

# The benefits of music therapy as adjunctive treatment for a client suffering from Guillain-Barré syndrome: a case study

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## Introduction

Eduan van der Walt\* (27), rugby player (lock) for the Puma provincial team, is diagnosed with Guillain-Barré syndrome, a serious health problem which leads to nerve inflammation that causes muscle weakness or paralysis. Emotional adaptation is also required as the diagnosis can be devastating because of its unexpected onset and some individuals may need psychological counselling to help them adapt. Eduan is referred to music therapy for 15 sessions.

The process naturally develops through four different focus areas:

1. Finding the best instrument to assist with the healing process
2. Developing exercises and using improvisation to achieve the primary goal, namely regaining muscle strength and improving fine and gross motor function
3. Providing emotional support in dealing with the diagnosis
4. Learning musical skills to enable performance of musical pieces

Through the process Eduan realises his potential and feels motivated to overcome difficulties that occurred due to the diagnosis.

## Background

In October 2013, Eduan became ill and lost control over his muscle movement. At first, malaria was suspected, but after many tests he was diagnosed with Guillain-Barré syndrome. Although there is no cure, there are therapies that lessen the severity of the illness and accelerate the full recovery in most patients. The most critical part of the treatment consists of keeping the patient's body functioning during recovery of the nervous system and of monitoring the patient's emotional wellbeing (Cafasso, 2012).

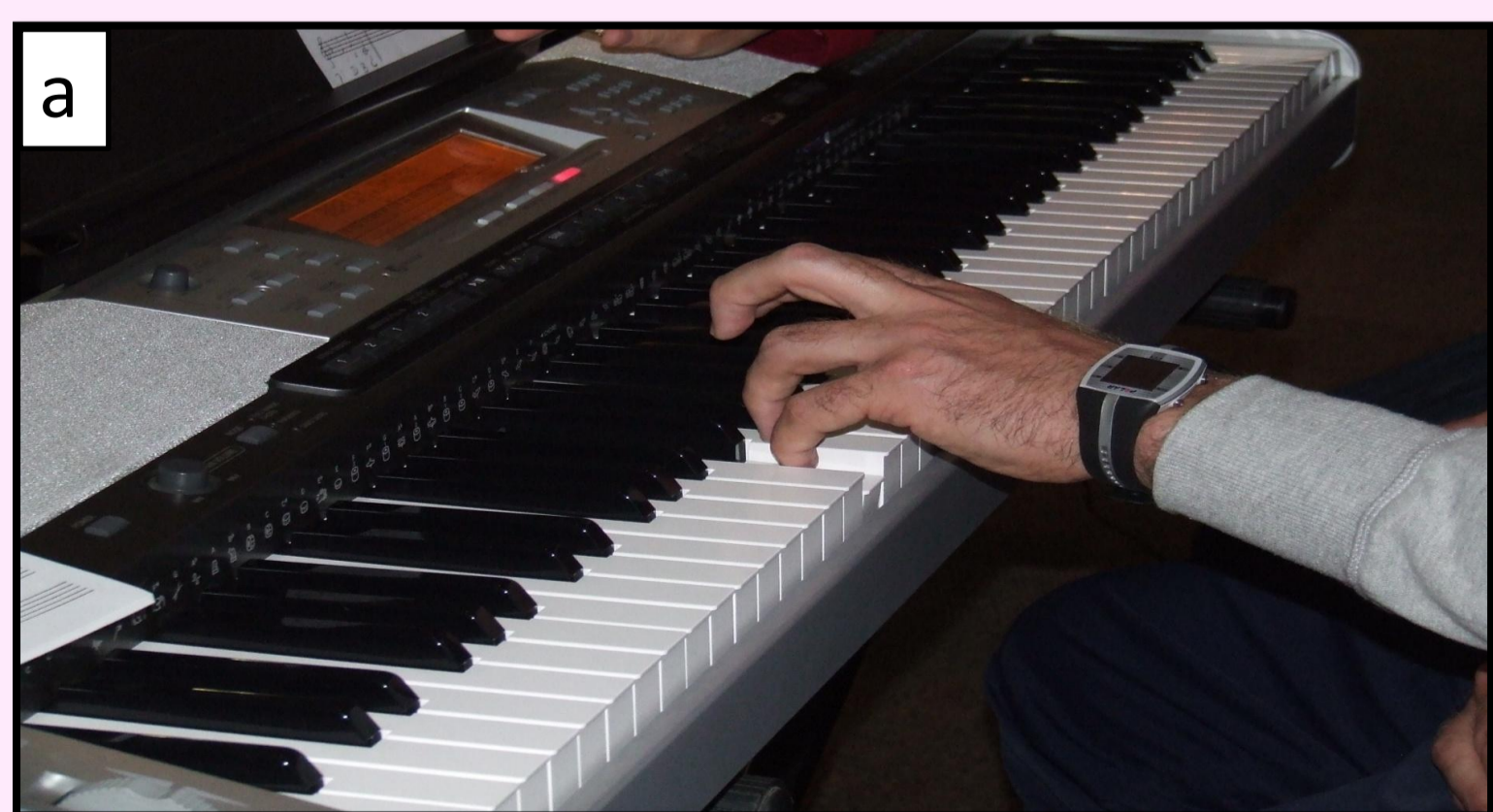
The neurologist referred Eduan for occupational therapy and physiotherapy. To accelerate the recovery even more, music therapy was recommended by the occupational therapist six months post diagnosis both for the physical exercise and to address some emotional issues.

