

STROKESTRA

Stroke Rehabilitation through Creative Music-Making



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Evidence Base

- Studies have focused on the use of music to promote **social interaction, positive mood and lower depression and anxiety.**

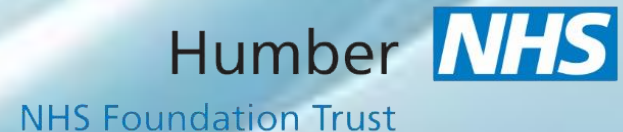
Nayak et al., 2000; Barbara et al., 2003; Guetin, 2009; Kim, 2011; Poćwierz-Marciniak, 2014

- Listening to music has been found to have short term effects on **visual awareness, visual attention and unilateral neglect.**

Sarkamo, et al., 2012; Rodriguez-Fornells, 2012; Mei Ching et al., 2013; Tsai, 2013

- Studies have concluded that music listening can **improve auditory and verbal memory, attention and mood.**

Sarkamo, 2012



Evidence Base

- A Cochrane review concluded that rhythmic auditory stimulation can be beneficial for **improving gait** parameters.

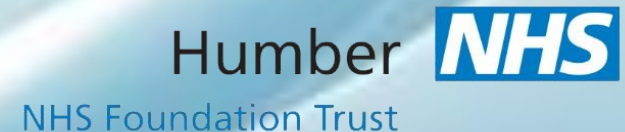
Bradt et al., 2010

- Music has been shown to support **upper limb recovery** including **improved fine and gross motor movements** and self-management.

Van Wijck, 2012; Altenmuller, 2009

- Listening to music can also support **neuroplastic changes** in chronic stroke patients.

Amengual et al., 2013; Raghaven et al., 2014; Jamali et al., 2014




Research & Development



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Structure


- Patients identified by HICSS staff
- Patients chose individualised goals to work towards
- Patients assigned to AM or PM group
- 4x monthly RPO-led sessions: two consecutive days
- 4x interim HICSS-led sessions: one day
- Patients given instruments and ‘homework’ to continue work between sessions
- 1x RPO-led finale: 3 workshop days + 1 performance day



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Schedule

Dates	Activity
28 & 29 May 2015	RPO Project 1
5 June	RPO Musician Training
10 June	HICSS Staff Training
11 & 12 June	RPO Project 2
2 July	HICSS Project 1
16 & 17 July	RPO Project 3
30 July	HICSS Project 2
13 August	HICSS Project 3
20 & 21 August	RPO Project 4
17 September	HICSS Project 4
28, 29, 30 September & 1 October	RPO Project 5 and Performance

Sessions



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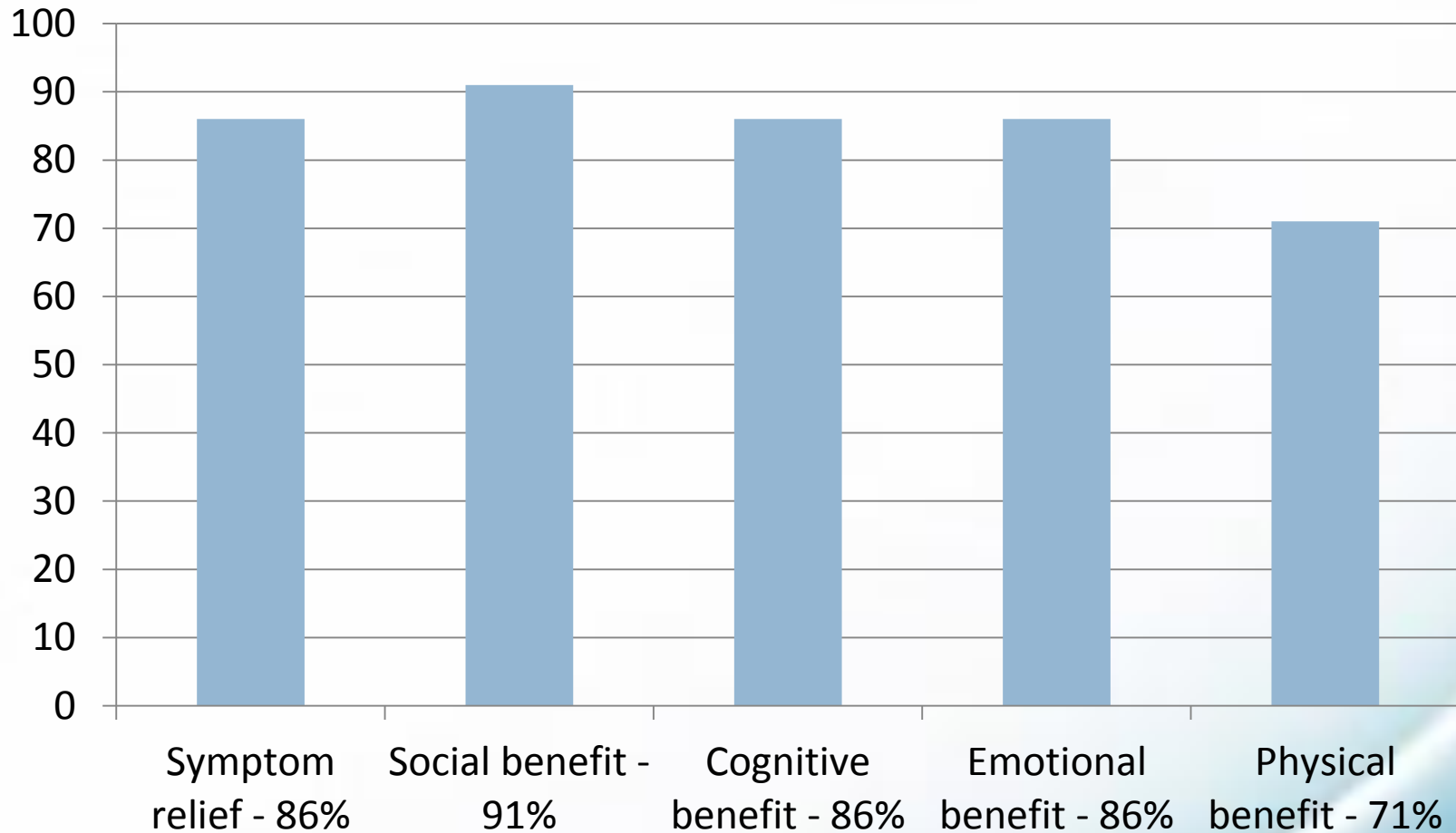
Sessions



