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Lonny W. Morrow

Tri-County Special Education Center, Illinois

Beverly J. Kondritz

Tri-County Special Education Center, Illinois

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USE OF A SELF-CONTROL PROCEDURE TO EXTINGUISH HALLUCINATING WITH A HEARING IMPAIRED BEHAVIOR DISORIENTED ADOLESCENT

Lonny W. Morrow, Ed.D & Beverly J. Kondritz
Tri-County Special Education Center
Anna, Illinois

There is increasing recognition that hearing impaired students show a much higher incidence rate of emotional or behavioral instability and/or maladjustment than do appropriate norm groups (Bowyers & Gillies, 1972; Meadow, 1976; Reivich & Rothrock, 1972; Rodda, 1974; Schein, 1975). However, development of programs to serve this multiply handicapped population has not kept pace with the growing recognition of their diverse needs (Flathouse, 1979). Indeed, it has been predicted that resources and services will decline during the 1980's (Vernon & Rabush, 1981).

Research (Gardner, Warren & Gardner, 1977; Hallahan, Gajar, Cohen & Tarver, 1978; Marsh, Gearhart & Gearhart, 1978) has demonstrated that handicapped students tend to adopt an external locus of control. Instead of perceiving themselves to be the primary agent influencing the environment's responding to them, they tend to attribute it to chance, luck, or circumstances beyond their control.

During the past decade, the development of numerous self-control treatment procedures has demonstrated promising results in modifying disruptive behavior (Bornstein & Quevillon, 1976; McCullough, Huntsinger & Nay, 1977; O'Leary & Dubey, 1979; Rosenbaum & Drabman, 1979; Turkowitz, O'Leary & Ironsmith, 1975) and in increasing attending-to-task behavior (Glynn & Thomas, 1974; Jackson & Glynn, 1974; Lloyd, Hallahan, Kosiewicz & Kneedler, 1982). However, a paucity of interest has been indicated in the use of these procedures with hearing impaired persons. In this paper, self-control refers to the student's ability to direct and govern personal behavior appropriately in any given situation.

There are several reasons why research utilizing self-control techniques with institutionalized hearing impaired behaviorally

disordered adolescents appears warranted. Since institutionalized persons are allowed to make significantly fewer decisions about their lives, it may be extremely realistic for them to have adopted an external locus of control. The efficiency of self-control procedures has been demonstrated with other handicapped populations and there is no apparent reason to assume that they would be less effective with a hearing impaired population. Antecedent events to institutionalization usually include documented lack of appropriate self-control strategies. Discharge back into the community is usually contingent upon the student's exhibiting a minimal level of self-control behaviors. Thus, an increase in use of appropriate self-control behaviors should facilitate a minimal period of institutionalization and a decreased recidivity rate. Some professionals (Fagen & Long, 1976) have advocated that the teaching of self-control skills is an essential component of treatment procedures for students with behavioral deficits and/or major excesses.

To investigate the value of teaching self-control skills, an experiment was conducted with an institutionalized hearing impaired severely behaviorally disordered student exhibiting inappropriate behaviors. A withdrawal (ABAB) design was used to assess the frequency of what appeared to be auditory hallucinations of the 17-year-old hearing impaired female student.

METHOD

Subject

The student was a 17-year-old female with a profound sensorineural hearing loss in the right ear and a severe to profound loss in the left ear. Speech audiometry indicated a speech reception threshold of 60dB for the left ear. A discrimination score of 20% was obtained at

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her most comfortable listening level. She wore a Sears behind-the-ear hearing aid throughout all phases of the investigation.

She was first diagnosed as hearing impaired at the age of four. She attended the state school for the deaf for 10 years. She was dismissed because she was apparently hallucinating and disruptive. She reportedly went around screaming at the "Devil", beating her head on walls, throwing furniture, and exhibiting an inappropriate disdain for male peers. She was subsequently diagnosed (DSM III) Bipolar Disorder Mixed (296.6), Schizophrenic, Undifferentiated Type (259.9), and Conduct Disorder, Socialized, Aggressive (312.23) with Mixed Specific Developmental Disorder (315.50). She was also reported to have sexual identity problems, poor impulse control, low self-concept and poor social skills, and living in a fantasy world. She was also depressed and had a moderate visual impairment. She had earned a Verbal IQ of 72 and a performance IQ of 92 on the Wechsler Adult Intelligence Scale. She had been on a variety of medications and was taking 24mg of Trilafon at 8:00 a.m. and 48mg at bedtime throughout all phases of the present investigation. She was functioning in the third to fourth grade level academically.

