

**Annotated Bibliography
of
Outcome Measures for Research**

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Introduction

Included first is a short introduction, followed by an outline of some of the factors that need to be considered when designing a research study. Subsequent to this is a list of measures that could be considered in such a study. When available, a link is provided to on-line information about obtaining the measure. In some cases, the measure itself is available through that link.

The current mental health landscape demands treatments that are supported by empirical evidence. In order for any new treatment approach to attain legitimacy and respect within clinical and scientific circles, to ensure patient rights, and to be eligible for some third-party reimbursements, treatments must show effects beyond anecdotal findings.

Many things have been written about the healing that comes about when people relate to horses. Those of us practicing EAP see profound changes in the people with whom we work. However, informal observations, clinician impressions, and anecdotal evidence are not sufficient to demonstrate efficacy of the approach. The goal of this project was to assist in the process of identifying suitable means of measuring constructs we believe change after experiencing EAP.

Selecting an appropriate outcome measure to assess the efficacy or effectiveness of EAP is not an easy task. It is necessary to answer a number of important questions before it will be possible to choose one or more outcome variables.

Essential questions that must be answered in arriving at a design for the project and selecting outcome measures include, but are not limited to:

1) Who are the subjects?

Considerations:

- Children
- Adolescents
- Adults
- Couples
- Families

Considerations:

- Participant population (healthy/growth oriented vs. clinically significant problems)
- Specific patient characteristic (e.g., same vs. different disorder/presenting problem)

2) What is the independent variable?
(i.e., How will equine-assisted psychotherapy be operationally defined?)

Considerations:

- Number of sessions
- Specific tasks used
- Degree of flexibility for the practitioner

- 3) How will the independent variable (i.e., EAP) be delivered?

Considerations:

- Individual
- Group
- Family

- 4) What is/are the dependent variable(s)?
(i.e., what constructs do we think will change as a result of exposure to EAP?)

Considerations:

- Social functioning
- Occupational/academic functioning
- Behavioral/cognitive skills
- Problem solving
- Communication
- Emotional Regulation
- Participant satisfaction with services
- Symptoms

- 5) How will the dependent variable(s) be measured

Considerations:

- Source of report
 - Patient/participant
 - Parent/teacher/employer/other
 - Clinician/team
 - Official records (e.g., agency evaluation, grades)
 - Observations

- Frequency of report
 - Pre/post at minimum
 - During treatment?

- Scope of report
 - Overall/multidimensional assessment
 - Specific area of functioning (e.g., problem-solving skills; depressive symptoms)
 - Estimate of progress toward pretreatment goals

Cost of measures (many are not copyrighted and free to the public. However, the most widely accepted measures are available for a fee)

- 6) Only after determining above can we specify the measures to assess the process/outcome

Considerations:

Global areas:

Quality of Life

Stress and Coping

Symptom Changes

Process Skills (e.g., communication/problem-solving)

In conclusion, this is a process that requires collaboration. Decisions regarding how to proceed cannot be made by a single person, or by a committee that operates independently of the “field” of people practicing.

Recommended Reading

I highly recommend that those who ultimately make decisions about how to proceed read the following, as it lays out all the issues and considerations relevant to designing outcome assessments for use clinically and/or in research. It is very practical and relatively easy to read.

Ogles, B.M., Lambert, M.J., & Fields, S.A. (2002). *Essentials of Outcome Assessment*.
NY: John Wiley and Sons.

A second book also was helpful, though it has a more narrow focus, specifically on conducting randomized controlled trials, which would not be practical to attempt across the organization (i.e., these need to be conducted in controlled, typically university, settings). In addition, it is not as “user-friendly” as the Ogles book. However, the book has a great deal of good information.

Nezu, A.M. & Nezu, C.M. (2008). *Evidence-based outcome research: A practical guide to conducting randomized controlled trials for psychosocial interventions*.
New York, NY, US: Oxford University Press.

