

*TRAINING PARENTS AS BEHAVIOR MODIFIERS:
SELF-RECORDING OF CONTINGENT ATTENTION¹*

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Two mothers of deviant young children were instructed to count their episodes of attention to appropriate child behavior in their homes, using wrist counters. Attention and appropriate child behavior were defined before counting began. Independent observations of parent-child interactions showed that, for each mother-child pair, the percentage of maternal attention given following appropriate child behavior increased, as did the child's appropriate behavior. Removal of the counters did not produce a reversal of the behaviors; instead the increased level stabilized. One mother was then instructed to count her attention to inappropriate child behavior and to decrease it. This instruction had little effect on her attention, and her child's behavior did not change. When both parents were again instructed to count their episodes of attention to appropriate behavior, further improvements in both mothers, and in their children resulted. These results were obtained despite inaccurate parent self-recording. Follow-up observations made over the next five months showed these behavioral gains to be durable. A third parent and his child were unaffected by this training procedure. Thus, there are instances in which self-recording may function as an effective and economical parent-training technique for effecting improvements in child behavior.

It is well documented that the consequences of a child's behavior may be altered to improve that behavior (Gelfand and Hartmann, 1968; Risley and Baer, *in press*; Sherman and Baer, 1969). But it is equally clear that the maintenance and generalization of a behavior change usually depends on supporting environments that continue to provide appropriate consequences (*e.g.*, Wahler, 1969*b*). Thus, growing concern with the generality and durability of

behavioral gains has led to an increasing emphasis on the reprogramming of the social environments of young children (Bijou and Sloane, 1966; Patterson, 1969; Patterson, McNeal, Hawkins, and Phelps, 1967).

A critically important part of a child's social environment is the behavioral consequences provided by parents at home. Previous studies have demonstrated that parents can be trained to effect desired changes in their child's behavior (*e.g.*, Hawkins, Peterson, Schweid, and Bijou, 1966; Wahler, 1969*a*; Wahler, Winkel, Peterson, and Morrison, 1965; Zeilberger, Sampen, and Sloane, 1968). However, these studies typically have focused on training parents to eliminate one or two objectionable child behaviors. Furthermore, the durability of these behavior changes in both parent and child has not been assessed, nor have the training variables responsible for modification of the parent's behavior been clearly isolated. In the present research, a simple and economical technique was used to train two mothers to effect social and

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task-related improvement in their deviant children's behavior at home. For these parents, requiring that they count their episodes of attention to desired child behavior was effective in modifying both mother and child behavior, and the behavior changes were maintained for at least five months after the study ended.

METHOD

Subjects

Two mother-child pairs were used, the mothers serving as the subjects for evaluation of the parent-training technique, and their children as the subjects for assessing the function of any changes made in the mother's behavior. The child subjects, here named Frankie and Hannah, were recruited from a special classroom in the Human Development Preschool Laboratories. Both children had been rejected from regular kindergarten classes. Frankie, age 5 yr, had been labelled as hyperactive, autistic, and schizophrenic. In the special class, he exhibited extreme social isolation, short attention span, and bizarre speech and fingerings (described in detail below). Hannah, age 5 yr, was described as hyperactive and out of control and had been diagnosed to have congenital brain malfunction. Both children appeared to be in the average range of intelligence. The families of these children were apparently normal otherwise. Frankie had three older siblings; Hannah was an only child. The mothers were both high-school graduates in their late thirties; neither was working outside the home. Their husbands were blue-collar workers and described their socio-economic position as low-middle class.

Both mothers had successfully completed simple behavior modification exercises at home. These exercises had focused on improving instructional control of such child behavior as eating at mealtime, going to bed upon request, and playing quietly for increasing lengths of time. In these exercises, the mothers had recorded a few specific child behaviors, correctly delivered material reinforcers, executed a re-

versal of the reinforcement contingencies, and then reinstated them. Despite these successes, in their other interactions each mother still attended to a variety of undesirable child behaviors while ignoring many desired child behaviors. Therefore, the proportion of maternal attention following appropriate and inappropriate child behaviors in general, became the next target for modification.

