CONTINGENCY COUNSELING BY SCHOOL PERSONNEL: AN ECONOMICAL MODEL OF INTERVENTION¹

W. SCOTT MACDONALD,² RONALD GALLIMORE, AND
GWEN MACDONALD²

UNIVERSITY OF HAWAII

An Attendance Counselor contacted adults (mediators) who controlled reinforcers for six chronic nonattenders (targets); agreements (deals) were made between mediators and targets that reinforcers would be provided, contingent on school attendance. Absence of the Attendance Counselor from school for a two-week period constituted a reversal condition, after which the "deals" were reinstituted. Results showed a significant increase over baseline in school attendance during the time in which deals were in effect. A second study involved 20 chronic nonattenders for whom deals were arranged as in Study One (contingency counseling), and 15 nonattenders provided more traditional attendance counseling (contact counseling). Contingency Counselors achieved results with the 20 nonattenders similar to those achieved in Study One. An experienced Contact Counselor did not achieve improved school attendance among her group of 15 nonattenders.

Several recent demonstrations have indicated that the involvement of significant persons in the lives of the "targets" of intervention often enhance the success of contingency management programs (Tharp and Wetzel, 1969; Martin, Burkholder, Rosenthal, Tharp, and Thorne, 1968). Such approaches persuade "natural mediators" (Tharp and Wetzel, 1969; Zeilberger, Sampen, and Sloane, 1968), such as parents, spouses, and friends to distribute the resources they control, contingent on the target performing criterion behaviors. Further, by using non-Ph.D. personnel for direct contacts with targets and mediators, Tharp and Wetzel (1969) and Zeilberger *et al.* (1968) have evolved an extra-institutional, community-based intervention model that is both effective and economical. Both Tharp and Wetzel, and Martin *et al.* (1968) employed as their "con-

sultants" specially trained personnel (called "behavior analysts") not connected officially with schools or other agencies; the behavior analysts monitored and counseled the mediators to insure correct dispensing of the reinforcers to the targets. Phillips (1968) demonstrated the effectiveness of naturally occurring reinforcers such as TV privileges, riding bicycles, *etc.*, on modifying a variety of behaviors with predelinquent boys.

The present studies examined the feasibility of utilizing currently available school personnel as the behavior analysts in an attendance-counseling program following the model outlined by Tharp and Wetzel. Implementation depended on the cooperation of personnel who could identify and contact truants and who were familiar enough with the truants to know what could serve as meaningful reinforcers for them, as well as who controlled access to reinforcers for the truants.

STUDY I

Subjects

Six students were identified as chronic nonattenders by a school counselor. Although the students were enrolled in a "special motivation class", their truancy from school had increased over the school year. The students were ninth graders and, before collection of baseline data, had a 30% average attendance record. During

¹This research was partially supported by an NIMH grant to the Bernice Pauahi Bishop Museum, Honolulu; support for data analysis and manuscript preparation was provided by the Social Science Research Institute, University of Hawaii. Appreciation is due Edward Kubany and Roland Tharp for critical reading of the manuscript, and to Mrs. Helen Takauchi for her assistance in editing and preparing the manuscript.

²This research was completed while the first and third authors were Research Associate and Research Assistant, respectively, at the B. P. Bishop Museum, Honolulu. Reprints may be obtained from Scott MacDonald, Department of Psychology, University of Hawaii, Honolulu, Hawaii.

the previous year, three of them had quit school early in spring, returning in the fall but continuing to attend irregularly.

Staff Selection and Training

The school system hired a local parent to serve as liaison between the school and residents. This person, a young mother with limited college experience in one university extension course, was released part-time to serve as an Attendance Counselor. Since time was limited, the counselor was provided a brief introduction to the value of attendance counseling based on securing the cooperation of significant persons (mediators) in a student's (target's) life. Approximately 90 min was spent informally discussing how to make "deals" with mediators; a "deal" was an agreement on the part of a mediator to provide a target, a reinforcer contingent on school attendance according to a prearranged schedule. In effect, a "deal" was a contract between a mediator and a target (Tharp and Wetzel, 1969; Martin *et al.*, 1968). "Deal" was discovered by the counselor to be a term that most mediators found agreeably descriptive of the contingencies they placed on the targets. In this particular population, mostly indigenous Hawaiian, a "deal" with a youngster was apparently acceptable, and could be distinguished from a "bribe", which was unacceptable.

