

*THE UNIT PLAY MANAGER AS FACILITATOR
OF PURPOSEFUL ACTIVITIES AMONG INSTITUTIONALIZED
PROFOUNDLY AND SEVERELY RETARDED BOYS*

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Child care workers were trained in specified techniques (play manager routines) in an effort to increase purposeful activity among a group of profoundly and severely retarded institutionalized boys. A system of prompts, increasing the availability of toys and regular staff monitoring, were alternated with normal institutional routines in an ABA reversal design. On the average, activity level increased from 10% to a mean of 70% during treatment conditions. Correspondingly, stereotyped or harmful behaviors decreased from an average of 20% to 70% during treatment.

DESCRIPTORS: severe retardation, profound retardation, activity level

Institutionalized, profoundly and severely retarded children have been characterized as having an extremely low activity level, i.e., little or no involvement in some purposeful or appropriate task (Littlefield, 1973; Quilitch, 1975; Stanfield, 1973). Additionally, these children are often seen as having minimal interactions with peers or adults and as preferring sedentary activities such as watching television (Heimark & McKinney, 1971; Katz & Yekutieli, 1974).

One approach used in facilitating purposeful activity among this population is to modify the physical environment by increasing availability of equipment and improving staff schedules so as to make staff more accessible to residents (Hart & Risley, 1976). For example, in addition to developing schedules for bathing, toileting, and feeding residents, Risley and Favell (1979) devised a "play manager" routine. The principal role of the play manager was to promote resident interaction with his or her surroundings.

In addition to increased availability of equipment, regular prompting in the use of equipment

(McClannahan & Risley, 1975), and the combining of differential reinforcement with an enriched environment (Horner, 1980) have also been shown to increase activity level.

The purpose of this study was to devise an economical yet effective system by which regular child care staff would be trained to increase purposeful, appropriate activities among severely and profoundly retarded children by prompting the use of readily available toys and equipment.

METHOD

Participants and Setting

The study was conducted on a 16-bed residential unit located on the campus of a school for moderate to profoundly retarded children. The school, which had a population of about 450 children, is situated in a middle-sized midwestern city. In addition to residential accommodations for 16 children, the 6-yr-old residence, where this research was conducted, contained one large lounge area as well as two 11' × 22' (3.4 × 6.7 m) dayrooms which were ordinarily used for watching TV, and receiving visitors. Since these two dayrooms received the least use during the day, one of them was designated as the location for conducting the experimental proce-

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dures which have been named the play manager routines.

Participants in this study consisted of 14 boys, all of whom lived on this residential unit. The boys ranged in age from 8 to 18 yr, with a mean age of 12.7. Their mean length of stay at the school was 5.7 yr. With the exception of one boy, who had a mental age of 3 yr, all boys had mental ages below 2 yr and IQ's below 20. All were essentially nonverbal and, with one exception, ambulatory. Of the 14 boys, four had what could be described as chronic maladaptive problems. Two rocked back and forth constantly, one had daily episodes of tantrumlike behavior, while a fourth child engaged in periodic episodes of self-injurious behavior (striking himself in the throat). Additionally, a number of children presented multiple physical handicaps, including uncontrolled seizures, legal blindness, and partial hearing loss. All boys living on the unit, whatever their handicaps, were included in this study.

Procedure

The play manager routines were carried out each weekday between 2:00 p.m. and 3:30 p.m. in one of the residential unit's dayrooms. Other than what was loosely described as "free play," no other activities were previously scheduled between these hours. To avoid fatigue, at 30-min intervals a different staff member was assigned the role of play manager. Before beginning as play manager, each staff member would first prepare the room by setting up specified play "zones," i.e., designated areas where certain toys would be available. For example, one corner of the room was reserved for coloring, finger paints, and drawing; the middle of the room was reserved for movable or semimobile equipment such as a hollowed-out barrel and a rocking horse. The concept of "zone" assignments of staff was originally developed by LeLaurin and Risley (1972).

Toys in the playroom were selected so as to be

usable and interesting to children with differing levels of ability. For example, stuffed animals and music boxes were available along with more "active" toys such as puzzles, rocking horses, and a water table. As in the case of staff, toys were rotated every 30 min so as to avoid boredom.

Briefly, the role of the play manager included: (a) directing unoccupied children toward play equipment and manually prompting the appropriate use of toys; and (b) supervising and circulating constantly through the play area. Prompting in this case consisted of either first placing an item in the child's hands or placing the child's hands on an activity, then manually guiding this child through the activity while providing a brief verbal direction. If, after prompting, the child refused to engage in that activity, another toy or activity was selected and the child was again prompted in its use.