Observation Procedures

Observation conditions. Regular home observations of mother-child interactions were conducted for 1 hr, usually five days a week over a six-months period. No other family members were present; however, Frankie's mother cared for another 5-yr-old male child during the observation time. Data were recorded only in the living room and kitchen areas of the houses. The observer, equipped with a stopwatch, data sheets, and clipboard, sat on a camp stool positioned for an unobstructed view of the child. Reliability checks were made by two observers sitting side by side, one slightly ahead of the other to discourage looking at each other's records. After an initial greeting to mother and child, the observer told the child: "I'm a worker now," picked up her clipboard, and did not interact with either parent or child for the hour of observation. At the end of the hour, she spoke briefly to the child about his activities during the session (e.g., "What did you color today?"), arranged the next observation time with the mother, thanked her, and left. The first 6 hr of observation time were used to develop the observation code and achieve adequate inter-observer reliability in its use.

Behavior definitions. Child behaviors were defined so that every active behavior could be categorized as either appropriate or inappropriate. Appropriate behaviors included eyes directed towards and hands touching materials, touching mother, accepting or handing materials to mother, following an instruction within 20 sec, and talking to or answering the parent. For Frankie, touching the same materials as or

talking to the other child usually present were also recorded as appropriate. Inappropriate behaviors included breaking, tearing, throwing, grabbing, or scribbling on materials; climbing on, standing on, pounding on, or marking on furniture; opening drawers or cabinets without permission; stealing food; screaming, shouted refusals, crying, verbal threats or name calling; hitting, kicking or pinching people or dogs; running about the house; active noncompliance, such as leaving the area where requested to perform a task; cutting clothing; inserting task materials or fingers in nose, ears or mouth; scratching, gouging, marking on or hitting self; hands in pants; fingering chewing gum or saliva; stamping feet; and vocal noises when kicking. A category of ritual behaviors was added to Frankie's inappropriate category; it included hand or finger posturing, answering his own questions, asking questions previously answered in that session, repetition of mother's or his own verbalization within 20 sec, and use of specific, listed sentence and question forms, or reference to specific listed topics. The list of ritual verbal behaviors was accumulated through the study by the observer, and included verbalizations that were used extensively and inappropriately, both between and within sessions. Examples were; "Put it away", "Who bought the _____?", "Hi" repeated after an initial greeting, and any statements about record players, safety glass, pony tails, or blood tests. Although these verbalizations would be appropriate in certain contexts, the subject's repeated use of them out of context was judged bizarre. By the end of the study, the list contained over 70 items. Parent attention was defined as any vocalization or verbalization directed to the child (*e.g.*, "uh-huh", "good", "stop that"), any physical contact with the child, and handing materials to or accepting them from the child.

Recording and counting. Child and mother behaviors were continuously time-sampled in 10-sec intervals. For a single 10-sec interval, a maximum of three categories would be recorded in either of the following sequences: mother-

child-mother or child-mother-child. (The rare event of a third alternation in interaction within the 10-sec interval was ignored.) For example, the mother might give the child an instruction, the child refuse to comply, and the mother repeat the instruction in one 10-sec interval. This interaction sequence would be recorded as parent attention, inappropriate child behavior, and parent attention. Inappropriate child behavior was recorded with priority over appropriate child behavior when both occurred before the next parent attention.

Parent attention was counted as following a particular child behavior category if it followed that behavior in the same interval, or if the parent attention was the first behavior of an interval following an interval in which that child behavior was the last to be recorded. No more than one parent-attention episode was counted as following a given occurrence of a child behavior, and a given occurrence of parent attention was attributed to (counted as following) only the immediately preceding child behavior. Parent attention was counted as following "unoccupied" child behavior if it occurred after 10 sec of no recorded behavior for the child. The basic dependent measures were, for the mother, the percentage of her total attention that followed each category of child behavior, and, for the child, the percentage of his total recorded behavior that was scored in each category.

