

*AN EVALUATION OF ADVANCE NOTICE TO INCREASE COMPLIANCE
AMONG PRESCHOOLERS*

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Advance notice of an upcoming instruction was evaluated to increase compliance among 3 children (4 to 5 years old) who exhibited noncompliance. Results show that the procedure was ineffective for all 3 participants. Advance notice plus physical guidance or physical guidance alone was necessary to increase compliance.

Key words: advance notice, noncompliance, physical guidance, preschoolers, warning

Noncompliance is a clinical term used to describe the behavior of children who display low levels of compliance to instructions that are clearly within their response repertoire. Noncompliance is among the most common childhood behavior problems (Bernal, Klinnert, & Schultz, 1980; Rodriguez, Thompson, & Baynham, 2010). One antecedent-based intervention for compliance, particularly for instructions involving a change in activity or setting, is advance notice that an instruction is forthcoming that will necessitate a change in activity or setting.

Although advance notice has been investigated with individuals with disabilities (McCord, Thomson, & Iwata, 2001; Tustin, 1995) and for its effects on tantrums (Wilder, Chen, Atwell, Pritchard, & Weinstein, 2006), only two studies (Cote, Thompson, & McKerchar, 2005; Wilder, Zonneveld, Harris, Marcus, & Reagan, 2007) have evaluated it as a method of increasing compliance in young, typically developing children. Both of these studies found that it was ineffective at increasing compliance. Despite these results, providing advance notice to young children of an upcoming transition continues to be commonly recommended by popular parenting and teach-

er-preparation books (Forehand & Long, 2002, p. 239; Nicholasen & O'Neal, 2008, p. 43; Pantley, 2007, p. 222). In addition, the two studies that have evaluated advance notice with typically developing children employed very young children (i.e., 1 to 3 years old). It is possible that advance notice is more effective with older children whose language skills are better developed. In fact, at least one parenting book (Nicholasen & O'Neal, p. 220) recommends additional components (e.g., providing choices when possible) when this procedure is used with young children (i.e., 2 to 3 years old), implying that advance notice by itself is most appropriate for older preschoolers. Thus, the purpose of this study was to evaluate advance notice on compliance in three children who were 4 or 5 years old.

METHOD

Participants and Setting

Three children participated. Ralph was a 66-month-old boy, Sam was a 55-month-old boy, and Chris was a 52-month-old boy. All participants had age-appropriate language skills, and none had been diagnosed with a developmental disability. Teachers reported that each participant was noncompliant. A graduate student, who was unfamiliar to the participants when the study began, served as therapist. All sessions took place in a small room at the participants' school. Two to six sessions were conducted per day, 2 to 3 days per week.

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Response Measurement and Definitions

Compliance was defined as initiation or completion of the activity, described in the instruction delivered to participants, within 10 s. If the child initiated but did not complete the instruction within 10 s, compliance was recorded. During the advance notice plus physical guidance and the physical guidance conditions (described below), compliance was scored if the participant gave the therapist the toy on the first delivery of the instruction only. Data were collected on the occurrence or nonoccurrence of compliance and problem behavior during trials. *Problem behavior* was defined as aggression (i.e., hitting, pinching, kicking); property disruption (i.e., throwing toys, hitting objects); and whining, crying, or saying "no" to the therapist. A second independent observer recorded compliance and problem behavior on at least 70% of trials for all participants. Interobserver agreement data were obtained by comparing the data each observer collected on a trial-by-trial basis. Trials in which both observers recorded an instance of compliance or no compliance (or problem behavior or no problem behavior) were considered agreements. Mean agreement was calculated by dividing the number of agreements by the number of agreements plus disagreements and converting the ratio to a percentage. Agreement values ranged from 94% to 100% for compliance and from 90% to 100% for problem behavior for all participants.

Data on integrity of the independent variable were collected by recording the delivery of the advance notice statements and the use of hand-over-hand guidance in the physical guidance phases. Observers collected data on whether or not these procedures were implemented when they should have been implemented. Integrity values were 100% across all sessions for all participants. Finally, interobserver agreement data on integrity were collected during at least 20% of sessions; agreement was 100% for all participants.

Procedure

To identify high- and low-preference play materials, a paired-stimulus preference assessment (Fisher *et al.*, 1992) was conducted. Preferred play materials for Chris, Sam, and Ralph were a Transformer figure, a Power Rangers figure, and a cell phone (on which video games were played), respectively. Low-preference play materials were a Power Rangers figure, a toy car, and a Ben Ten figure for Chris, Sam, and Ralph, respectively.

