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ABSTRACT

Traditionally, the treatment of geriatric patients suffering from Organic Brain Syndrome (OBS) has been characterized by non-therapeutic custodial care. To determine whether elderly clients with dementia can benefit from self-care skill training, and to compare their progress with clients without OBS, 30 clients of the Residential Aging Program in Florida (15 with OBS, 15 without OBS) participated in a behavioral training program to improve self-care skills. Following a 2-week baseline period, subjects were trained in deficit areas. During the training period, subjects were assessed weekly on the General Appearance Rating Scale. The subjects were divided into three groups: non-demented; high-scoring demented; and low-scoring demented. There was an overall difference between the groups, with low-scoring demented subjects scoring significantly below high-scoring demented or non-demented subjects. The analysis also indicated an effect of measurement period. The values for the two baseline weeks, after 1 month of training and at discharge did not differ from one another, but were both significantly lower than the 1-month and discharge scores, which did not differ. This pattern was similar for all three groups. A significant difference in length of training was found, with the non-demented subjects requiring an average of 4.4 weeks of training, the high-scoring demented requiring 7.4 weeks, and the low-scoring demented requiring 15.4 weeks. These findings suggest that individuals with mild to moderate dementia are capable of modest rehabilitation of self-care skills. (BL)

A Behavioral Approach to Improving Self-care Skills in OBS Patients

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A Behavioral Approach to Improving Self-care Skills in OBS Patients

The treatment of geriatric patients suffering from Organic Brain Syndrome or dementia has generally been characterized by non-therapeutic custodial care. Recently, behavioral therapy techniques have been applied to this population for the treatment of urinary incontinence and inappropriate sexual behavior (Hussian, 1981) and to improve memory through direct training of the desired information (Johnson, Fralliciardi, & Patterson, 1977; Zarit, Zarit & Reaver, 1982). Mishara (1978) developed a general token economy therapy for institutionalized OBS patients who could earn tokens for social, self-care, and ward-care activities. For approximately half of the subjects a decrease in amount of staff assistance required for self-care activities was observed.

Our approach was to combine a token economy with specific training of desired behaviors. Mishara's subjects were reinforced for performing self-care activities unassisted, but no actual training of the skills occurred. Our program emphasizes training, assuming that the best way to improve behavior is to teach the necessary skills. The Aging Program is a modular behavioral program designed to treat the mentally ill elderly, both with and without organic impairment (Patterson, Dupree, Eberly, Jackson, O'Sullivan, Penner, & Dee-Kelley, 1982). Separate training modules were developed to teach the skills found lacking in the clients, including self-care skills, memory development, communication skills, conversation, and self-esteem. Training utilized behavioral techniques, such as prompting, modeling and reinforcement.

A major component of the program was the assessment process. All clients were assessed in all areas during the initial week of their stay. Based on these assessments they were assigned only to modules dealing with skills that were found deficient. Thus training was not initiated if the skill was intact. Likewise, problems did not go unnoticed for long, since the assessment process generally found them during the first week. The assessments were readministered on a monthly basis thereafter, so that a client's progress in the modules could be determined, and training could be discontinued when proficiency was reached.

Previously reported data have shown that this modular behavioral program is effective in improving the behavior of the mentally ill elderly in general (Patterson, et al., 1982). The purpose of this study was to look specifically at those clients diagnosed as having OBS, to see whether it has been similarly effective with them. In particular, we were interested in whether our self-care skills training was having any effect. Failure to maintain proper hygiene is a common problem among the institutionalized elderly. In addition to the health implications of poor hygiene there are also social implications. The less presentable an elderly person is, the less likely it is that others will wish to associate with him or her.

The loss of self-care skills is particularly common among the elderly suffering from dementia. They may no longer be able to bathe or wash their hair alone. Even with the help of a care-giver, basic hygiene may become a daily battle that is frustrating for both parties. We felt that the ability

to care for one's hygiene needs with little or no assistance was essential to avoiding institutionalization. While this skill was by no means the only criterion for noninstitutional living, we felt it was one that the mildly to moderately severely demented person could reacquire through behavioral training.

The skills covered in this training program include bathing, oral hygiene, hair and nail care, shaving, and care of one's clothing. The training classes begin with a discussion of the need for these self-care skills, then continues with step-by-step instructions for the particular skill (Table 1). The clients then practice the skills during the second half of the training class. When necessary, the staff will prompt the clients to ensure that the behavior is completed correctly. The least amount of prompt needed to complete the task is used, and the prompts are gradually eliminated until the behaviors are performed indeperdently. Throughout training token and social reinforcement are given in response to any correct practice of a skill (Table 2).

