Goal Attainment Scaling: Measurement of Student Learning and Teaching Clinic Outcomes: Program Evaluation in Progress

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The WMU OT Teaching Clinics provide faculty-supervised Level I fieldwork while meeting the needs of the local community through subsidized and/or specialized care. While these programs have been well-regarded in both the professional and local community, there has been no formal program evaluation in place across all clinics to validate the efficacy of both student learning and client outcomes. The purpose of this study was to evaluate:

1. Student learning
2. Client goal attainment
3. The relationship between student learning and client goal attainment

Method

A one-group pretest-posttest design was used for both student and client groups. A correlational study of the relationship between student goal attainment and client goal attainment was also conducted.

The Outcome Measure: Goal Attainment Scaling (GAS) is a methodology for measuring individual and program goal attainment. This tool was originally developed by Kiresuk and Sherman (1968) for practitioners in mental health. GAS involves the use of interviews during goal-setting and re-evaluation to determine progress and, as an outcome measure, often incorporates results of other assessments. The GAS provides a structured framework for identifying specific, measurable, and objective goals using a five-point numerical scale of +2 to -2. The GAS allows for a comparison of scores among multiple subjects with different goals, making it useful for program evaluation as well (Chapleau, Seroczynski, Meyers, Lamb & Buchino, 2012; Jones, Walley, Leech, Paterson, Common & Metcalfe, 2006; Ottenbacher & Cusick, 1989; Schlosser, 2003).

Preliminary Results

Pilot Study: Fall Semester 2013
• Faculty training at Fall Retreat and start of semester for adjunct faculty
• Hard copies of GAS templates and instruction packets provided to each clinic
• Midterm review of goal status
• Data collection and analysis upon receipt of all GAS forms

Full Implementation: Spring Semester 2014
• GAS training was conducted for clinic supervisors in December 2013.
• PI and clinic supervisors provided initial GAS training session for students.
• During this session, students were assisted in developing an individualized learning goal. Both PI and clinic supervisor reviewed and approved forms to ensure documentation was thorough, relevant, and scaled accurately.
• Midterm review of goal status was completed.
• Final data collection and analysis is scheduled for April/May, 2014

<table>
<thead>
<tr>
<th>Goal Attainment Levels</th>
<th>Goal 1</th>
<th>Goal 2</th>
<th>Goal 3</th>
<th>Goal 4</th>
<th>Goal 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score</td>
<td>-2.00</td>
<td>-1.50</td>
<td>-1.00</td>
<td>-0.75</td>
<td>-0.50</td>
</tr>
<tr>
<td>1.00</td>
<td>0.25</td>
<td>0.50</td>
<td>0.75</td>
<td>1.00</td>
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<td>1.75</td>
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</tr>
<tr>
<td>2.50</td>
<td>3.25</td>
<td>3.50</td>
<td>3.75</td>
<td>4.00</td>
<td>4.25</td>
</tr>
</tbody>
</table>

Student Learning Goal Attainment:
There is a statistically significant difference between baseline and final student goal scales; the final mean scale is higher based on overall means (p=.0001).

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>T</th>
<th>df</th>
<th>LL</th>
<th>UL</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>GAS 3 Baseline</td>
<td>46</td>
<td>0.6096</td>
<td>0.4526</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>GAS 4 Final</td>
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<td>0.997</td>
<td>1.0928</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Client Goal Attainment:
There is a statistically significant difference between baseline and final scores for both client goals based on the results of a paired samples t-test.

<table>
<thead>
<tr>
<th>Group Mean in Client’s Scale, Fall 2013</th>
<th>Group Mean in Client’s Scale, Spring 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal 1</td>
<td>Goal 2</td>
</tr>
<tr>
<td>Goal 1</td>
<td>Goal 2</td>
</tr>
<tr>
<td>Goal 1</td>
<td>Goal 2</td>
</tr>
<tr>
<td>Goal 1</td>
<td>Goal 2</td>
</tr>
</tbody>
</table>

Discussion

Preliminary findings of this study support the use of GAS as both a program evaluation tool and a relevant measure of student learning:

1. Students in both Practicum I and II were able to achieve expected or better than expected goal attainment of their individualized learning goal.
2. Client goal attainment was achieved at an expected or better than expected level for both clinical goals selected by the student and/or client.
3. There was no significant relationship between student goal attainment and client goal attainment (p=.05). A possible explanation for this is a lack of power due to small sample size.

Lesson Learned

The Fall 2013 pilot was implemented with selected faculty clinic supervisors who were familiar with GAS and were able to train their students in the GAS process. However, through ongoing faculty discussions, it was determined that additional training and support would be beneficial for both supervisors and students. As a result, the following changes were made for the Spring 2014 semester:

• The PI directly provided GAS training to the majority of clinics during the first two weeks of the semester. During this training, students were assisted in identifying and scaling their learning goal. This allowed the PI to collect all forms upon completion for timely data entry. An added benefit: Students seemed to appreciate learning about the program directly from the PI who was able to “share the vision” and personally thank students for participating in the study.
• Electronic versions of the GAS templates and more detailed instructions with time lines were created for the Spring 2014 semester for greater ease of data collection of client goals.

Future Work

Seek funding for a second-year, expanded interdisciplinary program at the Unified Clinics:
• Occupational Therapy, Speech Pathology and Audiology, and Music Therapy Clinics
• Develop GAS electronic medical records
• Utilize GAS documentation to support compliance with new accreditation standards

Acknowledgements

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