

2014

Building Capacity for Evaluating Outcomes in Therapeutic Riding: A Collaborative Approach



Cathy Smith Hybels, Ph.D.

Therapeutic Riding Assessment of Impact
Network (TRAIN) Interim Progress Report

8/25/2014

BRIEF PROJECT DESCRIPTION:

Motivation

The motivation for this project came from the desire to provide greater accountability to clients, caregivers, funders, community, and staff regarding the outcomes of therapeutic riding (TR) programs and their impact on participants, including those with posttraumatic stress disorder (PTSD). This project was also motivated by the desire to accelerate industry progress in outcomes evaluation through use of a collaborative approach.

Purpose

The purpose of this project is to advance understanding of the impact of therapeutic riding on program participants and to build the TR industry's capacity for gathering, summarizing, and communicating effectiveness data.

This project will involve:

- (1) gathering and analyzing evidence from several independent TR centers regarding the impact of TR programs on participants, with special emphasis on information obtained from participants with PTSD
- (2) determining the value of efforts to assess TR outcomes through use of common outcomes evaluation methods and uniform evaluation procedures at TR centers of different sizes

Project Deliverables

By the end of 2014, the Therapeutic Riding Assessment of Impact Network (TRAIN) expects to deliver:

1. A summary of the evidence gathered regarding outcomes for participants in TR programs
2. Assessments of evaluation method utility and desirability from instructors, executive directors, and volunteers at the four participating TR centers
3. Web-based tools for use by member centers to assist with evaluation activities
4. Recommendations from the member centers on the desirability of continuing TRAIN and expanding membership to other centers
5. A final project report

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Therapeutic Riding Assessment of Impact Network (TRAIN) Participants

1. **High Horses Therapeutic Riding Center, Wilder, VT**
 - a. Liz Claud, Executive Director
 - b. Susan Goodell, TR Instructor
 - c. Betsy Medinger, TR Instructor
 - d. Amanda Lamoureux, TR Instructor
 - e. Lasell Bartlett, TR Instructor
2. **High Hopes Therapeutic Riding Center, Old Lyme, CT**
 - a. Liz Adams, TR Instructor and Program Director
 - b. Courtney Bernard, Volunteer Coordinator
 - c. Kitty Stalsburg, Executive Director
 - d. Carrina Echeandia, TR Instructor
 - e. Imanol Echeverria, TR Instructor
 - f. Laura Moya, TR Instructor
 - g. Lauren Fitzgerald, TR Instructor
 - h. Sarah Carlson, TR Instructor
3. **UpReach Therapeutic Riding Center, Goffstown, NH**
 - a. Kristen McGraw, TR Instructor and Program Director
 - b. Karen Kersting, Executive Director
4. **Southern Vermont Therapeutic Riding Center, Newfane, VT**
 - a. Lorna Young, TR Instructor and Program Director
5. Cathy Smith Hybels, Project Consultant

APPROACH:

Background

While horseback riding is widely recognized as a recreational or sporting activity, therapeutic riding (TR) is gaining attention for its value as an alternative way to help heal, strengthen, and improve the minds, bodies, and lives of people with physical, cognitive, social, or emotional needs. As the attention to TR grows, there is heightened demand for evidence demonstrating the efficacy of this therapeutic approach.

The extant literature on TR effectiveness offers little to guide TR centers interested in selecting an outcomes evaluation system to match their needs. Much of the literature consists of testimonies acclaiming the benefits of TR. While testimonial evidence is helpful for drawing attention to alternative forms of therapy and for suggesting links between treatments and important outcomes, it is not considered to be reliable evidence of a treatment's effect and supplemental evidence is needed.

A small body of research on TR effectiveness has recently begun to emerge that utilizes more science-based methods for measuring outcomes. These studies offer more credible evidence linking specific TR activities to specific outcomes. However, there are limits to the generalizability of their conclusions, since the conclusions drawn pertain only to TR participants who match the age and diagnostic inclusion criteria used in the study and who receive similar treatment. While such research contributes a great deal to the body of knowledge about TR effectiveness, it offers little to guide TR centers on how to measure the impact of a wide breadth of programs on the variety of people who participate.