Reliability. Inter-observer agreement on the occurrence of each child-behavior category, and the occurrence of mother attention, was computed. An agreement was scored if both observers recorded the behavior in question in the same temporal sequence with other behaviors; a disagreement was scored if only one observer recorded that behavior or if the observers disagreed on the temporal order of the behavior with other behaviors. Inter-observer agreement on the contingent relation between child behavior and parent attention was calculated by scoring an agreement for each interval in which both observers recorded the same child and

parent behaviors in the same sequence. Percentage of agreement was calculated as total agreements divided by agreements plus disagreements. A reliability check was made at least once in each condition (including the follow-up) for each parent-child pair.

Parent-Training Procedures

Before home observations were initiated, the parents were seen by the first author for approximately 1 hr in their homes. The scientific intent of the investigation, the social desirability of parent training, the need for recording by observers over a long time period, and the preliminary delay of training while baseline observations were obtained were discussed. No indication was given of the training techniques to be tried, but the parents were told that there were some techniques that might help them better manage their child, and that these would be tried, one at a time, until one worked for them. They were told of the need to limit experimenter feedback to them on the progress of their training, but were also told they would be given a complete and graphic description of the study at its completion. At all times their continued participation was acknowledged as a contribution to behavioral science and improved clinical practice.

The mothers were instructed to have available a variety of play materials or activities for their child during the observation time. They were asked to minimize the time they or the child spent out of the kitchen and living room areas then, but otherwise to do what they usually did at that time of day. No other instructions were given.

Self-recording attention to appropriate behavior. Following baseline observations, each mother was given a golfer's wrist counter and written instructions about counting her attention to appropriate child behavior. The instructions given Frankie's mother follow:

"Sometimes merely keeping a record of what you do will change what you do. For

example, counting how many cigarettes you smoke will often reduce the number you smoke each day. We want to see if counting your attention to Frankie for appropriate behavior will have an effect on your attention to his appropriate behavior. During the time you are observed each day, count the number of times you give Frankie attention when he is engaged in appropriate behavior. By attention, we mean saying anything to him whether it is merely a comment, praise, instruction, suggestion, or even scolding. Attention also includes touching him, handing him materials, hugging him, and spanking him. Thus, attention is anything you do that is directed to Frankie. By appropriate behavior we mean playing alone or with Billy; working on any task, such as writing, counting or coloring; reading a book; or any interaction with you, such as telling you something, asking a question, handing you materials. Frankie is not appropriate when he is making finger motions, repeating ritualistic statements, or speaking of things recurrently, such as, "Where'd we go?" "What color is this? Red?" Although Frankie may be playing appropriately, if he is doing fingerings or making ritualistic comments, his behavior is not appropriate. Thus, you will count only those times you give attention and Frankie is behaving appropriately. If your attention continues for an extended time, try to estimate and count one unit of attention for each 10 seconds you are attending and he is appropriate."

The experimenter explained how to count 10 sec without a stopwatch and reviewed the instructions with the mother after the mother had read them. The instructions given Hannah's mother were modified only to exclude ritual behaviors, since Hannah did not exhibit those behaviors, and to include examples of her likely inappropriate behaviors that could be engaged in simultaneously with appropriate

behaviors, e.g., scratching, mouthing materials, and stamping feet.

At the beginning of each session, the observer signalled the mother to begin counting and recorded the mother's total count at the end of the session. At no time were the mothers given feedback on the accuracy of their self-recording.

In addition to self-recording in the observer's presence, the mothers were asked to use the counter for 1 hr each day at a time they were not observed, and to keep a record of their totals. This additional period was designed to promote generality of any changes in the mother's behavior that might occur with counting, and as an indirect reliability check on her behavior when not observed. (If her count total for another hour in the day was similar to her count total when observed, it could be inferred that she was behaving similarly with her child in the observer's absence. Of course, little confidence could be placed in these data: the mothers could falsify that total, and their behavior and/or their child's behavior could be very different in the observer's absence.)

To obtain a reliability check on the accuracy of the mother's count while observed, in addition to her usual interval recording, the observer tallied episodes of maternal attention to appropriate child behavior using the same definitions and recording rules as the mother. The percentage of agreement between the mother's and observer's counts was calculated by dividing the smaller total by the larger total for the session.

