The use of punishment and time-out with 54 severely emotionally disturbed and behavior disordered children (7-13 years old) in a residential school and treatment program was examined. Both exclusion (E:TO) and isolation (I:TO) varieties of time-out were applied. In E:TO, the student was placed in a portion of the room not being used or in the hall. In I:TO, the child was placed in a separate room used exclusively for time-out. Used as a last resort, punishment usually meant loss of privilege. Staff coded and weighted inappropriate behavior. Analysis of mean antecedent and subsequent behavior values obtained with the use of punishment, I:TO and E:TO indicated that severity of behaviors increased with both the use of punishment and the two types of time-out. Limitations of a typical program trying to impose strict experimental controls are cited.

(CL)
WESTERN ILLINOIS UNIVERSITY
Macomb, Illinois 61455

The Use of Punishment and Time-Out in a Residential Treatment Program for Emotionally Disturbed Children

Stanley L. Swartz
and
Candice Benjamin

College of Education

Conference on Programming for the Developmental Needs of Adolescents with Behavior Disorders.

Minneapolis, Minnesota

September 1982
ABSTRACT

The use of punishment and time-out as behavior modification techniques continue to generate both interest and concern. This paper summarizes the findings of a study of the effects of punishment and time-out on children with severe emotional and behavior disorders in a residential treatment program.

A review of the research literature as well as data collected on punishment and time-out are analyzed relative to implications for use in a variety of educational and therapeutic settings. The general efficacy of punishment and time-out as behavior modification techniques is discussed.
Instructional programming for emotionally disturbed children, appropriately designed, includes modifying their behavior repertoire to an extent that will allow social functioning within normal tolerance limits. Considerable research has been conducted in an effort to identify behavior modification intervention techniques that will accomplish this goal.

Because much of the behavior exhibited by emotionally disturbed children is disruptive to any ongoing program efforts, we are faced with a need for behavior modification techniques that will have the short term effect of minimizing the disruptive impact of inappropriate behavior and at the same time allow progress toward our long term goal of modifying those behaviors. Two techniques, punishment and time-out, have received considerable attention in the research literature and are frequently used in programs for emotionally disturbed children because they appear to meet both of the stated criteria.

Punishment can be implemented using two basic procedures. One calls for the presentation of an aversive stimulus following an inappropriate behavior and the other uses the technique of withdrawal of positive reinforcement following an inappropriate behavior. Punishment has been consistently found to quickly impact undesirable behavior (Lovaas and Simmons, 1969; Corte, Wolf, and Locke, 1971; Frankel and Simmons, 1976). Because punishment can immediately decrease the targeted behavior it meets the important criteria of reducing the disruptive impact on the programs of other children. Likewise, punishment has been found to effectively modify undesirable behaviors meeting the long term behavior change goal (Walters, Parke and Cane, 1965; Romanczyk and Kistner, 1980).
The use of time-out involves removing or excluding the child from the source of reinforcement. The removal type usually involves secluding or isolating the child from the rest of the group. Exclusion generally requires that the child not be involved or included in an ongoing activity. Because we most often work in groups and controlling reinforcement that could emanate from the group is very difficult, time-out frequently necessitates separating the child exhibiting inappropriate behaviors from the rest of the group. This separation will more than likely reduce the possible disruptive effect on any programming so that time-out by its very design meets the first criteria. Time-out has also been found to be an effective behavior modification technique (White, Nielson and Johnson, 1972; Drabman and Spitalnik, 1973; Plutchik, Karasu, Conte, Siegel and Jarrett, 1978).
METHOD

Subjects

Subjects were children (CA range = 7-13 years) served in a 20 bed capacity residential school and treatment program. Subjects were 46 males and 8 females diagnosed as moderately/severely emotionally disturbed.

Treatment Program

The residential program employed a treatment modality generally described as a therapeutic milieu. Children received both individual and group psychotherapy and special education. The classroom and the living units were located in the same building. Children lived in two units of ten children generally organized by chronological age. Behavior modification procedures targeted behaviors considered both inappropriate for group living in the residential program as well as behaviors obstructing reintegration into normal family units. Professional staff implementing behavior modification procedures included classroom teachers and residential child care workers.
Behavior Modification

The treatment program employed a variety of techniques designed to modify the inappropriate behavior of children. The use of time-out as a behavior modification procedure was identified as a technique that would allow the program to continue serving aggressive and acting-out children by minimizing the effect of disruptive children on the treatment program of other children. The child displaying inappropriate behavior could be removed from the group thereby reducing possible contagion while simultaneously modifying the individual child's behavior.

Both the exclusion (E:TO) and isolation (I:TO) varieties of time-out were employed. E:TO removed the child from the activity in progress by placement in a portion of the room not being used or in the hall. E:TO was used as one of various staff interventions for inappropriate behavior. I:TO involved placing the child in a separate room used exclusively for time-out. I:TO was used as an intervention only when all other interventions except punishment has been attempted without success. The 8 by 15 foot room was bare, contained no outside window and was lighted by a single fixture. The room was appropriately ventilated and the child could be observed through a small window in the locked door. The child was verbally directed to the appropriate time-out area and was physically placed in time-out only when this directive was refused.