## Process

The INITIAL FOCUS AREA of our journey comprised finding the right instrument to achieve the primary goal: controlled muscle movement. We experimented with djembe drums for gross motor movement and smaller instruments e.g. castanets, guiro, cabaça and the triangle for fine motor movement. Piano, however, seemed the ideal choice for finer finger as well as greater arm movements.

The NEXT FOCUS AREA was to improvise different finger patterns on the piano to improve finger extension and controlled movement. Exercises included:

1. Five-finger position patterns on white keys
2. Five-finger position patterns including extending to black keys (picture a)
3. Patterns including only whole-tones or only semi-tones
4. Fingers crossing over or going under other fingers
5. Stretching the hand to an octave or more
6. Playing more than one key at a time
7. Using the full range of the piano crossing the mid-line whilst maintaining an upright posture (with assistance; picture b)
8. Using both hands simultaneously bringing the arms and hands closer together (holding arms body-width apart was the only comfortable position initially; picture c)

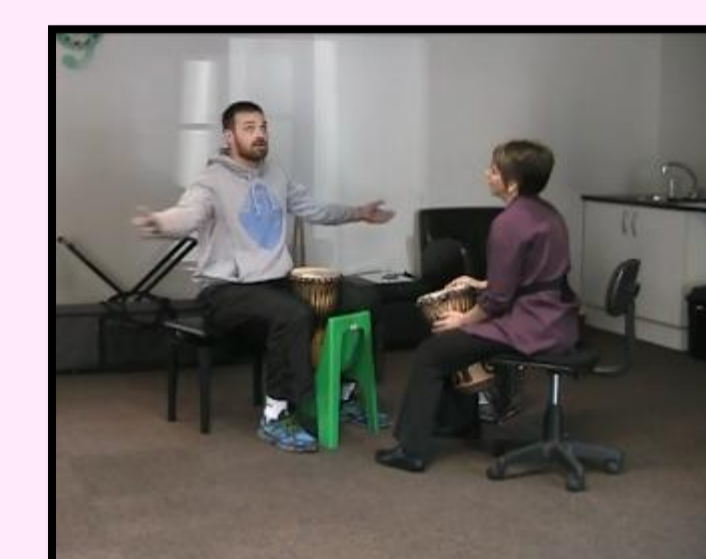
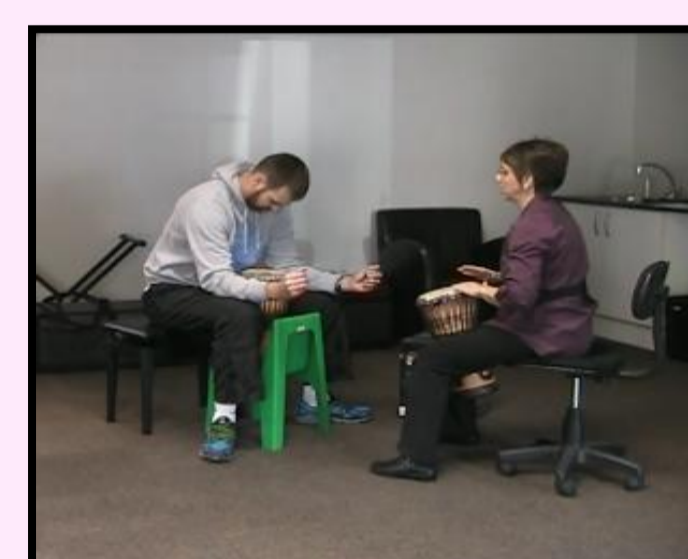