No-counting conditions. To see if the effects of self-recording were reversible, the mothers were told they no longer needed to count, and their wrist counters were taken away. No further instructions were given.

Self-recording attention to inappropriate child behavior. At one stage of her study, Hannah's mother was given an additional written instruction to count each time she gave attention to inappropriate child behavior. In this instruction, she was explicitly told to attempt to decrease her attentions to inappropriate behavior. Attention

and inappropriate behavior were defined, and the instruction was presented in the same format as the previous instruction.

Intermittent counting. In an attempt to promote the maintenance of the improvements in maternal attention for Frankie's mother, the instruction to use the golfer's counter was given on three days of this condition intermittent with an increasing number of no-counting days. In this 21-day condition, she used the counter on Days 2, 7, and 13.

RESULTS

Frankie

Reliability. Mean percentages of agreements, computed from totals for nine reliability checks across conditions, were as follows: for appropriate child behavior 83% (range, 75 to 90%); ritual child behavior, 70% (range, 50 to 76%); parent attention, 92% (range, 62 to 100%); and on the contingent relation between child and parent behavior, 86% (range, 81 to 90%). Except for ritual child behavior, inter-observer agreement on the occurrence of each behavior scored was 80% or better at least once in each condition of the study. In each of the first three conditions of the study, agreements of 75% were obtained for ritual behavior. Lower reliabilities obtained in later conditions of the study appeared to result from changes in the topography of Frankie's ritual behavior, as well as reductions in rate. For example, his ritualistic verbalizations were no longer characterized by changes in voice inflection. The low percentages of agreement for ritual behavior indicate that the observers were not always identifying the same behaviors as instances of the ritual behavior class. Nevertheless the observers did record very similar frequencies of ritual behavior over entire sessions. The difference between the totals they recorded was never greater than three for a session. A Spearman rank correlation computed between the frequencies of ritual behavior scored by the two observers was 0.98. There were no systematic