TR centers do not receive much guidance regarding evaluation systems from the professional association responsible for accreditation and continuing education. The therapeutic horsemanship industry's largest professional organization, the Professional Association for Therapeutic Horsemanship International (PATH Int'l), recommends that member centers routinely evaluate participant outcomes, but it offers neither education nor training in outcomes evaluation, nor does it endorse any particular evaluation methods. With little to no direction from the literature or the TR professional association, it is little wonder that routine outcomes evaluation remains elusive for most TR centers.

Motivated by the desire to be more accountable for its results, the Vermont-based High Horses TR center took on the challenge of designing and testing an outcomes evaluation system on its own. With grant funding for this purpose, their original strategy was to pilot test the Goal Attainment Scaling method in a single session of a TR program, then decide whether or not the system had potential to serve the center's evaluation needs on a broader scale.

The Goal Attainment Scaling (GAS) Method

Why choose GAS? GAS reflects a client-centered approach to service delivery that is consistent with the TR approach. It was first introduced by Kirusek and Sherman (1968) for assessing outcomes in outpatient mental health settingsⁱ. This outcomes evaluation method has been extensively studied, and has gained credibility for use in situations which warrant a multidimensional and individualized approach to treatment planning and outcome measurement. It has been widely used to demonstrate clinically important changes in a variety of settings relevant and allied with TR, including mental health, social services, rehabilitation, medicine, and education.

The GAS method can accommodate client-specific achievement measures sensitive enough to capture changes in participant performance that are expected to occur during short intervention periods. This is important, as TR sessions typically last from 6-12 weeks, with usually one lesson per week. Multiple goals can be written for each participant if desired, and the method allows weighting of goals to reflect goal importance and difficulty. The GAS approach recommends the use of independent raters to score achievement at the end of the intervention period so that that same person who writes the goals and/or provides treatment is not the person scoring participant achievement. It reduces the likelihood of bias in the data when the rater does not have a personal investment in the outcome score. In addition to individual goal attainment scores, the method can yield numeric scores for evaluating group and program effectiveness. GAS is a low-cost method to implement and maintain and is easy to learn to use, important attributes for use in small nonprofit organizations.

What is Goal Attainment Scaling (GAS)?

GAS is an outcomes evaluation method that provides a criterion-referenced measure of change. The GAS procedure involves: (1) defining a unique goal(s), (2) specifying a range of expected outcomes for each goal (on a 5-point scale), and (3) using the expected outcomes scale developed before the intervention to rate the performance level achieved following an intervention period.

Typically, a score of “-2” represents the baseline performance level before intervention, “-1” represents performance that is somewhat less than expected for the intervention period, “0” represents the anticipated level of performance following treatment for the given measurement period, a score of “+1” indicates somewhat more progress than expected during the intervention period, and “+2” signifies much better than expected progress occurred during the measurement period.

Using GAS in TR When utilizing GAS in TR, instructors first observe the participant's baseline skills. The instructor subsequently selects a goal area(s) to focus on during the session, ideally after consultation with the participant and relevant care providers. Drawing upon their training and experience, the instructor writes five likely outcomes that are expected to occur for that individual by the session's end. The outcome scales should ideally be written with clinically equal intervals between all scale levels and with each scale level specifying observable behaviors. The middle level of the scale should represent the outcome that is considered most likely to occur at the end of the session. The outcome scales written at the session's beginning are then used by trained independent raters at the end to evaluate the participant's goal attainment. Instructor training and experience writing SMART goals (that is, goals that are Specific, Measureable, Attainable, Relevant, and Timely) can be very helpful when writing useful GAS outcome scales. Coaching and access to sample outcome scales can help facilitate the goal writing process. In addition to writing goals for each participant, TR instructors should instruct team members on how they can best support the participant in attaining his or her goals and plan lessons to allow ample opportunities for skills practice.

