

Patient Perspectives on the Value of Stereotactic Body Radiotherapy (SBRT) in the Management of Breast Cancer: The PERSPECTIVE Study

Sukhdeep K. Nagpal^{1,2}, Anna M. Kirby^{1,2}, Gillian Ross^{1,2}, Susanne Cruickshank³

1.Division of Radiotherapy and Imaging, The Institute of Cancer Research, London, UK; 2.Department of Radiotherapy, The Royal Marsden NHS Foundation Trust, London, UK; 3. Health Services Research, The Royal Marsden NHS Foundation Trust, London, UK

Background

- Oligometastatic disease describes limited metastases amenable to local therapy such as SBRT [1,2]
- Within the UK National Health Service, SBRT is a standard of care for up to 3 metachronous sites of oligometastatic breast cancer (OMBC) [3]
- The SABR-COMET [4] and CORE [5] randomised phase II trials demonstrated improved PFS with SBRT in several oligometastatic cancers, including breast cancer
- Although, the breast specific NRG-002 [6] trial did not show a PFS or OS benefit with the addition of SBRT to standard systemic therapy, it did reveal reduced local relapse rates in the SBRT group compared to systemic therapy alone
- SBRT achieves excellent local control and durable symptom control [7,8]
- Given patients' attitudes and perspectives govern their treatment decisions, it is vital to understand whether PFS and OS are the most important considerations for patients

Aim

- To investigate the outcomes of highest priority to breast cancer patients in relation to their decision to undergo SBRT

Methods

- Exploratory qualitative study consisting of focus groups and individual interviews
- Approval was granted by the UK Health Research Authority (HRA) and Research Ethics Committee (REC)
- Any breast cancer patient aged ≥18 years was eligible to participate
- Recruitment used a purposive sampling matrix based on the patients age, presence of metastatic disease and previous experience with radiotherapy
- Participants watched an educational video about SBRT prior to participating in the interviews
- Focus group had at least two moderators and were digitally recorded and then transcribed
- Data were analysed using a thematic analysis approach



Results

- A total of 18 breast cancer patients participated in this study (N=7 had primary disease and N=11 had metastatic disease)
- The participants had a median age of 54 years (range 38-74)
- Two focus groups and four individual interviews were conducted
- Data saturation (a repetition of responses where no new information is acquired) [9] was achieved after interviewing 14 participants across the 2 focus groups
- Participant demographics and previous experience with radiotherapy including SBRT are summarised in Table 1
- Three main themes emerged from this study, summarised with corresponding participant quotes in Figure 1
- Extending their life was unanimously described as the most important desired outcome of SBRT, followed by quality of life
- Other desired treatment outcomes expressed included reduction of tumour size, minimal collateral damage/side effects, relief of symptoms, avoidance of recurrence and increase in time to change of systemic therapy