Advance notice evaluation. Each trial consisted of a 2-min preinstruction period, the presentation of the instruction, and a 2-min postinstruction period. Each session consisted of three trials. Reversal designs were used to evaluate the effects of advance notice on compliance. In addition, advance notice plus physical guidance was evaluated for all participants, and physical guidance only was evaluated for Chris and Sam. During baseline, the participant had access to his most preferred toy, and the therapist presented the instruction "Give me the [preferred toy]." Compliance resulted in the therapist saying "thank you," and the child was free to play with a low-preference toy or do whatever he liked during the 2-min postinstruction period. Contingent on noncompliance, the therapist did nothing (i.e., did not say anything or remove the toy) for the remainder of the postinstruction period.

During the advance notice conditions, 2 min before the instruction was delivered, the therapist said "In 2 minutes you'll need to give me the [toy]." One minute before the therapist delivered the instruction, she said "In 1 minute you'll need to give me the [toy]." Then, the therapist presented the instruction to give her the toy. If the child complied, the therapist said "thank you." The participants stayed in the session room during the 2-min postinstruction period and then received a brief break, as in baseline. If the child did not comply with the instruction, the therapist did nothing (i.e., did

not remove the toy) for the remainder of the postinstruction period.

During the advance notice plus physical guidance condition, the therapist presented the 2-min and 1-min warnings as in the advance notice condition. However, when the therapist delivered the instruction to surrender the toy, noncompliance resulted in the therapist repeating the instruction after 10 s and modeling giving a toy. Contingent on noncompliance, the therapist repeated the instruction a third time and used hand-over-hand guidance to assist the participant to give the toy.

During the physical guidance condition (Chris and Sam), the therapist did not give advance notice. When the therapist delivered the instruction to surrender the toy, noncompliance resulted in the therapist repeating the instruction after 10 s and modeling giving a toy. Contingent on noncompliance, the therapist repeated the instruction a third time and used hand-over-hand guidance to assist the participant to give the toy.

RESULTS AND DISCUSSION

The results of advance notice on levels of compliance are depicted in Figure 1. Ralph's compliance was generally low during baseline ($M = 8.8\%$) and advance notice ($M = 14.7\%$) conditions. However, when physical guidance was added, his compliance increased and remained at high levels ($M = 57.7\%$). Problem behavior occurred in 62.1%, 40.7%, and 53.1% of baseline, advance notice, and advance notice plus physical guidance conditions, respectively.

Sam exhibited low levels of compliance during both baseline ($M = 20.9\%$) and advance notice ($M = 0\%$) phases. During the first advance notice plus physical guidance phase, compliance remained relatively low ($M = 9.4\%$). During the physical guidance only phase, compliance increased and remained at high levels ($M = 42.3\%$). Compliance increased again during the second advance notice

plus physical guidance phase ($M = 62.1\%$) and increased to high, stable levels during the second physical guidance phase ($M = 81.2\%$). Problem behavior occurred in 12.1%, 38.5%, 13.3%, and 1.7%, of baseline, advance notice, advance notice plus physical guidance, and physical guidance conditions, respectively.

Very low levels of compliance were observed during baseline conditions for Chris ($M = 8.3\%$). Other than a slight increase in compliance during the initial advance notice session, levels of compliance were also low during the advance notice conditions ($M = 9.4\%$). When physical guidance was added, compliance increased ($M = 45.9\%$). During the last phase, advance notice was removed and physical guidance alone was implemented. Compliance improved ($M = 47.4\%$) and remained at high levels (final two data points at 100%) during this phase. Problem behavior occurred in 14.7%, 28.4%, 9.2%, and 14.1%, of baseline, advance notice, advance notice plus physical guidance, and physical guidance conditions, respectively.

The results of this study suggest that advance notice of an upcoming instruction is not an effective means of increasing compliance. None of the three participants exhibited increased levels of compliance when advance notice was implemented. These results are consistent with those of previous studies that employed younger children as participants. Physical guidance was necessary to increase compliance for all participants. For Chris and Sam, physical guidance only was as effective as advance notice plus physical guidance.

