The Menu Task: Do Errors Predict Performance of Instrumental Activities of Daily Living?
Victoria Larkin, OTS, Braeden Padesky, OTS & Dorothy Edwards, PhD

OCCUPATIONAL THERAPY PROGRAM, DEPARTMENT OF KINESIOLOGY, UNIVERSITY OF WISCONSIN-MADISON

Introduction

Background
• Older adults may have difficulty performing complex daily activities (IADLs) which are necessary to function independently.
• Successful IADL performance requires functional cognition which is the observable performance of everyday activities resulting from a dynamic interaction between motor abilities, activity demands and the task environment, which is guided by cognitive abilities.
• Assessments used in acute settings should measure functional cognition so that client’s with IADL deficits can be identified before discharge.
• The Menu Task was created as a measure of functional cognition.

Purpose
• To determine the reliability and validity of the Menu Task.
• To determine if task errors and initiation/inhibition errors on the Menu Task predict IADL function in older adults living independently in the community.

Hypothesis
• Lower scores on the Menu Task (more task errors and initiation/inhibition errors) will be associated with more deficits in IADLs.

Methods

Design
• Exploratory, descriptive, cross-sectional, prospective design.

Measures
• The Menu Task, PASS (medication task), Medi-Cog (recall, clock, medication task), MoCa (8 cognitive domains/executive functions), ADCS (questionnaire of everyday activities), BIMS (attention, orientation, memory), TMT A and B (processing speed, sequencing, visual-motor).

Analyses
• Mann-Whitney U test to compare median scores on ADCS and the Menu Task.
• A hierarchical multiple regression to determine if task errors and initiation/inhibition errors are able to predict independence in IADLs after controlling for education, age, BIMS scores, and numbers of chronic health conditions.

Participants
• 100 healthy adults over 55 living independently in the community.

Table 1. Demographic Characteristics and Scores on Study Measures

<table>
<thead>
<tr>
<th>N</th>
<th>Mean (SD), Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>100</td>
</tr>
<tr>
<td>Chronic Health Conditions</td>
<td>100</td>
</tr>
<tr>
<td>Education</td>
<td>100</td>
</tr>
<tr>
<td>Menu</td>
<td>100</td>
</tr>
<tr>
<td>ADCS</td>
<td>100</td>
</tr>
<tr>
<td>BIMS</td>
<td>100</td>
</tr>
<tr>
<td>Female (%)</td>
<td>69</td>
</tr>
<tr>
<td>White (%)</td>
<td>84</td>
</tr>
</tbody>
</table>

Table 2. Stepwise Regression of Variance in ADCS Scores

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>R Square Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.333&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.111</td>
<td>.111</td>
</tr>
<tr>
<td>2</td>
<td>.376&lt;sup&gt;b&lt;/sup&gt;</td>
<td>.141</td>
<td>.030</td>
</tr>
<tr>
<td>3</td>
<td>.377&lt;sup&gt;c&lt;/sup&gt;</td>
<td>.142</td>
<td>.001</td>
</tr>
<tr>
<td>4</td>
<td>.444&lt;sup&gt;d&lt;/sup&gt;</td>
<td>.198</td>
<td>.055</td>
</tr>
<tr>
<td>5</td>
<td>.535&lt;sup&gt;e&lt;/sup&gt;</td>
<td>.286</td>
<td>.088</td>
</tr>
<tr>
<td>6</td>
<td>.536&lt;sup&gt;f&lt;/sup&gt;</td>
<td>.287</td>
<td>.001</td>
</tr>
</tbody>
</table>

A Mann-Whitney U Test revealed a significant difference in Menu Task scores in individuals who were independent (Md = 9, n = 91) and dependent (Md = 6, n = 9) in IADLs, U = 181.5, z = -2.78, p = .005, r = .28.

Conclusions

• Individuals with IADL deficits did significantly less well on the Menu Task than those without deficits in IADLs.
• Task errors had a stronger relationship to IADL performance than initiation/inhibition errors, which could be due to limitations in the measure or sample.
• Test administrators observed clinical utility of the Menu Task but more research is needed to better understand the nonsignificant results of the initiation/inhibition errors.
• Future research should utilize a more sensitive measure of IADL performance with a larger and more diverse sample.

Implications for Practice

• The Menu Task has the potential to be used as a screening measure to identify older adults with functional cognitive impairments.
• If further research supports the results of this study, the Menu Task could help decrease hospital readmission rates.
• The Menu Task may increase the likelihood that individuals with functional cognitive deficits receive OT services before discharge.

References


Acknowledgments

We would like to thank Dr. Dorothy Edwards for her support and guidance with this project. We would also like to thank Dr. Brittany Travers, Muhammad O. Al-Heizan, Dr. Gordon Giles, Dr. Timothy Wolf and our colleagues Timothy Marks, Sarah Maloney, and Toni Solaru. A special thank you to our participants, Madison area senior centers, and Dane County Public Libraries for help with recruitment and for providing spaces for us to test participants. Support for this project was provided by the Gertrude Gaston Fund.