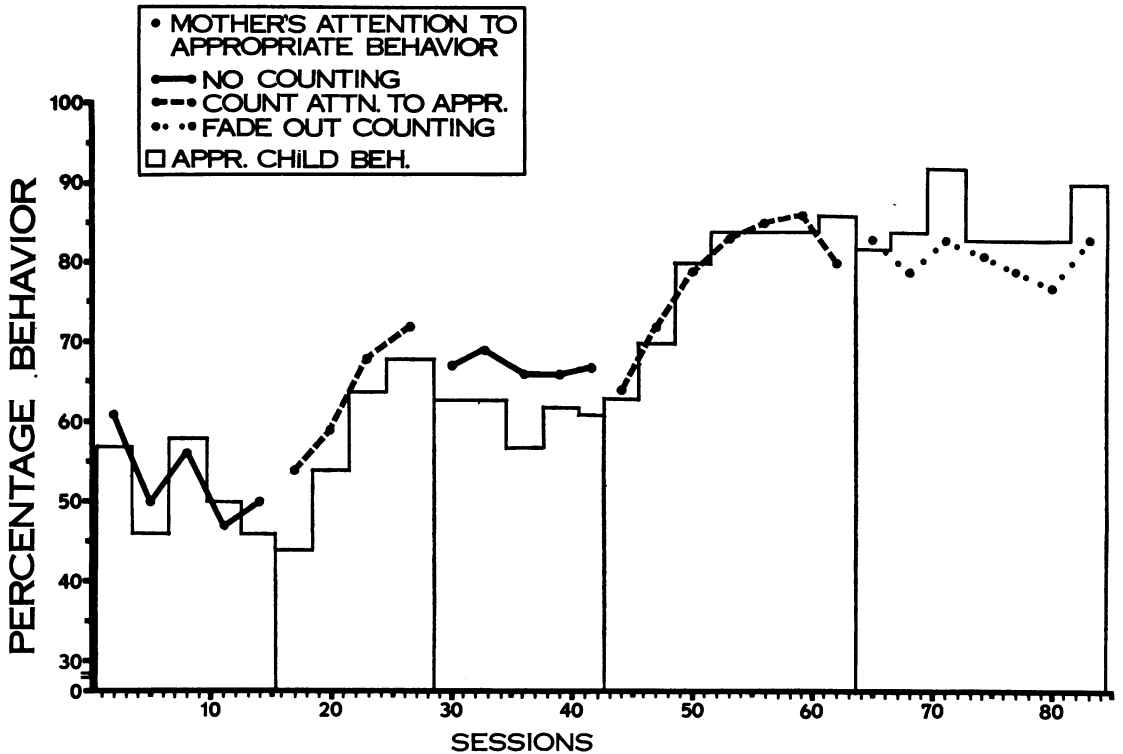


Fig. 1. The percentage of maternal attention following appropriate behavior and the percentage of Frankie's behavior recorded as appropriate across no-counting and counting conditions.

differences between observers in the number of ritual behaviors scored.

Mother and child behaviors. Figure 1 shows, as bars, the percentage of Frankie's behavior recorded as appropriate and, as lines, the percentage of maternal attention following appropriate behavior, over successive blocks of three sessions each. During baseline, on the average, 53% of mother attention followed appropriate child behavior, and 51% of Frankie's behavior was appropriate. When the mother was instructed to count her episodes of attention to appropriate behavior, her attention increased to 72% for the last three days, and Frankie's appropriate behavior increased to 68%. When use of the wrist counter was discontinued, the mother's attention stabilized near 65%, and Frankie's appropriate behavior levelled a little above 60%. The wrist counter was again prescribed and used, and the mother's attention to appropriate behavior again in-

creased, this time to a maximum of 85%; correspondingly, the percentage of appropriate child behavior also increased to just below 90%. Finally, counting was prescribed intermittent with no-counting days. The mother counted only three days of this condition and did not count on the last eight days. Her attention to appropriate behavior maintained at an average of 80%, and Frankie continued to engage in a similarly high percentage of appropriate behavior.

Ritual behavior comprised between 94% and 100% of Frankie's inappropriate behavior on any day. Ritual behavior covaried with the manipulations much as did appropriate behavior, decreasing from 40% of his total behavior in baseline to 10% during the last condition. Because of low interobserver agreement on the occurrence of ritual behavior, these data should be interpreted with caution. However, data recorded on Frankie's ritual behavior in a sub-

sequent study provide some confidence in the representativeness of the present data. Using a somewhat modified observation code, Pinkston and Herbert (1971) found that Frankie's bizarre verbalizations ranged from 7% to 11% before treatment as recorded by independent observers with 83% agreement on occurrence.

Follow-up observations, in blocks of two successive days, were made at four and 24 weeks after the last day shown in Figure 1. Mother attention to appropriate behavior and child appropriate behavior were maintained above 80% (at four weeks: mother, 91%; child, 92%—and at 24 weeks: mother, 83%; child, 89%).

Frankie's mother counted her attention to appropriate behavior on 35 days when the observer was present and 47 days in the observer's absence. The mean percentage of agreement between the mother's and observer's totals when the observer was present was 46% (range, 17 to 100%). Agreement with the observer showed no improvement over time, and there was no systematic relationship between the mother's and the observer's totals (their correlation approached zero). Reliability between two observers' tallies of the mother's attention to appropriate behavior was 90%. The mother's agreement on her counting for those days when she counted both in the observer's presence and absence was higher, with a mean of 92% (range, 57 to 98%). Thus, it appeared that Frankie's mother was behaving (counting) similarly in the observer's presence and absence.

Because the mother's count was recorded as a total, there was no precise way to assess the source of discrepancy between her count and the observer's tally. However, it appeared that her errors were omissions, that is, failures to count on many occasions when she attended to appropriate behaviors. On only five days of the 35 observed did her total equal or exceed the total recorded by the observer.