The assessment for the self-care skills training program is the General Appearance Rating Scale. This is a 15-item checklist, completed by a staff member, that touches on each of the areas covered in this training program. It is administered once a week. If deficits are found on a particular item on this checklist for 2 weeks in a row an in-depth assessment is made of the actual skill involved. For example, if a client's hair appears dirty for 2 consecutive weeks a skills assessment of hair care abilities will be made. Training is initiated only for those skills that are found to be

deficient, based on the General Appearance Rating Scale and the individual skills assessments.

For this study we were interested in determining whether clients with dementia could benefit from self-care skills training, and if so, how their progress would compare to that of clients who had no organic impairment. Thus two measures were of interest: Whether or not the skills were learned and how long the training would have to continue.

Method

Subjects

Thirty clients of the Residential Aging Program at the Florida Mental Health Institute served as subjects; fifteen with a diagnosis of OBS or dementia and fifteen with no diagnosed organic impairment. Dementia subjects had to score 3 or less on a 6-item admission test of memory for personal information and non-demented subjects had to score 4 or more. The two groups were equated on several demographic variables that might influence therapy outcome. Mean age was 69.4 years, and the subjects had, on average, 2 prior psychiatric hospitalizations. All were ambulatory, continent, and not considered to be a danger to self or others.

Procedure

All subjects were assessed weekly on the General Appearance Rating Scale for the first 2 weeks they were in the program. These 2 pre-treatment assessments were used as a baseline for comparing any change in behavior

during the course of training. Two weeks of baseline were used for two reasons. First, many of the subjects came to the program directly from hospitals and institutions where their grooming needs were cared for by staff members. We felt it might take more than one week for their failure to self-groom to become evident. Second, there may be social or self-imposed pressure to improve one's appearance when surrounded by others who are well groomed. We waited 2 weeks before beginning any training so as not to confound this source of improvement with our training.

After the two-week baseline period, each subject was assigned to particular skills training classes, as determined by their scores on the General Appearance Rating Scale and the skills assessment. If they showed deficits on the Rating Scale and the skills assessment showed problems with the actual skill, training was initiated. If a deficit was found on the Rating Scale but the skill was found to be intact, different staff intervention was begun. Finally, if the subject showed no deficits on the Rating Scale, no training or other intervention was used. Individuals were trained only in those areas in which they showed deficits.

Throughout the subject's stay in the program the General Appearance Rating Scale was administered weekly, regardless of whether the person was in training. This allowed us to note any new problems and to assess any changes in appearance during the course of training. For this study the scores on the Rating Scale of the demented and the non-demented subjects were compared. The 2 baseline scores, the score after 6 weeks in the program (1 month after training was initiated) and the score during the week of

discharge were included.

Results

As a result of the baseline Rating Scale scores, 14 of the demented and 7 of the non-demented subjects entered self-care skills training. Of the 14 demented subjects, 7 required training in only 1 or 2 skills areas, while the other 7 required training in at least 3 areas. The first group will be called the high-scoring demented and the second group will be referred to as low scoring. Thus the 21 subjects requiring self-care skills training fell into three groups: non-demented, high-scoring demented, and low-scoring demented.

An analysis of variance of the four Rating Scale scores for the subjects in the three groups indicated that there was an overall difference between the groups, $F(2,18) = 8.49$, $p < .01$. Low-scoring demented subjects ($\bar{X} = 10.0$) scored significantly below high-scoring demented (12.5) or non-demented subjects (12.1). The analysis also indicated an effect of measurement period, $F(3,54) = 6.82$, $p < .01$. The values for the two baseline weeks, after one month of training, and at discharge were 10.7, 10.7, 12.9 and 12.0, respectively. An LSD of 1.16 indicated that the two baseline measures did not differ from one another, but that they were both significantly lower than the 1-month and discharge scores, which did not differ. This pattern was similar for all three groups (Figure 1), as suggested by the non-significant interaction, $F(6,54) = 2.34$.

The second measure recorded for each subject was how long training had to continue. Here the differences between the three groups was particularly apparent. The non-demented subjects required an average of 4.4 weeks of training, the high-scoring demented required 7.4 weeks, and the low-scoring demented required 15.4 weeks. An analysis of variance indicated significant differences between these values, $F(2,18) = 12.46$, $p < .01$. An LSD of 4.79 confirmed that the only difference was longer training required for the low-scoring demented, compared to the other two groups, which did not differ.

Discussion

Individuals with mild to moderate dementia are capable of modest rehabilitation of self-care skills. Particularly for those subjects who were most deficient when they entered the program, personal hygiene improved after one month of behavioral training. At this point their Appearance Rating Scale scores were not noticeably different from the high-scoring demented and the non-demented subjects. The major difference between the groups was the length of time they required training beyond this point. For the nondemented subjects, most were performing the skills independently (without prompts) after 4 or 5 weeks of training. For the demented subjects prompts were still needed for them to complete the skill correctly. That is, the process of fading out the tactile and verbal prompts took much longer for the demented subjects. However, with only two exceptions, the demented

subjects eventually mastered the skills and were able to complete them with no prompting from the staff.

