BRIEF RESEARCH REPORT

THE EFFECTS OF INDIVIDUAL AND GROUP CONSEQUENCES
ON SCHOOL ATTENDANCE AND CURFEW VIOLATIONS
WITH PREDELINQUENT ADOLESCENTSRONNIE N. ALEXANDER¹, THOMAS F. CORBETT, AND JUDY SMIGEL

UNIVERSITY OF TEXAS AT SAN ANTONIO AND GEORGIA STATE UNIVERSITY

There has been considerable interest in and research into the use of "home-based" consequences to modify behavior occurring at school (Alexander, 1975; Bailey, Wolf, and Phillips, 1970; Kroth, Whelan, and Stables, 1970; McKenzie, Clark, Wolf, Kothera, and Benson, 1968; Tharp and Wetzel, 1969). These studies have demonstrated the efficacy of reinforcing school behaviors by natural contingency managers within the "home" environments of the subjects.

Similarly, interest in and research relative to the use of individual and group consequences has been reported (Harris and Sherman, 1973; Medland and Stachnik, 1972; Phillips, Phillips, Wolf, and Fixsen, 1973), particularly in comparing the effects of individual *versus* group contingencies (Hamblin, Hathaway, and Wodarski, 1971; Herman and Tramon-tana, 1971; Long and Williams, 1973). As Litow and Pumroy (1975) noted in their review of group-oriented contingencies, this interest is due to concerns regarding economic feasibility and practicality.

The purpose of the present investigation was two-fold; first to find a practical, and effective means of reducing truancy and curfew violations by pre-delinquent adolescents in a residential treatment facility; nonprofessional staff would be responsible for implementing procedures without incurring additional expense in the program. This precluded extensive staff training or monitoring of the youths' behavior. The second objective was to determine whether individual or group contingencies was the more effective in altering the behaviors being studied.

EXPERIMENT I

METHOD

Subjects and Setting

This study involved the use of token reinforcement backed up by lunch money contingent on individual or group class attendance of seven male adolescents in custody of a county department of family and children services. The study was conducted in a resi-

dential treatment center in a large southeastern city. Youth referred to the center were considered by the court to be in danger of becoming habitually delinquent on the basis of repeated charges of truancy, runaway, assault, larceny, unmanageability and violation of probation. The students attended three different high-school settings for five periods during the school day from 8:00 a.m. to 3:30 p.m.

Observation and Procedures

Two cottage staff members implemented the procedures. Each Sunday evening, the students were given attendance cards for the next week and asked to have each teacher in their classes sign the cards. Each teacher had earlier agreed to do so. One staff member went to the schools each weekday to check on each child's attendance with the schools' registrar for the preceding day in each of his classes, which served as a means of obtaining a reliability measure when compared to the student's daily report card. One hundred per cent agreement was verified per class per child for each day of the study. Throughout the study, when the student came home from school, he turned in the card to the other staff member who acted as the contingency manager and evaluated the youth's attendance in a group meeting each evening of the week. During the meeting, every student was told how much of the school day he had completed and was verbally praised for the classes he had attended. A list with the students' names and the number of classes attended by each was put on a bulletin board in the cottage on the first day of baseline and kept current throughout the study.

Baseline 1

Before the study, each student was receiving about \$1.00 per day, noncontingently, for lunch money to be used in the school cafeteria. This money was withdrawn three weeks before recording baseline. At that time, sack lunches were prepared and given to each child daily.

Individual Consequences

Each student was told that he could receive \$1.00 for lunch money for every day that he attended all five periods. One dollar was given to all of those

¹Reprints may be obtained from Ronnie N. Alexander, College of Multidisciplinary Studies, University of Texas, San Antonio, Texas 78285.

students who attended 100% of all their classes for that day. Sack lunches were provided for those subjects who failed to meet the 100% criterion.

Baseline 2

Baseline conditions were again implemented for a week. The individually contingent reward was removed during this phase. On Sunday, each student was told that no lunch money would be available for that week; however, each student was given an attendance card for the week and asked to have each teacher in their classes sign the cards.

Group Consequences 1

On Sunday evening, each student was told that lunch money would be available for that week; however, for anyone to receive the money, every student must attend 100% of his classes for any given day. Everyone would either receive \$1.00 or no one would receive money. Attendance cards, praise, and feedback were managed in the same manner as the other phases. When everyone had 100% school attendance for a particular day, each person received \$1.00.

Baseline 3

The baseline conditions were re-established for one week and group contingent lunch money was removed.

Group Consequences 2

All conditions in the group contingency phase were replicated.

RESULTS

The use of individually based contingent reinforcement increased class attendance over baseline measurements; however, group contingent reinforcers increased class attendance to the highest levels.

Figure 1 shows that the average percentages of class attendance during baseline 1 was 51%. During the second week with individually contingent lunch money available, the mean class attendance increased to 80%. When the individually contingent reinforcement was withdrawn in baseline 2, class attendance diminished to 57%. When the group contingency was implemented, attendance increased to 94%. The highest mean level of attendance for the group was obtained in this phase. On Days 17, 18, and 20, 100% school attendance for the group was recorded and the total group received reinforcement. Baseline conditions were again implemented and a mean of 60% class attendance resulted. A deterioration of stimulus control may account for the increments in attendance over original baseline levels. The group reinforcement contingency was reintroduced and the mean frequency of attendance again rose to 94%. This was an increase over baseline conditions similar to the first group contingency.

Single-subject data, with minor exceptions, corresponded to the group data. Subjects B, C, D, E, and F reflected the group trends fairly closely, with higher mean percentages than the group data.

Subjects A and G were rather consistent with low levels of attendance both in baseline and when individually contingent reinforcement was being utilized. However, when group contingent reinforcers were instituted, the increase in class attendance by these two subjects is very apparent (see Table 1).

DISCUSSION

Both group and individually contingent lunch money proved to be effective techniques for improving school attendance with adolescent behaviorally disordered males in a residential treatment setting. The group contingency was more effective than the individually contingent reinforcement, both for the group as a whole and, perhaps more importantly,

Fig. 1. Mean percentage of class attendance for all students (N = 7).

Table 1
Group and Individual Percentages of Class Attendance

	<i>Baseline 1</i>					<i>Individual Consequences</i>					<i>Baseline 2</i>				
	<i>Phase Mean</i>	<i>51</i>				<i>79</i>					<i>57</i>				
	<i>Group Mean</i>	<i>51</i>	<i>51</i>	<i>49</i>	<i>51</i>	<i>74</i>	<i>80</i>	<i>80</i>	<i>83</i>	<i>80</i>	<i>66</i>	<i>57</i>	<i>54</i>	<i>54</i>	<i>54</i>
	<i>Days</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>	<i>10</i>	<i>11</i>	<i>12</i>	<i>13</i>	<i>14</i>	<i>15</i>
<i>Subjects</i>															
A	40	40	40	40	40	40	20	40	40	0	40	40	40	40	40
B	60	80	60	40	60	80	100	100	100	100	80	60	60	60	60
C	80	40	60	60	40	100	100	100	80	100	100	80	60	80	40
D	60	60	60	40	60	80	100	100	100	100	80	60	60	40	60
E	40	40	40	60	60	60	80	80	100	100	60	60	60	60	60
F	40	60	40	60	60	100	100	80	100	100	60	60	60	60	60
G	40	40	40	60	60	60	60	60	60	60	40	40	40	40	60
<i>Group Consequences 1</i>															
	<i>Phase Mean</i>	<i>94</i>				<i>60</i>					<i>96</i>				
	<i>Group Mean</i>	<i>77</i>	<i>100</i>	<i>100</i>	<i>94</i>	<i>69</i>	<i>60</i>	<i>57</i>	<i>57</i>	<i>57</i>	<i>89</i>	<i>94</i>	<i>100</i>	<i>100</i>	<i>97</i>
	<i>Days</i>	<i>16</i>	<i>17</i>	<i>18</i>	<i>19</i>	<i>21</i>	<i>22</i>	<i>23</i>	<i>24</i>	<i>25</i>	<i>26</i>	<i>27</i>	<i>28</i>	<i>29</i>	<i>30</i>
<i>Subjects</i>															
A	40	100	100	80	100	40	40	20	20	40	40	80	100	100	100
B	100	100	100	100	100	80	60	60	60	60	100	100	100	100	100
C	100	100	100	100	100	100	80	80	100	80	80	100	100	100	100
D	100	100	100	100	100	80	60	80	60	60	100	100	100	100	100
E	80	100	100	100	100	60	60	60	60	60	100	100	100	100	100
F	80	100	100	100	100	60	60	60	60	60	100	80	100	100	100
G	40	100	100	80	100	60	60	40	40	40	100	100	100	100	80

with two of the subjects who were unresponsive to the individual contingencies. Although it could not be verified, the investigators suspect that the two subjects who were nonresponsive to the individual contingencies were obtaining money illegally during the study. Spontaneous peer pressure was noted by staff members during the daily group meetings in the form of verbal admonitions, encouragement, and appeals to group members. This may have induced compliance for these subjects, as well as other group members.

EXPERIMENT II

METHOD

Subjects and Setting

Experiment II involved the use of individual and group response-cost contingencies in reducing curfew violations by the eight adolescent females at the residential facility. Violation of curfew had become a nightly occurrence by most of the cottage members.

Observation and Procedures

The experiment was conducted by two cottage staff members. An electric clock mounted on the wall of a room used by the staff as an office was used to determine the number of minutes late. This clock was easily seen by the subjects if they wished to know how many minutes they had until curfew. The only allowed entrance to the cottage was the front door;

any late arrivals were noted, as was the time they entered the cottage. "In the cottage" was defined as the girl on the cottage side of the front door with the door completely closed. Time late was recorded by the third author. Reliability checks were conducted once a week by another staff member, who recorded the minutes late of late arrivals on the same office clock. Interobserver agreement throughout the experiment was 100%. The procedures for all phases operated seven days a week, although the data reported are for five days, Sundays through Thursdays.

Individual Consequences 1

The procedure in effect during this condition was the verbally stated contingency that a violation of curfew (entering the cottage after 9:45 p.m.) on one night would result in an earlier curfew for the violator on the next night. Subsequently, lateness was based on the earlier penalty time, if any. The resulting earlier curfew was determined on intervals of 15 min; if a girl entered the cottage from 1 through 15 min late, her curfew the next night would be 15 min early. A half-hour earlier curfew was imposed for entering 16 to 30 min late, and so on. In all phases of the experiment, earlier curfews were announced in a group meeting the following evening, the night the earlier curfew was to be observed. The consequence for not observing the earlier curfew was the quadrupled loss of time from the Friday night curfew. All contingency changes were explained in the group meetings before being implemented.

Group Consequences 1

On Sunday evening preceding the second week, the staff announced that if anyone was late entering the cottage, all girls would be subject to the earlier curfew. In the group contingency, each girl's minutes late were converted, as above, to intervals of 15 min to determine the group's curfew for the following night. For example, on Day 6, Subject A at 15 min late, Subject C at 24 min late, and Subject D at 11 min late made the curfew 1 hr earlier for the next night. (See Table 2.)

Individual Consequences 2

On Sunday before the fourth week, a staff member announced in the group meeting that individual response-cost contingencies were being reinstituted.

Group Consequences 2

The group consequences were reinstated using the same procedures employed in the group consequences 1 condition.

RESULTS

Figure 1 shows a decrease in minutes late from the individual contingency group mean of 61 min to a mean of 12.2 min late with the group consequence condition. A reversal to the individual response cost increased curfew violations again, with a mean of 55.2 min late, which immediately decreased with a return to the group contingent response cost in Phase IV to a mean of 2.6 min late.

Table 2 shows the data for individual youths across days. Subjects B, F, G, and H produced fewer violations of curfew than Subjects A, C, D, and E, in the individual consequence conditions, but all were violating curfew in these phases above levels considered acceptable by the cottage staff.