After spending one month in an inpatient private psychiatric hospital, the student was placed in a residential treatment program and attended a segregated school for students exhibiting severe behavior disorders. Approximately one-third of these students were also hearing impaired. This program was subsequently relocated on the grounds of a state institution for the mentally ill.

The student would engage frequently in hallucinatory-like behaviors which were quite disruptive to the entire class. When engaging in these inappropriate behaviors, she would verbalize aloud, shout, and curse God and her closest friends. She also talked to imaginary, non-existent others, flailed her arms, became physically aggressive toward objects, and engaged in self-abusive behavior. Records indicated that she had exhibited these behaviors since the age of seven.

Procedure

Verbalizing aloud was defined as any

inappropriate talking to herself or imaginary others which could be heard. Flailing her arms was defined as any inappropriate movement of the arms to push or keep imaginary people or voices away from her. Physical aggression toward objects was defined as any action to objects which is likely to damage an object or likely to disrupt the educational environment. Self-abuse was defined as biting herself, hitting her head against her desk or a wall, or hitting her legs.

Event or frequency recording of these behaviors was conducted by a trained observer while she was in the classroom. The student was required to stay after school and make up all work not completed because of her inappropriate behavior during the Baseline and Withdrawal conditions. Reliability data was gathered on 20% of the days in all conditions by a second trained observer. Reliability was determined by dividing the smaller frequency number of occasions by the larger. Reliability was 100%.

After obtaining 14 days of baseline data, treatment was initiated. Treatment consisted of placing a timer on the student's desk, a 5" X 8" grid card, and necessary academic materials. She was told that the timer would be set for a five-minute interval. When the bell rang, she was to record a plus (+) if she had not exhibited any of the four behaviors. She was told to record a minus (-) if there had been an occurrence of any of the behaviors during the interval. She was then instructed to reset the timer and the process started over again. In the event that her behavior became so loud or aggressive that she disrupted the classroom, she was to be removed to a quiet room until she got herself under control. This was, however, never required.

The student was also told that for every occurrence of these behaviors, she would be given two Mediation Essays (Blackwood, 1970) which she would have to copy during her lounge period, the noon hour, or after school depending upon when the episodes occurred. If, however, her behavior immediately improved, she could negotiate to only copy one Mediation Essay. The Mediation Essay was developed by the senior author prior to initiating treatment. The primary purpose of including it as a treatment component was that

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appropriate prosocial behavior and its consequences were clearly delineated, thus providing alternative ways of behaving and likely outcomes of exhibiting those behaviors.

The Mediation Essay is comprised of four questions and their answers. After observing the student, the practitioner develops the Mediation Essay to address the student's unique learning deficits. The first question is "What did I do wrong?" and a paragraph describing in detail the appropriate behavior follows, e.g., "I kept saying I heard voices. I kept talking to the voices telling them to go away. I also cursed God and Renee. Also, my behavior was very disruptive to the rest of the class and caused Bev and Tom and Darlene trouble. This prevented me from completing the lesson on which I should have been working."

The second question asks, "Why shouldn't I do this?" and is followed by a paragraph which specifies why the behavior is inappropriate, e.g., "It makes me upset. I do not feel good about being upset. It causes my classmates to get upset with me. If I continue this behavior, they will get really disgusted with me and not want to be my friends. It also makes me get behind with my schoolwork and I may have to stay after school and complete it. This may keep me from doing something I enjoy in the Unit or Cottage after school."

The third question asks, "What should I do?" and is followed by a paragraph specifying age-appropriate behavior which should have been exhibited, e.g., "When I start to get upset or hear voices, I should very calmly tell myself that I am in control. I can choose whether or not I want to hear voices. I will tell myself over and over that I do not want to listen to the voices—that I prefer to listen to disco music. I will ask Bev if I may listen to disco music using ear phones and a cassette recorder. Then I will tell myself how clever I was to listen to disco music instead of the voices."

The final question asks "What will happen if I . . ." and is followed by a concise description of probable outcomes if the student does not display the behaviors described in the third question. "I will feel very good about myself and be very proud of myself. My classmates and teachers will all be very proud of me. I

will not get upset and be unhappy. I will feel that I am in control of myself."

Potential advantages of utilizing this technique with handicapped persons include the provision of alternative ways of behaving in this and similar situations, ease of development and implementation, wide applicability to various situations in which maladaptive behaviors are displayed, and the highlighting of specific inappropriate behaviors. Also, the level of language utilized can be easily adjusted to accommodate the student's functioning level.

Treatment was applied initially only in the homeroom setting. The student had physical education, vocational woodworking, and home economics in other buildings.