Most of the demented subjects were discharged to boarding homes (47%) or private residences with relatives (33%). The ability to care for much of their own personal hygiene with little prompting or help from others may have contributed to their non-institutional placements. While we don't expect these reacquired skills to remain permanently intact as the dementia progresses to the more severe stages, anything that delays the period of total dependence is helpful to the demented individual and his care givers. Through the appropriate application of behavioral training techniques, personal hygiene seems to be one area in which this is possible.

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TABLE 1

A. **OBJECTIVES**

1. FAMILIARIZE CLIENTS WITH HAIR CARE PRODUCTS.
2. TEACH CLIENTS WHEN AND HOW TO CARE FOR HAIR.
3. TEACH CLIENTS HOW TO TREAT SPECIAL PROBLEMS.

B. **MATERIALS NEEDED**

SHAMPOO, CONDITIONER OR CREAM RINSE, BRUSH, COMB, HAIR ROLLERS OR CURLERS, SPECIAL HAIR PRODUCTS (DANDRUFF SHAMPOO, ETC.)

C. **INFORMATION TO DISCUSS**

1. HOW DO YOU TAKE PROPER CARE OF YOUR HAIR?
   - A) KEEP HAIR CLEAN. USE SHAMPOO.
   - B) KEEP HAIR IN GOOD CONDITION. USE CREAM RINSE OR CONDITIONER IF NEEDED.
   - C) KEEP HAIR BRUSHED OR COMBED. REGULAR BRUSHING IS GOOD FOR HAIR AND SCALP.
   - D) CURL OR STYLE HAIR AS DESIRED.
2. HOW OFTEN SHOULD YOU WASH HAIR?
   - A) AT LEAST ONCE A WEEK. MORE OFTEN IF OILY.
3. WHAT ARE SOME COMMON HAIR PROBLEMS?
   - A) DANDRUFF, OILY HAIR, DRY HAIR, THIN HAIR, ETC.
   - B) DISCUSS PRODUCTS MADE SPECIFICALLY FOR HAIR PROBLEMS.

D. STEPS TO PROPERLY WASH HAIR

1. WET HAIR THOROUGHLY
2. APPLY SHAMPOO (DANDRUFF SHAMPOO IF NEEDED)
3. MASSAGE IN WELL
4. RINSE HAIR WELL
5. DRY HAIR WITH TOWEL
6. BRUSH OR COMB HAIR (USE HAIR DRYER IF DESIRED).

TABLE 2

1. **TRAINING DISCUSSION**

   TRAINER EXPLAINS WHY CLIENT IS IN TRAINING AND HOW CLIENT CAN GRADUATE.

2. **GENERAL DISCUSSION**

   TRAINER PROMPTS CLIENTS TO DISCUSS WHY SELF-CARE SKILLS ARE IMPORTANT AND WHAT THE STEPS ARE IN COMPLETING THE SKILLS.

3. **REINFORCEMENT**

   TRAINER VERBALLY REINFORCES CLIENTS FOR PARTICIPATING IN DISCUSSION.

4. **PRACTICE**

   EACH CLIENT INDIVIDUALLY PRACTICES THE SKILL COVERED IN THE DISCUSSION.

5. **PROMPTING**

   TRAINER USES THE LEAST AMOUNT OF PROMPT NECESSARY TO GET THE CLIENT TO COMPLETE THE SKILL. IN ORDER OF AMOUNT OF DIRECTION, THESE PROMPTS ARE:

   A) VERBAL-GIVING SPECIFIC VERBAL DIRECTIONS
   B) MODELING - TRAINER PERFORMS SKILL TO SHOW CLIENT THE STEPS
   C) OCCASIONAL PHYSICAL ASSISTANCE - TRAINER TOUCHES CLIENT OCCASIONALLY TO PARTIALLY GUIDE HIM/HER THROUGH THE SKILL.
   D) COMPLETE PHYSICAL ASSISTANCE - TRAINER USES HAND-ON-HAND TOUCH TO GUIDE CLIENT THROUGH ALL ASPECTS OF SKILL.

6. **REINFORCEMENT**

   CLIENT IS GIVEN ONE REINFORCEMENT TOKEN FOR EACH SKILL STEP COMPLETED WITHOUT PROMPTING.

7. **FEEDBACK**

   STEPS THAT REQUIRED PROMPTING ARE DISCUSSED WITH THE CLIENT.

FIGURE 1

GENERAL APPEARANCE RATING SCALE SCORES