The Attendance Counselor accompanied one of the experimenters (the senior author) on a visit with the parents of a student (not one of the six in the present study) who was truant; during this visit the counselor was able to witness the establishment of a "deal". After that one experience, consultations by the experimenters were limited to weekly sessions with the counselor, sometimes conducted by telephone. Throughout the course of the study, repeated emphasis was placed on accurate recording of student attendance, number of contacts, and details of each "deal".

Procedure and Conditions

Attendance data. The school registrar, as a school routine, sent attendance cards to all homeroom teachers in the morning of each school day. The homeroom period, the first 15 min of each day, was the time during which attendance was taken by teachers, recording absences on the attendance cards. The cards were then returned to the school office. The

registrar compiled these results and developed a daily Attendance Sheet sent to each faculty member so all teachers had access to information about students who were absent, and those who were supposed to be in class. Irregularities were brought to the registrar's attention; for example, students who came to school after homeroom period appeared on the next day's Attendance Sheet as "tardy". Thus, the absences of the students in the special motivation class were noted by the special motivation teacher and recorded by the registrar. Corrections in the attendance records (tardies and excused illness) were made by these same two persons. The attendance figures reported in this study were taken directly from the daily Attendance Sheet after the experimental period ended. While the registrar did not know of the study, the special motivation teacher did know that the Attendance Counselor was working with some of his students (though the counselor had not contacted the teacher) and did have the opportunity to introduce biased information into the study once the project was identified. In the contacts the senior experimenter had with him, he showed no inclination to bias the attendance count. He apparently was not aware which six of his students were involved.

Procedure. After the brief training sessions, the Attendance Counselor identified six subjects whose names were provided by the school counselor and began selecting the mediators. Mediator candidates for each boy were suggested by teachers, the regular school counselor, and other school personnel whom the Attendance Counselor believed knew something about the target's out-of-school life. Potential mediators were initially contacted in person to establish if they would be suitable. In three cases this initial contact provided information about more likely mediators and the person originally contacted was not involved further. From these contacts, the counselor determined the reinforcers that could be made contingent on attendance. Two mothers, a father, a grandmother, the mother of a girl friend, and a pool-hall proprietor served as mediators.

In most cases, the Attendance Counselor needed no assistance in selecting the reinforcers or arranging a suitable "deal". In one case she sought clearance with school officials to use a target's access to a pool hall, and in

another case she discussed with the experimenter the feasibility of using the student's fancy clothing because it seemed to involve rather unusual procedures. In other cases, money and privileges on weekends served as reinforcers. In two cases, the Attendance Counselor and mediator had to alter the reinforcer from after-school privileges to weekend privileges because the former were not really controlled by the mediator. One "deal" used time with a girl friend as a reinforcer. The target, as far as could be determined, did not consider her part in the negotiation disruptive or uncomplementary to the relationship.

After the "deals" were negotiated, the Attendance Counselor made subsequent contacts with mediators in person, by telephone, or by messenger as seemed required to maintain the "deals". The Attendance Counselor maintained the "deals" for seven weeks. Then, without notice, she was called away from the situation, and provided no supervision of the "deals" for two weeks. She returned for two weeks, during which time she attempted to re-establish the original deals. There was a baseline (attendance data before the start of the project), a treatment period (the seven weeks

of contingency counseling), a reversal (absence of the counselor), and reinstitution of the deals (two weeks of contingency counseling).

RESULTS AND DECISION

Figure 1 presents the average weekly attendance for the six students in the attendance counseling program. Baseline data were based on those weeks occurring before the first contacts were obtained from the identical source (daily Attendance Sheets).

The increase in average weekly attendance by the students in the seventh week appears to be a direct result of the "deals" established the preceding week. The effect of the attendance counseling seemed to continue over the next seven weeks. This interpretation is consistent with an impressionistic report by the Attendance Counselor that abrupt improvement in average attendance followed the initial "deals" and subsequent refinements yielded continued attendance.

Examination of the data for individuals illustrates details of the effects of the "deals" otherwise obscured by grouping. Figure 2 shows the attendance curves of two boys whose

Fig. 1. A record of weekly average attendance for six intermediate school students who participated in attendance counseling.

Fig. 2. A record of weekly attendance for two intermediate school students who participated in attendance counseling: Pattern 1.

attendance was clearly dependent on the continued supervision of the deals. After an initial rise in attendance (week seven) and maintained good attendance (weeks 8 to 12), their weekly average dropped when the counselor terminated contacts. One boy ran away from home, and the other got into an altercation with his father, after which the boy went into hiding. When the counselor returned, lengthy negotiations began, and the “deals” were re-instituted with the clearly demonstrated effects. Thus, in these two cases, the need for ongoing management of the deals was demonstrated.

