46-59%) and 77% (IQR: 72-82%). Median attitude scores for the above were 50% (IQR: 41-59%) and 68% (IQR: 59- 76 %) and median practices scores were 0% (IQR: 0-20%) and 40% (IQR: 20-60%) respectively, all of which were significantly higher than that of CA at post intervention stage ($p < 0.001$).

Quality of WWCs

The quality of WWCs has improved in comparison to pre intervention phase in terms of availability of dustbins, notice boards, furniture in the examination room, towels and stationery, cleanliness of the toilet, commencement of clinic on time, health education, punctuality of the staff and supervision by area supervisory staff in the IA. In CA improvement was seen only in availability of a clean towel and six months supply of WWC returns. For CEB it increased from 24% to 100% and for SEB from 0% to 100% in the IA. CBE remained at 35% and SBE increased from 17% to 25% in the CA.

Coverage

Coverage Increased from a rate of 1.33% ($n=217$) at the pre intervention stage to a rate of 2.17% ($n=442$) at the post intervention stage in IA. Percentage increase in coverage in IA was 63.1%. There was no increase in coverage in the CA.

Conclusions and Recommendations

The quality of breast cancer screening in the Gampaha district was assessed as substandard in certain respects and the training conducted on PHMs had a significant impact on improving quality of the services as well as knowledge, attitudes and practices of PHMs and target community and the coverage of screening. Recommend training programmes at basic and post basic levels on a regular basis for the sustenance of the breast cancer screening program.