Pilot Studies Utilizing GAS in Therapeutic Riding

The 2012 High Horses pilot study, the first known use of the GAS method in TR, provided evidence that all 6 participants gained desired skills during the riding sessionⁱⁱ. Through use of the GAS method, High Horses had gained the ability to quantify the extent of the gains made in specific skill areas and compute an overall effectiveness score for the group session. The GAS method was credited by both staff and volunteers with improving team collaboration and providing a clear focus for the lessons. While generally satisfied with process, the TR instructors retained concerns about the amount of time that was needed to write GAS goals and the challenge that writing goals presented.

A follow up GAS feasibility study at High Horses in 2013 further investigated questions regarding the GAS method's ease of useⁱⁱⁱ. This study demonstrated that with practice, limited coaching, and by referring to the previously written GAS goals as examples, the instructors found it easier to write GAS goals. The study also produced evidence that all seven school-aged participants made progress in skill areas linked to school performance.

A third GAS study also took place at High Horses in 2013 and was designed to explore the feasibility of utilizing the method within an equine-assisted mental health program for educating survivors of sexual and domestic abuse about strategies for recognizing and coping with stress^{iv}. This study helped demonstrate the method's flexibility when applied in a different type of TR program where the instructors felt that focusing on individual goal setting and achievement would be inconsistent with the therapeutic approach of the program. Instead, the instructors used GAS to measure a group level outcome of importance. The selected GAS goal related to the introduction of biofeedback technology (portable heart rate monitors) to aid group members in the recognition of cardiovascular responses to stress. The instructors articulated their anticipated group member response to the use of the technology at the beginning of the session. During the weekly lessons, they encouraged device experimentation (without pressure) through education, demonstrations, and repeated invitations. At the session's end, they asked members to anonymously report whether they had tried using the monitors during the session. The evidence

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demonstrated that more members than expected had been willing to explore using a device to help them recognize their body's response to stress. GAS proved to be both flexible and a helpful device for the instructors in measuring and communicating the progress made towards a relevant mental health related goal.

At the conclusion of the three pilot studies at High Horses, the staff endorsed the expansion of its use at the center. Over the following year, more instructors gradually began to utilize it with more riders as they felt comfortable. Many expressed enthusiasm for the contributions the evaluations have made in increasing accountability, teamwork, lesson focus, and continuous learning about the TR teaching process and its potential.

Precedents and Advantages to Collaborating With Other TR Centers

Directly preceding the TRAIN collaborative (and concurrent with the GAS pilot studies at High Horses) was a joint effort involving PATH Int'l member centers High Horses, High Hopes, Pegasus, and UpReach. That collaboration was also concerned with increasing accountability in TR and its members met to discuss their various methods and experiences tracking rider progress across riding sessions. In a series of meetings, they discussed terminology, agreed upon terms and definitions, and ultimately generated a common form for TR instructors to use when recording their notes and observations on rider progress each riding session. The session report was designed to facilitate communication between TR instructors and staff by providing a description of the important skills each participant demonstrated during a riding session.

