

Exploring Patient and Caregiver Response to Recommendations Following Neuropsychological Assessment With Feedback

Wendy Longley

MS Australia -ACT/NSW/VIC

Robyn Tate

University of Sydney

Tracey Shaw

MS Australia – ACT/NSW/VIC

Introduction cont.

❖ Exploring:

- What aspects of patients' status *prior to* providing recommendations might predict their response later to the recommendations?
- Two measures of patient and caregiver response:
 - ❑ **Helpfulness ratings** of the recommendations
 - ❑ **Adherence** to the recommendations
- Four broad types of potential influential variables:
 - **Demographic**
 - **MS status**
 - **Psychological**
 - **Cognitive**



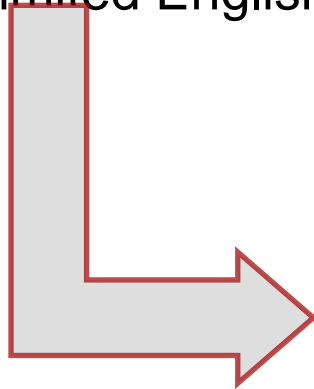
Method: Study sample - patients

Main eligibility criteria:

- ✓ MS diagnosed by neurologist
- ✓ Registered with “*MS Australia – ACT/NSW/VIC*”
- ✓ Referred for a non-urgent O/P NPsych Ax

Main exclusion criteria:

- ✗ Severe cognitive impairment (e.g. MS-related dementia)
- ✗ Severe psychiatric disorder (e.g. psychosis)
- ✗ Limited English



Main demographic characteristics:

- ☐ Total number 41
- ☐ Sex 61% Females
- ☐ Age 46.1 yrs (13.8)

Main MS characteristics:

- ☐ MS duration 11.2 yrs (10.8)
- ☐ Type of MS All types
- ☐ Mobility disability:
 - Walking unaided 58%
 - Using cane(s) 28 %
 - Using wheelchair 14 %



Method: study sample - caregivers

Main demographic characteristics of CAREGIVERS

<input type="checkbox"/> Total number	35
<input type="checkbox"/> Sex	51% Females
<input type="checkbox"/> Age	49.1 yrs (16.3)

Main caregiving characteristics:

<input type="checkbox"/> Duration of care	8.7 yrs (8.9)
<input type="checkbox"/> Relationship:	
▪ Spouse	60%
▪ Parent	23%
▪ Friend	11%
▪ Adult child	6%



Method: Procedure & Measures

1. *Prior to the Npsych Ax* – a **telephone questionnaire**
Measuring a wide range of psychological variables
(e.g. mood, coping style, self-efficacy)
2. **Npsych Ax** with feedback and **recommendations**
Main types of recommendations (*strategic*):
 - Management of **cognitive impairment**
 - Management of **psychological concerns**
 - Management of other issues
3. *After the Npsych Ax* - a follow-up **telephone questionnaire...**
 - ☐ **How helpful** was this recommendation (0 – 3 point scale)?
 - ☐ Has this recommendation been **followed** (Y/N)?



Method: Analysis

❖ Possible predictors of patient response (for variables measured *prior to* receiving the Npsych recommendations):

❑ **Demographic:** (3) Age, sex, education

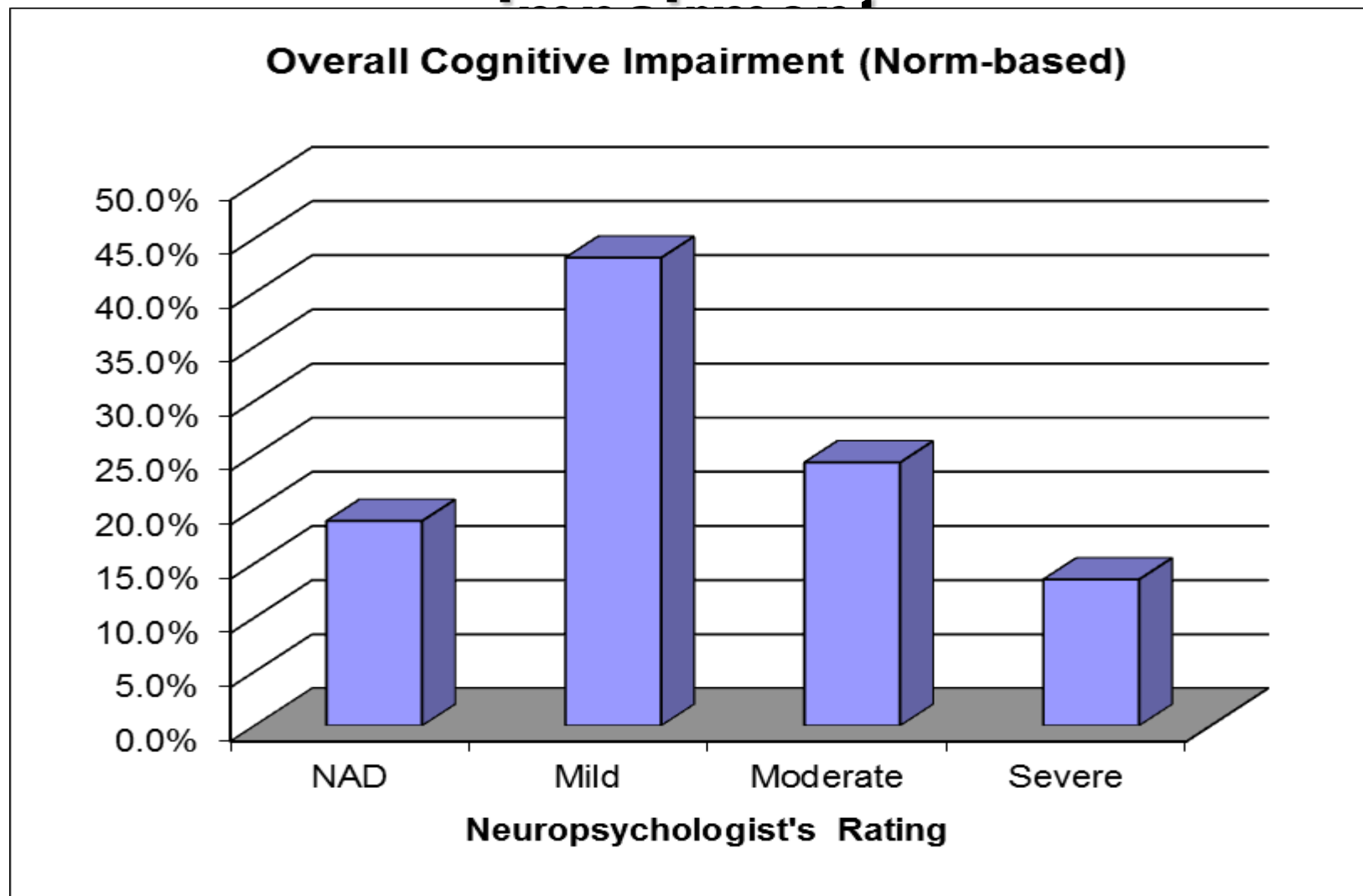
❑ **MS Status:** (2) Duration of MS, level of physical disability...