Although problem behavior was variable across conditions, it is clear that advance notice did not preclude problem behavior, particularly for Chris and Sam. These two participants would often say (or yell) "no" immediately after a warning was delivered. Physical aggression also accompanied the yelling on occasion. Although yelling also occurred in the physical guidance conditions, it typically stopped after the first few trials.

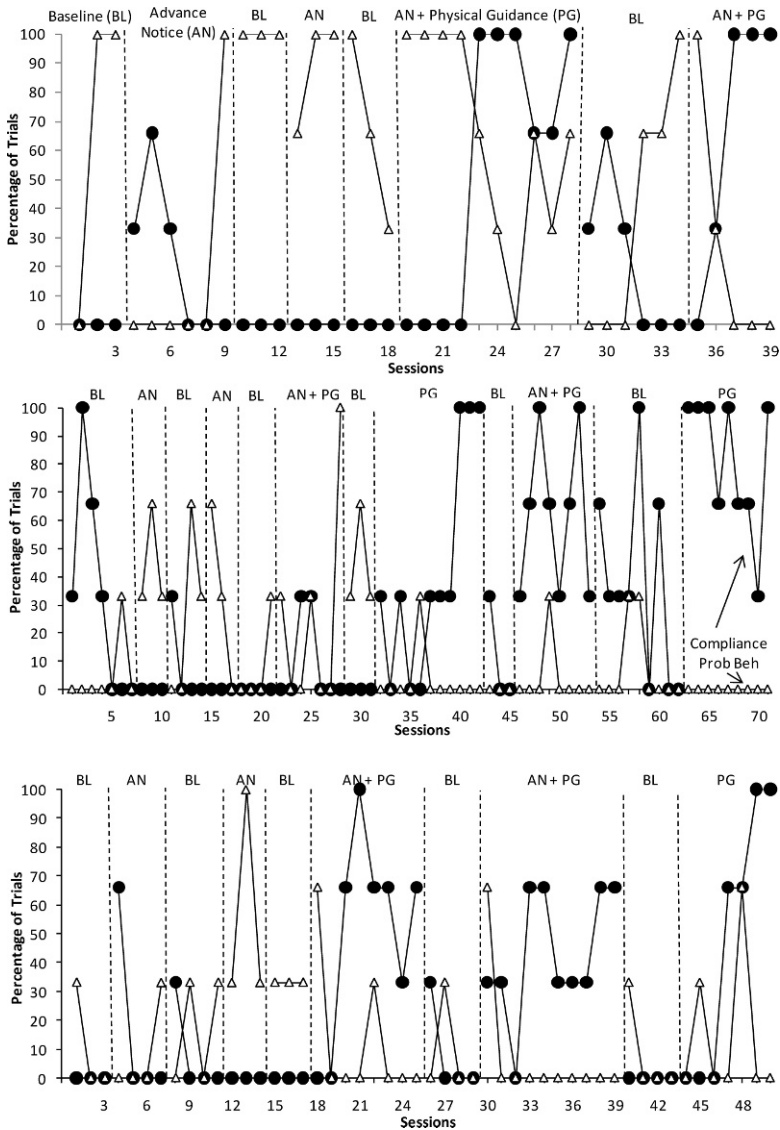


Figure 1. Percentage of trials with compliance and problem behavior across baseline (BL), advance notice (AN), advance notice plus physical guidance (AN + PG), and physical guidance (PG) conditions for Ralph (top), Sam (middle), and Chris (bottom).

This study has limitations that should be noted. First, compliance was evaluated in only one context and with only one instruction. In addition, for some participants, problem behavior persisted after compliance improved. Future research should examine advance notice across a variety of contexts and instructions. Conditions could also be extended to evaluate whether problem behavior will eventually decrease.

Future research should also examine the effects of advance notice after a long history of physical guidance. It is possible that advance notice is effective only when followed by a period of physical guidance. Finally, future research should examine other conditions under which antecedent interventions are effective to increase compliance. It is possible that some antecedent interventions may be effective after only a brief pairing with a consistent conse-

quence (e.g., physical guidance), and others may require a more extended pairing to become effective.

Despite these results, advance notice may not be completely ineffective for all children. It is possible that this technique is effective with children who exhibit only occasional or minor noncompliance. On the other hand, even though it is a common recommendation in parenting texts, providing advance notice may not be the most effective strategy for improving child compliance. Parents and teachers might be better advised to focus on consequence-based interventions such as physical guidance to increase compliance among young children.

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