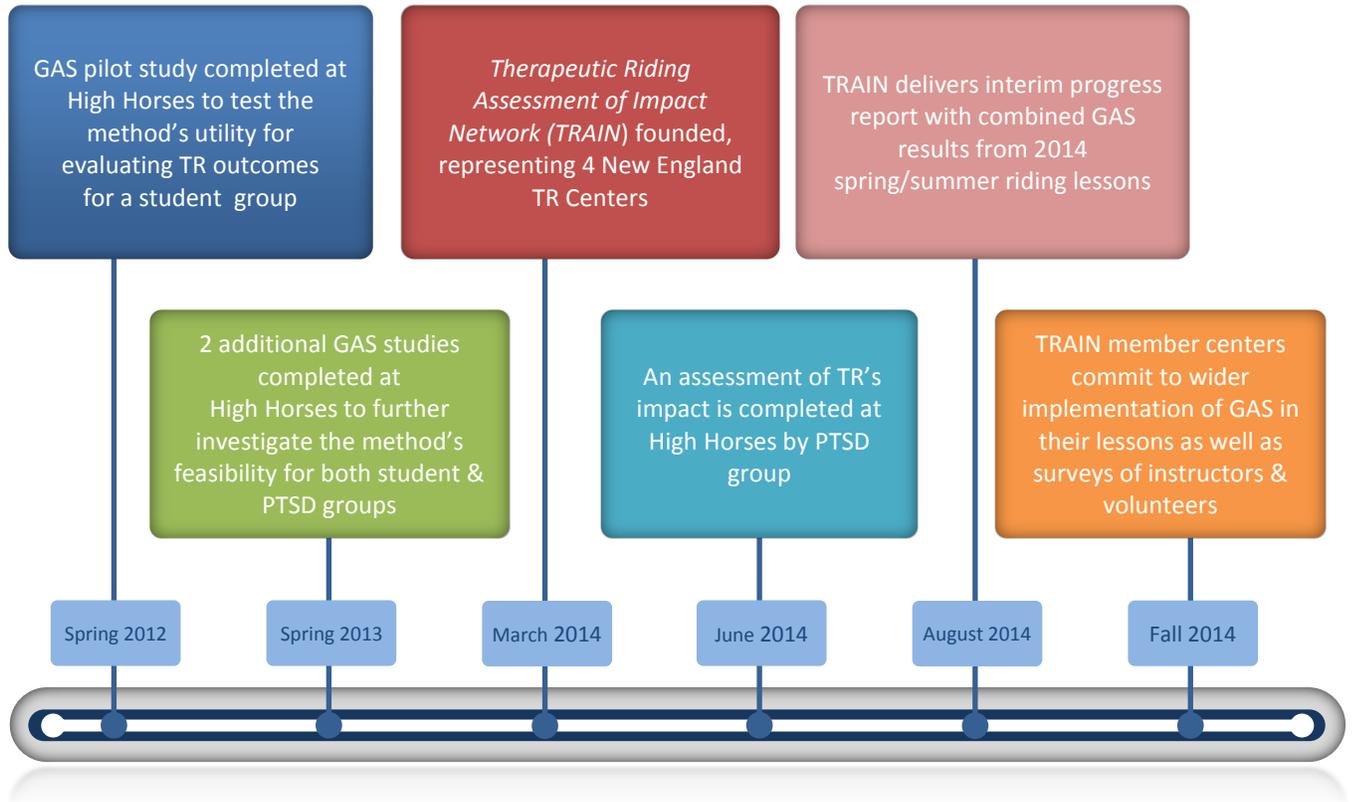
The impact of this collaboration's work goes well beyond the four riding centers. This partnership is credited with generating much discussion within the industry about the need for common terminology within TR. More than 50 TR centers across the U.S. have requested the session report for their own use. The framework that they created to define critical TR skill areas has also been adopted by TRAIN as a conceptual structure for planned analyses of progress in goal areas. The success of this earlier joint venture likely influenced the decision to pursue a collaborative approach to outcomes evaluation.

The collaborative approach to outcomes evaluation offer several advantages. High Horses' partners have direct benefit of training, established procedures, and examples of TR goal statements that High Horses provided to instructors at partner centers. The centralized data analysis and reporting will be more efficient than if replicated at each center. The collaborative approach will also allow the inclusion of a larger number of participants in a shorter period of time and will likely include a broader diversity of participants. It will also involve many more instructors, raters, and volunteers as well. These factors should increase the generalizability of the conclusions draw from the project.

Because the collaboration centers are different sizes, offer different programs, and employ different strategies for instruction, the members may have very different experiences and results during the evaluation process. These divergent experiences should generate valuable feedback regarding the advantages and liabilities of implementing GAS that might not have surfaced in a single site implementation.

