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# Exploring Memory Impairment in a Rural Community in Tanzania: Trends and Reflections

Amanda Barry  
*Ohio Wesleyan University*

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# Exploring Memory Impairment in a Rural Community in Tanzania: Trends and Reflections

Amanda Barry

# Background

- ▶ Why memory impairment?
- ▶ Why Tanzania?
- ▶ Why the Maasai Tribe?
- ▶ HOW?






# The Plan

- GOAL: Quantify the prevalence of memory impairment in three Maasai villages in Tanzania and record how people with dementia-like symptoms are perceived by friends and family members
- Administer mini-mental status examinations (MMSEs) to any adult over 40
- For any participant who scores in the “memory impaired” category, family members will be asked to participate in a semi-structured interview (SSI)

Example MMSE.  
Adapted from  
Royner &  
Folstein, 1987

Maximum Score	Patient's Score	Questions
5		"What is the year? Season? Date? Day of the week? Month?"
5		"Where are we now: State? County? Town/city? Hospital? Floor?"
3		The examiner names three unrelated objects clearly and slowly, then asks the patient to name all three of them. The patient's response is used for scoring. The examiner repeats them until patient learns all of them, if possible. Number of trials: _____
5		"I would like you to count backward from 100 by sevens." (93, 86, 79, 72, 65, ...) Stop after five answers. Alternative: "Spell WORLD backwards." (D-L-R-O-W)
3		"Earlier I told you the names of three things. Can you tell me what those were?"
2		Show the patient two simple objects, such as a wristwatch and a pencil, and ask the patient to name them.
1		"Repeat the phrase: 'No ifs, ands, or buts.'"
3		"Take the paper in your right hand, fold it in half, and put it on the floor." (The examiner gives the patient a piece of blank paper.)
1		"Please read this and do what it says." (Written instruction is "Close your eyes.")
1		"Make up and write a sentence about anything." (This sentence must contain a noun and a verb.)
1		"Please copy this picture." (The examiner gives the patient a blank piece of paper and asks him/her to draw the symbol below. All 10 angles must be present and two must intersect.) 
30		TOTAL



# Quantitative Results


- ▶ Administered 45 MMSEs
- ▶ MMSE scores ranged from 8-28. The average score was 19.24 (SD=4.90).
- ▶ 16 individuals were identified as exhibiting potential memory impairment
  - ▶ 35.56% of our participants exhibited potential memory impairment\*
- ▶ Administered 14 follow-up SSIs



# NOT The Whole Story

- Cultural differences
- Collectivist vs. Individualist society
- Language barriers

# Edits to MMSE.

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30		TOTAL





# Qualitative Results

- ▶ Families do not feel a burden in caring for their aging family member
- ▶ There is no shame in memory impairment
- ▶ The term “dementia” was not used. Instead, “amnesia” or just “forgetful”
- ▶ Symptoms believed to be associated with old age, working hard, and sickness
- ▶ No medication use or treatment for symptoms\*
- ▶ Symptoms were reported in reference to daily tasks





# Future Directions

- ▶ MMSE or equivalent
  - ▶ In Swahili
  - ▶ Designed for more collectivist cultures
  - ▶ Non-Western measures of cognitive impairment



# Memorable Participants

- ▶ Woman, 88, received the highest score
- ▶ Man, 70, just appeared in the village wearing red from head to toe. No knowledge of person, time, or location. He handed us his ID for the information.
- ▶ Man, 70, was very aggressive and had to leave because his wife was making dinner. She was sitting in front of him.





