



Our model of BHRS is *Applied Behavior Analysis in Action*

The Institute for Behavior Change staff delivers Behavioral Health Rehabilitation Services (BHRS, often mistakenly called "wraparound services" in Pennsylvania) to children under the age of 21 who are disabled and enrolled in Medicaid. The BHRS model developed by our Founder and Executive Director, Steven Kossor, infuses "Full Fidelity Wraparound" methodology with Applied Behavior Analysis (ABA) procedures to deliver *Effective Treatment in a Wraparound Cup*[®] in homes, schools and other community settings under the scope of practice of licensed professional psychologists. Services include psychological testing, behavior treatment programs, psychological counseling and consultations with parents, medical doctors, teachers and others in the child's interest. At least one parent (or guardian) must be *actively* involved in the planning and delivery of our BHRS program. We take outcome data *every week* from parents and use that data to improve the quality of the treatment process, in accordance with the evidence-based standards of ABA and Wraparound practice.

A written Treatment Plan that describes and governs a child's treatment program is always developed with input from the child, parent(s), teacher(s) and other adults who have roles in the child's life. The child's strengths, weaknesses, and treatment needs are reviewed on an ongoing basis by a Masters-level **Behavior Specialist** who consults with parents (and others, if necessary) at least once weekly to gather data about the child's progress. A **Therapeutic Staff Support** (TSS) provider may be assigned to work directly with the child to implement the child's treatment plan on an intensive, one-to-one basis for several hours each week. A **Mobile Therapist** may meet with the child at home, in school, or elsewhere in the community to provide psychological counseling on one or more occasions each week. The Mobile Therapist and Behavior Specialist may also meet with the child's teachers, extended family members, or other adults who interact with the child, so that all adults in the child's life can work collaboratively. A licensed psychologist assumes full and complete professional responsibility for all services provided.

What is Applied Behavior Analysis (ABA)?

Source: <http://encyclopedia.thefreedictionary.com/applied+behavior+analysis>

Applied Behavior Analysis (ABA) is the science of controlling and predicting human behavior. Behavior analysts reject the use of [hypothetical constructs](#)^[1] and focus on the observable relationship of behavior to the environment. By functionally assessing the relationship between a targeted behavior and the environment, the methods of ABA can be used to change that behavior. Research in applied behavior analysis ranges from behavioral intervention methods to basic research which investigates the rules by which humans adapt and maintain behavior.

Areas of Application

ABA-based interventions are best known for treating people with developmental disabilities, most notably autism spectrum disorders.^[2] However, applied behavior analysis contributes to a full range of areas including: AIDS prevention,^[3] conservation of natural resources,^[4] education,^[5] gerontology,^[6] health and exercise,^[7] industrial safety,^[8] language acquisition,^[9] littering,^[10] medical procedures,^[11] parenting,^[12] seatbelt use,^[13] severe mental disorders,^[14] sports,^[15] and zoo management and care of animals.^[16]

Definition of ABA

ABA is defined as the science in which the principles of the analysis of behavior are applied systematically to improve socially significant behavior, and in which experimentation is used to identify the variables responsible for change in behavior.^[17] It is one of the three fields of behavior analysis. The other two are [behaviorism](#), or the philosophy of the science; and [experimental analysis of behavior](#), or basic experimental research.^[21]

Baer, [Wolf](#), and Risley's 1968 article^[18] is still used as the standard description of ABA.^[19] It describes the seven dimensions of ABA: application; a focus on behavior; the use of analysis; and its technological, conceptually systematic, effective, and general approach.

Characteristics of ABA

Baer, Wolf, and Risley's seven dimensions are:

- **Applied:** ABA focuses on areas that are of social significance. In doing this, behavior scientists must take into consideration more than just the short-term behavior change, but also look at how behavior changes can affect the consumer, those who are close to the consumer, and how any change will affect the interactions between the two.
- **Behavioral:** ABA must be behavioral, i.e.: behavior itself must change, not just what the consumer says about the behavior. It is not the goal of the behavior scientists to get their consumers to stop complaining about behavior problems, but rather to change the problem behavior itself. In addition, behavior must be objectively measured. A behavior scientist can not resort to the measurement of non-behavioral substitutes.
- **Analytic:** The behavior scientist can demonstrate believable control over the behavior that is being changed. In the lab, this has been easy as the researcher can start and stop the behavior at will. However, in the applied situation, this is not always as easy, nor ethical, to do. According to Baer, Wolf, and Risley, this difficulty should not stop a science from upholding the strength of its principles.^[18] As such, they referred to two designs that are best used in applied settings to demonstrate control and maintain ethical standards. These are the reversal and multiple baseline designs. The reversal design is one in which the behavior of choice is measured prior to any intervention. Once the pattern appears stable, an intervention is introduced, and behavior is measured. If there is a change in behavior, measurement continues until the new pattern of behavior appears stable. Then, the intervention is removed, or reduced, and the behavior is measured to see if it changes again. If the behavior scientist truly has demonstrated control of the behavior with the intervention, the behavior of interest should change with intervention changes.
- **Technological:** This means that if any other researcher were to read a description of the study, that researcher would be able to "replicate the application with the same results".^[18] This means that the description must be very detailed and clear. Ambiguous descriptions do not qualify. Cooper *et al.* describe a good check for the technological characteristic: "have a person trained in applied behavior analysis carefully read the description and then act out the procedure in detail. If the person makes any mistakes, adds any operations, omits any steps, or has to ask any questions to clarify the written description then the description is not sufficiently technological and requires improvement."^[20]
- **Conceptually Systematic:** A defining characteristic is in regards to the interventions utilized; and thus research must be conceptually systematic by only utilizing procedures and interpreting results of these procedures in terms of the principles from which they were derived.^[20]
- **Effective:** An application of these techniques improve behavior under investigation. Specifically, it is not a theoretical importance of the variable, but rather the practical importance (social importance) that is essential.^[18]
- **Generality:** It should last over time, in different environments, and spread to other behaviors not directly treated by the intervention. In addition, continued change in specified behavior after intervention for that behavior has been withdrawn is also an example of generality.

In 2005, Heward, et al. added their belief that the following five characteristics should be added.^[21]

- **Accountable:** Direct and frequent measurement enables analysts to detect their success and failures to make changes in an effort to increase successes while decreasing failures. ABA is a scientific approach in which analysts may guess but then critically test ideas, rather than "guess and guess again".^[22] this constant revision of techniques, commitment to effectiveness and analysis of results leads to an accountable science.
- **Public:** Applied behavior analysis is completely visible and public. This means that there are no explanations that cannot be observed. There are no mystical, metaphysical explanations, hidden treatment, or magic^[21]. Thus, ABA produces results whose explanations are available to all of the public.
- **Doable:** ABA has a pragmatic element in that implementors of interventions can consist of a variety of individuals, from teachers to the participants themselves. This does not mean that ABA requires one simply to learn a few procedures, but with the proper planning, it can effectively be implemented by most everyone willing to invest the effort.^[21]
- **Empowering:** ABA provides tools to practitioners that allow them to effectively change behavior. By constantly providing visual feedback to the practitioner on the results of the intervention, this feature of ABA allows clinicians to assess their skill level and builds confidence in their technology.^[23]
- **Optimistic:** According to several leading authors, practitioners skilled in behavior analysis have genuine cause to be optimistic for the following reasons:
 - The environmental view is essentially optimistic as it suggests that all individuals possess roughly equal potential^[24], which is directly countered by the vast bulk of research^[25] and even Skinner himself held that no serious student of behavior has ever held this position^[26]
 - Direct and continuous measurements enable practitioners to detect small improvements in performance that might have otherwise been missed
 - As a practitioner uses behavioral techniques with positive outcomes, the more they will become optimistic about future success prospects^[21]
 - The literature provides many examples of success teaching individuals considered previously "unteachable."



Our model of BHRS combines Full Fidelity Wraparound methodology with ABA principles and practices to create the most effective mental health treatment delivery modality possible for children in their homes, schools and communities. Independent researchers at UNC - Chapel Hill (2007), Thomas Jefferson University (2010), Villanova University (2012) and Immaculata University (2013) all found statistically significant associations between the delivery of BHRS by our staff and reductions in physical aggression, lack of environmental safety, noncompliance with adult prompts, communication deficits and socialization deficits in children between 2 and 19 years of age.