**Have you found other books that would be useful for understanding/conducting research?
If so, send me the reference and a brief description – we’ll add it to the list!**

Measures

The following list includes viable, standardized outcome measures for research that evaluates the efficacy/effectiveness of EAP. The above considerations made it difficult to determine exactly the types of measures which EAGALA and individual practitioners would be interested in/willing to incorporate into such a study. Therefore, the list reflects options and is not exhaustive. As noted above, please send me any recommended additions.

My strategy in selecting measures was first to identify outcome measures commonly used in empirical research on the efficacy/effectiveness of various treatment approaches, including experiential treatments. I then looked at measures of constructs that, in my view are common targets of EAP (Please note: this was my view and only my view – that is why I welcome your suggestions) and I looked at measures used in evaluating ropes courses, a well-established experiential approach.

In addition to standardized measures, diagnostic status, clinician ratings of change, and progress towards goals can be used to document changes across the course of treatment.

Children/Adolescents:

This list primarily includes measures that have been used traditionally to assess outcomes in children. **If you have a measure you would like to suggest, let me know.**

It is important to note that assessing outcomes in treatment of children is challenging. Two issues that frequently arise are a) the lack of agreement between parent and child reports (a finding that is common in research on treatment outcomes with children) and b) the finding that children's self-reports often do not differentiate outcomes between alternative treatments. It is not unusual for treatment-outcome studies to find no effects using child self-report, but bigger effects with parent-report. So...if the focus of the research is on children/youth, parent reports should definitely be included. In addition, indicators of diagnostic status, social involvement, and information from teachers can be helpful.

The list is grouped from most to least "clinical". The first two measures are sets of rating scales that often are used in measuring outcome in psychology in both clinical and research settings. They are rather clinical and problem-based in nature. The third measure is similar to these, but was designed specifically to assess outcome in treatment over time and is very widely used. The fourth measure is very different. It is completed by a professional and assesses level of impairment across several different areas of life. It assesses *functioning* rather than symptoms, which made it stand out. Also, it seems to be used often by agencies that might be referring children to EAP programs. Thus, it might be a good assessment by someone totally independent of the treatment setting who has an interest in accurately evaluating treatment outcome. The fifth measure seems very promising [perhaps in conjunction with using the OQ measure(s)]. There is a great deal of research that links this measure, which is much less clinical in nature, to important constructs that likely would be of interest to EAP practitioners.

Achenbach Child Behavior Checklist, Achenbach & Edelbrock (1991) (<http://www.aseba.org>)

There is a set of measures in this assessment "family," including parent-, teacher-, and self-reports (the latter, for children aged 11 – 18). These are relatively easy to administer – time it takes to complete varies, but is no longer than about 20 minutes. This is one of the most widely known set of measures for assessing children's behavior problems.

Resulting profiles address many different facets of child behavior, including (but not limited to:

Anxious/depressed
Withdrawn/depressed
Somatic complaints
Social problems
Thought problems
Attention problems

Rule-breaking behavior
Conduct problems
Opposition problems
Functioning in school, activities, and socially

Behavioral Assessment System for Children – (BASC – 2) (Reynolds & Kamphaus)

<http://ags.pearsonassessments.com/group.asp?nGroupInfoID=a30000>.

This also is a comprehensive set of measures that includes parent-, teacher, and self-reports. It is used widely with strong psychometric properties.

Resulting profiles address many different facets of child behavior, including (but not limited to):

Adaptability

Aggression

Anxiety

Attention

Atypicality

Conduct Problems

Depression

Functional Communication

Hyperactivity

Leadership

Learning Problems

Social Skills

Note: Trotter found equine assisted counseling to be associated with positive changes on a number of scales in comparison to a classroom-based counseling group. The equine intervention was EAGALA based. However, these sessions were interspersed with four other activities, which makes it difficult to determine whether it was the EAC itself that accounted for changes. In addition, participants were not randomly assigned to groups. Regardless, this is one of the stronger published studies examining the EAGALA model.

Trotter, K.S., Chandler, C.K., Goodwin-Bond, D., & Casey, J. (2008). A comparative study of the efficacy of group equine assisted counseling with at-risk children and adolescents. *Journal of Creativity in Mental Health*, 3(3), 254-284.