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The chart below summarizes the progress and key events to date in the testing and expansion of the GAS method approach for outcomes evaluation in TR:



PRELIMINARY COLLABORATION RESULTS:

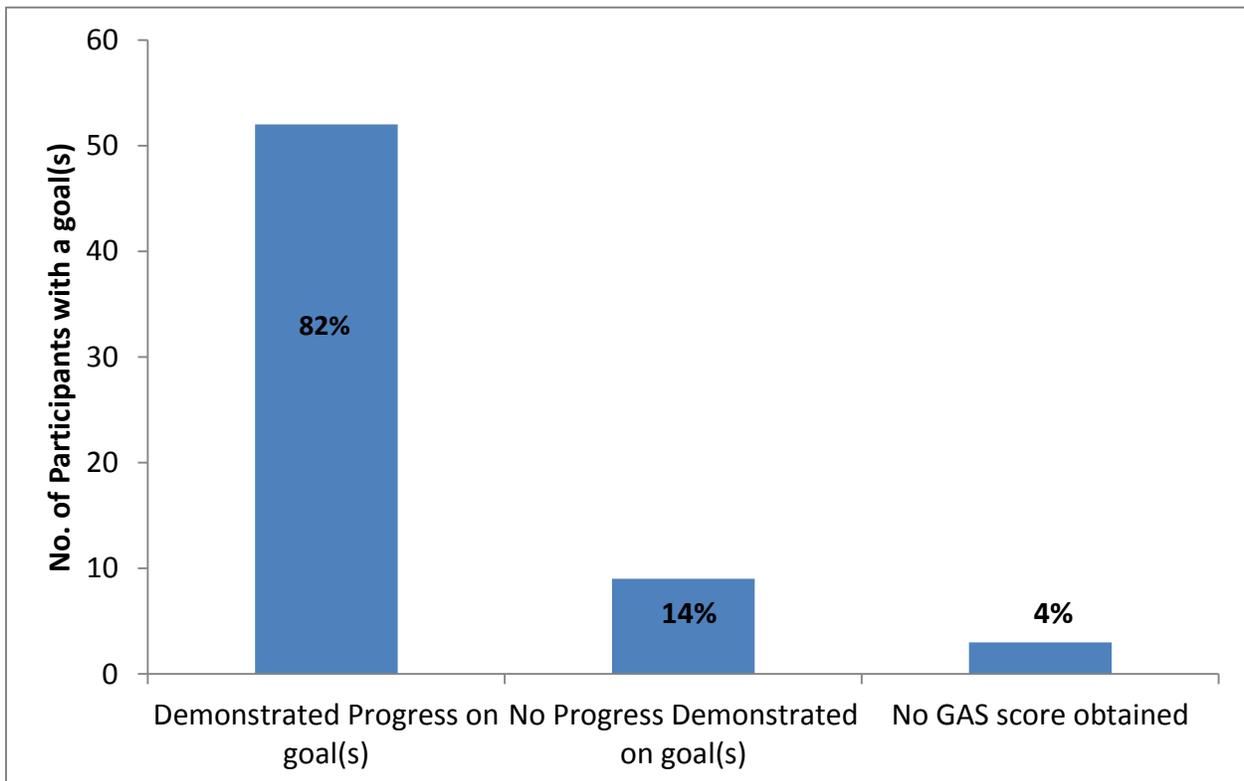
Data were successfully gathered from all 4 TRAIN member centers. Three centers provided GAS score data from a single riding session, and 1 center offered data obtained from two riding sessions.

As of mid-August 2013, thirteen TR instructors wrote 88 goals for 67 TR program participants (some participants had 2 TR session goals). Goal attainment scores were obtained on 85 goals, and for 64 participants (3 participants did not receive ratings on their goals). Forty-six independent raters provided assessments of participant skill attainment.

There was a wide variety of horsemanship skills reflected in participant goals, including mounting, tacking, leading, at halt skills, at walk skills, and at trot skills. Reining, posture, and posting skills were also commonly represented. The written goals reflected many supporting skill areas as well, including expressive communication, attending to task, balance, coordination, following directions, and regulating behaviors.