Figure 3 presents the attendance of two boys who did not show the “reversal” effect. The attendance curves seem to indicate that once “deals” have been established, stable school attending resulted. When the Attendance Counselor absented herself, attendance and access to reinforcers continued unabated. The counselor was unable to determine for these two cases whether the mediators encouraged continuance of the “deals” (in one case, weekend nights out; in the other, access to girl friend); or whether the attendance behavior continued in the absence of supervision. From

the behavior of the two boys, the Attendance Counselor concluded that the establishment of the contingencies had become a semiautonomous “deal”. She concluded that supervision of the “deals” had become perfunctory and the negotiation of the original “deal” seemed to have been all that was necessary for stable school attendance.

Figure 4 shows the attendance curves of two boys whose contingency attendance performances was rather irregular. These two boys were dropped by the school in the spring of the previous year, and were already considered “lost” for the semester when they were picked up by the Attendance Counselor. One (Case 6) responded somewhat to the deal when it was arranged with a grandmother to control his access to money contingent on school behavior; however, it became evident he had a second source, and his mother had to be persuaded to become a part of the “deal” before full control of his reinforcer could be established. This was established at week nine, and the counselor maintained supervision of the mediators in at least two contacts per week (by telephone and face-to-face) until reversal. This close contact seemed essential to gain any de-

Fig. 3. A record of weekly attendance for two intermediate school students who participated in attendance counseling: Pattern 2.

gree of compliance with the conditions of the "deal" by both mediators. The other case (Case 5) was begun with only minimal change

in attendance for the first weeks. The deal was to permit the boy to use the pool hall if he attended school; at first he did not attend school

Fig. 4. A record of weekly attendance for two intermediate school students who participated in attendance counseling: Pattern 3.

but still showed up for pool games. The Attendance Counselor emphasized to the proprietor the importance to the boy's future of his attending school and the importance of pool in the "deal". Thereafter, the boy attended more regularly (weeks 9 to 12).

During reversal for Cases 5 and 6, both "deals" broke down and in one case (Case 5) the boy got into trouble in the pool hall and ran away from home and could not be located for the rest of the school year. In the other (Case 6), the boy obtained a supply of money from his mother the last day of the reversal and showed up at school only irregularly thereafter. In these two "irregular" cases, the Attendance Counselor was unable to reinstitute the deals; in one case because the boy disappeared and in the other because the mother of the boy could not be contacted and apparently did not dispense the reinforcer contingent on his attendance behavior.

The data suggested that even with serious truants, relatively untrained personnel can establish and supervise relationships and resulting advantages accruing from involvement of "natural mediators". The nature of the involvement of the Attendance Counselor varied considerably, from simply getting the "deal" established on the one hand to regular and continued support on the other. It appeared to be evident to the counselor which "deals" needed constant supervision, and which could be supported with token contacts or phone calls. The study suggested that relatively untrained school personnel can act in the capacity of managing large numbers of natural mediators. To test the model with a larger population of truants, a second study was made.

STUDY 2

Subjects

Thirty-five students were identified as chronic nonattenders by a school counselor in the same school district as those subjects in Study 1. Fifteen of the students were high school seniors; the remaining 20 were tenth graders. The overall average weekly attendance for the 35 students in the semester preceding the study was about 50%.

Staff Selection and Training

Two school counselors and the registrar volunteered to serve, in addition to their other

duties, as counselors for the study. No effort was made to provide the three participants with a general knowledge of reinforcement principles or behavior modification techniques. One counselor and the registrar were given a 2-hr lecture on contingency management, selection of natural mediators, identification of reinforcers, and negotiation of "deals". They were called Contingency Counselors. The second counselor was engaged in a 2-hr discussion of techniques of establishing rapport, contacting truants, and so forth. She was called a Contact Counselor. All three were provided a system of recording contacts between counselor and target, and in the case of the Contingency Counselors, between counselor and mediators.

Procedure and Conditions

Attendance data. The school registrar, one of the participating Contingency Counselors routinely supervised a system of recording attendance cards similar to the system described in Study 1. The registrar had student help to make the actual transfer of information from the daily cards turned in by homeroom teachers to the daily Attendance Sheet. She had earlier in the year selected and trained students to carry out the clerical work. After training for participation in the study, her involvement in record keeping was supervisory. The attendance figures reported here were taken by the registrar's chief assistant (a student without knowledge of the study) directly from the attendance cards officially used to determine school attendance.