Only once in the three weeks of the group contingency was the group penalized for not observing a penalty curfew. On Day 11, Subjects A and D were late a total of 10 min, which made the group's Friday night curfew earlier by 2 hr. This did not occur again during the group contingent phases. However, violations by the same subject on two consecutive nights occurred three times in baseline 1 and three times in baseline 2 (see Table 2).

DISCUSSION

The results demonstrate the effectiveness of a group contingent response-cost system compared to an individual response-cost contingency in reducing curfew violations of behaviorally disordered female adolescents. When violation of curfew became an issue between the violator and her peers, and no longer between the violator and the staff, relations between staff and students noticeably improved. The girls did not physically harm a curfew violator, but were firm in accepting no excuses and demanding future punctuality. They were frequently told by each other that they sounded "just like the staff" in lecturing on responsible behavior. Promises of rewards for future good behavior had not been effective in motivating rules adherence, and thus had rarely materialized.

Fig. 2. Mean number of minutes late for all students (N=8).

Table 2
Group and Individual Minutes Late

<i>Individual Consequences 1</i>						<i>Group Consequences 1</i>									
<i>Weekly Mean</i> 61						20.6					3.8				
<i>Daily Total</i> 61						50	0	42	0	11	10	0	6	0	3
<i>Days</i> 1						6	7	8	9	10	11	12	13	14	15
<i>Subjects</i>															
A	20	10	0	16	0	15	0	6	0	0	6	0	0	0	0
B	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0
C	0	11	12	0	27	24	0	0	0	0	0	0	6	0	0
D	35	0	22	23	0	11	0	30	0	0	4	0	0	0	3
E	0	40	0	0	30	0	0	0	0	11	0	0	0	0	0
F	6	0	13	0	0	0	0	0	0	0	0	0	0	0	0
G	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0
H	0	0	0	24	0	0	0	0	0	0	0	0	0	0	0

<i>Individual Consequences 2</i>						<i>Group Consequences 2</i>				
<i>Weekly Mean</i> 55.2						2.6				
<i>Daily Total</i> 59						8	0	5	0	0
<i>Days</i> 16						21	22	23	24	25
<i>Subjects</i>										
A	14	0	11	28	0	0	0	4	0	0
B	0	0	8	0	0	0	0	0	0	0
C	33	12	0	0	18	0	0	1	0	0
D	12	0	22	0	0	0	0	0	0	0
E	0	33	0	19	27	0	0	0	0	0
F	0	21	0	0	0	8	0	0	0	0
G	0	0	0	12	0	0	0	0	0	0
H	0	0	0	0	6	0	0	0	0	0

GENERAL DISCUSSION

These two experiments demonstrate that with pre-delinquent adolescents in a residential treatment facility, group consequences contingent on an individual group member's behavior were more effective in improving school attendance and reducing curfew violations than consequences experienced by the individual for his or her behavior alone.

A number of practical benefits resulted from the use of the group consequence procedures for both the subjects and cottage staff. The change in contingencies made monitoring of behavior, especially in the female cottage, easier by reducing the frequencies of misbehavior and the necessity for management of numerous individual consequences.

The success of the group contingency demonstrated the subject's ability to engage in prosocial conforming behavior that resulted in positive consequences for his peer group. The group contingency made a powerful reinforcer, peer approval, contingent on obeying rules rather than breaking them, whereas consequences experienced individually had not produced desired levels of the behavior. The fact that one subject's careless or deliberate violation of curfew or absence from class adversely effected all group members seemed to allow subjects to monitor each other without embarrassment. The girl urging an-

other girl into the cottage could not rightfully be accused of being a "busybody" or worse; she was merely protecting her own time on campus. Peer encouragement of school attendance may have promoted to some extent the incorporation of socially approved values by members of a group characteristically in conflict with those values.

The extent to which responsible attitudes and behaviors are fostered among individuals, when their behavior contributes to the consequences experienced by their peers deserves further research.

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