Background
As effective medical treatments for dementia remain limited, there is heightened focus on early detection and strategies to mitigate cognitive decline. Cognitive retraining, physical activity, and socialization have been shown to have an effect on cognitive performance. In an effort to slow cognitive decline in an elderly Hispanic population in Florida, an educational and technology-based program that targets overall well-being and quality of life through a holistic approach was piloted. This program is one of a limited few to incorporate a multitude of strategies into one comprehensive strategy. The program also addresses the paucity of evidence regarding the effectiveness of cognitive decline interventions in Hispanic populations.

Objective
To evaluate preliminary patient-reported outcomes after the first 8 weeks of a 16-week holistic memory program for Hispanic patients with a diagnosis of dementia.

Methods
Study Design: Pretest/Posttest
Study Population: 30 evaluable dementia patients out of 48 originally recruited, eligible patients.

Intervention:
- Patients were referred to the program by a primary care physician or a neurologist.
- The program included a twice-a-week cognitive retraining program (computer or video game methodology) and educational seminars and homework covering nutrition, mindfulness, spirituality, and physical and emotional functioning.

Inclusion Criteria:
- Standard consent for treatment
- MMSE score ≥15
- Age ≥60 years

Exclusion Criteria:
- Any psychotic disorder

Outcomes: The following instruments were administered at baseline and at 8 weeks during a 16-week program:
- General functioning according to the Health Outcomes Survey (HOS):
  - General Health (10 points maximum)
  - Physical Pain (5 points maximum)
  - Physical Functioning (20 points maximum)
  - Emotional Functioning (15 points maximum)
  - Mental Functioning (5 points maximum)
- Global cognitive performance according to Mini-Mental Health Status Exam-2 (MMSE-2) (0-30)
- Memory according to the Subjective Memory Questionnaire (SMQ) (0-42)
- Stress according to Self-Reported Subjective Units of Distress Scale (SUDS) (1-10)
- Spirituality according to a Spirituality Questionnaire (SQ) (0-32)

Statistical Analyses:
- Pretest/posttest differences in HOS and spirituality scores were assessed using paired sample t-tests.
- The relationship between the MMSE-2, SMQ, and SUDS pretest/posttest scores were assessed using the Pearson's correlation coefficient.
- The α level was set a priori at 0.05.
- Individuals with any missing baseline or outcomes data were excluded from the analysis.

Results

Table 1. Patient Demographics

<table>
<thead>
<tr>
<th>Measure</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>30</td>
</tr>
<tr>
<td>Age, years</td>
<td></td>
</tr>
<tr>
<td>Mean (95% confidence interval)</td>
<td>78.2 (75.7-80.6)</td>
</tr>
<tr>
<td>Range</td>
<td>62-87</td>
</tr>
<tr>
<td>Gender, n (%)</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>6 (20)</td>
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<tr>
<td>Female</td>
<td>24 (80)</td>
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<tr>
<td>Race, n (%)</td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td>30 (100)</td>
</tr>
</tbody>
</table>

Physical and emotional functioning were significantly improved at 8 weeks.

Conclusions
- Preliminary 8-week findings suggest that cognitive decline and distress remained stable during the holistic memory program.
- Preliminary results also indicated consistency of treatment effects across individuals on global cognitive functioning and subjective memory ratings.
- Early signals of improved functioning and spirituality are encouraging for the full 16-week program.
- As a result of the positive findings in this preliminary analysis, a controlled study of the 16-week program was initiated.

Limitations
- Lack of a control group, the small sample size, and the short time frame limit the strength of conclusions.
- Since these results were based on only the first 8-weeks of intervention, a more rigorous evaluation of the complete 16-week program is warranted.
- The substantial exclusions because of missing data may have introduced bias if participants with missing data differed from participants who had full data.

References