Evaluation

- Stroke Impact Scale – baseline and post-project
- Specific goal related assessments (e.g. COAST, GAD-7, PHQ-9, Chedoke Upper Limb)
- Post-project evaluation surveys with patients, carers and HICSS staff
- Focus group with patients and carers
- Focus group with RPO team

Results



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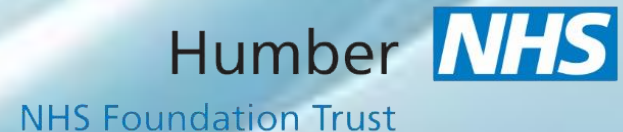
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Results

Domain	Stroke Impact Scale - % of patients increasing by at least 10 points
Physical Strength	33.3
Cognition	43.8
Mood	43.8
Communication	35.3
Activities	31.3
Mobility	18.8
Hand use	56.3
Participation	62.5

Results

- 100% of carers reported an improvement in their own wellbeing and respite from their role as carer.
- 100% of carers reported improved relationships with their patient as a result of participating alongside them.
- HICSS staff reported gaining inspiration (80%), team morale (70%) and renewed relationships with patients (60%).



Testimonials

'I feel I am walking so much better and want to do more now. I am also sleeping better which I feel is from relaxing me playing the music.'

– Patient

'It made me feel I wasn't the only one in my position. Caring can be a lonely path at times and you can feel sad.'

– Carer

'I found this project inspiring and energising. It has re-ignited my own personal interest in music, which has helped my wellbeing, health and ultimately my work. It has made me re-evaluate how we work with patients and the priorities we have.'


– HICSS Staff



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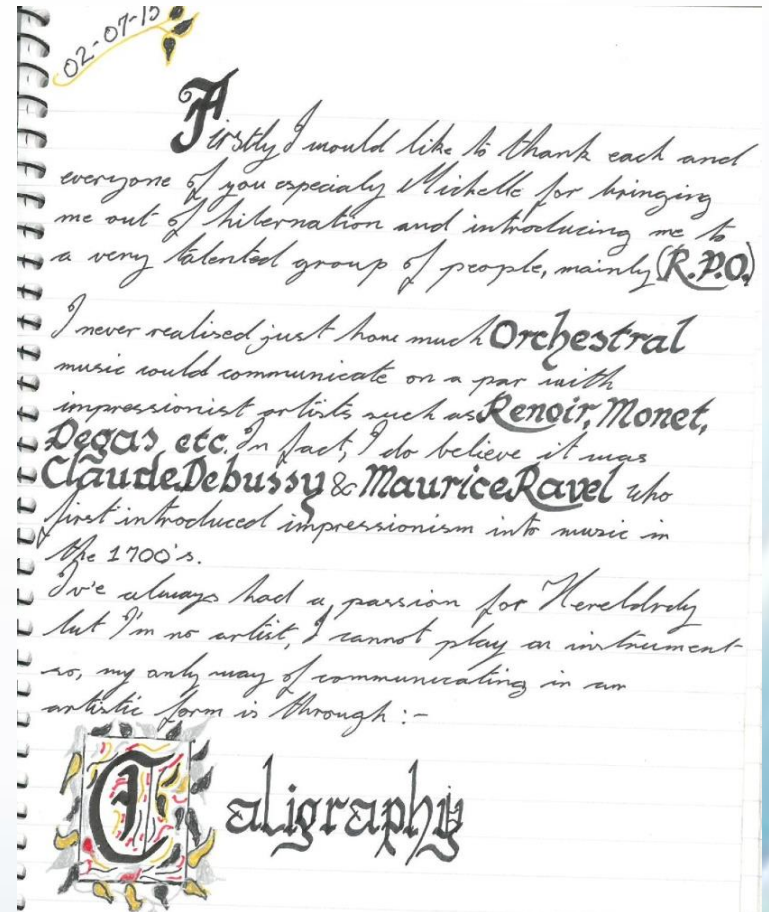
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Lessons Learned

- It took patients (and staff) time to settle into the sessions and begin taking advantage of the therapy opportunities.
- Staff rotas are necessary to ensure staff can plan well in advance to fit in sessions around duties.
- Musical execution can take precedence over therapy for patients, so it is important to keep reviewing goals.
- There are opportunities for developing more techniques for specific goals, especially speech & language rehabilitation.

Legacy

- HICSS staff are using musical techniques and instruments in one to one care, and beginning a drumming group.
- Patients have purchased their own instruments including clarinet, guitar, and electric keyboard.
- One patient has begun making cellos.
- One patient has returned to calligraphy.



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Future

- Long-term programme to allow enough time for meaningful improvement
- Incorporate more patients from rehabilitation units
- Focus on progression into community groups and unsupported hobbies
- Involve external evaluator(s) to enable more clinical baseline comparisons of all patients
- Include further training for clinical staff and university partners to develop work force

Further Information

Full evaluation report, programme guide, film and presentation slides are available on www.rpo.co.uk/strokestra

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