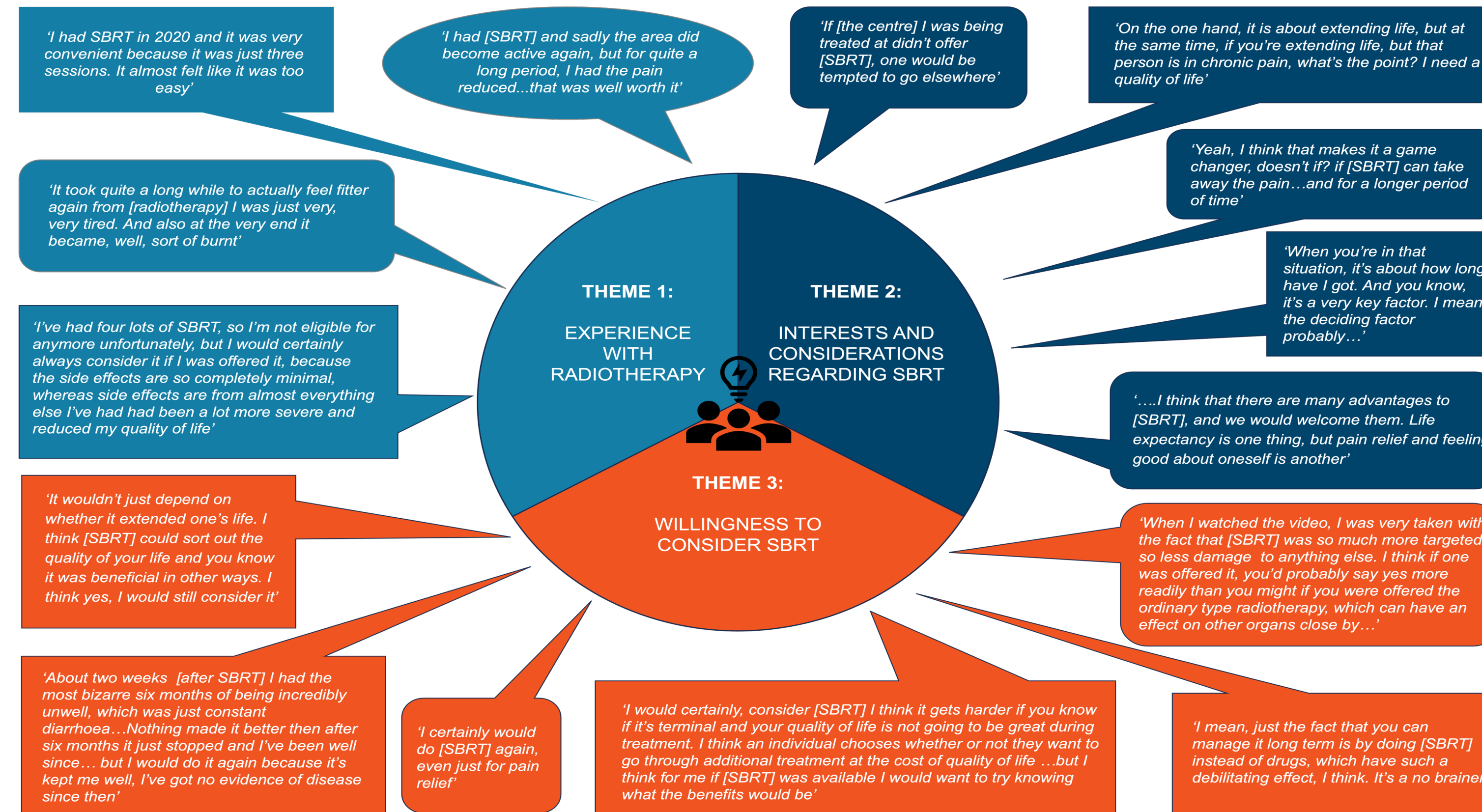


Figure 1. Summary of the three main themes generated during this study and the corresponding quotes from participants

Variable	N	%
Ethnicity		
White	14	78
Black, Black British, Caribbean or African	1	6
Asian or Asian British	1	6
Other ethnic group	2	11
Highest level of education		
Less than undergraduate	5	28
Undergraduate	5	28
Postgraduate	8	44
Previous Radiotherapy		
Yes	15	83
No	3	17
Previous SBRT		
Yes	4	22
No	14	78

Table 1. Participant demographics and details of previous experience with radiotherapy

Discussion

- Recruitment was conducted using a diverse sampling matrix, but the predominantly Caucasian, higher-educated participants may restrict the generalisability of findings to the broader breast cancer population
- With 18 participants, the study, though relatively small, met the predetermined target of 12-20 for data saturation
- This study provides clinicians with key insights into the priorities of treatment outcomes for breast cancer patients, emphasising their focus on both survival and quality of life
- Additionally, it identifies the most crucial endpoints for breast cancer patients and has the potential to inform the design of future breast SBRT clinical trials

Conclusion

- While extension of life was a desired treatment outcome of SBRT for OMBC, all participants expressed willingness to consider SBRT for its potential benefits in local control and durable pain control, even in absence of a survival benefit

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Contact

sukhdeep.nagpal@icr.ac.uk

X: @SukhiNagpal

Linkedin.com/in/sukhi-nagpal

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