

## PRESS RELEASE

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R O Y A L

OF MUSIC

London

## Drumming has positive impact on mental health finds Royal College of Music study

A study by the Royal College of Music in London has found that a 10-week programme of group drumming reduces depression by as much as 38% and anxiety by 20%.

A preliminary study, published in Psychotherapy and Psychosomatics, and a controlled study, published in PLOS ONE, also revealed that a 10-week programme of group drumming can improve social resilience by 23% and mental wellbeing by 16%.

The research is the first of its kind to bring together psychological and biological results to paint a more complete picture of how making music benefits mental health services users. The benefits were still evident three months later, suggesting that drumming could be an economical yet effective intervention for mental health service users.

The research, carried out among 76 mental health service users in London across two studies, involved participants taking part in 6- and 10-week programmes of group drumming workshops led by a professional drummer and supported by students from the Royal College of Music. Participants completed validated questionnaires measuring depression, anxiety, stress and mental wellbeing, and saliva samples were analysed to test their biological responses.

Research over the last two decades has demonstrated that many mental health conditions, including depression, are linked to inflammation in the immune system. Analyses of immune function from saliva analyses in the research showed that drumming was also associated with a shift away from an inflammatory immune profile; a finding parallel to results from studies involving anti-depressant medication and psychotherapies.

## **OVERALL FINDINGS**

- Significant improvements in depression, anxiety, mental wellbeing and social resilience were found in the drumming group but not the control group.
- Improvements in depression reached 24% by week 6 and 38% by week 10.
- Improvements in anxiety reached 9% by week 6 and 20% by week 10.
- Improvements in social resilience reached 16% by week 6 and 23% by week 10.
- Improvements in mental wellbeing reached 8% by week 6 and 16% by week 10.
- Across the 10 weeks there was a shift away from a pro-inflammatory immune profile (represented by the cytokine tumour necrosis factor alpha; TNFα) towards an anti-inflammatory immune profile (represented by the cytokine interleukin 4; IL4).

Aaron Williamon, Professor of Performance Science at the Royal College of Music, commented: 'Research into the psychological and biological benefits of psychosocial interventions for conditions such as anxiety and depression has increased markedly in the past decade. Our study shows that making music can be a powerful tool for promoting mental health and contributes to a wider evidence base around music and wellbeing.'

Interviews with some of the participants revealed that drumming provided a powerful form of expression and communication, and that the shared experience of drumming in a group facilitated feelings of belonging, acceptance, safety and care. There were also benefits in making new social contacts and learning new skills as part of an inclusive and relaxed musical activity.

The Royal College of Music is leading research into the impact of making music and how it can promote positive mental health. Further work by the RCM team is now exploring the mechanisms and characteristics of such change as well as testing whether similar music-making paradigms could support other mental health conditions such as postnatal depression.

The Royal College of Music study was the first project of the new Centre for Performance Science, a Royal College of Music partnership with Imperial College London, and carried out as part of 'Creative Practice as Mutual Recovery', a project funded by the UK's Arts and Humanities Research Council.

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## Notes to Editor

The Royal College of Music is currently home to 800 undergraduate and postgraduate students from 60 nations. International students constitute approximately 50% of our student body. In 2016, the RCM was ranked by The Guardian as the leading Higher Education Institution in the UK for studying music. The Higher Education Statistics Agency (HESA) survey found that proportionally more RCM alumni who responded to the survey had moved to employment or further study within six months of graduation than graduates from any other UK conservatoire or UK university.

Among RCM alumni are composers and performers such as Sir Hubert Parry, Benjamin Britten, Gustav Holst, Sir Colin Davis, David Helfgott, Samuel Coleridge-Taylor, Lord Lloyd Webber, Dame Joan Sutherland, Sir James Galway, Ralph Vaughan Williams and Alfie Boe. Regular visitors to the RCM to teach and demonstrate are Bernard Haitink, Daniel Barenboim, Vladimir Ashkenazy and Lang Lang. Our most recent honorary doctorates include Vladimir Jurwoski, Dame Kiri Te Kanawa, Sir Roger Norrington, Bryn Terfel and Steve Reich.

The Centre for Performance Science is a distinctive new partnership of the Royal College of Music and Imperial College London. The Centre takes a strongly interdisciplinary approach to investigating human performance in the arts, business, education, medicine, science and sport, and draws upon world-leading expertise and state-of-the-art facilities across the RCM and Imperial College.

In music, ongoing activities fall into the following areas:

- Psychological and physiological science of music... focusing on ways in which musicians engage, and can come to engage more effectively, the vast array of physical and mental skills required during practice and performance.
- Developmental and educational sciences of music... encompassing the study of music perception and production throughout the life span, providing a deeper understanding of processes that underpin music learning, teaching, listening, creating and performing.
- Social and cultural sciences of music... engaging with the fundamentally social nature of music creation, education and reception, as well as the social, cultural and economic role of performing in society.

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