

## Minutes of Derby Medical Society Meeting 2nd October 2019

### Derby Medical School Lecture Theatre.

#### Apologies

Ian Scott  
Wendy Scott  
Susie Hewitt  
Alastair McCance  
John Hodgkin  
Stuart Holloway  
Roger Chapman  
Dick Williamson  
Linda Crowder  
Alistair Fraser-Moody  
Dr Hough

Hospital choir and orchestra announcement of the Christmas concert was made.

Announcement of the death of Dr Robert Stark former GP from Borrowash. Funeral arrangements have been emailed to the members

#### Why Sing?

#### Research Evidence on the Effects of singing on Chronic Pain, Parkinson's and Respiratory Conditions

#### Speaker

Dr Yoon Irons PhD  
Research Fellow at Health and Social Research Department at Derby University.

Singing is her passion and Yoon believes anyone can sing. She asked the audience what they thought of singing.

What is singing? It is multi-dimensional with multiple benefits:

Physical  
Social  
Emotional expression.

Research has been carried out to look at the benefits of singing on rehabilitation.

Singing posture is very important using the spine, neck, head, legs and feet - tuning the body.

Breathing technique using muscle groups - respiratory muscles, intercostals, abdominal muscles and diaphragm.

Making sounds using the upper respiratory structures.

And then we had a sing!

Singing is one of the best icebreakers (research by Professor Dunbar in Oxford).

#### Respiratory Conditions - COPD and Cystic Fibrosis

A number of randomised controls trials have shown improvements in respiratory muscle function, reduced anxiety and improved quality of life, including reducing treatment burden in children with CF.

A Cochrane review looking at benefits of singing in COPD (2017) and Cystic Fibrosis (2019) has shown limited evidence as not enough studies of high enough quality.

And then we sang again!

### **Research Evidence for Parkinson's disease**

Studies have shown singing produces:

- Improvements in bradykinesia
- Ameliorate gait and facial masking
- Improvement in respiratory function
- Improvement in volume, voice quality and vocal confidence
- Improvements in emotional well being, mood and quality of life

Dr Irons presented her own study, 1st International Group Singing Study.

3 singing study groups

Weekly singing groups over 6 months

Outcomes were assessed and research findings:

- Improved quality of life (using validated tools). Less stigma and more social support
- Improved mental health. Reduced stress and anxiety

Finished study with a concert in Brisbane.

Paper currently under review prior to publication.

A Cochrane review is currently underway to assess the current evidence for the benefits of singing in Parkinson's.

And then we sang a bit more!

Singing sessions in Parkinson's also incorporates hand actions to the music.

### **Research Evidence for Chronic Pain**

Dr Irons briefly worked in a chronic pain clinic in Australia as a research fellow. She recruited patients to a singing group.

The group sang their preferred songs.

Each participant interviewed 10 weeks after the intervention.

Benefits found after the singing intervention:

Psychological benefits - enjoyment, empowerment, enhanced self esteem, purpose and motivation, reduced negative feelings and increased positive feelings.

Social benefits - increased connection and making friends

Physical benefits - distraction from pain, more motivation to exercise.

Systematic review of singing and the benefits in chronic pain has shown benefits in reducing pain

Singing may be as good as other activities but better than no intervention in chronic pain

Confounding factors:

Previous bad experiences or no exposure to singing

Patient expectation being too high

### **Summary**

Range of beneficial exercises alongside enjoyment

Singing comes with added benefits

Singing is free of side-effects

Singing is relatively cheap

Singing is portable

## **The Future**

Multidisciplinary Research is needed with robust methodologies.  
Singing as therapy in collaboration with allied health professionals.  
Singing on prescription?  
Singing on the NHS?

## **Questions**

Is there evidence of benefits of people singing alone? No definite studies

Local Derby Parkinson's group has a singing group.

Benefits of music in general particularly in Parkinson's disease

What is the mechanism for improvement? Difficult to identify the exact factors.

Why someone with very poor conversation communication can sing? Hypothesis that this is linked to neuroplasticity.

Sarah thanked Yoon for a talk with the most audience participation and the most smiles in the audience in a long time.

## **Announcements**

Medical Society Dinner on 16th November. Closing date 12th October.

Next meeting Wednesday 16th October 2019.

## **Key Learning Points**

Singing is multi-dimensional with multiple benefits: Physical, social and allows emotional expression.

Studies have shown improvements in respiratory muscle function, reduced anxiety and improved quality of life, including reducing treatment burden in children with Cystic Fibrosis.

Studies in people affected by Parkinson's disease have shown singing produces:

- Improvements in bradykinesia
- Ameliorate gait and facial masking
- Improvement in respiratory function
- Improvement in volume, voice quality and vocal confidence
- Improvements in emotional well being, mood and quality of life

Systematic review of singing and the benefits in chronic pain has shown benefits in reducing pain and mental well-being.

## **Register**

Members	18
Students	10
Guests	2