Key preliminary findings:

- 87% of participants demonstrated progress in at least one of their goal areas
- Raters noted that extenuating circumstances (e.g., rider distractions, ill health, riding an unfamiliar horse, team member interference) may have adversely affected performance on 27% of the goals
- As shown in the chart below, advancements in skills areas were demonstrated in 82% of the written goals



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PTSD results

At the conclusion of a 2014 High Horses equine-assisted activities mental health program that included participants with PTSD symptoms consistent with surviving sexual and domestic abuse, a survey-based evaluation approach was used to gauge participants' perceptions of their own progress during the session.

All eight group members reported greater tolerance for experiencing sensations, with half reporting that they "feel more comfortable feeling sensations and I enjoy exploring them" than at the start of the session. When asked to rate the extent to which the TR program experiences had been a positive influence in their lives, seven of eight participants (88%) rated the experience at as being "quite a bit" or "extremely" influential, the two highest rating categories (out of five possible options).

To supplement the rating she provided, one participant commented: *"This program has helped out so much with confidence[sic] and determining my sensations and feelings. This program should be every week of the year."*

A second participant offered: *"I enjoyed getting to know each other in the group and sharing experiences and supporting each other. I was able to overcome my anxiety about doing something new and scary. I was able to go at my own pace and not be pushed into doing something I didn't feel ready to do. Now I want to continue and do more with horses."*

A third wrote: *"Eight weeks is not long enough. I would very much like to come back. I feel so much more alive since coming to High Horses and now have opened myself up to having friendships again."*

TECHNICAL PROGRESS AND RESULTS:

Milestone 1: Each TRAIN member center successfully implemented and utilized GAS for a 2014 Spring/Summer riding session

- *Deliverables:* 88 written goals, 85 goal attainment ratings, presentation of results
- *Duration of task or task end date:* This task was accomplished within 5 months of the project's start
- *Personnel, services, and property required:* 64 TR program participants, 13 TR instructors from 4 member centers, 46 raters, 1 project consultant, Dropbox web-based file-sharing services, common forms, PowerPoint presentations, shared project terminology
- *Barriers to success:* Participant absences on goal rating days precluded gathering data on their performance
- *Unanticipated results:* Raters felt that extenuating circumstances may have adversely affected the participant's performance on 27% of goals

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Milestone 2: Collection of self-assessment data regarding TR program's impact from PTSD participants

- *Deliverables:* 8 surveys with respondent ratings and open-ended comments
- *Duration of task or task end date:* This task was accomplished within 5 months of the project's kickoff
- *Personnel, services, and property required:* 3 instructors, 8 program participants, project consultant
- *Barriers to success:* none
- *Unanticipated results:* none

SPECIFIC ACCOMPLISHMENTS:

Dropbox file sharing system established for TRAIN members

Common GAS document created and shared

2 TRAIN member meetings held (March 2014 & July 2014)

Project Overview Presentation delivered and shared (March 2014)

GAS Volunteer Presentation shared (April 2014)

GAS Board of Directors Presentation shared (April 2014)

Interim Project Results Presentation delivered and shared (July 2014)

Interim Project Report delivered (August 2014)

Instructor survey in development

Executive Director survey in development

Volunteer survey in development

GAS goal writing assistance tool for instructors in development

Access-based GAS goal statement form under consideration

GAS training videos conceptual development in progress

TRAIN website development specifications and cost projections under consideration

ⁱ Kiresuk, T. J., & Sherman, R. E. (1968). Goal attainment scaling: A general method for evaluating community mental health programs. *Community Mental Health Journal*, 4, 443-453.

ⁱⁱ [Hybels, C.S. \(2012\). *Measuring Outcomes at High Horses: Pilot Study Results*. Project Report.](#)

ⁱⁱⁱ [Hybels, C.S. \(2013\). *Measuring Outcomes at High Horses: 2013 Feasibility Study Results*. Project Report.](#)

^{iv} [Hybels, C.S. \(2013\). *Getting WISE at High Horses and Measuring the Outcomes: 2013 Pilot Study Results*. Project Report.](#)