METHODS

Study design: Correlational predictive study

Participants: N = 44, 7 , 37 , mean age = 45 yrs

Inclusion Criteria: Dx of RRMS, 25-75 years of age, valid drivers license, Drove ≥ 1x/month in the past year, ≥ 5 years driving experience, Stable medications & dosage, No exacerbations 1 month prior to or during study, ≥24 in Mini Mental State Examination, Minimum visual requirements under GA law

RESULTS

Study Sample-Based Equations

<table>
<thead>
<tr>
<th></th>
<th>SDSA</th>
<th>On-Road (Fail)</th>
<th>On-Road (Pass)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fail</td>
<td>a = 8</td>
<td>b = 4</td>
<td></td>
</tr>
<tr>
<td>Pass</td>
<td>c = 2</td>
<td>d = 30</td>
<td></td>
</tr>
</tbody>
</table>

Accuracy = 86.36%, Sensitivity = 80%, Specificity = 88.24%

<table>
<thead>
<tr>
<th></th>
<th>SDSA</th>
<th>UFOV (Fail)</th>
<th>UFOV (Pass)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fail</td>
<td>a = 5</td>
<td>b = 0</td>
<td></td>
</tr>
<tr>
<td>Pass</td>
<td>c = 7</td>
<td>d = 32</td>
<td></td>
</tr>
</tbody>
</table>

Accuracy = 84.09%, Sensitivity = 41.67%, Specificity = 100%

INTRODUCTION

Approximately 250,000 people who are diagnosed with Multiple Sclerosis (MS) are licensed drivers. Few studies have examined the relationship between performance on an on-road driving test and cognitive tests in individuals with MS. SDSA is a battery of four that takes approximately 30 minutes to administer. It is predictive of on-road driving performance in individuals with stroke, Parkinson's Disease, Alzheimer's Disease and in older individuals.

OBJECTIVE

To determine the accuracy of the SDSA in predicting performance for on-road and UFOV tests in individuals with RRMS.

HYPOTHESIS

The SDSA will predict on-road driving and UFOV performance with high accuracy (≥80%) in individuals with RRMS.

STUDY SAMPLE- BASED EQUATIONS

Pass:
(DC false positive *7.0912) + (SMD*1.6134) + (SMC*0.5737) + (RSR*0.3042) - 35.0186

Fail:
(DC false positive *7.1088) + (SMD*1.5555) + (SMC*0.3784) + (RSR*0.0397) - 26.9649

STATISTICAL ANALYSIS

Clinical characteristics of our participants were analyzed.

The SDSA manufacturer's equation and the study sample-based equation were each used to calculate the accuracy with which the SDSA predicted on-road and UFOV performance.

LIMITATIONS:

Our study sample-based equation can only be applied to individuals with RRMS; limited sample size; no validation group; larger study with an independent group is needed to confirm these results.

REFERENCES: