INTRODUCTION

• Despite the recent downward trend in the incidence of dementia over the past decades, 5.4 million Americans live with Alzheimer’s disease and this number is expected to nearly triple by 2050.

• Behavioral interventions for dementia demonstrate the potential to reduce disease burden and avoid adverse effects associated with pharmacological interventions.

• To demonstrate the benefits of behavioral interventions for dementia, key stakeholders in healthcare must be aware of the costs of each intervention.

• Economic evaluation of behavioral interventions with respect to specific outcomes is crucial because it allows for comparison to usual care and/or other treatments.

• There is a need to standardize the collection of health economic measures in clinical trials evaluating non-pharmacologic interventions for dementia patients.

OBJECTIVES

To develop the Dementia Behavioral Intervention Cost and Outcomes Planner (DBI-COP), a tool to guide investigators in collecting health economic data when evaluating dementia behavioral interventions.

METHODS

• DBI-COP was developed based on a review of study protocols of four dementia behavioral intervention trials that included an economic evaluation. These four studies include:
  1) Adult Day Plus
  2) Maximizing Independence (MIND) at Home
  3) Tailoring activities for persons with dementia and caregivers (TAP)
  4) Care of Persons with Dementia in their Environments (COPE)

• For each protocol, study type, perspective, cost and outcomes measures were catalogued in an Excel database and incorporated into DBI-COP.

• Each measure was analyzed for frequency of use among studies and summarized in a table.

• Measures were then classified into the following groups: direct costs, indirect costs and effectiveness measures.

• Authors of this poster (LP, LG, EJ, KP) were involved in the design of the four trials.

• Ultimately, DBI-COP was constructed to be a thorough checklist of all measures that will assist investigators as they are collecting health economics data.

RESULTS

• With respect to healthcare service utilization, the measures evaluated in all four studies include:
  - Cost of inpatient services
  - Cost of outpatient services
  - Emergency department visits
  - Nursing home admissions

• However, the following measures were evaluated only in a single study:
  - Communication between team members
  - Costs of caregiver time for initial and follow-up meeting

• Caregiver travel costs

• DBI-COP, as a comprehensive list of measures, includes human and nonhuman aspects of intervention costs, social services costs, and costs of caregiver involvement and utility measures.

• Human costs included the cost of personnel delivering the intervention of control care, while nonhuman cost included supplies and materials needed.

• The distribution of different types of measures is presented in Figure 1.

• Costs measured were chiefly direct costs.

• The cost and outcomes measures consistently present across the four studies comprise both direct and indirect costs, as well as utility and willingness-to-pay measures (Figure 2).

Figure 1. Measures Comprising the Cost Analyses in the Four Studies

Figure 2. Overview of Cost and Effectiveness Measures in the DBI-COP Tool

<table>
<thead>
<tr>
<th>Measures</th>
<th>Cost</th>
<th>Effectiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interventions delivery</td>
<td>Direct</td>
<td>Indirect</td>
</tr>
<tr>
<td>Social worker utilization</td>
<td>Social worker travel</td>
<td>Caregiver travel</td>
</tr>
<tr>
<td>Supervision costs</td>
<td>Work outside of team members</td>
<td>Staff training</td>
</tr>
<tr>
<td>Materials</td>
<td>Medical device costs</td>
<td>Mileage</td>
</tr>
<tr>
<td>Mileage</td>
<td>Other costs</td>
<td>Other</td>
</tr>
</tbody>
</table>

CONCLUSIONS

• Given the growing societal interest in behavioral interventions to address dementia, the DBI-COP tool can guide health economic analyses of nonpharmacologic interventions for dementia and could potentially also be applied to pharmacologic interventions.

• Utilizing the standardized set of measures identified in DBI-COP will lead to consistency in the conduct of economic analyses for dementia and will help foster evidence-based decision-making.

REFERENCES


FUNDING DISCLOSURE

This study was funded by the following grants:

• TAP: RO1AG041781-02
• DBI-COP: R01AG045906-01A1
• DBI-COP: 1R01AG045906-01A1

Presented at 2016 ISPOR 21st Annual International Meeting, Washington, DC, USA.