

An intervention to reduce anxiety and pain associated with mammography

INTRODUCTION

The pain of mammography and the anxiety a woman feels about having a mammogram are recognised as significant deterrents to participation in breast screening programs.

At least a quarter of women eligible for screening mammography avoid it because of fear of pain and anxiety.

Effective pain and anxiety reducing interventions are a much needed addition to screening programs.

APPROACH

We investigated the effect of sensory stimuli on women's perception of pain and anxiety during mammography exams.

We used the GE Healthcare's SensorySuite, which allows women to choose an environmental theme such as seaside, garden or waterfall during the mammogram. The SensorySuite is designed to stimulate a woman's senses of sight, sound and scent simultaneously to distract her from the perceived pain and anxiety of a mammogram.

The woman chooses the experience she wishes to have via a tablet in the waiting room.



Garden

Seaside

Waterfall



If the woman chooses a seaside experience she is given a scent bracelet to wear, which releases a light scent, and on entry to the mammogram room, the chosen theme is presented via a 3D video played on two flat screens accompanied by soothing sounds.



METHOD

We surveyed 337 women aged 40 years and over; 166 of these women were screened in a conventional mammogram room and 171 women were screened using the SensorySuite technology.

Using a simple Likert Scale, women were asked to rate their anxiety prior to screening, (ranging from not anxious at all to extremely anxious) and to rate anxiety and pain (ranging from no pain at all to extremely painful) post screening.

RESULTS

Of all women screened 43% declared a level of anxiety prior to screening ranging from a little anxious to extremely anxious. There were no differences between the groups in baseline anxiety level.

Of these women 35% reported a reduction in anxiety following the mammogram in the conventional mammogram room compared with 44% reduction in anxiety experienced by women using the SensorySuite.

Similarly 19% of women reported a reduction in perception of pain after having a mammogram in the conventional room compared with 27% reduction in pain perceived by women using the Sensory Suite.



CONCLUSIONS

Research has shown that if you engage two or more of a person's senses simultaneously, their perception of pain diminishes.

Our study supports this, with reduced anxiety and pain perception recorded by women using the SensorySuite.

This study shows us that whilst we can not change the nature of the mammography exam, we can change women's experience of it.

We are hopeful that this will translate into improved re-screen rates for our Service.

Clinical staff have reported additional benefits to the SensorySuite, including a reduced fainting rate whilst performing upright tomosynthesis biopsies and better images, with more tissue included as women are not as tense.

We are planning further studies to quantify these hypotheses.

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