

## Lecture 2

### Book Behavior Modification – What it is and How to Do it

#### Chapter 2 Areas of Application an Overview

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#### Summary

The areas of applying behavior modification are as follows

- ❖ **Parenting and child management** – Behavior modification has various techniques to teach parents how to improve their child rearing practices. Behavioral techniques have been applied to help parents teach their children to walk, develop their children's initial language skills, toilet train their children, and influence their children to do household chores. Parents have also been taught behavior strategies for decreasing problem behaviors, such as nail biting, temper tantrums, aggressive behaviors, ignoring rules, failure to comply with parents' requests, and frequent arguing. Some child and adolescent behavior problems are so complex that behaviorally oriented clinical psychologists have to treat the problems directly.
- ❖ **Education:** From Preschool to university – Out-of-seat behavior, tantrums, aggressive behavior, and excessive socializing have all been successfully dealt with in classroom settings. Other applications have involved modifying academic behavior directly such as oral reading, reading comprehension, composition, spelling, handwriting and mastering mathematics and science concepts. Success has also been achieved in applications with individuals with special problems, such as learning disabilities, hyperactivity and attention deficits. The Personalized System of Instruction (PSI), developed by Fred S. Keller and his colleagues in 1960, is one of the important innovations in behavioral approaches to teaching. It is also known as Keller plan and some of its characteristics are:
  1. Identifies the target behaviors or learning requirements for a course in the form of study questions.
  2. Requires students to study only a small amount of material before demonstrating mastery, such as the amount of material in one or two chapters that might be studied in a week or two.

3. Has frequent tests (at least once every week or two) in which students demonstrate their knowledge of the answers to the study questions.
4. Has mastery criteria so that students must demonstrate mastery at a particular level before going to the next level.
5. Is non-punitive i.e. students are not penalized for failing to demonstrate mastery on a test but simply restudy and try again.
6. Uses a number of student assistants called 'proctors' to score tests immediately and provide feedback to students concerning test performance.
7. Incorporate a "go-at-your-own-pace" feature in which students are allowed to proceed through the course material at rates that suit their own particular abilities and time demands.
8. Uses lectures primarily for motivation and demonstration rather than as a major means of presenting new information.

At the University of Manitoba, computer aided PSI called CAPSI is popular with both on-campus and off campus students. An innovation feature of CAPSI is the use of students who have mastered a given unit of study material to serve as peer reviewers for that study unit. Studies of CAPSI courses have demonstrated measurable feedback accuracy by peer reviewers and compliance with feedback by students.

❖ **Developmental disabilities – The following disabilities have been dealt with:**

- **Intellectual disabilities** – It has been described by the American Association on Intellectual and Developmental Disabilities (AAIDD) as “a disability characterized by significant limitations both in intellectual functioning and in adaptive behavior as expressed in conceptual, social and practical adaptive skills. This disability originates before age 18.” The effectiveness of behavioral techniques for teaching persons with intellectual disabilities behaviors such as toileting, self-help skills (like feeding, dressing, and personal hygiene), social skills, communication skills, vocational skills, leisure-time activities, and a variety of community survival behaviors.
- **Autism** - Autism spectrum disorder (ASD) and autism are both general terms for a group of complex disorders of brain development. Children diagnosed with autism are likely to show some combination of impaired social behavior, impaired communication, abnormal play behaviors, and repetitive self stimulatory behaviors (e.g. spinning objects in front of their eyes). They are also likely to perform below average on a variety of self care tasks such as dressing, grooming and feeding. In the 1960's and 1970's, Ivar Lovaas developed behavioral treatments for children with autism. Using an approach he called Early Intensive Behavioral Intervention (EIBI), Lovaas focused on strategies to teach social behaviors, eliminate self-stimulatory behaviors, and develop language skills. When EIBI was applied to children with

autism less than 30 months old, 50% of those children were able to enter a regular classroom at the normal school age and the behavioral treatment produced long lasting gains.

- ❖ **Schizophrenia** – People with schizophrenia may hear voices other people don't hear or they may believe that others are reading their minds, controlling their thoughts, or plotting to harm them. These experiences are terrifying and can cause fearfulness, withdrawal, or extreme agitation. People with schizophrenia may not make much sense when they talk, may sit for hours without moving or talking much, or may seem perfectly fine until they talk about what they are really thinking. There is a clear evidence of the success of behavior modification treatments with this population. As inadequate social relationships represent a prime contributor to the poor quality of life experienced by people with schizophrenia, social skills have been one of the behaviors targeted for change. Research has shown success in teaching positive social interactions, communication skills, assertive skills and job finding skills. Cognitive- behavioral skills have also been used to reduce or eliminate hallucinations or delusions in persons with schizophrenia.
  
