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Can radiographers be trained to deliver an intervention to raise breast cancer awareness, and thereby promote early presentation of breast cancer, in older women?

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Abstract *Aims:* To assess the feasibility of training radiographers to deliver a one-to-one intervention to raise breast cancer awareness among older women. The ultimate aim is to increase the likelihood of early presentation of breast cancer by older women and improve survival from the disease.
Method: Four radiographers were trained to deliver a 10-min scripted one-to-one intervention. Key elements of training included rehearsal of the intervention using role-play with actors and colleagues and practice interviews with women attending NHS breast screening clinics. All practice interventions were videotaped to facilitate positive, constructive feedback on performance. Competence to deliver the intervention was assessed on delivery of the key messages and the style of delivery. Radiographers' experiences of training and intervention delivery were collated from reflective diaries.
Results: Three radiographers were assessed as competent after training and all four increased in confidence to deliver the intervention. Reported benefits to radiographers included increased awareness of communication skills and enhanced interaction with women attending breast screening. Radiographers reported challenges relating to mastering the prescriptive nature of the intervention and to delivering complex health messages within time constraints.
Discussion: It was feasible but challenging for radiographers to be trained to deliver a one-to-one intervention designed to raise breast cancer awareness and thereby to promote early presentation of breast cancer. If the intervention is found to be cost-effective it may be implemented across the NHS Breast Screening Programme with diagnostic radiographers playing a key role in promoting early presentation of breast cancer.

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Introduction

Survival rates from a range of common cancers are worse in the UK than in other European countries.[1] Poor survival rates in breast cancer in the UK were to a large extent related to patients having more advanced stage of disease at the time of diagnosis.[2] The most likely explanation for this is late presentation by patients and/or delayed onward referral by general practitioners. The NHS Cancer Plan (Department of Health, 2000)[3] and more recently, the Cancer Reform Strategy,[4] have been launched to improve the management of people with cancer, and suspected cancer, and reduce inequalities in care. The Cancer Reform Strategy, in particular, has a focus on the early detection and treatment of cancer. Among patients with breast cancer there is strong evidence from individual studies and from systematic reviews of the world literature showing that delays in excess of three months between onset of symptoms and diagnosis/treatment are associated with worse survival rates compared with shorter delays.[5]

Older women are more likely to delay their presentation with breast cancer than younger women, according to a systematic review of risk factors for delay.[6] The main cause of patient delays across common cancers is lack of awareness that the symptoms could be signs of cancer.[6,7] Awareness of cancer risk factors and symptoms of cancer is poor in the UK for a range of tumour types, including breast.[8,9] Among the general female population, older women in particular have been shown to have poorer knowledge of breast cancer symptoms and risk factors for developing breast cancer, as well as more negative attitudes towards breast cancer and its treatment.[10,11] These findings may explain the strong association between older age and delayed presentation.

There is little research evidence on the effectiveness of interventions to raise cancer awareness or to reduce delays in presentation of cancer, according to a systematic review of the literature.[12] We therefore developed a novel one-to-one intervention to promote early presentation of breast cancer by older women. The intervention has been designed to be delivered by radiographers to older women when they attend for their final invited mammogram in the NHS Breast Screening Programme (currently women aged 67—70). The feasibility of delivering the intervention within this setting has been demonstrated.[13] Over one in three breast symptoms in older women (65 years and over) are caused by cancer, while about one in ten breast symptoms are malignant in women under 65 years.[14] An intervention to promote early presentation focusing on older women is therefore unlikely to overburden the health service with a large number of anxious younger women without breast cancer.

The aim of the intervention is to equip women with the knowledge and skills to be breast cancer aware and the confidence and motivation to seek help promptly in the event of discovering a breast symptom. The intervention is designed to address the known risk factors for delayed presentation of breast cancer, including knowledge of breast cancer symptoms and personal risk, helping to overcome reported barriers to medical help-seeking by older women.[13] It aims to counteract the inadvertent message that older women are no longer at risk of developing breast cancer once they cease to be routinely invited for breast screening.[8] An efficacy randomised controlled trial to evaluate the intervention showed the intervention was effective in improving levels of breast cancer awareness in older women.[15] The ultimate plan is to assess in a multi-centre cost-effectiveness trial whether improved breast cancer awareness will translate into reduced patient delays in presentation and reduced mortality from breast cancer. If the intervention is found to be cost-effective there will be a strong case for its implementation across the NHS Breast Screening Programme. We therefore need to assess whether it would be feasible to train radiographers working in the NHS Breast Screening Programmme to deliver the intervention in breast screening clinics. This paper reports the training of four breast screening radiographers and describes their personal experiences of the training and delivering the intervention.

Training to deliver the intervention

The intervention comprises a structured 10-min one-to-one interaction delivered according to a scripted schedule and supplemented with a booklet containing the key health-promoting messages.[13] Key messages of the intervention are presented in Table 1. The booklet is referred to throughout the intervention and given to the woman to take away with her.

Although the intervention is brief and scripted, it is nevertheless complex and is operator-dependent. To ensure that it is delivered to a consistently high standard the research team developed a quality assurance framework that includes a manual for effective intervention delivery, a training package and competency-based criteria against which to assess the effectiveness of training and the quality of intervention delivery.

The training package was based on evidence of effective training techniques for health professionals to deliver psychological interventions in both cancer and non-cancer illnesses.[16—21] The training uses active participatory methods, including skills rehearsal and constructive feedback, which are effective methods of teaching behaviour change skills.[22] Formal training days included interactive teaching sessions with video-demonstration, group exercises in information and communication skills, constructive feedback on videotaped role-play with actors and on practice interventions. Dedicated training days were separated by three weeks for rehearsal of intervention skills, initially with colleagues, followed by pilot interventions with women attending screening clinics. The manual includes a description of the intervention, instructions for intervention delivery and a scripted schedule with responses to frequently asked questions. Delivery style of the intervention is predetermined to be clear, motivating and collaborative.[23,24] The competency-based criteria related both to the content and the style of the intervention and are assessed according to a checklist. There are criteria for the nine health messages and criteria for style of delivery. We have developed descriptors for rating delivery style to promote reliability between those rating the quality of intervention. All interventions are video-recorded to enable assessment of quality.