Portsmouth Hospitals NHS
NHS Trust

Women with Dense Breasts: A Survey About Breast Density & Adjunct Screening

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Introduction:

Breast density has become the subject of much interest and contention worldwide over the past decade. The association between increasing breast density with both reduced mammographic sensitivity[1] and increased risk of malignancy[2] has been known for some time amongst breast specialists.

The perceived non-disclosure of such knowledge to patients in America has recently led to the powerful '*Are You Dense?*' campaign with the slogan '*Exposing the best-kept secret*'. This has led to legislative change in most states requiring breast clinicians to inform women about their breast density and recommend supplementary screening where indicated.

Similar campaigns are beginning to emerge in other countries, including in the UK. One example: '*Breast Density Matters UK*'[3] commenced in 2016 after a British women was diagnosed with early invasive breast cancer in France, where supplementary breast ultrasound screening has been offered to women with dense breasts for some years[4]. The Austrian screening programme followed suit in 2014 offering supplementary breast ultrasound to all women found with BI-RADS mammographic density category C or D[5].

How will UK breast imaging specialists approach the matter of breast density should public awareness and anxiety grow?

Objective:

To gauge BSBR members' opinions about breast density and supplementary screening when breast density is found to be high.

Methods:

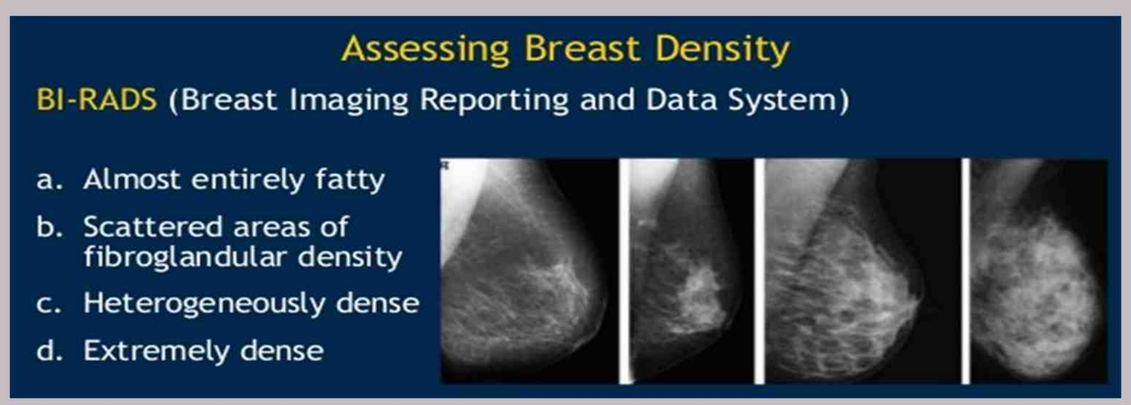
An anonymous survey about dense breasts was produced and sent to members of the British Society of Breast Radiology (BSBR) in May 2019. Information collected included:

- How members report breast density.
- Members' knowledge of breast density as a risk factor for breast cancer.
- The likelihood members would recommend additional screening for dense breasts.
- What manner of supplementary screening members would offer.

Results:

A total of 123 responses were received. Of these:

- 84% of responders routinely document breast density with 75% using qualitative descriptions, 23% using BI-RADS categorisation and the remainder using other methods.
- Only 8% of responders stated they have access to automated breast density software
- 53% correctly answered the question about relative risk of breast cancer when comparing dense and relatively fatty breasts (4-6 fold increased risk with BI-RADS category D extremely dense breasts)[6].
- 16% admitted they did not know the relative risk increasing breast density poses.