## Process (continued)



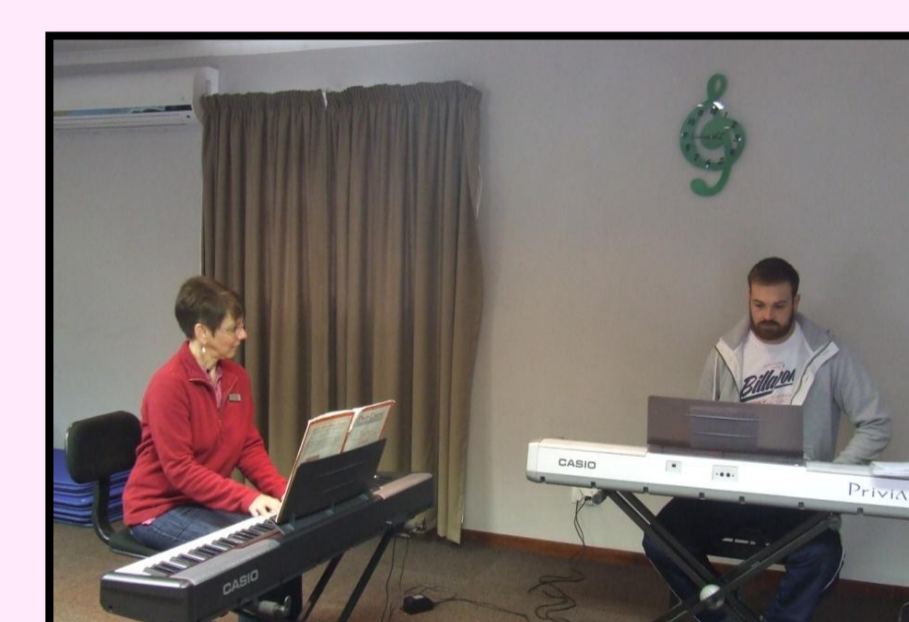
During the first sessions Eduan was only able to sustain audible sounds for around 12 minutes even when hands were alternated. There were also sessions where he chose not to play on the piano at all due to muscle fatigue.

These occasions naturally led to our THIRD FOCUS AREA where improvised music (mainly on djembe drums) was used to work psychodynamically with him. These sessions proved valuable, according to Eduan, as he had opportunities to express himself freely in a supportive therapeutic environment.



The FOURTH FOCUS AREA also evolved naturally from previous sessions as he developed a true interest in the reading of notes as well as the need to be able to perform "real music". In a similar case study, Turry (2005) refers to the value of performance for the client. Initially he learned to read in the C major five-finger position and then transposing this to G major and A natural minor. With this knowledge he could read simple songs from beginners' books and particularly enjoyed playing duets with the therapist on a second piano.

Eduan also chose songs, e.g. Amazing Grace, Kumbaya and Ode to Joy which were arranged to suit his abilities. He managed to play Ode to Joy accompanying himself with simple chords in the left hand. The other songs were performed as duets.



## Results

1. The degree of muscle control with which Eduan played was measured in terms of duration, dynamic levels and increasingly challenging exercises:
  - i. The duration of sustained playing started with 12 minutes, but by the end of the process was as long as 30 minutes.
  - ii. Using a weighted-key digital piano assisted in measuring the improved strengthening of finger muscles as dynamic control could be manipulated through the volume control button.
  - iii. The increasingly challenging exercises were employed successfully to indicate improvement of the finger-, hand- and arm extensions through the process.This could be the result of sustained practicing, time lapse from the beginning to the end of the process as well as motivation and his positive attitude.
2. Although *exercising of muscles* was the main goal, secondary goals were also achieved:
  - i. Learning of a skill, i.e. reading music and performing simple pieces and/or arrangements with another individual was a great personal achievement for him. This also contributed to a positive attitude regarding recovery.
  - ii. Opportunities to express emotions through improvisation and discussing these feelings were extremely valuable to him.

## Conclusion

The effect of being diagnosed with Guillain-Barré syndrome for a rugby player can only be imagined to be devastating. Music Therapy was recommended as an adjunctive therapy for the physical impact of this diagnosis. It proved to be helpful, but it also had additional benefits for Eduan: Affording him the opportunity to learn a new skill and enabling him to play pieces of his choice on the piano gave him a sense of achievement and motivated him to not get discouraged. Music was also the tool which he used, with the assistance of a therapist, to attend to his situation on a psychodynamic level.

### References

- Cafasso, J. 2012. Guillain-Barré syndrome. [Online]. Available: <http://www.healthline.com/health/guillain-barre-syndrome>. [Accessed: 1 May 2014].
- Turry, A. 2005. Music psychotherapy and community music therapy: questions and answers. *Voices: a world forum for music therapy*, 5(1).

### Acknowledgements

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\*Upon the client's request the author has chosen to use his real name throughout the presentation