Hannah

Reliability. The mean percentages of agreement between observers for 11 checks made

across conditions were, for appropriate child behavior, 92% (range, 87 to 98%); for inappropriate child behavior, 76% (range, 56 to 100%); for parent attention, 89% (range, 84 to 96%), and for the contingency between child behavior and parent attention, 90% (range, 84 to 97%). Percentage agreements on the occurrence of inappropriate child behavior were not as high as desired. However, at least one reliability estimate of 80% or greater was obtained in each different condition of the study. The difference between the observers' session totals for inappropriate behavior was never greater than two. A Spearman rank correlation computed between the totals recorded by the two observers was 0.98. There were no systematic differences between observers in the frequencies of inappropriate behaviors they recorded.

Mother and child behavior. Figure 2 shows the percentage of Hannah's behavior recorded as appropriate and the percentage of maternal attention that followed appropriate child behavior, over successive blocks of three sessions each. In baseline, on the average, 73% of parent attention followed appropriate child behavior, which also averaged about 73%. When self-recording attention to appropriate behavior was introduced, both the mother's attention and child appropriate behavior increased. Termination of counting did not produce a reversal of either the mother's or the child's behavior. At the arrow, Hannah entered a regular preschool class while continuing to attend the special classroom. This change had only a transient (apparent) effect on parent-child interaction at home. Next, the mother was given instructions to count her attentions to inappropriate child behavior and to reduce them. Counting attentions to inappropriate behavior had no systematic effect on the proportion of her attention that followed appropriate child behavior. The child's behavior was unaffected. To recover a high level of the desired terminal behavior, the counting of attention episodes to appropriate behavior was again introduced, and both parent

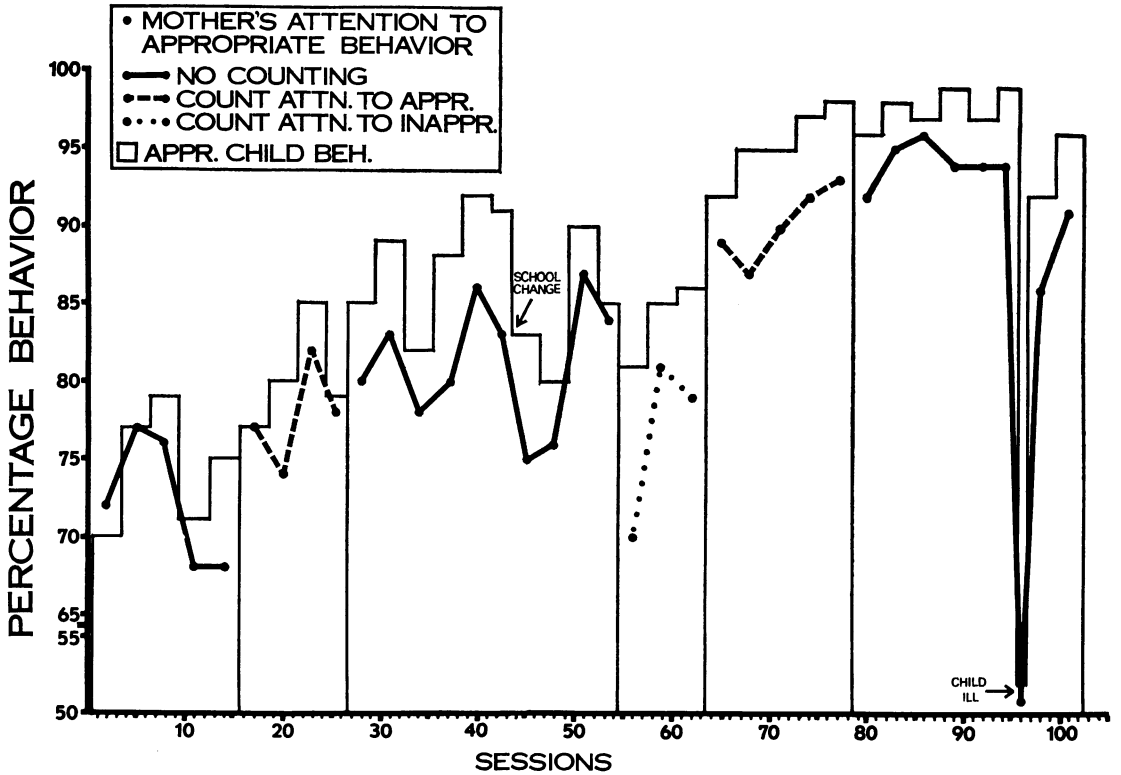


Fig. 2. The percentage of maternal attention following appropriate behavior and the percentage of Hannah's behavior recorded as appropriate across conditions.