Youth Outcome Questionnaire (Parent and Self Reports) Burlingame and Lambert – many articles

<http://www.oqmeasures.com/site/>

From the website: *All outcome measurement products from OQ Measures are designed to detect treatment effectiveness regardless of treatment modality, diagnosis or discipline of the treating professional.*

YOQ-2.01® (parent-report) and YOQ-SR-2.0® (self-report for adolescents) are brief rating scales specifically designed to be completed repeatedly over the course of treatment to assess ongoing progress. They take less than 10 minutes to complete.

Scales include:

Subscales:

Intrapersonal Distress (emotional distress)

Somatic

Interpersonal Relations (social/family relationships)

Social Problems (socially-related problem behaviors)

Behavioral Dysfunction (hyperactivity/inattention/impulsivity)

Critical Items (typical of children in inpatient settings)

CAFAS – Child and Adolescent Functional Assessment Scale

<http://www.cafas.com/>

This is a brief rating scale used to measure impairment due to psychiatric/psychological problems, substance abuse, behavioral, or emotional problems. It is completed by a trained professional, rather than being administered. It appears to be easy to learn, has good scientific basis and takes about 10 minutes to complete following an interview assessment.

Uses:

Tracking clinical outcome for individual clients

Assigning cases to appropriate levels of care

Generating a strengths-based treatment plan

Active case management, using ongoing outcome information

Communicating with caregivers and others about the youth's needs

Maintaining clinical documentation which can withstand audits

Maintaining a database for administrative and clinical use

Evaluating program efficacy

Multidimensional Life-Satisfaction Scale – Huebner (1994) **(<http://www.cas.sc.edu/psyc/facdocs/hueblifesat.html>)**

The MLSS is a 40-item self-report instrument that assesses overall life satisfaction and satisfaction across five domains (family, friends, school, living environment, and self). The scale was designed for children ages 8–18. All questions are responded to on a 6-point Likert scale. Huebner has a long program of research on this scale. He began looking at life satisfaction (LSS), emotional well-being (EWB) and positive quality of life (PQL) in the early 1990's. The construct is related to many characteristics that we often see in the patients referred for EAP. Low quality of life/satisfaction has been found to be associated with substance use, interpersonal violence, psychological symptomatology, and poor family relationships, among other things.

There is a brief version of this measure that has strong psychometric properties, shows good cross-cultural applicability, is easy to administer, and has been used in hundreds of studies, so is well-thought-of.

The measure is not copyrighted and is available at the url listed above. Thus, it is more economical than the Achenbach or BASC-2.

Parent-Child Rating Scale (PCRS) **(<http://www.childrensinstitute.net/catalog/assessment/>)**

Another rating scale for parents to complete regarding their child's behavior. This website has many good resources for assessment measures for children.

Other measures I've come across that I have not researched more intensively

Positive and Negative Affect Scale– Children – Laurent et al., 1999 – list of different feelings – respondent checks what they've been experiencing over a specific time frame

Coping Questionnaire – Kendall & Marrs-Garcia, 1999 – Self and parent report forms. Not widely used, but this is a construct that I know people are interested in.

Child's Perception of Therapeutic Relationship – Kendall, et al., 1997

Given that the therapeutic relationship is so strongly associated with outcomes, this might be interesting. Possibly could gear it to their perception of the therapeutic relationship they have with the horses.

Problem Solving Measures

<http://www.nccc.org/Evaluation/topic3.html> -- this site has reviews of two different problem solving measures for adolescents

Adults

Again, here I begin with the more clinically-oriented measures.

