Using the WHODAS 2.0 to describe the functioning of patients 6-12 months post-stroke within the Breede Valley, Western Cape, South Africa
Overview

- Background: Under-graduate Study
- Patient Reported Outcome Measures
- Recommendations: WHODAS 2.0
Introduction

- 4 Final year OT students, SU, 2013
- Ukwanda Research Unit
- Comparative study peri-urban vs rural
- Functioning and re-integration of stroke survivors in home and community environment
- Limited published data, especially rural context
- WHODAS 2.0
Background

• Stroke survivors who reside in the Breede Valley, Western Cape, have **limited access to rehabilitative services** and literature from other studies has shown that this contributes to functional limitations and inadequate community reintegration (Mayo et al, 2002, Algurén et al, 2012 and Rhoda 2012).

• **Patient reported outcome measures** (PROM’s) could be used to determine patients’ perceived function and reintegration into the home and community environment.
PROM’s

• **Questionnaires** used for the objective measurement of subjective constructs, such as an individual’s experiences and concerns in relation to their health and quality of life

• Focus on the patient’s perspective by capturing the individual’s report without further interpretation through a health professional or researcher

• **Routine administration** could generate evidence for the clinical effectiveness of health services from the patient’s perspective

(Kulnik and Nikoletou, 2014)
Aim

- To describe the re-integration of stroke patients
- 6-12 months after discharge from hospital
- in terms of their functioning in the community
- within a rural setting
- by making use of the WHODAS 2.0 36-item version (interviewer-administered) questionnaire as a measurement tool.
Definitions

- **Functioning** = level of functioning in terms of mobility, self-care, interaction with others, life activities and participation in society

- **Difficulty** = increased effort, discomfort/pain, slowness, having to do the activity differently

(WHO, 2010)
Method

• **Cross sectional survey** research design.

• Stroke patients that have been discharged from the **Worcester Hospital**, who reside in the **Breede Valley** sub district.

• Data was collected by using the **WHODAS 2.0 interviewer administered 36-item version**, in a face to face structured interview.

• The collected data was captured in a Microsoft Excel spreadsheet, and Statistica (version 10 of 2012) was used for data analysis.
Selection criteria

- **Included:**
  Males and females
  First stroke
  Independent living prior to onset of stroke
  Understand and respond
  6-12 post stroke
  Discharged directly from Worcester Hospital to the home environment.
  English / Afrikaans / isiXhosa

- **Excluded:**
  Specialised rehabilitation e.g. Western Cape Rehabilitation Centre

- Sample size = 20 participants (8 male, 12 female)
WHODAS 2.0

- **36 Items**, grouped in **six domains**: (a) cognition; (b) mobility; (c) self-care; (d) getting along with people; (e) life activities – subdivided into household activities and work/school activities; and (f) participation in society.

- For each item, respondents rate the **level of difficulty** experienced on a **five-point scale** from “none” to “extreme or cannot do”.

- **Domain scores** and an **overall disability score** are computed, each ranging from zero (indicating no disability) to 100 (indicating maximum disability).

(WHO, 2010)
Results

Degree of Difficulty

Number of Participants

- Cognition
- Mobility
- Self-care
- Relating
- Household
- Participation

Degree of Difficulty:
- None
- Mild
- Moderate
- Severe
- Can not do
Out of the 20 participants...

- 12 were living with assistance
- 9 experienced severe to extreme difficulties with self-care activities
- 9 experienced extreme difficulties with household activities
- 8 experienced severe to extreme difficulties with mobility
- 8 experienced severe to extreme difficulties with community participation
- 15 experienced no or mild difficulties with relating to other people
- 16 experienced no or mild difficulties with cognition
Limitations

- Limited demographic information
- Small sample size
- Domain and Disability scores not calculated
- English version used
- Excluding participants with cognitive and language difficulties
Conclusion

• Stroke survivors experience a range of activity limitations and participatory restrictions in ADL, meaningful activities, mobility and household activities.

• Use of the WHODAS 2.0 is highlighted as an instrument that can be used to identify activity limitations and participatory restrictions.

• Allowing health practitioners to better understand stroke survivors’ needs.

• Hence tailoring stroke related services accordingly.
Recommendations...

• The WHODAS 2.0, a generic patient-reported measure of disability, is considered as a potentially appropriate routine outcome measure for multi-disciplinary community rehabilitation services in the Breede Valley.

• Applying the WHODAS 2.0 questionnaire pre- and post-community rehabilitation could inform clinical teams about:
  - changes in patients’ perceived difficulties in life
  - individual patient management
  - overall clinical effectiveness of services

(Kulnik and Nikoletou, 2014)
Reasons for selecting WHODAS 2.0 over alternative outcome measures

(Kulnik and Nikoletou, 2014) (WHO, 2010)
• At face value, the content of WHODAS 2.0 comprehensively covers areas a multi-disciplinary community rehabilitation team might work on.

• Developed in conjunction with the WHO’s International Classification of Functioning, Disability and Health (ICF) and is therefore grounded in a comprehensive theoretical concept of human functioning and disability.

• Ratings given take into account assistive devices and personal assistance that are available. This incorporates social and environmental aspects of disability, constituting key components of community rehabilitation interventions.
• Items can be rated “not applicable”, thereby allowing for an individualized, person-centered approach, a key value in rehabilitation.

• Good psychometric properties.

• Valid across groups with heterogeneous medical background, accommodating heterogeneous service user groups common in community rehabilitation.

• Choice between self, proxy and interviewer-administered versions allows for flexibility when applying the questionnaire.

• Ease of use and availability.

• Afrikaans translation available.
However...

- Tends to favour a **medical construct** of disability.
- Caution when applying WHODAS 2.0 in contexts such as community rehabilitation, where **social aspects** of disability may be considered important.
- Further investigation of the measure’s **construct validity**.

(Kulnik and Nikoletou, 2014)

- Need for development of an **environmental factor module**.
- Only for use in **adult population** (over 18 years of age).

(WHO, 2010)
In summary...

- Bigger study, including other medical conditions (e.g. amputation, mental health, chronic diseases of lifestyle).
- Use at different levels of care: Hospital, Rehabilitation facility, Clinic, and home environment (e.g. Community Care Workers).
- Qualitative approach to accommodate social model.
- Xhosa translation.
- Afrikaans translation consider colloquial language (culture and level of education).
Acknowledgements

- Manisha Bhana, Zenith Standaar, Kate Johnson, Kristen Tittley
References

• Bhana M, Johnson K, Standaar Z and Tittley K. The functioning of stroke patients 6-12 months post-discharge within the rural sub-district of Breede Valley. Research report. June 2013.


• WHODAS 2.0 manual Measuring Health and Disability: Manual for WHO Disability Assessment Schedule – WHODAS 2.0 (WHO,2010).