and child behaviors showed the desired improvements. In the last condition, counting was terminated, and except for a day when the child was ill, maternal attention and appropriate child behavior were maintained at approximately 90% over the next 24 sessions. Intermittent counting was not used for this mother because her attention to appropriate behavior had not shown a decrease when counting was first removed.

Follow-up observations, in blocks of two successive days, were made at 2, 12, and 20 weeks from the last day reported in Figure 2. Appropriate child behavior was maintained at 97, 87, and 89%, and maternal attention to appropriate child behavior was 95, 85, and 91%, respectively.

Hannah's mother counted her episodes of attention to appropriate child behavior on 26 sessions when the observer was present and 31 occasions when the observer was not present.

As with Frankie's mother, her agreement with the observer was low, averaging only 43% (range, 7 to 73%), and showed no improvement over time. It appeared that she counted only when she gave approval rather than any time she gave attention to appropriate child behavior. Agreement between two observers' tallies of the mother's attention to appropriate child behavior was 99%. Hannah's mother's count, when observed, was in low agreement with her own totals when the observer was absent, averaging less than 60% agreement. She reported higher counts of attention in the observer's absence than in her presence.

The mother's agreement with the observer on episodes of attention to inappropriate behavior was higher, averaging 72% (range, 35 to 100% over nine days). Two observers obtained 92% agreement on her attention to inappropriate behavior. She counted her attentions to inappropriate behavior on too few days in the

Table 1
Mean Attention Episodes per Minute

Condition	Frankie's Mother			Hannah's Mother		
	Following Appropriate	Following Inappropriate	Total	Following Appropriate	Inappropriate Following	Total
Baseline	1.0	0.82	1.8	2.2	0.70	3.0
Count Attn. to Appropriate	1.6 (2.0*)	0.74	2.4	3.5	0.72	4.5
Stop Counting	2.1	0.82	3.1	3.6	0.56	4.4
Count Attn. to Inappropriate	—	—	—	2.6	0.62	3.4
Count Attn. to Appropriate	2.9	0.49	3.7	3.8 (4.3*)	0.18	4.2
Intermittent Counting	2.7	0.26	3.3	—	—	—
Stop Counting	—	—	—	3.4	0.22	3.8

*Last half of condition.

observer's absence to allow an accurate assessment of her agreement with her own totals in that condition.

Rates of Attention

In addition to altering the proportionate distribution of maternal attention to appropriate and inappropriate child behaviors, the self-recording procedure affected the rates of maternal attention. Table 1 shows the mean number of attention episodes per minute to follow appropriate child behavior, inappropriate behavior, and the overall rate for each condition of the study. These means were computed from totals for each condition. With the restrictions imposed by the interval recording system, it was possible to score at least six episodes of attention per minute and up to 12 per minute depending on intervening child behaviors.

When the mothers first counted attention to appropriate behavior, each increased her rate of attention to that behavior. For Frankie's mother, the mean increase (0.6 per minute) was not large; however, for the last half of that condition she averaged 2.0 episodes per minute as compared to 1.0 in baseline. The increase for Hannah's mother was sudden, going from 1.9 per minute on the last day of baseline to 3.3 per minute on the first day of counting. Rates

of attention to inappropriate child behaviors showed little change. When counting was discontinued, rates of attention were maintained at approximately the same levels as at the end of the counting condition, but there was more day-to-day variability. Self-recording of attention to inappropriate child behaviors, used with Hannah's mother, was correlated with a decrease in the mother's total rate of attention, although the distribution of her attention between appropriate and inappropriate behaviors was changed only slightly. In the second application of self-recording attention to appropriate behavior, the rates of attention to appropriate behavior again increased, and this time each mother decreased her attention to inappropriate child behavior. In the last condition, when Frankie's mother counted intermittently, her rate of attention to inappropriate behavior decreased further to average less than three in 10 min as compared to eight in the same time period in baseline conditions. The sudden termination of self-recording for Hannah's mother produced little change in the rates of her attention.

