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FORSCHUNGSINSTITUT
FÜR INKLUSION DURCH
BEWEGUNG UND SPORT

PED - Horse: Evaluation, Documentation



**Development of an ICF-based assessment-tool for the measurement
of equine assisted interventions: A multi-center evidence-based
approach**

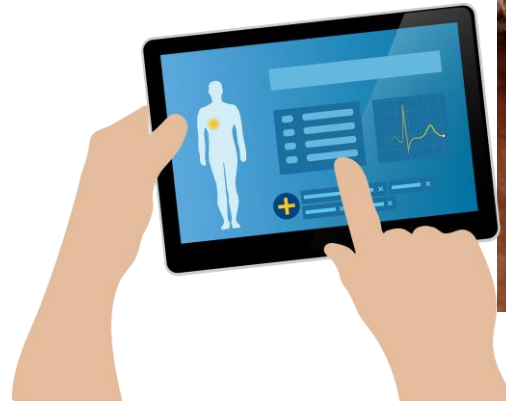
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HETI 2021  Widen the Spectrum
SEOUL

Agenda

- Introduction
- Study procedure
- Methods
- Results
- Discussion



Source: mcmurryjulie Pixabay



Introduction

- ICF-based assessment tools have been implemented widely in the international health and rehabilitation sector since the ICF has been defined as a standard to assess a persons functional health status (Imamura et al. 2014, Selb et al. 2017).
- The ICF framework including physiological, mental and social aspects seems to be suitable as a measure for the effects of EAT in a common international language (Borioni et al. 2011, Lanning et al. 2017).
- Variation of assessment and documentation of EAT depends on scientific discipline and country, therefore systematization and comparison of results is still difficult (Barzen 2020, Ekholm Fry 2013, Srinivasan et al. 2018).

PED Study

Objective: Development of a practicable and valid tool in the common language of the WHO, to adequately record therapeutic effects and document the course of therapy (duration: 01.09.2019 - 31.12.2021, Covid-19 extension of six month).

Two practical study-phases with a close linking of theory and practice

Phase I: 6 centers for equine assisted therapy in Germany.

Phase II: 24 centers for equine assisted therapy in Germany.

Funding: Share financing of 18.87% each by Imhoff Foundation, Kämpgen Foundation and Marga and Walter Boll Foundation.

Methods

Pilot-Tool construction: A pilot assessment-tool was developed on the basis of five focus group discussions with 21 experts from the field of EAT.

- Items for the pilot-tool were constructed on the basis of the gained qualitative data linked to the ICF classification system via the redefined Cieza' Linking Rules by two independent assessors (Cieza et al. 2005, 2016).
- Two-stage item selection by construct-oriented association procedure via expert ratings.

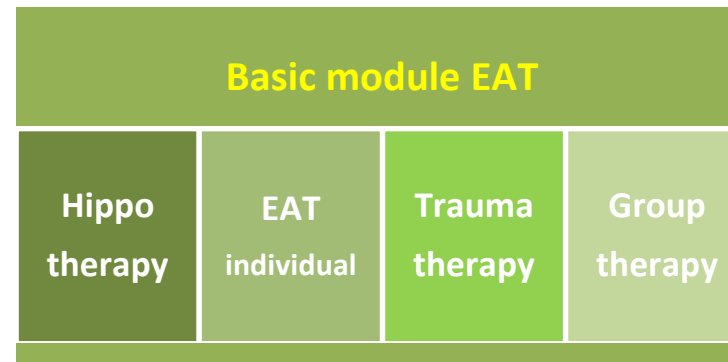
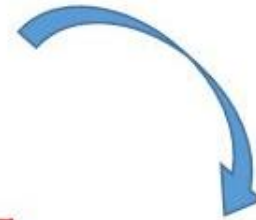
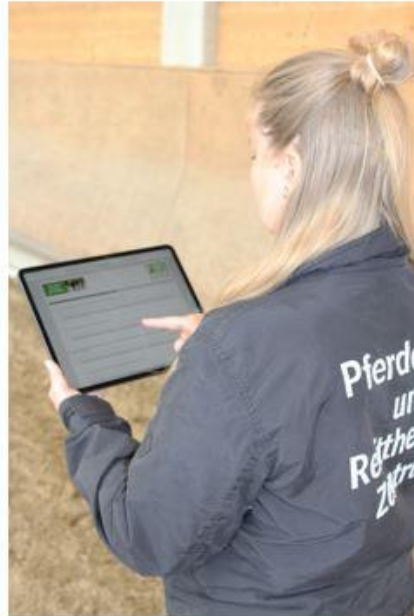


Figure 1: Modules of the Pilot tool

Practical usage demonstration



Item 28: the person/child can perform a fine motor movement task accurately



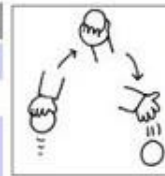
ICF illustration library

International Classification of Functioning, Disability and Health

ACTIVITIES AND PARTICIPATION

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CHAPTER 4
MOBILITY
▼
Carrying, moving and handling objects



Performing the coordinated actions of handling objects, hand, fingers and thumb, such as required to lift coins or

Inclusion
picking up, grasping, manipulating and releasing

exclusion
lifting and carrying objects (d430)

d440 Fine hand use

Results Practical study part I

Basic-module of functioning in EAT

Explorative factor analysis (N=116):

3 scales that explain 78% of the total variance of the module element

- Motor functioning scale (scale 1)
- Psychosocial functioning scale (scale 2)
- Mental functioning scale (scale 3).



Reliabilities were in excellent ranges ($\alpha = .96$; $\alpha = .96$; $\alpha = .95$),
the reliability of the total scale was $\alpha = .98$.

Example item

"The person/child is able to realistically assess his/her own abilities"

Results Practical study part I

Sub-modules EAT in the individual and group setting

Explorative factor analysis (IS=53, GS=43):

Each 2 scales that explain more than 72% of the total variance of the module elements

IS: Specific mental functions (scale 1) and specific motor functions (scale 2)

GS: Interpersonal functions (e.g. communication) (scale 1)

and intrapersonal functioning (scale 2)



Reliabilities were in good to excellent range for all sub- and global scales (range $\alpha = .98 - .89$).

Discussion

- The results provide strong support for a targeted and economic assessment of EAT via the scale structure of the developed basic module and subscales.
- All modules are characterized by a high degree of reliability in all sub-scales and the global scale.
- Items can be related to international health-related domains of the WHO.
- Systematization of therapy documentation on the basis of the ICF's common language can contribute to the evaluability and scientific foundation of EAT interventions.
- Post pandemic research should focus the translation and international validation of the German-language tool subsequently.

More exercise - more participation

Thank you!

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Further information about the scientific study part can be reviewed in the manuscripts:

Stolz, I., Tillmann, V., Anneken, V., Froboese, I. (2021).

Application of the ICF for the development of a standardized measurement-tool to assess equine-assisted therapy:
A quantitative approach. [in press].

Stolz, I., Tillmann, V., Anneken, V., Frerich, D., Froboese, I. (2021).

Equine assisted therapy and subdisciplines:
An explorative study on commonalities and differences. [in preparation].

***Literature can be obtained from the author**