Adapted Collaborative Care for Geriatric Depression Severity Reduction and Life Quality Improvement

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Background and Purpose

- Depression affects approximately 10% of the older adult primary care population, is often accompanied by functional impairment, and may be effectively managed through collaborative care (CC) \(^8,9,10\).

- CC encompasses 5 key components:
  - Regular individual provider-participant encounters
  - Administration of validated instruments (post-education\(^1\))
  - Interprofessional provider collaboration
  - Assessment of participant goals
  - Cognitive-Behavioral Activation Techniques
    - Problem Solving Therapy (PST) influences
    - Case Management Service (CM) influences

- PubMed review confirmed CC efficacy in reducing depression severity and improving life quality (QOL) among depressed older adults.

- Purpose of this non-funded clinical quality improvement initiative (implemented 2016-2017) was to reduce participant depression severity and improve QOL through use of an adapted CC model at the project setting (one location of a Program of All-Inclusive Care for the Elderly provider in the Eastern United States).
Instruments

- Montreal Cognitive Assessment (MoCA)
  - Validated to assess functional cognitive status\textsuperscript{6}
  - Administered in-person (per existing facility standards of care)
  - Evidence-based cutoff scores utilized

- Patient Health Questionnaire 9 item (PHQ-9)
  - Validated depression severity assessment tool\textsuperscript{2,3,5}
  - Validated for administration over the phone\textsuperscript{7}
  - 9 questions summated on 0-27 scale (0 = lowest symptom severity, 27 = highest symptom severity)

- Quality of Life Assessment (QOLA)
  - One-question item inspired by the Linear Analogue Scale Assessment (LASA)
  - LASA validated assess quality of life (QOL)\textsuperscript{4}
  - Measured on 0-10 scale (0 = lowest QOL, 10 = highest QOL)
Preparation and Implementation

- One group, pre-post comparison, quasi-experimental design
- **Phase 0:** providers educated about older adult depression and implementation of collaborative care by a licensed psychiatrist
- **Phase 1:** individual in-person screening of potential, consenting participants
- **Phase 2:** data collection during intervention implementation and evaluation
  - Social worker or behavioral health specialist initiated encounters every other week.
  - Providers followed one participant group throughout the intervention.
  - Encounters could be refused (not discontinued).
- **Data collected with each participant CC encounter included:**
  - Date and duration of encounter
  - Individual goal assessment and evaluation
  - PHQ-9 and QOLA scores
  - Adverse responses to any current therapies
  - Response to PST-CM (and other notes)
Sample and Demographics

- **Inclusion criteria:**
  - Verbal consent to participate, active program participant
  - MoCA score of at least 20/30 or 15/22 (blind)
- **Exclusion criteria:**
  - Participants with severe debilitations and impairments from psychiatric conditions other than depression
  - MoCA score below minimum requirements
- 37 eligible for screening, 34 consented to participate, 21 met inclusion criteria (2 lost to natural attrition)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Sample Representation (n = 19)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male (biological)</td>
<td>5</td>
</tr>
<tr>
<td>Female (biological)</td>
<td>14</td>
</tr>
<tr>
<td>Caucasian</td>
<td>13</td>
</tr>
<tr>
<td>African-American</td>
<td>6</td>
</tr>
<tr>
<td>Age in years (mean / range)</td>
<td>73 / 56 - 88</td>
</tr>
</tbody>
</table>
Results

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Mean (Pre)</th>
<th>Mean (Post)</th>
<th>Analysis*</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHQ-9 (mean / range)</td>
<td>14 (5 – 23)</td>
<td>8.3 (1 – 20)</td>
<td>$p &lt; 0.001$</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>$\sigma = 6.202$</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>95% CI (3.168 – 8.096)</td>
</tr>
<tr>
<td>QOLA (mean / range)</td>
<td>5.7 (0 – 10)</td>
<td>6.5 (0 – 10)</td>
<td>$p = 0.324$</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>$\sigma = 2.43$</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>95% CI (-1.9 – 0.675)</td>
</tr>
</tbody>
</table>

*p significance set at <0.05; $\sigma$ = standard deviation

<table>
<thead>
<tr>
<th>Measure</th>
<th>Range</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration (in minutes)***</td>
<td>2 - 35</td>
<td>15</td>
</tr>
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</table>

**rounded to the nearest whole minute
Project Discussion

- Reduction in depression severity was statistically and clinically significant.
- Improvement in QOL was clinically significant.
- Providers reported overall satisfaction and minimal increased work burden with collaborative care implementation.

Project limitations:
- Convenience sampling employed
- Small sample size used
- No randomization nor independent control group
- Numerous potential confounders

Areas for future consideration:
- CC for younger depressed adult populations
- Optimal frequency of CC encounters
- Longer-term CC implementation and follow-up
DNP Considerations

- Determine available project resources and facility goals prior to formulating plans or interventions.
- Consider broader participant population and generalizability of potential findings.
- Align project with program of training and with overarching professional intentions.
- Catalyze clinical advancement with known, proven methodologies.
References