- ❖ **Behavior Therapy:** Behavior modification in clinical settings – Many studies have demonstrated that there are definite problem areas such as phobias, obsessive-compulsive disorders and depression for which specific behavioral procedures are demonstrably superior to other forms of psychotherapy. According to Stephen Ray Flora (2007) most psychological problems including eating disorders, phobias, obsessive-compulsive disorder, attention deficit hyperactivity disorder, depression, schizophrenia, sleep disorders, and various sexual disorders are behaviorally based, not neuro-chemical or brain based. He argues further that for such problems, behavior therapy is more effective than drug treatment.
  
- ❖ **Self management of personal problems:** Many people would like to change something about themselves. It may be referred to as self-management, self-control, self-adjustment, self-modification or self-direction. Successful self modification requires a set of skills that can be learned. These skills involve ways of rearranging the environment to control one's behavior. Hundreds of successful self-modification projects directed at problems such as saving money, increasing exercise behavior, improving study habits and controlling gambling have been reported in psychological literature.
  
- ❖ **Medical and health care:** In the late 1960's , psychologists working with physicians began using behavior modification techniques to treat chronic headaches, respiratory disorders, hypertension and other medical problems such as seizure disorders, chronic pain, addictive disorders and sleep disorders. This launched 'behavioral medicine', a broad interdisciplinary field concerned with the links among health, illness and behavior. behavioral psychologists practicing behavioral medicine work in close consultation with physicians, nurses, dieticians, sociologists and other specialists on problems that, until recently, have been considered to be

of a purely medical nature. Within behavioral medicine, health psychology considers how psychological factors can influence or cause illness and how people can be encouraged to practice healthy behavior to prevent health problems. Health psychologists have applied behavioral principles in five major areas:

- a) **Direct treatment of medical problems:** Health psychologists are continuing the trend of developing behavioral techniques to treat symptoms such as migraine headaches, back aches or stomach problems directly. One such technique is called ‘biofeedback’ which consists of providing immediate information to an individual about that persons’ physiological processes, such as heart rate, blood pressure, muscle tension, and brain waves. Such information helps the individual to gain control over the physiological process that is monitored. Biofeedback has been successfully used to treat a variety of health problems including high blood pressure, seizures, chronic headaches, irregular heart beat or arrhythmia, accelerated heart rate or tachycardia, and anxiety.
  - b) **Establishing treatment compliance:** Some people do not keep their appointments with their doctors or do not always take medication exactly as prescribed by the doctor. As this is behavior, it can be altered through behavior modification techniques.
  - c) **Promotion of healthy living:** An important area of behavior modification involves the application of techniques to help people manage their own behaviors to stay healthy such as by eating well balanced meals and exercising frequently.
  - d) **Management of caregivers:** Health psychologists are concerned not only with those of their clients but also of those who have an impact on the medical condition of the client. Changing the behavior of physicians, nurses, psychiatric nurses, occupational therapists and other medical personnel to improve services provided to patients is receiving increased attention.
  - e) **Stress management:** An important area of health psychology concerns the study of stressors (conditions or events that present coping difficulties) , their effects on behavior, and the development of behavioral strategies for coping with stressors.
- ❖ **Gerontology:** As the elderly are in an increasing percentage of the population, more and more individuals must deal on a daily basis with the loss of skills and ability to function independently that occurs with old age or with chronic illness. Once again, behavior modification can make a positive contribution. For example, habitual ways of performing daily routines at home or at work may no longer be possible. New routines must be developed and learned. Anxiety or fear about the possibility of failing to cope also might have to be dealt with.
- ❖ **Community behavior analysis:** The scope of behavior modification has expanded from individual problems to community concerns. Behavioral community psychology has been defined as “applications to socially significant problems in unstructured community settings where the behavior of individuals is not considered deviant in the traditional sense.”

Important behavior modification projects in the 1970's included controlling littering in public campgrounds, increasing recycling of returnable soft drink containers, promoting energy conservation by increasing bus ridership, etc.

- ❖ **Business, industry and government:** Behavior modification has been applied to improve the performance of individuals in a wide variety of organizational settings, which is known as organizational behavior management (OBM). It is data oriented and emphasizes specific staff activities that characterize successful performances or produce successful results. It also emphasizes frequent feedback and rewards for employees who show desirable behaviors. Behavioral techniques have also been used to change behavior in ways that improve productivity, decrease tardiness and absenteeism, increase sales volume, create new business, improve worker safety, reduce theft by employees, reduce shoplifting and improve management employee relations.
- ❖ **Sport psychology:** Applied sport psychology has been defined as the use of psychological knowledge to enhance athletic performance and the satisfaction of athletes and others associated with sports. Techniques include improving skills of athlete, motivating practice and endurance training, changing the behavior of coaches and helping athletes prepare for competition.
- ❖ **Behavior modification with diverse populations:** Behavior modifiers have given increased attention to issues of culture, gender, ethnicity, and sexual orientation as variables that can influence the effectiveness of treatment. Differences in cultural beliefs, traditions, religion etc influence a person's behavior greatly. Therefore, information about client's cultural backgrounds can be helpful for therapists to be sensitive to the dangers of over generalizing about any particular cultural group.