

Paul Cook – 29002748
Module 6 BMPF7329D

A study to establish the effectiveness of proposed strategies to mitigate symptoms of voice change in female choir members to improve vocal function.

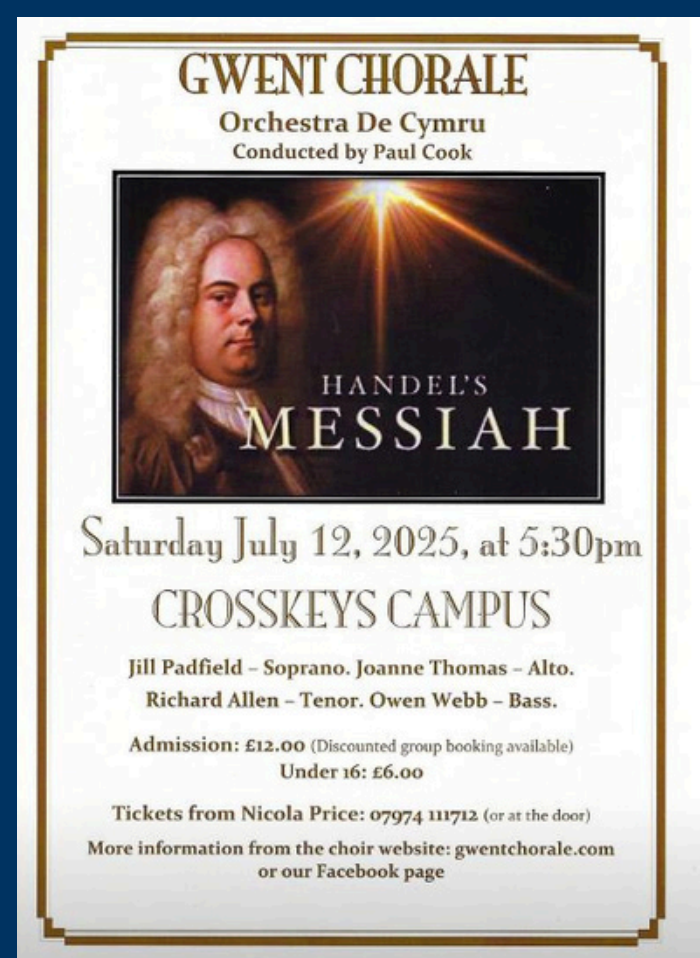
Tuesday June 10th at 4pm

Background

Desire to build on prior study (Module 4)

Soprano and alto sections in large choral society in decline:

- reduced ability to perform fast, coloratura passages
- loss of higher notes
- a marked decline in projection and vocal intensity
- widespread pessimism about the direction of travel for vocal health
- an increase in menopausal/post-menopausal clients seeking help in the studio



Justification

- Significant research undertaken on this topic (Sataloff, 2000; Brunssen, 2018).
- Significantly less research into strategies to mitigate symptoms.
- Inconsistencies in research findings in this area (Fiuza et al., (2023).
- Disagreements between notable contributors to the literature (Sataloff, 1987; Edwin, 2012; Bos et al., 2020).
- Strategies identified in (Cook, 2024) that had worked in the private studio required validation through action research.

Aims and objectives

Aims:

- Establish which of the proposed strategies had proved to have the a positive impact.
- Measure and evaluate the extent of any positive impact.
- Identify outcomes and trends in the data that could inform future research and pedagogy.

Objectives:

- To record baseline data at the start of the study and compare it with later readings to evaluate progress and understand any trends.
- To undertake a literature review.
- To reflect and evaluate on the findings of the study.

Ethical considerations

- Complete anonymity of all participants throughout the study.
- All data managed confidentially.
- Signed, written consent granted.
- Research Ethics and Integrity Code of Practice followed.
- Sensitivity of topic considered during questioning and discussions.
- My role as Musical Director and gender could have potentially been a barrier in the interviews and focus groups considering the personal nature of the study.

Insider researcher

Long standing relationships between the researcher and participants of up to fifteen years a consideration from the outset of the study.

Efforts were made to avoid damaging existing relationships (Breen, 2007).

Methods

- **Anonymous survey to establish which three symptoms would be the focus of the study.**
- **Inclusion and exclusion criteria - hormone**

Findings of survey

The survey identified the three most commonly encountered symptoms as:

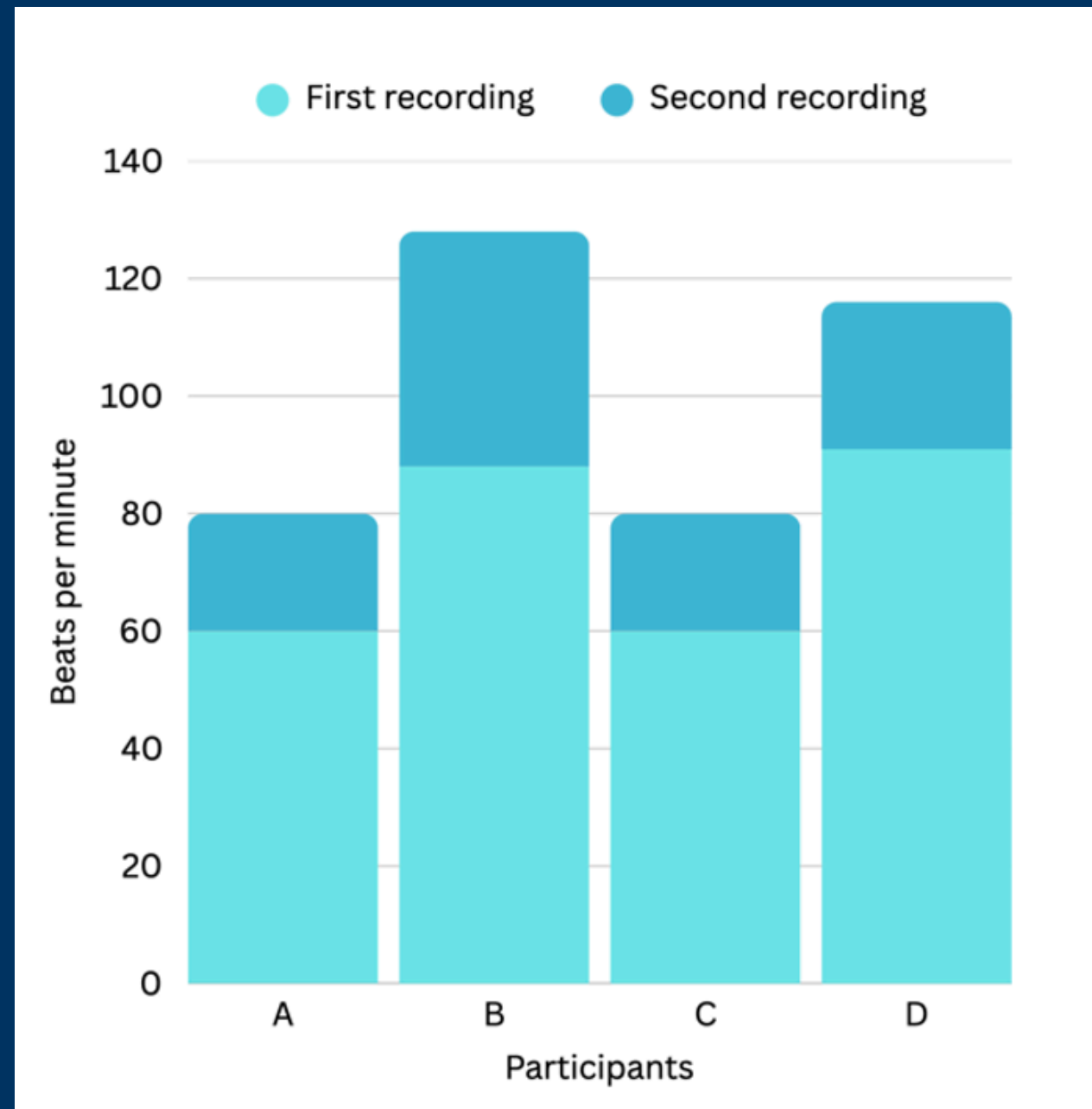
decline in vocal flexibility

loss of higher register

reduced vocal intensity/projection

Decline in vocal flexibility

100% of participants were able to improve their vocal flexibility. The mean improvement was 26 beats per minute (bpm) and the range was 48 bpm.



Loss of higher register

“It’s like nothing came out. I had lost the top of my voice.”

“I lost my top notes completely.”

100% of the participants extended their range upwards by two semitones.

“For me, the return of some of my higher notes and how much easier I can sing the fast bits has been noticeable.”

“I am reaching notes that I couldn’t reach before in rehearsals.”

“My high range has extended upwards and I am not having to work anywhere near as hard to sing.”

Reduced vocal intensity

Null hypothesis: there would be little or no statistical change.

Alternative hypothesis: dynamic intensity would increase as a result of the intervention.

100% of the participants increased their dynamic intensity from 2.4 to 8.6 decibels (a mean of 4.5 decibels).

“I just feel so much happier about myself in the way that I am singing louder.”

“I am able to sing with more sound and it is not forced.”

Conclusion and key findings

- 100% of the participants perceived an improvement in their vocal function.
- All of the outcomes were measured and, whilst there were some variations in the extent of successes, all showed a positive trend.
- It is possible to improve vocal function in the post-menopausal voice with structured practise.
- All of the participants observed a notable increase in confidence as their voices improved.

Limitations of study

Small sample.

Exclusion of women who had undergone hormone replacement therapy.

Recommendations

- Repeat the study with a larger and more diverse sample.
- Research the impact of decline in vocal function post-menopause on confidence and well being.
- Extend the period of time over which research was conducted.

Personal development

- Empowered by new knowledge and findings which validate prior research.
- Renewed confidence to help post-menopausal women reclaim some of what they had before.

Thank you.