Brief Symptom Inventory –Derogatis

<http://www.pearsonassessments.com/tests/bsi.htm>

This is a brief measure of psychological problems that takes about 8 – 10 minutes to complete. It is widely used. (Derogatis also published the Symptom Checklist 90 – Revised (SCL-90-R) that is similar, but longer)

Symptom Scales

SOM - Somatization

O-C - Obsessive-Compulsive

I-S - Interpersonal Sensitivity

DEP - Depression

ANX - Anxiety

HOS - Hostility

PHOB - Phobic Anxiety

PAR - Paranoid Ideation

PSY – Psychoticism

Global Indices

GSI - Global Severity Index, Helps measure overall psychological distress level

PSDI - Positive Symptom Distress Index, Helps measure the intensity of symptoms

PST - Positive Symptom Total, Reports number of self-reported symptoms

OQ®-45.2 and OQ®-30.2 – Burlingame and Lambert – many articles

<http://www.oqmeasures.com/site/>

From the website: *All outcome measurement products from OQ Measures are designed to detect treatment effectiveness regardless of treatment modality, diagnosis or discipline of the treating professional.*

The OQ®-45.2 is designed specifically to be completed repeatedly over the course of treatment to assess ongoing progress. It takes less than 10 minutes to complete. It is widely used.

Scales include:

Symptom Distress

Interpersonal Functioning

Social Role

Adult Self-Report Form – Achenbach

<http://www.aseba.org/>

A behavioral checklist for adults that assesses the following areas. A strength is that there are DSM-oriented scales if the study is clinical in nature.

Adaptive Functioning

Substance Use

Critical Items

Syndromes (Anxious/Depressed; Withdrawn; Somatic Complaints; Thought Problems; Attention Problems; Aggressive Behavior; Rule-Breaking Behavior; and Intrusive).

Internalizing

Externalizing

Total Problem Score

DSM-oriented scales: Depressive Problems; Anxiety Problems; Somatic Problems; Avoidant Personality Problems; Attention Deficit/Hyperactivity Problems; and Antisocial Personality Problems

Less Clinical Scales:**Interpersonal Functioning:**

Inventory of Interpersonal Problems (IIP). Horowitz, Rosenberg, Baer, Ureno, & Villasenor, (1988)

127-item self-report measure that assesses discomfort in relation to interpersonal sources – there are many different short forms and it is not clear which of them is best

Factors:

Assertiveness

Sociability

Interpersonal Sensitivity

Emotional competence/Affective experience:

Emotional Competence Inventory – Goleman & Boyatzis

http://www.eiconsortium.org/measures/eci_360.html

This looks to be exceedingly expensive, but is a comprehensive assessment of all facets of emotional and social competence. Horse Sense of the Carolinas is looking at EI/EC – they may have some insights about assessment. Very interesting constructs, but not clear that they are easily measurable.

The Multiple Affect Adjective Check List-R (MAACL-R)

This is a checklist of 132 adjectives, assesses level of anxiety, depression, hostility, sensation seeking, (Zuckerman et al., 1988). This is not used as widely as I'd thought.

Profile of Mood States (POMS).

This instrument was developed by McNair, Lorr, and Droppleman (1971) to assess self-reported moods of psychiatric outpatients and nonpsychiatric populations such as college students. Several validity and reliability studies have been reported for the scale of 65 adjectives. The items (e.g., lonely, annoyed, restless, active, forgetful) form the six subscales of Tension-Anxiety, Depression, Anger, Vigor, Fatigue, and Confusion. Subjects responded to each item regarding the extent to which each had been experienced over the past week.

Various observational measurement systems for participants' experience

I did not look at any specific systems, but will if there is interest. A team of raters could be trained and practitioners from around the country could tape record sessions to be rated. The logistics of this would be complicated, but it is do-able.

Life Satisfaction

Quality of Life Inventory – Frisch

<http://www.pearsonassessments.com/tests/qoli.htm>

<http://www.pearsonassessments.com/reports/qolireport.pdf>

Measures quality of life and satisfaction in 16 areas of life.

Quality of Life Enjoyment and Satisfaction Questionnaire

<http://www.edc.pitt.edu/stard/public/docs/AssessmentForms/QLESQ-Short%20Form-abridged.doc>

Measures the degree to which the respondent is satisfied with different areas of life. This may be free and readily available – sample items and contact information for obtaining the measure come up when you go to the above url. Does not look as strong/comprehensive, psychometrically tested as the above measure.

