Incorporating Childhood Games into The Memory Club Program

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30 Million People Worldwide are Affected by Alzheimer's
\( \frac{2}{3} \) of Those People Live in Developing Countries
Our Project
To incorporate participant’s childhood games into the Memory Club Program; to decrease anxiety and enhance their quality of life by improving their overall cognitive function.
The Memory Club
The Memory Club is a program for elderly people who experience memory loss issues.

- Discussion
- Game
- Art and Craft
Approach & Methods
Identify Additional Games

Research Games
- Identify Games and Arts & Crafts
- Develop Criteria
- Apply & Refine Criteria
- Rank and Pair Games
- Plan Lesson
- Complete Lesson Plan
- Observe
- Data Collection

Evaluate Games
- Feedback
- Evaluate success of Game
- Propose Suggestions for the Future

Assess Results
- Pre Test
- Post Test
- Compare Results

Timeline:
- January & February, 2019
- March, 2019
- April, 2019
- May, 2019
Community Outreach was the Most Successful Way to Identify Armenian Games
Identify Additional Games

Identify Games and Arts & Crafts

Develop Criteria
Apply & Refine Criteria
Rank and Pair Games
Plan Lesson
Complete Lesson Plan
Observe
Feedback
Evaluate success of Game

Pre Test
Post Test

Data Collection
Propose Suggestions for the Future
Compare Results

Assess Results
Evaluate Games
Research Games

January & February, 2019
March, 2019
April, 2019
May, 2019
Games that Passed Through the Filters Were Ranked Using the Scaled Items
Games Were Paired with Arts and Crafts in a Complementary Fashion to Maximize Benefits

![Diagram showing the relationship between Familiarity, Enjoyability, Social Interaction, and The Participants’ Impairments]
Data was Collected Using Three Different Methods

- Observations
- Survey
- Photographs
Changes in Cognitive Function and Anxiety Were Measured By Two Standardized Assessments

Montreal Cognitive Assessment (MoCA)

Geriatric Anxiety Scale 10 Item (GAS-10)
Results of the MoCA Test Were Opposite the Predicted Outcome

MoCA Differences

Program Participants

Comparison Group

Avg: -0.5

Avg: 1.35
Several Factors Contribute to Unreliable MoCA Test Data

- Timing of Test
- Inconsistent Scoring
- Lifestyle
The Results of the GAS-10 Were as Expected

Avg: -1

Avg: 0.9
Participants of the Memory Club Had A Larger Reduction in Anxiety than the Comparison Group

- **Participants**: 62%
- **Comparison Group**: 50%
The Memory Club Was a Success Despite Scoring Challenges
The Games Manual Condenses All of Our Findings and Recommendations into One Location

Game Title & Description

Instruction & Rules

Pictures

Materials & Amounts

Cognitive Function

Cognitive Difficulty
Successful Games Have Two General Traits: Competitive and Familiar

Familiar

Competitive
Unsuccessful Games Have Two General Traits: Not Familiar and Too Complex
Checkers, Lotto, Dominoes, Broken Telephone, Hidden Figures, Zelena, and Puzzles Should be Implemented

<table>
<thead>
<tr>
<th>Staple Games</th>
<th>Backup Games</th>
<th>Unsuccessful Games</th>
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<tbody>
<tr>
<td>1. Lotto</td>
<td>1. Halamola (Hidden Figures)</td>
<td>1. Concentration</td>
</tr>
<tr>
<td>2. Checkers</td>
<td>2. Broken Telephone</td>
<td>2. Backgammon</td>
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<tr>
<td>3. Dominoes</td>
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<td>3. Tag Saruh</td>
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<tr>
<td>4. Zelena</td>
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<td>5. Jigsaw Puzzles</td>
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Aspects of the Program To Be Included in Future Memory Clubs

Structure of the Program

Games Available at the Facility

Volunteer Program
Recommendations Section

- Future Memory Clubs
  - The Games Booklet
  - Logistics
- Research Studies
Changes Should be Made for Future Research Studies of the Memory Club

- Minimal Social Interaction
- Elimination of other Memory Club Elements
- Standardized Scoring
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