RESULTS

As indicated in Figure 1, there was much variation in the student's behavior during Baseline 1 phase. The number of target behaviors emitted ranged from 12 to 48. The mean number of daily instances observed during this phase was 18.8. When the first Treatment phase was implemented, there was an immediate and significant reduction in the targeted behaviors. There was, however, much variation during the initial part of this phase. The number of target behaviors emitted ranged from 0 to 18. The mean number of daily instances observed during this Treatment phase was 2.6. To establish experimental control, a return to Baseline conditions was implemented. This resulted in an immediate increase in the number of target behaviors. The range was from 0 to 17. The mean number of daily occurrences was 8.4. When the Treatment condition was again reinstated, there was an immediate and significant reduction observed. The range was from 0 to 3. The mean daily number of occurrences was .5. There were, however, nine days — six consecutive — on which there were no occurrences of target behaviors.

Data was gathered for a two-week period 90 days after the conclusion of the investigation. There were no episodes of the target behavior observed in any school-related environment during these two weeks. The student's teacher reported that the student had not manifested any of the targeted behaviors during the period

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between termination of treatment and follow-up. Treatment effects thus appear to have generalized to other environments and maintained a zero rate of occurrence for 90 days following the termination of the treatment procedures.

DISCUSSION

A package treatment derived from social learning principles consisting of two components of self-control, self-recording and self-reinforcement, combined with the Mediation Essay technique, was successful in quickly eliminating chronic, intractable, inappropriate hallucinatory-like behaviors in a 17-year-old institutionalized, multiply-handicapped female. In addition, treatment effects apparently generalized to other school-related environ-

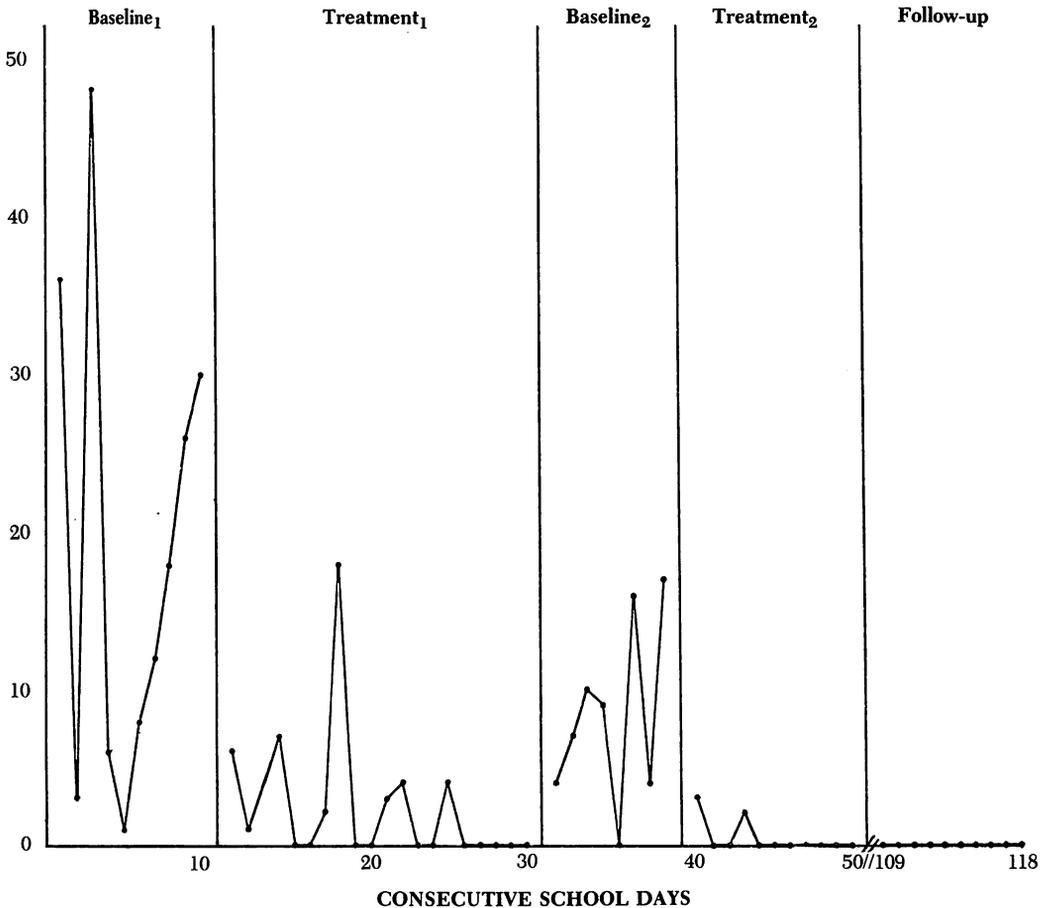
ments and were maintained for at least 90 days.