❑ **Psychological:** (22) Mood, MS self-efficacy, coping style, quality of relationship with carer, life satisfaction, & spontaneous use of memory compensation strategies

❑ **Cognitive:** (4) Objective memory functioning, self-reported everyday cognitive functioning, self-rating of cognitive



Results: Patients' cognitive



Results: Recommendations

- Total no. of recommendations / patient = **5.3** (SD = 2.0)
- Overall rating of helpfulness :
 - **Patients** = **2.5 / 3** (SD = 0.6) (“moderately”–“very” helpful)
 - **Caregivers** = **2.5 / 3** (SD = 0.7) (“moderately”–“very” helpful)
- Overall percentage of recommendations followed:
 - **Patient** = **69%** (SD = 21.4%)
 - **Caregivers’** rating of patient’s adherence = **64 %** (SD = 31.4%)
- Adherence rates **quite high** in comparison to other chronic illness populations
- Interestingly, patient and caregiver ratings of patient adherence to specific recommendations were **not** correlated



Predictors of **patients'** rating of adherence

- ❑ Adherence **not** related to ratings of helpfulness
- ❑ **Demographic variables (3)**
 - **NS** for predicting helpfulness, or adherence ($p > .01$)
- ❑ **MS Status variables (2)**
 - **NS** for predicting helpfulness, or adherence ($p > .01$)
- ❑ **Psychological variables (22)**
 - **NS** for predicting helpfulness, or adherence ($p > .01$)
- ❑ **Cognitive variables (4)**
 - **NS** for predicting helpfulness, or adherence ($p > .01$)
 - ... Including performance on objective memory tests



Predictors of **caregivers'** rating of patient adherence

- ❑ Adherence **not** related to ratings of helpfulness
- ❑ **Demographic variables (3)**
 - **NS** for predicting helpfulness, or adherence ($p > .01$)
- ❑ **MS Status variables (2)**
 - **NS** for predicting helpfulness, or adherence ($p > .01$)
- ❑ **Psychological variables (22)**
 - **NS** for predicting helpfulness, or adherence ($p > .01$)
- ❑ **Cognitive variables (4)**
 - **Most variables NS** for ratings of adherence ($p > .01$)
 - ... Including performance on objective memory tests



Predictors of **caregivers'** rating of patient adherence

□ Cognitive variables (4) *Continued...*

- Trend- **caregivers' rating** of patients' **cognitive impairment**
 - Domains of Cognitive Impairment—overall
 $r_{sp} = -.71, p = .01^{tr}$
- Trend- **caregivers' rating** of patients' use of **effort as a memory compensation strategy**
 - Memory Compensation Questionnaire – Effort
 $r_{sp} = .42, p = .02^{tr}$



SUMMARY & DISCUSSION (1)

- ❖ This exploratory study provides preliminary evidence that:
 - NPsych recommendations are generally rated as being **moderate - very helpful**
 - At least **63%** of recommendations overall are followed
 - Response to recommendations is NOT predicted by ratings of **helpfulness**, nor by **demographic** or **MS status** variables
 - NOR by **psychological** variables , most **cognitive** variables, ...including performance on objective memory tests



SUMMARY & DISCUSSION (2)

- However....there are some indications that patient adherence might be predicted by:
 - ✓ **Caregivers'** initial ratings of patients' **overall cognitive impairment**
 - ✓ **Caregivers'** initial ratings of patients' use of **effort as memory compensation strategy**
- But, **none** of a wide range of potential predictor variables **significantly** predicted patients' response significantly...



SUMMARY & DISCUSSION

- ❖ So, how best to measure patients' response to Npsych recommendations?
 - Perhaps via a '*type* of recommendation' analysis, targeting *specific* behaviours (when the sample is large enough to perform this sub analysis)?
 - Perhaps via logistic regression?
 - ??
- ❖ We will continue to explore this issue as we gather more data
- ❖ Further suggestions from this expert audience would be welcome

Thank you ☺