Self-Esteem

Rosenberg Self-Esteem Inventory

<http://www.bsos.umd.edu/socy/Research/rosenberg.htm>

This is a 10-item measure of self-esteem that has been used extensively in treatment outcome studies. It provides a global index of self-esteem. It was originally developed for adolescents but has been widely used with adults. Several sources indicated that this is the standard by which all self-esteem inventories are measured (there is a Coopersmith inventory, the RSE apparently is more popular). It is free and available at the above url.

Perceived Stress/Coping

Coping Resources Inventory

<http://www.mindgarden.com/products/criss.htm>

<http://www.cpp.com/images/reports/CopingResourcesInventory.pdf>

This measures how people handle stress in each of five areas: physical, spiritual, social, cognitive, emotional. Appropriate for those 14 and older. It takes about 10 minutes to administer.

Ways of Coping Questionnaire

<http://www.mindgarden.com/products/wayss.htm>

Measure of the process of coping. Not really an outcome measure, per se, but has been used widely. Looks at the following coping processes: Confrontive Coping, Distancing, Self-Controlling, Seeking Social Support, Accepting Responsibility, Escape-Avoidance, Planful Problem Solving, and Positive Reappraisal.

Perceived Stress Scale

<http://www.mindgarden.com/docs/PerceivedStressScale.pdf>

This measures the degree to which the respondent perceives stress in their life. The measure is free and available at the above url.

Problem Solving

Problem Solving Inventory -- Heppner

<http://www.nccc.org/Evaluation/topic3.html>

Measures a person's self-efficacy about problem-solving. It yields a global measure of perceived competence in problem-solving, approach-avoidance style, and personal control. This looks very promising. Information about the scale and how to order it can be found at the url above.

Possibly interesting measures that are available from <http://www.mindgarden.com/products/> :

Health and Daily Living Form (2nd ed) – looks at social factors, help seeking behavior, stressors, and coping strategies in relation to alcohol consumption and depression.

Authentic Leadership Questionnaire – looks at facets of personality associated with leadership (self-awareness, transparency, ethical/moral, balanced processing)

Friedman Well-Being Scale – looks at sense of well-being in terms of the following: emotional stability; self-esteem/self-confidence; joviality; sociability; and happiness. It has been used in outcome studies.

Coopersmith Self-Esteem Inventory – if someone prefers this to the Rosenberg, though Rosenberg is thought to be the standard

Coping Operations Preference Enquiry (COPE) – looks at use of defense mechanisms, including Denial, Isolation, Projection, Regression - Dependency, and Turning-Against-Self

Family Environment Scale – measure of family members' perceptions of the family environment on 10 dimensions – don't know how sensitive it is to change

Parental Problem Solving Measure

I looked at measures used to assess outcomes for ropes courses. The best resource I found was the following:

http://acct.affiniscape.com/associations/5266/files/attarian_bibliography.pdf

This annotated bibliography includes 174 research studies on ropes courses.

Constructs assessed included:

Self-esteem

Ego identity (not clear how measured)

Interviews of “reactions”

Measures of knowledge of “course concepts”

California Personality Inventory

Achenbach CBCL – Teacher Report/Parent/Self

Jesness Inventory and Global Self-esteem

Recidivism

Self-efficacy

Self-confidence

Self-concept

Problem Solving Inventory

Self efficacy for peer interaction Scales

Social Skills Rating System

Self-efficacy

Piers Harris Children's Self Concept Scale

Nowicki-Strickland Locus of Control Scale

Modified American Drug and Alcohol Survey for Youth

Life Effectiveness questionnaire

Selection of specific target behaviors to monitor

Kansas Family Life Satisfaction Scale

Measure based on Jessor's theory of resilience

Shepherd Scale to measure spiritual growth

Critical thinking skills

Harvard Community Health Plan Group Cohesiveness Scale

And many many more – the annotated bibliography is available at the above url.

Send me your suggestions! Research@eagala.org