The relative contributions of each of the treatment components, self-recording, self-reinforcement, and Mediation Essay cannot be determined from the current investigation. Additional research utilizing these techniques in various combinations and order may permit such a determination.

The present investigation is limited in that it was conducted with one multiply-handicapped adolescent exhibiting highly unique behavioral characteristics. The value of the procedure cannot, thus, yet be generalized confidently to other hearing impaired youth. Further research conducted across additional hearing impaired students varying in sex, age, degree of handicap, and environ-

Figure 1. Number of hallucinatory behaviors emitted during baseline, treatment, withdrawal, treatment, and follow-up phases.

INSTANCES OF HALLUCINATORY BEHAVIOR



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ments is necessary before generalizing this finding to other youth.

The procedure presented here demonstrated sufficient results to warrant continued investigation of its merits with hearing impaired youth. It is cost-efficient and easily implemented. Although it was not the focus of the present investigation, when students

control their own behavior satisfactorily, teachers may be permitted to spend more time teaching them other important skills (O'Leary & Dubey, 1979). Use of the procedure may permit educators of the deaf to concurrently eliminate inappropriate behaviors and increase appropriate prosocial and academic skills.

REFERENCES

- Blackwood, R. D. (1970). The operant conditioning of verbally mediated self-control in the classroom. *Journal of School Psychology, 8*, 251-258.
- Bornstein, P. H. & Quevillon, D. P. (1976). The effects of a self-instructional package on overactive preschool boys. *Journal of Applied Behavior Analysis, 9*, 1979-188.
- Bowyers, L. R. & Gillies, J. (1972). The social and emotional adjustment of deaf and partially deaf children. *British Journal of Educational Psychology, 42*, 305-308.
- Fagen, S. A. & Long, N. J. (1976). Teaching children self-control: A new responsibility for teachers. *Focus on Exceptional Children, 7*, 1-11.
- Flathouse, V. E. (1979). Multiply-handicapped deaf children and public law 94-142. *Exceptional Children, 45*, 560-565.
- Gardner, D. D., Warren, S. A. & Gardner, B. (1977). Locus of control and law knowledge: A comparison of normal, retarded, and learning disabled adolescents. *Adolescence, 7*, 103-109.
- Glynn, E. L. & Thomas, J. D. (1974). Effect of cueing on self-control of classroom behavior. *Journal of Applied Behavior Analysis, 7*, 299-306.
- Hallahan, D. P., Gajar, A., Cohen, S. & Tarver, S. (1978). Selective attention and locus of control in learning disabled and normal children. *Journal of Learning Disabilities, 11*, 47-52.
- Jackson, H. J. & Glynn, E. L. (1974). Prior training and self-reinforcement in the standard two classroom. *New Zealand Psychologist, 3*, 65-73.
- Lloyd, J. W., Hallahan, D. P., Kosiewicz, M. M. & Kneedler, R. D. (1982). Reactive effects of self-assessment and self-recording on attention to task and academic productivity. *Learning Disability Quarterly, 5*, 216-227.
- Marsh, G., Gearheart C. K. & Gearheart, B. R. (1978). The learning disabled adolescent: Program alternatives in the secondary school. St. Louis: The C. V. Mosley Company.
- McCullough, J. P., Huntsinger, G. M. & Nay, W. R. (1977). Self-control treatment of aggression in a 16-year-old male. *Journal of Consulting and Clinical Psychology, 45*, 322-337.
- Meadow, K. P. (1976). Personality and social development of deaf persons. *Journal of Rehabilitation of the Deaf, 9*, 1-12.
- O'Leary, S. G. & Dubey, D. R. (1979). Applications of self-control procedures by children: A review. *Journal of Applied Behavior Analysis, 12*, 449-465.
- Reivich, S. R. & Rothrock, I. A. (1972). Behavior problems of deaf children and adolescents: A factor-analytic study. *Journal of Speech and Hearing Research, 15*, 93-104.
- Rodda, M. (1974). Behavioral disorders in deaf clients. *Journal of Rehabilitation of the Deaf, 6*, 1-13.
- Rosenbaum, M. S. & Drabman, R. S. (1979). Self-control training in the classroom: A review and critique. *Journal of Applied Behavior Analysis, 12*, 467-485.
- Schein, J. D. (1975). Deaf children with other disabilities. *American Annals of the Deaf, 120*, 92-99.
- Turkowitz, H., O'Leary, D. D. & Ironsmith, M. (1975). Producing generalization and maintenance of appropriate behavior through self-control. *Journal of Consulting and Clinical Psychology, 43*, 577-583.
- Vernon, M. & Rabush, D. (1981). Major developments and trends in deafness. *Exceptional Children, 48*, 254-256.