Procedure. The Contingency Counselors contacted targets at school, by telephone, or by visits to local areas and establishments known to be frequented by truants. From initial contacts, the Contingency Counselors determined the reinforcers, and who might serve as mediators. Time with peers was the most frequently employed reinforcers established, though as in the first study, various other reinforcers were used. For example, access to family car was used in one case, weekly movies in an additional four. In about half the cases, parents served as mediators; in four cases the counselors themselves were mediators. In others, uncles, friends (adults), and in the case of a married student, a spouse, served as mediators. While the counselors usually negotiated the "deals" between mediator and target in

face-to-face meetings, there were some "deals" arranged solely by a target and mediator, though the counselor set the conditions before negotiations and closely supervised the management of all deals. In cases in which the counselors served as mediators, the parents gave the counselors money for theater tickets, and because they worked late and left home early in the morning, could not supervise school attendance. In these cases, the Attendance Counselors contacted the targets, arranged a means by which teachers could report daily attendance, and required the girls to check in the Contingency Counselor's office each day to ensure compliance.

The Contact Counselor followed similar procedures, though she did not establish "deals". Rather she attempted to impress the students that, school was vocationally important, failure to finish school reflected unfavorably on their parents, and tried to work out the personal problems considered to be the root of nonattendance.

RESULTS AND DISCUSSION

Figure 5 shows the average weekly attendance of the 20 students in the Contingency

Counseling condition. The improvement in their attendance occurred in two increments: the first after initial contacts, and the second after the Contingency Counselors refined their deals and made adjustments where necessary. While individual variability was evident in school attending behavior in Contingency Counseling, as it was in Study One, the group curve reflects the general impact of the experimental procedures on the attending behavior of students.

Figure 6 shows the average weekly attendance of the 15 students in the Contact Counseling condition. These 15 students appear to have attended less regularly rather than improving in attendance during the experimental period (weeks 7 to 17). The argument that mere contact with targets and mediators was responsible for the increased attendance obtained by the Contingency Counselors is contradicted by the apparent inability of the Contact Counselor to achieve an increase over baseline. Indeed, over the course of the study, the Contact Counselor made nearly three times as many contacts ($X = 5.9$) per student as the Contingency Counselors ($X = 1.9$) did in their negotiation of deals; in spite of her efforts, the data suggest a decrease in attendance

Fig. 5. A record of weekly attendance for 20 high school students who participated in contingency counseling.

Fig. 6. A record of weekly attendance for 15 high school students who participated in contact counseling.

over the 11-week experimental period. The Contact Counselor attributed her negative results to peer ridicule directed toward students required to visit a counselor; when the method of making contact was altered to insure privacy (after the twelfth week), the Contact Counselor succeeded in promoting by the end of the semester an average attendance slightly below baseline. This failure by the Contact Counselor to achieve improved attendance could be attributed to individual ability rather than technique. However, it is suggestive that Contingency Counseling conducted by two "lay" counselors as well as one with experience was more effective than the more traditional techniques where "individual style" may be an important factor in success.

The data from both studies suggest that personnel functioning in roles widely accepted in public schools can learn with relatively brief training to capitalize on the advantages that accrue from the involvement of "natural mediators". However, it should be noted that the teachers of the targets involved in the Contingency and Reversal groups reported no changes in quality of academic performance in spite of improved attendance; whether school personnel in the present study could have ex-

tended the "deals" to include academic behavior is an open question. Previous work (Tharp and Wetzel, 1969) has shown that "natural mediators" can have a highly positive impact on the school performance of deviant youth referred for special services. Employing school personnel as "natural mediators" to arrange contingency management of student academic performance as well as compliance with rules deserves investigation.

REFERENCES

- Martin, M., Burkholder, R., Rosenthal, T. L., Tharp, R. G., and Thorne, G. Programming behavior change and reintegration into school milieu of extreme adolescent deviates. *Behavior Research and Therapy*, 1968, 6, 371-384.
- Phillips, E. L. Achievement place: token reinforcement procedures in a home-style rehabilitation setting for "pre-delinquent" boys. *Journal of Applied Behavior Analysis*, 1968, 1, 213-224.
- Tharp, R. G. and Wetzel, R. J. *Behavior modification in the natural environment*. New York: Academic Press, 1969.
- Zeilberger, J., Sampen, S. E., and Sloane, H. N., Jr. Modification of a child's problem behaviors in the home with the mother as therapist. *Journal of Applied Behavior Analysis*. 1968, 1, 35-46.

Received 30 September 1969.

(Revised 12 May 1970.)