One handed musicianship, more than a gimmick?!

There is more possible than you think!

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Overview presentation

- Introduction
- Functions of making music
- Definition of one hand dexterity
- One handed music making
  - General approach
  - Kind of instrument
  - Solutions
- Conclusion
- Questions
- Take Home Message
Introduction (1)

- Do you know the percentage of music making in the general population?
- Do you know the percentage of potential musicians among the population of people with a physical limitation?
Introduction (1)

- “Rehabilitation Expertise Centre for Music & Dance (REC-MD)”
  Out - & inpatient clinic, Revalidatie Friesland (NL)

- Prof./amateur musicians with
  - limitations caused by making music
  - limitations caused by chronic illness, trauma etc.

- People (children & adults) with a physical limitation, who want to play music.
Introduction (1)

• Do you know the percentage of music making in the general population?
  – 12% of western populations are active in music or dance,
  – 12% of the patient population?!
  – Few requests for help in this area for many reasons:
    • E.g. not knowing that you can ask for, due to reference patient and instrument maker,

• Adaptive making of music: much is possible!
Introduction (3)

• Goals presentation:
  – Creation of awareness,
  – Explanation how to handle this topic in a structural way,
  – Stretching frame of reference on the basis of examples, with collection of unique images.
Functions (adaptive) music making

- Similar to (adaptive) sports:
  - Motor function training (rehabilitation, bimanual training)
  - Hobby at home (besides watching TV, reading)
  - Profession/financial income
  - Social aspects (playing together with other people)
  - Emotional expression/regulation
  - Confirmation identity / self-confidence
One handed musicianship

- Functionally one handed:
  - Illness (weakness, paresis muscle, arthritis, polyneuropathy, stroke..)
  - Congenital disorder

- Amputation one-side

- Functional ‘clumsy’ with double tasking
One handed musicianship
General approach

• Doctor/therapist:
  – Expertise / access / time / network
  – New
  – Experience
  – Professional

• Good analysis of ‘request for help’
• Body examination
• Type of instrument
• Solutions
One handed musicianship
kind of instrument

- Wind instruments
  - Brass
  - Wood
- String instruments
- Percussion
- Digital instruments
One handed musicianship

Solutions

- Compensation for loss of power:
  - Suspension Straps / cords:
    - Fixation instrument
    - Reduction of weight instrument
    - Dependent from type of instrument

- Orthoses

- Standards:
  - Table
  - pin
One handed musicianship
Solutions 2

• One handed compositions

• Instrument reconstruction for one hand

• Adaptation instrument for the other hand

• Music prosthesis

• Making music with lower extremity
One handed musicianship
Solutions 3

• Compositions one hand
  – For the right hand
    handhttp://www.youtube.com/watch?v=jWXMNh1OKug&feature=player_detailpage
  – For the left hand
  – Forms in between:
    http://www.youtube.com/watch?v=VbhW_K3NvmQ&feature=player_detailpage
One handed musicianship

Solutions 4

• One handed instrument
One handed musicianship

Solutions 4

- Convert instrument to the other hand
One handed musicianship
Solutions 5

• Prostheses/orthoses

Prothesis: for the replacement of missing body part
Orthosis: for the support of a body part
One handed musicianship
Solutions 6

• Example 2 and 3

Movie
Conclusions

1. Participation in music \(\approx\) sports,
2. Many functions in making music,
3. Extra function for adaptive music making, (bimanual hand function training)
4. ‘Adaptive’: complex, time consuming, interdisciplinary approach, expensive,
   – Foundations: www.muziekotheek.nl
5. ‘Out of the box’ thinking necessary,
6. Role of the instrument constructor and orthopedic instrument constructor is important (Protheses, orthoses)
Questions?

Take home message…
Take home message

1. Consider the possibility of adaptive music-making,

2. (Adaptive) musicianship can contribute to quality of life in many ways,

3. In the case of pathology upper extremity: pleasant way of training, use of old (well trained) neurophysiological pathways in musicians...

Non handed musicianship

http://www.youtube.com/watch?feature=player_detailpage&v=u453W3kZi6w
Thank you for your attention!