Staff was instructed to inform the child of the inappropriate behavior when placed in time-out and repeat the procedure when the time-out was concluded. Duration of time-out was contingent on the discontinued display of inappropriate behavior. The staff removed the shoes and belt
and emptied the pockets of each child placed in I:TO. The staff was instructed to check children in I:TO every five minutes.

Punishment was considered an intervention of last resort. Only when intermediate steps (including the use of time-out) had not proven to be successful would punishment be used. Punishment most generally constituted some loss of privilege such as not being able to watch television, participate in a group activity, receive some kind of a treat or snack, or go off grounds with the group to swim or some similar activity. Every attempt was made to make punishment an immediate event and to avoid to the extent possible any delayed consequences.

The staff was instructed to explain carefully to each child receiving a punishment the reason (inappropriate behavior) for the punishment and to repeat the procedure at the conclusion of the punishment.

Procedure

Behaviors resulting in punishment or placement in time-out (antecedent behavior) were recorded by the staff member involved. A subsequent behavior was recorded and became part of the data for this study when an inappropriate behavior was exhibited within five minutes of the punishment or time-out. These records constituted the major source of data analyzed and reported.

Behaviors were coded by major descriptors and assigned a weighted value by severity. The behaviors and their weighted values included: 1) arguing, 2) verbal abuse of peers (swearing, taunting, or antagonizing), 3) routine refusal (assigned duties, preparing for mealtime), 4) rule
breaking, 5) disruptive (verbal or physical), 6) fighting, 7) refuse staff directive, 8) verbal abuse of staff, 9) leaving grounds (irre- spective of duration or distance), 10) destruction of property, 11) peer abuse and 12) staff abuse. Severity levels were assigned based on program administrative policy, treatment philosophy and staff agreement.
RESULTS

Antecedent behavior means for punishment, isolation time-out and exclusion time-out are reported in Table 1. By treatment philosophy the techniques chosen should be the mildest or least restrictive of the available alternatives. Antecedent behavior mean is highest however for the use of E:TO (9.2) followed closely by punishment (9.0). Antecedent mean for the use of I:TO is substantially lower (7.1). This suggests that the selection of intervention technique is not entirely consistent with the severity of the behavior manifested.

Mean antecedent and subsequent behavior values obtained with the use of punishment, I:TO and E:TO are all listed in Table 1. The mean subsequent behavior value increased significantly for all three interventions, punishment ($t = 10.51, p < .001$), I:TO ($t = 12.46, p < .001$) and E:TO ($t = 6.43, p < .001$).
Table 1.
Mean Values of Antecedent and Subsequent Behaviors

<table>
<thead>
<tr>
<th>N = 5738</th>
<th>Antecedent Behavior Mean</th>
<th>Subsequent Behavior Mean</th>
<th>SD</th>
<th>t Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Punishment</td>
<td>9.0</td>
<td>10.9</td>
<td>1.26</td>
<td>10.51*</td>
</tr>
<tr>
<td>Isolation Time-Out</td>
<td>7.1</td>
<td>10.9</td>
<td>2.15</td>
<td>12.46*</td>
</tr>
<tr>
<td>Exclusion Time-Out</td>
<td>9.2</td>
<td>10.8</td>
<td>1.54</td>
<td>6.43*</td>
</tr>
</tbody>
</table>

* p < .001
DISCUSSION

Programming appropriate to the needs of emotionally disturbed children has as a high priority behavior change that will insure their participation in the least restrictive education environment and eventual participation in the larger society. As attempts are made to meet these goals, it is also necessary to control the impact that one child's inappropriate behavior will have on another child's opportunity to benefit from the program. These two needs often are at cross purposes.

It is clear in this study, that on the whole, the use of punishment and time-out are not having the desired effect. Severity of behaviors significantly increased with both the use of punishment and the two varieties of time-out. One can only suppose that either the tendency of punishment and time-out to exacerbate the severity of behavior was not observed or the need to establish immediate short term control and containment was very great.

It is unlikely that the trends apparent in this data could be expected to result in any meaningful behavior change or individual child growth. It appears that these efforts are representative of the too frequent inclination to sacrifice the opportunity for systematic modification of inappropriate behavior for the lower priority goal of containment.

The data for this study was not collected from a program that strictly observed the kind of experimental controls that we find in the
research literature. Herein lies a substantial part of the problem of their use of punishment and time-out. Typical programs are not prepared to observe, on a day-to-day basis, the strict limitations imposed when behavior modification techniques are tested. Programs are certainly designed within the general parameters of research findings but many controls are for a variety of reasons not included. It should come as no surprise that what is reported in the research literature does not always have the same effect when replicated in the field. Such appears to be the case here and represents a major cautionary note to practitioners and program designers.
Authors:

Stanley L. Swartz, Ph.D., Associate Professor of Special Education, Western Illinois University, Macomb, Illinois 61455.

Candice Benjamin, Consultant, Mississippi Bend Area Education Agency, Davenport, Iowa 52800.


Plutchik, R., Karasu, T., Conte, H., Siegel, B. and Jarrett, I. Toward a rationale for the seclusion process. *Journal of Nervous and Mental Disease*, 1978, 166, 571-579.

