

# From research to practice: do users of an ear acupuncture service to manage breast cancer-related hot flushes & night sweats do as well as research participants ?

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## Introduction

Research participants often have better outcomes than patients receiving the same treatment in standard care settings. After conducting research into using a standardised ear acupuncture protocol to treat menopausal side-effects of adjuvant hormonal treatment for early breast cancer, we introduced an ear acupuncture service. As part of evaluating this service, we wanted to explore the following:

## Key Question

- Do service users report poorer outcomes than research participants?

## Methods

### Participants

- Women age  $\geq 35$  years diagnosed with early breast cancer
- Without relapse or metastatic disease
- $\geq 6$  months post active treatment (surgery, chemotherapy, radiotherapy)
- Taking adjuvant hormonal therapy  $\geq 6$  months
- Experiencing hot flushes and night sweats (HF&NS)  $\geq 3$  months
- Self-reporting an average of  $\geq 4$  HF&NS per 24-hour period.

### Acupuncture protocol

- Standardised treatment once weekly, for 8 treatments
- Using the National Acupuncture Detoxification Association (NADA) ear acupuncture protocol
- Delivered in a small group setting, of up to 5 women per group
- Administered by :
  - 1 licensed acupuncturist (research study)
  - 3 NADA trained non-acupuncturists (service).

### Measurement

- Hot Flush Diaries** – measured HF&NS frequency and severity over a 2-week period
- Women's Health Questionnaire (WHQ)** – measured 9 domains of physical and emotional wellbeing associated with the menopause transition
- Problem Rating Score (PRS)** – measured how bothersome women find their HF&NS.
- Measures were administered at :
  - Baseline (2 weeks prior to treatment)
  - End of treatment (EOT)
  - At 4 weeks after EOT (EOT+4)
  - At 18 weeks after EOT (EOT+18).



### The NADA Protocol

This standardised protocol uses 5 acupuncture points on the surface of the ear. It is designed to be used in a group setting. In the UK, it can be delivered by licensed acupuncturists, and by non-acupuncturists who have been trained and who are annually assessed by NADA UK.

## Results

### Recruitment and Service Use

- 50 out of 54 recruited completed the research (R) treatments
  - 47 completed EOT measures
  - 45 completed EOT+4 and 38 completed EOT+18 measures
- Of 90 service users (S) not having treatment at time of analysis:
  - 8 had less than 4 HF&NS per 24-hour period
  - 17 did not complete EOT measures
- Of 67 evaluable service users completing EOT measures:
  - 56 completed EOT+4 and EOT +18 data.

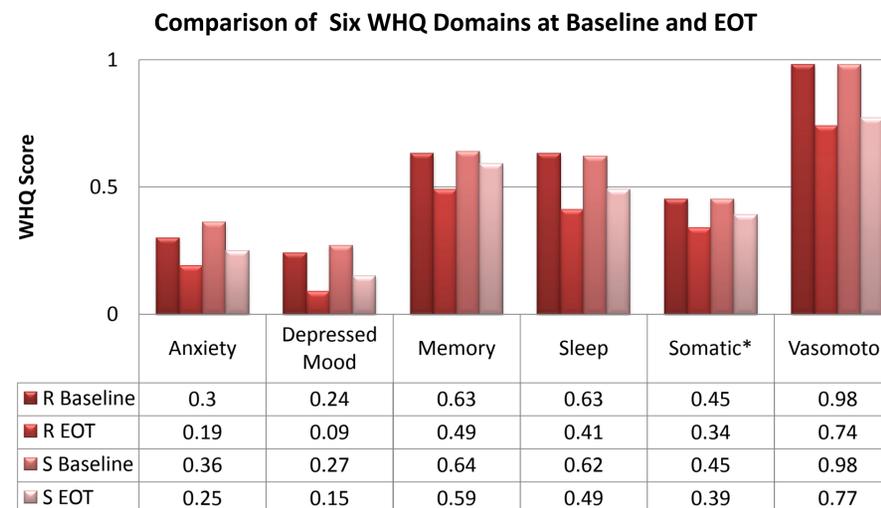
### Comparing Hot Flush and Night Sweat Frequency

- The median number of HF&NS at baseline was:
  - 10.7 per day (std dev = 4.8) for R
  - 10.5 per day (std dev = 5.5) for S
- Reductions in frequency for both groups were significant at all time points
- There was no significant difference between groups at each time point.