DISCUSSION

Under conditions of positive set, as established by the instructions, each mother's self-recording

of her attention to appropriate child behavior increased her attention to that behavior, and child behavior showed the desired improvement. Changes in the distribution of maternal attention were confounded with changes in rates of attention. Initially, the self-recording increased rates of attention to appropriate child behaviors; later in the study it decreased rates of attention to inappropriate child behavior.

The positive feedback provided by self-recording was likely responsible for the effectiveness of this procedure. Other researchers have found knowledge of performance to be effective in modifying adult behaviors. For example Leitenberg, Agras, Thompson, and Wright (1968) reported that self-recorded or experimenter-provided feedback on the duration of exposure to a phobic stimulus increased the time two adult females spent in the presence of stimuli they had previously avoided. As in the present research, withdrawal of feedback caused a decline in progress but did not produce a reversal to baseline levels of performance. In a study on teacher training, Cooper, Thomson, and Baer (1970) found a combination of feedback conditions effective in training preschool teachers to increase their attention to appropriate child behavior in a classroom. The feedback procedures they used included within-session and post-session reports of teacher attention to appropriate child behavior and failures to attend to the desired child behavior.

The present results suggest that the accuracy of the feedback is not crucial to the effectiveness of the procedure. Neither mother obtained high agreement with the observer on the frequency of her attentions to appropriate child behavior. However, there may be lower limits to the accuracy of self-recording, below which the procedure is ineffective. At least it would appear that the parent must discriminate those occasions on which she attends to appropriate behavior from those on which she attends to inappropriate behavior. Unfortunately, the recording method used did not permit analysis of this possibility.

The failure of self-recording attention to inappropriate behavior to decrease that attention for Hannah's mother suggests that feedback *per se*, even with high accuracy, is not sufficient to produce the desired changes. In that condition, the mother's total rate of attention decreased, but there was little change in the distribution of her attentions.

Lindsley (1965) reported that parent recording of objectionable child behaviors often decelerated those behaviors. In the present research, the parent recorded her own behavior, *i.e.*, her attention to objectionable behavior. It may be that the recording of the undesirable behavior in Lindsley's research served to remove parent attention briefly from that behavior, thereby decelerating that behavior. In the present study, the self-recording would have no such function. Research is needed to compare the relative merits of procedures for removing attention from objectionable child behavior to those for increasing attention to desired behaviors.

For a third parent, the father of an 8-yr-old Downs syndrome female, the counting procedure had no effect on the rate or distribution of his attention; however, no techniques tried, including direct cueing to attend and ignore, could be demonstrated consistently to affect these facets of his behavior. This parent also had a past history of successful modification with a specific child behavior, and his training in self-recording was identical to that of the other subjects. The variables responsible for this failure cannot be clearly identified; however, it appeared that he did not understand that the counter was to be used to record his own behavior. When using the counter he often made comments such as: "Good girl, you deserve a point for that." His counting was less accurate than the other parents, ranging from 4% to 33% with a mean of 10% agreement with the observer.

There remains uncertainty about the source of the counting method's effectiveness, and there is an undeniable need for replication. For example, the frequent monitoring by an ob-

server may have been influential in getting the parents to follow the instruction to self-record, and the parents' past success with behavior modification procedures, although not sufficient to produce generalized changes in parent behavior, may have been a necessary precondition. Nevertheless, the training method produced remarkable behavior changes, relative to its cost in professional time. It took less than 10 min to instruct the parents in the self-recording procedure. As more public demand is generated for behavioral intervention procedures, the cost of such programs will be an important factor in determining their social feasibility. For two of the three parents with whom the technique was applied, simply counting attention to appropriate child behavior was effective in producing durable changes in both parent and child behavior.

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