Operation of the playroom began at 2:00 p.m. when the first children returned from school. As the children entered the residential unit, the outside staff person (i.e., staff located in the lounge area and not running the play manager routine) guided the child to the play area and announced to the play manager the child's presence. Although children could enter or leave the play area whenever they wished, most remained until 3:30 when the playroom was closed in order to begin preparing for dinner. On the average, 12 out of 14 boys were located in the play area at any given moment when the play manager routines were in operation. Minor incidents of disruptive behavior were defined as shouting (less than 1 min), spitting, and throwing toys. These incidents were handled by contingent observation (Porterfield, Herbert-Jackson, & Risley, 1976). Severe incidents of disruptive behavior were defined as shouting (more than 1 min), having tantrums, biting, kicking, hitting, or otherwise physically endangering either peers or staff. These behaviors were handled through a technique referred to as "time-away." Time-away involved removing the child from the playroom, but allowing him access to other

areas on the residential unit. Other than exclusion from the playroom, no attempt was made to restrict the child's movements. After 5 to 10 min, when the child was calm, he was invited to return to the playroom.

Although time-away is similar to time-out, in that an individual is prevented from engaging in potentially reinforcing events, unlike the latter technique, time-away makes no attempt to confine an individual to a circumscribed area. Hence, it is potentially a less restrictive method for reducing disruptive behavior.

Dependent variables for the study included measures both of children's activity levels and of maladaptive or inappropriate behavior. A boy was considered engaged or "on-task" if he met any one of five different criteria. These were: (a) actively playing or working with a designated task or activity; (b) traveling to or from a designated task or activity; (c) involved in a group activity (e.g., catch or a group game); (d) being talked to or being instructed by a staff person; (e) being manually or physically guided by a staff person.

Maladaptive or inappropriate behavior, on the other hand, was defined as the occurrence of a behavior of any one of five different categories. These categories were: (a) stereotyped movement (i.e., twirling and rocking); (b) aggression (i.e., throwing objects, spitting, hitting, kicking or biting peers or staff); (c) self-injurious behavior; (d) inappropriate use of equipment (i.e., smelling, licking, eating, or otherwise damaging toys or equipment); (e) stereotyped verbalizations (i.e., prolonged screaming and any repetitive meaningless loud sounds).

The research design was an ABAB reversal design in which baseline conditions were alternated with the intervention strategy, in this case the play manager routines. Baseline in this study consisted of observing the children on the residential unit between 2:00 p.m. and 3:30 p.m. when engaged in their activities regularly carried out at this time (i.e., play manager routines not in effect).

During the baseline and reversal conditions, children were scheduled for what was referred to in the institution as "free play time." In the free play or baseline conditions, the same toys were available to the boys as during treatment; however, these materials were not spread out but instead placed in boxes located in the playroom. The same numbers of staff were available in both treatment and baseline conditions; however, during baseline staff were neither given specific instructions nor encouraged to prompt the use of equipment. Each condition lasted a total of 3 wk. Data were taken on every weekday in which either: (a) the play manager routine was in operation; or (b) in the case of baseline, at least two staff persons were present on the unit.

Data consisting of percentage of activity and inappropriate behavior were taken using a placHECK, which is a time sample device for use with groups (Doke & Risley, 1972). At 1-min intervals, an independent observer viewed the dayrooms, halls, and lounge area and recorded the number of children engaged in appropriate activities and the total number of children present. This recording technique was repeated continuously for at least 30 min.

A minimum of two reliability checks was conducted in each condition of the study by having a second observer accompany the first rater as recordings were made of activity level and maladaptive or inappropriate behavior. Using a signal from the first observer, both raters observed and rated the same children at the same time. Reliability was calculated using the Jackson, Della-Piana, and Sloan (1975) technique for recording instantaneous time sampling. Due to the relatively low frequency of maladaptive behavior, one or two observer disagreements in a 30-min observation period may have produced a spuriously high or low reliability rating. Hence, this specific technique was used. In this method, the sum of the observer disagreements is divided by the total number of the possible observations, subtracted from one and multiplied by one hundred. Reliability for both activity level and

inappropriate or maladaptive behavior ranged between 93% and 99%. Means for both classes of behavior were 96%.

RESULTS

Changes in activity level and rate of inappropriate behavior between baseline and intervention conditions are reflected in Figure 1. For activity levels, the group mean increased from 13% during baseline to 70% in the first intervention, dropped to 10% during reversal, and increased again to 79% during the second intervention. In the case of inappropriate behavior, the mean percentage decreased from 10% during baseline to 7% during the first intervention,

increased to 16% in the reversal, then once again dropped to 5% during the second intervention.