Comparison of Mean % Reduction in Hot Flush Frequency					
Change over baseline at		N =	Mean % Reduction	95% CI Lower	95% CI Upper
EOT	R	47	36.0	25.3	45.2
	S	67	43.9	35.3	51.3
EOT+4	R	45	37.5	25.3	47.6
	S	56	48.9	29.3	63.0
EOT+18	R	38	39.3	26.8	49.7
	S	56	41.4	29.3	51.5

### Comparing Emotional and Physical Wellbeing

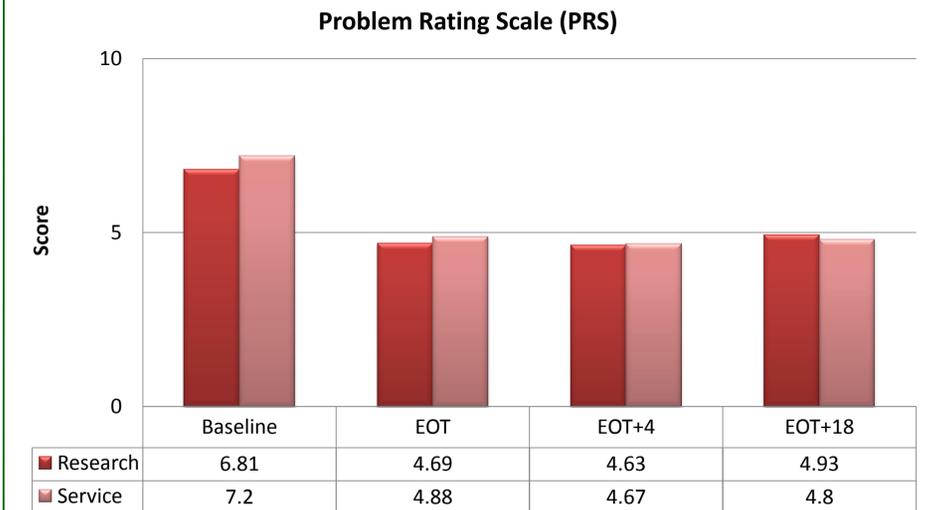
At EOT, the WHQ domains displayed below showed significant improvement for Research participants. Service users did not have significant improvement in Memory/Concentration. Overall, both groups showed similar scores at each time point, and similar levels of improvement.



\* Somatic = Backache/pain, Dizzy spells, Frequent urination, Headache, Nausea, Tiredness, Pins and Needles

### Comparing Problem Rating Scores

Both groups recorded similar Problem Rating Scores at each measurement point. All changes within groups were statistically and clinically significant. There were no significant differences between groups.



## Discussion

In this study, service users who completed treatment and returned EOT questionnaires recorded similar outcomes to research participants. This may be because both groups:

- Were from the same geographic area
- Had similar demographic characteristics
- Were subject to the same inclusion criteria
- Received similar levels of time and attention.

The main differences were the high number of service users who did not:

- Meet inclusion criteria (n=8, 8.2%), with <4 HF&NS per 24-hours at baseline
- Return EOT data (n=17, 18.9%):
  - 8 (8.9%) did not complete treatment (due to illness, recurrence, relocation)
  - 9 (10%) who completed treatment did not return EOT data.

## Conclusion

It is possible for service users to do as well as research participants. Service providers may prioritise patient care over rigorous application of inclusion criteria and follow-up of data return.

### Acknowledgements

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