USC Judith D. Tamkin Symposium on Elder Abuse
Closing the Research Gaps – Moving the Field Forward

Innovative Research Approaches

Goal Attainment Scaling
Collaboration

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Measurement Challenges in the Context of Community-Based Elder Mistreatment Response Programs

How do we measure the effectiveness of elder abuse interventions when the nature of the problem and the definition of success is different across cases?
Knowledge Gap

Effective Elder Abuse Interventions

Secondary Prevention
Central Outcome Indicator of Intervention Program Success

Extent to which a program can alleviate mistreatment re-victimization risk in accordance with an older adult client’s self-determined notion of problem resolution
Central Intervention Outcome

Case 1

Case 2

Case 3

Case 4

Case 1

Case 2

Case 3

Case 4
Standardization

Multiple Realities
Goal Attainment Scaling
What is Goal Attainment Scaling (GAS)?

- A client-centered or “clinometric” measure of client change (or change in case status) over the course of intervention
- Each case is assessed on a different, individualized set of goal items
- Goals are established that reflect the client’s objectives and construction of success.
- Summary score is transformed into a standardized t-score for comparison across cases
GAS Used Extensively

GAS has demonstrated feasibility, reliability, validity, and/or responsiveness in several fields:

- Physical rehabilitation (paediatric, adult, geriatric)
- Brain injury rehabilitation
- Spasticity
- Pain management
- Geriatric care
- Occupational therapy
- Autism
- Cerebral palsy
- Multiple sclerosis
- Intellectual disabilities
- Vocational rehabilitation
- Etc.
Where Does GAS Fit in APS Practice?

Referral Intake
Investigation Phase
Substantiation Decision
Intervention Phase
Case Closure

Goal Attainment Scaling
How Does GAS Work?

Post-Substantiation/Pre-Intervention

- Collaborative client-practitioner process to identify mutually understood goals, tasks, and expectations
- Each goal is defined and measured on a five-point scale from -2 to +2

Referral Intake  Investigation Phase  Substantiation Decision  Intervention Phase  Case Closure

t1

Set goals with client (treatment planning)
How Does GAS Work?

Case Closure

- Client status is assessed against each five-point scale
- Each goal score is entered into a GAS formula that generates a standardized score

Referral Intake  Investigation Phase  Substantiation Decision  Intervention Phase  Case Closure

Score goals
Five-Point Goal Scale

Each goal that is set with client has the same 5-point ordinal scale structure

<table>
<thead>
<tr>
<th>Much less than expected</th>
<th>Somewhat less than expected</th>
<th>Expected client outcome</th>
<th>Somewhat better than expected</th>
<th>Much better than expected</th>
</tr>
</thead>
<tbody>
<tr>
<td>-2</td>
<td>-1</td>
<td>0</td>
<td>+1</td>
<td>+2</td>
</tr>
</tbody>
</table>
GAS Formula

\[
GAS\ Score = 50 + \frac{10 \sum(WiXi)}{\sqrt{((1 - \rho)\sum Wi^2 + \rho(\sum Wi)^2)}}
\]

Wi is the weight assigned to the i-th goal; Xi is the numerical score achieved for the i-th goal; and ρ is the expected correlation of the goal scores
Goal Attainment Scaling

• Represents a promising alternative to use on its own or alongside standard scales
• Measure change on an individualized set of goal items that collectively seek to reduce the broader construct of re-victimization risk
• Goals are also selected and defined in a manner that is congruent with a client’s notion of success
Current Study

Setting: State of Maine APS

Objective: Adapt GAS into the APS context to measure change in client re-victimization risk status over the course of intervention towards individually constructed outcomes of problem resolution

1) Pilot feasibility of GAS in the APS context using application (app) software technology
2) Examine GAS psychometric properties of reliability, validity, and responsiveness
GAS Application - Original

1) Client and practitioner collaborate and achieve mutual understanding about the domains of risk contributing to the potential for re-victimization

2) Client and practitioner collaborate to develop plan of action (or treatment plan) with individualized set of goals that address each risk domain – includes mutual understanding about goal outcome expectations and perceptions of success

3) Client/practitioner or practitioner alone develops five-point scales for each goal from scratch

4) Client/practitioner or practitioner alone scores each goal scale

Overly time-consuming and arduous in busy clinical settings
Adapted GAS Application:
Pre-Worded Goal Menu

- Involves client and practitioner selecting pre-worded goal scales from a menu of goals routinely encountered with the specific client population

- Only select pre-populated goals that are relevant to a given client’s situation

- Flexibility to apply goal scales in the template pre-populated form or edit them to more closely align with a client’s unique circumstances and perceptions

- In some cases, practitioner may need to develop a goal scale from scratch if the goal is not represented on the menu
GAS Study – APS

Phase 1
Construct Pre-Worded Menu of GAS Goals/Scales
• Iterative group process with practitioners and managers
  ➢ 19 goals/scales to date
• In-vivo application with clients to add goals/scales
• Menu will expand over time towards exhaustiveness

Phase 2
Prospective study to pilot the feasibility and validity/reliability/responsiveness of GAS in APS context
## Goal Scale Examples

**Living Arrangement Separation – Evict Perpetrator**

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>+2</td>
<td>Perpetrator is evicted with final order of protection and does not attempt to access house</td>
</tr>
<tr>
<td>+1</td>
<td>Perpetrator is evicted with a temporary order of protection that the client chooses to enforce</td>
</tr>
<tr>
<td>0</td>
<td>Perpetrator is evicted with a temporary order of protection that the client chooses not to enforce</td>
</tr>
<tr>
<td>-1</td>
<td>Perpetrator is removed from the home without a Court Order but then continues accessing the home</td>
</tr>
<tr>
<td>-2</td>
<td>No order of protection sought, perpetrator is living in home</td>
</tr>
</tbody>
</table>
## Goal Scale Examples

### Social Engagement – Community Integration (Participation in Adult Day Care Centre, Senior Centre or Day Programs)

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>+2</td>
<td>Attend adult day center more than once per week regularly for multiple activities/hours</td>
</tr>
<tr>
<td>+1</td>
<td>Attend adult day center once per week regularly for multiple activities/hours</td>
</tr>
<tr>
<td>0</td>
<td>Attend adult day center once per week regularly for one activity/hour</td>
</tr>
<tr>
<td>-1</td>
<td>Attend adult day center once and not return</td>
</tr>
<tr>
<td>-2</td>
<td>Does not attend adult day center at all</td>
</tr>
</tbody>
</table>
GAS Study APS Application

Web-Based App Demo
Possible Next Steps

Item Banking

• Develop one or more unidimensional banks of goal scales that have been calibrated into linear terms
• Allows us to perform summation of individual goal scores and multiplication functions in the GAS formula with a higher level of validity
• Provides an even more standardized way of using GAS to ensure inter-rater reliability
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