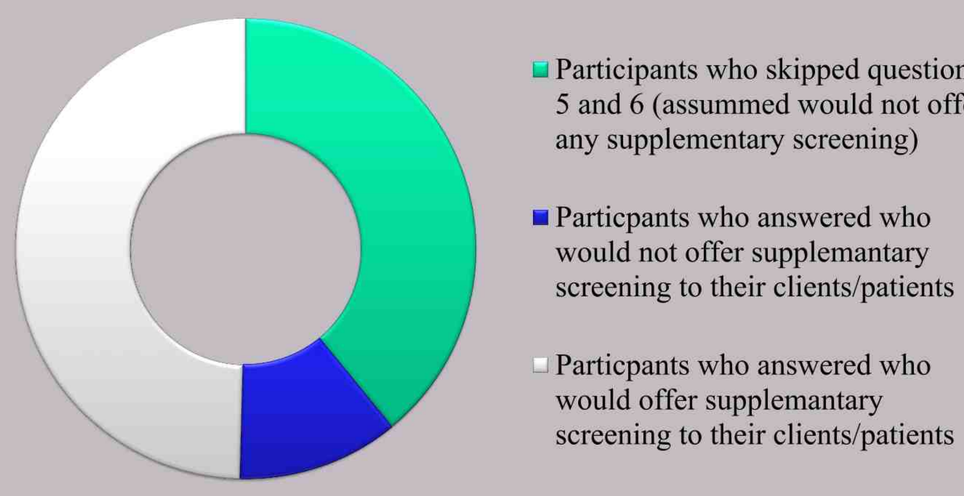


The questionnaire allowed questions 5 & 6 to be skipped. These questions pertained to whether radiologists would recommend supplementary screening for women with dense breasts. As such it was assumed those who had skipped these questions would not recommend any form of supplementary screening in the context of dense breasts. This applied to 48 of the 123 participants, equating to 39% of responders.

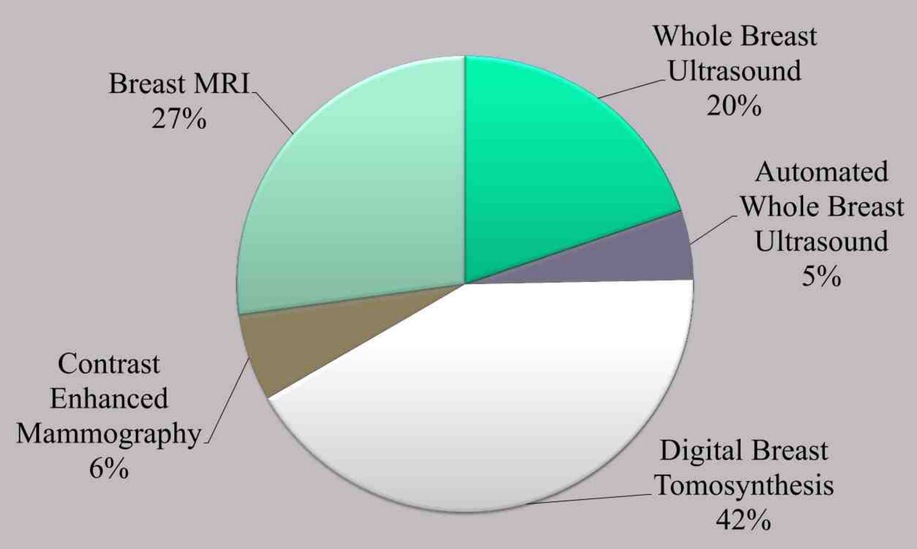
Of the 75 Society members who did respond to questions 5 & 6:

- 81% (61 individuals) stated they would offer supplementary screening for their patients, both in the NHS and private settings
- 60% would offer the same to their family and friends in the NHS setting and 61% would offer the same to their family and friends in a private practice setting
- 56% would consider supplementary screening for themselves in the NHS setting and 55% would consider supplementary screening for themselves in a private practice setting.

Below is a visual representation of the entire cohort of 123 participants depicting their attitudes towards supplementary screening in the context of dense breasts:



81 of the 123 participants responded to question 7 regarding which modality they would offer. Please refer to the below chart with the breakdown of potential favoured modalities:



- 59% of responders expressed concern regarding over investigation of false positive findings.
- 69% of participants believe we should be informing women of the reduced sensitivity of mammograms in the context of dense breasts.
- 36% believe we should be informing women of their heightened risk for developing breast cancer if their breasts are dense.
- 28% said breast imaging specialists should not be informing women of either their breast density nor any associated increased risk of breast cancer.

Conclusion:

The association of dense breast tissue with reduced mammographic sensitivity and increased risk of breast cancer has been known for some time amongst breast imaging specialists. The results of this survey demonstrate divided opinions amongst specialists in how best to approach the controversial yet pressing matter of supplementary screening in the context of dense breasts. Further work is required to inform a unified strategy to best manage known risks and anticipated growth in public concern.

References:

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