One of the many ways FEAT-Houston assists families of children with Autism Spectrum Disorder, is to provide information and training on empirically researched treatment approaches. There may be individual reports of children making progress from a variety of "treatments" but without controlled scientific studies it is impossible to say to what extent the "treatment" had any effect at all.

In her chapter, Evaluating Claims about Treatment for Autism within the book <u>Behavioral Intervention for Young Children with Autism</u>, Gina Green describes types of evidence. Each claim for a treatment's effectiveness needs to be carefully reviewed to determine the type of evidence being used.

Evidence to Support Treatment Claims

Science: relies on direct, objective observation and measurement of phenomena, systematic arrangements of events, procedures to rule out alternative explanations for what is observed, repeated demonstrations by individuals working independently of one another

Behavior is a phenomena legitimately studied with scientific methods.

1. Speculation vs. Demonstration

<u>Speculation</u>: someone thinks the treatment is effective Demonstration: comprehensive evaluation, rigorous testing

2. Subjective vs. Objective Evidence

<u>Subjective Evidence</u>: based on someone's personal perspective <u>Objective Evidence</u>: controlling for the natural tendency of people to bring their own biases to everything they observe by routinely employing a number of practices to increase the objectivity of evidence about treatment effects.

- a. operational definitions
- b. measurement procedures specified clearly
- c. reliability observations
- d. keeping participants and data analysts "blind" to the treatments
- e. multiple measures of the effects of treatment

3. Indirect vs. Direct Measures

<u>Indirect measures</u>: asking the person or asking people around the person <u>Direct measures</u>: real-time observations of the behavior by trained observers using objective behavioral definitions and specific measurement procedures.

4. Noncomparative vs. Comparative Information

<u>Noncomparative information</u>: anecdotes and testimonials do not provide enough information to allow false explanations to be ruled out.

<u>Comparative information</u>: comparisons must be constructed so that some of the potential explanations can be ruled out, and others can be confirmed.

5. Descriptive (uncontrolled) vs. Experimental (controlled) Research

<u>Descriptive Research</u>: observes what happens to the behavior of interest under conditions where all of the events that might affect it are free to vary. <u>Experimental Research</u>: selects one event that is likely to affect the behavior and explicitly arrange for it to be present and absent, while measuring carefully to see if the behavior changes. All other factors are held constant.

6. Statistical vs. Clinical Significance

<u>Statistical Significance</u>: a mathematical procedure that demonstrates a change, which may or may not be noticeable to an observer. <u>Clinical Significance</u>: differences that are functionally important to the individual in everyday life.

Science should be something we embrace so as to protect ourselves and to be efficient with our resources (time and money). Science is a good thing, and subjecting treatment ideas to the rigor of empirical research is important.

At the minimum, research based interventions have been published in professional journals, have been replicated by other professionals, have met the stringent requirements of treatment integrity. Check what you are reading or hearing about with professionals who are active in their professional organization in keeping up with research and current state of the field.

Questions to ask about the research design of a treatment. What were the characteristics of the participants, what were the measurement procedures? Who took the measurements? How were confounding variables controlled for? Were alternative explanations for the change investigated? Has the research been replicated by anyone outside of benefit from the results?

Some people say the eclectic approach is a good idea; throw everything at them and hope something works. There are several studies now, however, which clearly demonstrate that the eclectic approach for autism is not only not beneficial but often times harmful. (references)

Since we are not sure about the causes of autism and since so many children suffer from a variety of health issues like allergies, digestive problems, etc. (children with and

without autism); it is possible that some alternative treatments have an effect not really on the autism but on other problems which may be leading to behavior which looks autistic. When scientific procedures are not followed, people often make inferences based on what they observe. Be aware that there could be alternative explanations.

FEAT-Houston urges all parents and professionals to be cautious of approaches and therapies that have not been researched, replicated, and field tested. FEAT-Houston refers to specific research based websites.

FEAT-Houston recognizes that many parents look to this organization for support, information, and direction. It is a responsibility the Board of FEAT-Houston takes very seriously and as such, it is the firm policy of FEAT-Houston that workshops/trainings sponsored by FEAT-Houston, announcements made during FEAT-Houston sponsored activities, articles in the FEAT-Houston newsletter, and advertisements in the FEAT-Houston classifieds shall all reference families only to research based treatment. FEAT-Houston recognizes Board Certified Behavior Analysts as the professionals with the credentials to develop and supervise an ABA program. FEAT-Houston recognizes ABA as the current research based treatment for ASD and although individual children may benefit from additional interventions under very specific conditions, FEAT-Houston does not support an eclectic treatment approach.

To get information on BCBA qualifications:

Behavior Analyst Certification Board, Inc. www.bacb.com

For accurate information on ABA treatment for autism:

- Association for Science in Autism Treatment, <u>www.asatonline.org</u>
- Cambridge Center for Behavioral Studies, http://www.behavior.org
- The Association for Behavior Analysis, http://www.abainternational.org
- The Autism Special Interest Group of the Association for Behavior Analysis International, http://www.autismsig.org
- Families for Effective Autism Treatment Houston, www.feathouston.org

Book:

Controversial Therapies for Developmental Disabilities
John Jacobson, Richard Foxx, James Mulick, Editors
Lawrence Erlbaum Associates, Inc., Publishers

Journal:

Journal of Applied Behavior Analysis, http://seab.envmed.rochester.edu/jaba/