The persistent, although low rate of maladaptive behavior observed in both intervention conditions can be contributed to the high frequency of self-injurious behavior (punching) in one child and self-stimulatory behavior (rocking) in another child. Aside from these two individuals, disruptive behavior in all five categories for the remainder of the group was largely absent while the play manager routines were in effect. This contrasts with an average of five to seven boys engaged in all five categories of maladaptive or inappropriate behavior during baseline. In the case of activity levels, again with the

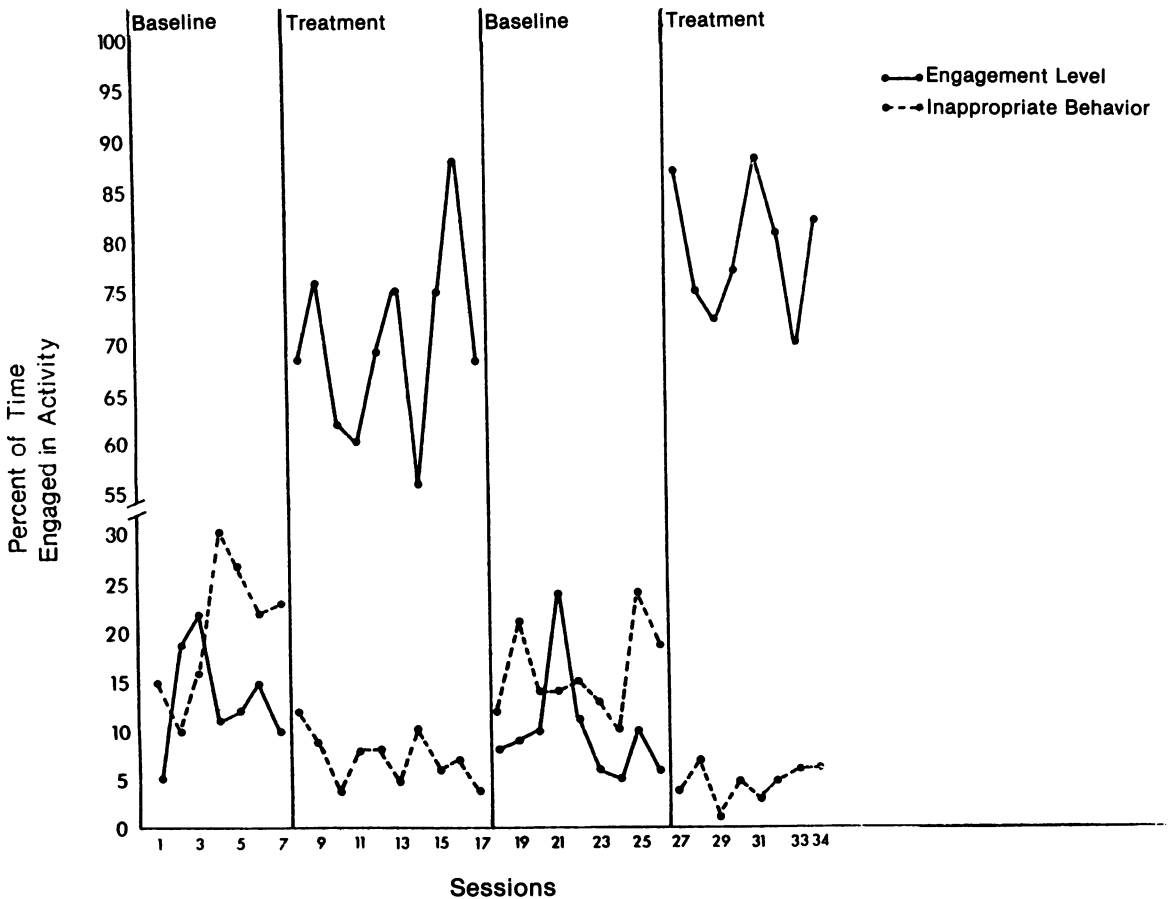


Fig. 1. Percentage of time during 30-min session in which the group was involved in either a purposeful activity or in maladaptive or inappropriate behavior.

exception of those two boys with the high frequency of maladaptive behavior the increases reflected changes across the entire group.

DISCUSSION

Previous studies have indicated the detrimental effects that can occur following prolonged periods of inactivity. Not only is there frequently an increase in self-stimulatory and self-injurious behavior, but social skills such as language often show a marked decrease. Programs specifically designed to increase activity level should, therefore, be an important consideration in providing services for the profoundly and severely retarded. The objective of the present study was not only to increase the activity level of a group of profoundly and severely retarded children, but to do it in such a way as to involve regular child care staff, be easy to learn, easy to maintain, and inexpensive to operate.

Present results underscore the importance of attending to such variables as prompting, increasing the availability of equipment, and developing a quality control monitoring system. Despite the high activity levels obtained during this study, a small group of individuals can be expected to prove unresponsive to treatment. Once one has set the occasion for appropriate behavior to occur within the group as a whole, one can then focus, with even greater effect, on those individuals for whom individual behavior therapy programs are required.

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