Applied Behavior Analysis SUBSPECIALTY AREAS

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This document provides summaries of many major subspecialty areas in Applied Behavior Analysis. The content was developed by experts who currently work in these areas.

BEHAVIORAL TREATMENT OF AUTISM AND OTHER DEVELOPMENTAL DISABILITIES

Applied behavior analysis (ABA) is best known for its success in treating individuals with autism spectrum disorder (ASD) and other developmental disabilities (e.g., Down syndrome, intellectual disabilities). Treatment in this area is effective across an individual's lifespan (i.e., childhood, adolescence, adulthood). In young children with developmental disabilities such as ASD, the goal of intensive, comprehensive intervention is to improve cognitive, language, social, and self-help skills. Decades of research have shown that intensive ABA treatment is the most successful approach for children with autism, and it is widely recognized by a number of sources including the U.S. Surgeon General, the American Academy of Pediatrics, and the National Institute of Mental Health. When applied to older individuals, ABA involves teaching behaviors essential to functioning effectively in the home, school, and community. ABA can also decrease severe problem behaviors that endanger health and safety, and limit educational, residential, or vocational options.

Concentration areas within this subspecialty include: focused intervention, intensive and comprehensive intervention for young children, and treatment of severe behavior problems.

Learn More

- ▶ Association for Science in Autism Treatment
- Applied Behavior Analysis Treatment for Autism Spectrum Disorder: Practice Guidelines for Healthcare Funders and Managers (2nd ed.)
- Practical Functional Assessment

ORGANIZATIONAL BEHAVIOR MANAGEMENT

Organizational Behavior Management (OBM) focuses on assessing and changing the work environment to improve employee performance and workplace culture. OBM consultants and managers work in a variety of industries (e.g., health care, human services, education, government, nonprofits, manufacturing, financial services, retail) to achieve meaningful and sustainable behavior change and improved business outcomes.

OBM practitioners typically facilitate change initiatives, improve and develop processes and systems, close gaps in employee performance, retain and develop staff, and support business growth. Organizational results often include reduced accidents and injuries, improved employee retention, improved customer satisfaction and retention, cultural integration after mergers and acquisitions, improved quality standards, and increased revenue and profits.

Concentration areas within this subspecialty include: performance management, behavior-based safety, behavioral systems analysis, consumer behavior analysis, health and wellness, monetary incentive systems, training and development, and leadership and culture.

Learn More

- ▶ OBM Network
- ► <u>Cambridge Center for Behavioral Studies</u>
- ▶ International Society for Performance Improvement

BEHAVIOR ANALYSIS IN BRAIN INJURY REHABILITATION

Brain injuries can result in lifelong physical, cognitive, and behavioral changes, which can slow progress toward rehabilitation goals and independent living. Behavior analysts add value to interdisciplinary teams for patients with a brain injury by developing both skill-acquisition and behavior-reduction programs throughout the continuum of care (i.e., acute, post-acute, long term). Common goals for skill-acquisition programs include improved social interactions and the ability to return to work. Common goals for behavior-reduction programs include decreased aggression and inappropriate vocalizations.

Symptoms following brain injury are highly idiosyncratic, which makes behavior analysts' use of single-subject designs particularly useful for evaluating rehabilitative outcomes (e.g., monitoring behavior following medication changes). Given rising healthcare costs and the reduced availability of rehabilitation services, behavior analysts' focus on measurement, accountability, and evidence-based treatment makes them integral to a patient's success.

Learn More

- ▶ ABA Rehab Special Interest Group
- Brain Injury Association of America
- ▶ Cambridge Center for Behavioral Studies
- North American Brain Injury Society
- ▶ Brainline: All About Brain Injury and PTSD

BEHAVIORAL GERONTOLOGY

Behavioral gerontology is the application of behavior analysis to age-related issues. By 2030, more than 20% of the U.S. population will be over the age of 65, and 1 in 3 seniors will have obesity, depression, diabetes, and/or a neurocognitive disorder, among other conditions. Behavior analysts can work directly with seniors or with care staff to implement sustainable, non-pharmacological supports to enhance quality of life and care services, decrease challenging behaviors, maintain daily life skills, implement memory and language programs, preserve medication adherence, and prolong independence for medical conditions related to aging.

Concentration areas within this subspecialty include: behavioral medicine, health and fitness, mental health, memory problems, and neurocognitive disorders.

Learn More

- ▶ Behavioral Gerontology Special Interest Group
 - On Facebook

CLINICAL BEHAVIOR ANALYSIS

Clinical behavior analysis is the application of the conceptual and methodological tools of behavior analysis to treat problems that have traditionally been characterized as mental disorders. Clinical behavior analysts work in universities, hospitals, outpatient clinics, as well as in primary care and residential settings. Common problems addressed through clinical behavior analysis include depression, anxiety, stress, relationship discord, substance misuse, chronic pain, disruptive behavior, impulsivity, inattention, tic disorders, and sleep disturbance, among others. Interventions involve understanding clients' thoughts, feelings, and actions—all of which are viewed as behavior that must be understood in context—thereby necessitating descriptive functional analyses of their environmental antecedents (distal and proximate, verbal and nonverbal) and consequences (immediate and delayed, verbal and nonverbal). Common modalities and forms of clinical behavior analysis include acceptance and commitment therapy, behavioral activation, behavioral parent training, community reinforcement, comprehensive behavioral intervention for tics, contingency management interventions, dialectical behavior therapy, functional analytic psychotherapy, integrative behavioral couples therapy, and stimulus control therapy for insomnia.

Learn More

- ► Clinical Behavior Analysis Special Interest Group
- ▶ Association for Contextual Behavioral Science

BEHAVIOR ANALYSIS IN EDUCATION

Behavior analysis has been used to improve teaching and increase learning across content areas, grade levels, and student populations for over 60 years. It provides a scientific approach to designing, implementing, and evaluating instruction based on analyzing interactions between what the teacher does and student learning. Behavioral strategies and tactics are used to teach academics, social, vocational, and daily living skills, and to improve entire systems of schooling. Key features include high rates of relevant learner responses with contingent feedback, and ongoing instructional decision-making based on direct and frequent measures of student performance. Behavioral instructional design informs curriculum development from basic academics to concept formation and problem solving.

Concentration areas within this subspecialty include: classroom management, curriculum and instruction, direct instruction, educational technology, evidence-based education, general education, gifted education, mainstream education, special education, instructional design, personalized system of instruction, precision teaching, programmed instruction, school-wide positive behavior support, systems of schooling (administration, policy), and teacher education.

Learn More

- ▶ ABAI Statement on Students' Right to Effective Education
- ▶ Behavior Analysis & Technology ABAI Special Interest Group
- ▶ National Institute for Direct Instruction
- ▶ Schoolwide Positive Behavioral Intervention & Supports
- ▶ Journal of Behavioral Education

BEHAVIORAL SPORT PSYCHOLOGY

Behavioral sport psychology focuses on the use of behavior analysis concepts, principles, and techniques to enhance the performance and satisfaction of athletes, teams, and coaches. Common goals in the area include teaching new skills; decreasing persistent errors; decreasing problem behaviors; maximizing competition performance; addressing motivation, thinking, emotions, confidence, and concentration related to athletic performance; teaching coaching techniques; and promoting adherence to a healthy diet and regular exercise regime. Common interventions in the area include goal-setting and self-monitoring, self-talk regulation, imagery rehearsal/visualization, video feedback, auditory feedback, behavioral skills training, contingency management, and the development of user-friendly manuals and computer tools for athletes. Behavioral sport psychology frequently involves evaluating interventions using single-subject research designs and placing high value on accountability for everyone involved in the program.

Concentration areas within this subspecialty include: athletic training, behavioral coaching, behavioral sport psychology consultation, personal training, and sports strength and conditioning.

- ▶ ABAI Health, Sports, & Fitness Special Interest Group
 - On Facebook
 - On Instagram
- ► Sport Science Press

PREVENTION AND BEHAVIORAL INTERVENTION OF CHILD MALTREATMENT

Child maltreatment is the commission of acts that are harmful to children, such as neglect, physical, sexual, and emotional abuse, and failure to provide needed health care and a safe environment. Each year in the U.S., approximately 650,000 children are substantiated victims of child maltreatment, roughly 80% of whom experience neglect. Behavior-analytic interventions to prevent child maltreatment focus on improving parent-child interactions, home safety, and child health care, as well as conducting planned-activity training and promoting the achievement of developmental norms. Additionally, many states and countries have evidence-based home-visitation programs that are based on behavior-analytic foundations and focus on teaching parents the skills needed to prevent child maltreatment.

Learn More

- ▶ National Safecare Training and Research Center
- ▶ PCIT International
- ► Triple P International

BEHAVIORAL TREATMENT OF SUBSTANCE USE DISORDERS

Decades of laboratory and clinical research suggest that substance use and misuse can be viewed as operant behavior sensitive to its consequences. Behavioral approaches can prevent and treat misuse of licit and illicit drugs (e.g., alcohol, stimulants, opioids, nicotine) and associated psychosocial problems (e.g., psychiatric comorbidities, unemployment). Several evidence-based, comprehensive interventions have been derived from behavioral principles such as the Community Reinforcement Approach, Reinforcement-based Treatment, and behavior therapies for families and adolescents. Contingency management, under which desirable consequences are provided for objective evidence of drug abstinence, is one of the most effective psychosocial approaches to substance use disorders. Behavioral treatments occur in medical and academic research settings, primary care, community-based specialty care clinics, workplaces, and in the Veteran Affairs Administration in the United States. Technology-based delivery of behavioral treatment is increasing access via computer, the internet, and mobile devices.

- ▶ Promoting Awareness of Motivational Incentives
- ▶ Principles of Drug Addiction Treatment: A Research-Based Guide —
- Contingency Management Interventions/Motivational Incentives
- Community Reinforcement Approach Plus Vouchers
- ACT for Addictions: Studies and Publications

BEHAVIOR ANALYSIS IN ENVIRONMENTAL SUSTAINABILITY

The devastating effects of climate change, as well as air and water pollution, underscore the urgent need for sustainable practices that meet the world's growing energy demands while greatly reducing carbon emissions. These sustainable practices consist of behaviors that serve the needs of individuals, families, communities, corporations, governments, and humanity at large, while not further harming Earth's ecosystems. Behavior analysts collaborate with experts and policy makers to improve sustainable practices in a variety of areas including environmental conservation and preservation; energy use and renewable energy; pollution, emission control, and transportation; food production, consumption, and waste; recycling and waste reduction; consumer education; and political action. Behavior analysts use a range of interventions, such as targeted feedback, environmental arrangements, and group contingencies, as well as policy and systems change to increase and improve sustainable practices.

Learn More

- ▶ Behaviorists for Social Responsibility ABAI Special Interest Group
- ▶ ABA and the Earth Facebook page
- Conference Archives
 - 2012 ABAI Behavior Change for a Sustainable World
 - Annual Behavior Energy & Climate Change Conference programs (2007-present)

BEHAVIOR ANALYSIS IN HEALTH AND FITNESS

Behavior analysts apply behavior-analytic concepts and principles to improve personal health and fitness, primarily outside of the formal healthcare system, with a focus on health promotion through diet and exercise modification. Behavior analysts work directly with individuals, or in collaboration with healthcare professionals, registered dietitians, and personal trainers, to help individuals achieve meaningful behavior change, such as sustained adherence to dietary and physical activity regimens, to improve individualized health and wellness outcomes. Interventions in this area typically include task clarification, goal-setting, self-monitoring, accountability, feedback, self-talk regulation, stimulus control, behavioral skills training, and contingency management.

Concentration areas within this subspecialty include: nutrition coaching, health promotion, wellness coaching, lifestyle coaching, personal training, behavioral health coaching.

- ▶ Behavior Analysis Health, Sport & Fitness Special Interest Group
 - On Facebook
 - On Instagram
 - On Twitter

BEHAVIORAL PEDIATRICS

Behavioral pediatrics is the application of behavior analysis to behavior problems that present in pediatric medical settings. This area of application is important because up to half of all pediatric medical visits involve behavior problems that could be remediated through behavior-analytic treatment approaches. There are four main domains of concern: 1) routine behavior problems (e.g., bedtime resistance); 2) behavior problems with significant medical dimensions (e.g., encopresis); 3) medical problems with significant behavioral dimensions (e.g., diabetes); and 4) noncompliance with medical regimens. Common behavioral pediatric interventions include: 1) supportive health education (e.g., learning, development, sleep) and 2) prescriptive treatment (e.g., programs for all behavior problems presenting in pediatric settings).

BEHAVIOR ANALYSIS IN PUBLIC HEALTH

Public health promotes and protects the health of people and communities at the population level. Most issues faced in public health involve some element of human behavior, so the principles of behavior analysis can complement and enhance interventions at all three levels of public health: primary (i.e., prevention), secondary (i.e., screening), and tertiary (i.e., treatment). A cohesive operant framework, for example, can inform assessment and intervention development to increase positive health behaviors (e.g., healthy food choices, increased exercise) and mitigate behaviors that negatively impact population health (e.g., improper hand hygiene, smoking). Work can also be done with policymakers, local and state departments of health, and other stakeholders to identify health behaviors and implement interventions that promote and protect the health of the community.

- ▶ Behaviorists for Social Responsibility: https://bfsr.abainternational.org/
- ▶ American Public Health Association: https://apha.org/