



AOTA Evidence Briefs

Children With Behavioral and Psychosocial Needs

**A product of the American Occupational Therapy Association's Evidence-Based Literature Review Project*

PSYCH 12

Responsiveness, not praise or mirroring, is the best predictor of children's compliance with mothers' instructions

Wahler, R. G., & Meginnis, K. L. (1997). Strengthening child compliance through positive parenting practices: What works? *Journal of Child Clinical Psychology, 26*, 433–440.

Level: IA

Randomized controlled trial, 20 or more participants per condition.

Why research this topic?

Mothers' appropriate and timely reactions to children's behaviors are an important part of positive parenting. According to reinforcement theory, mothers' praise (e.g., "Well done") and "mirroring" (e.g., "I see that you finished your work") often are positive reinforcers. A more comprehensive conception of positive parenting, derived from social attachment theory and called "responsiveness," embraces a wider range of responses and broader consequences. Some research suggests that praise and mirroring "are simply components of overall responsiveness" (p. 434) and work in that broader context.

What did the researchers do?

Wahler and Meginnis (1997) designed a study to determine (1) whether mothers increase their overall rates of responsiveness when they use praise and mirroring, and (2) which kind of feedback, praise and mirroring, or general responsiveness, is more closely linked to compliance by children.

The participants in the study were 36 first-, second-, and third-grade children and their mothers, recruited through the public school system. Sixteen of the children were boys, and 20 were girls. The average age was 7.5 years, and the mothers' average age was 35.8 years. All were upper-middle-class Caucasians.

As mothers and their children agreed to participate, the researchers assigned them to one of three groups, verbal mirroring, praise, or control. The first two assignments were random; the third was to the remaining group. The remaining assignments replicated the order established by the first three. The result was 12 pairs, or "dyads," per group.

All the dyads participated in separate 20-minute play sessions. The mothers in the mirroring and praise groups had 15 minutes of training before the play sessions. Those in the verbal mirroring group saw a video about the technique, during which the trainer pointed out its distinctive features: "Neutral affect and brief descriptions or paraphrasing of the child's nonverbal and verbal behavior (e.g., 'So you prefer the red car'; p. 434). The mothers then practiced the technique with the trainer playing the role of the child.

The mothers in the praise group also saw a video, this one featuring praise. The distinctive aspects of this technique were "positive affect presented through ambiguous statements (e.g., 'Wow! That was terrific!'; p. 434).

The mothers in the **control group** (see *Glossary*) simply spent 15 minutes with a trainer before the play session, who asked them about typical social interactions at home.

For the play session, the researchers asked the mothers to structure the time around a game of Pick Up Sticks. On a cue from the trainer every two minutes, the mothers were to provide instructions to their child. The sessions were videotaped.

The outcome areas of interest were *satisfaction with personal relationships* (as measured by the Bell Object Relations-Reality Testing Inventory [BORRIT], completed by the mothers); *children's maladaptive behavior* (as measured by the Child Behavior Checklist [CBCL], completed by the mothers); *mirroring, praise, instructions, responsiveness, and compliance* (as measured by the Standardized Observation Codes–Revised [SOC–R]); and *satisfaction with the play session* (as measured by the DIQS [not spelled out], a questionnaire designed for the study and consisting of 10 incomplete statements [e.g., “I think I felt...”] read to the mother and the child in separate interviews). The BORRIT and the CBCL were administered before the play sessions, the SOC–R during the play sessions, and the DIQS immediately after the play sessions.

What did the researchers find?

On the BORRIT and the CBCL, there were no differences among groups. On the SOC–R, as might be expected, the mothers in the mirroring group used verbal mirroring **significantly** (see *Glossary*) more frequently than the mothers in the other two groups did, and the mothers in the praise group used praise significantly more frequently than the mothers in the other two groups. The mothers in the two experimental groups were equally responsive, and significantly more responsive than the mothers in the control group. Further, the mothers in the experimental groups were equally satisfied with the play episode, and significantly more satisfied with it than the mothers in the control group. The children in the experimental groups were equally compliant, and significantly more compliant than the children in the control group. Also, they were equally satisfied, and significantly more satisfied than the children in the control group.

Further analysis of relationships among the measures revealed that responsiveness was the significant predictor of children's compliance, children's satisfaction, and mothers' satisfaction.

What do the findings mean?

For therapists and other providers, the findings suggest that despite the popularity of specific techniques like praise and mirroring, they may not have much value by themselves. Rather, they seem to be markers for a more basic context that mothers create through their responsiveness to their children's behavior. “The implications of these results for mothers are important....Clearly, their search for answers will be most fruitful if they focus on a means of attaining interactional synchrony [a harmony of contingencies and responses] instead of pursuing a more narrow focus on refining their selective use of any particular practice” (p. 439). Generalization of specific practices to a broader responsiveness, as occurred in this study, is not assured. Therapists need to keep in mind that while the development of a deep and meaningful mother-child relationship is important for all children, it can be especially challenging to families of children with disabilities.

What are the study's limitations?

The study is only limited by the short length of follow-up.

Glossary

control group—A group that received special attention similar to that which the treatment group received, but did not receive the treatment.

significance (or significant)—A statistical term that refers to the probability that the results obtained in the study are not due to chance, but to some other factor (e.g., the treatment of interest). A significant result is likely to be able to be generalized to populations outside the study.

Significance should not be confused with *clinical effect*. A study can be statistically significant without having a very large clinical effect on the sample. For example, a study that examines the effect of a treatment on a client's ability to walk may report that the participants in the treatment group were able to walk significantly longer distances than those in the control group. However, after reading the study one may find that the treatment group was able to walk, on average, 6 feet, whereas the control group was able to walk, on average, 5 feet. Although the outcome may be statistically significant, a clinician may not feel that a 1-foot increase will make his or her client functional.

This work is based on the evidence-based literature review completed by Shari Nudelman, OTR/L, and Marian Arbesman, PhD, OTR/L. For more information about the Evidence-Based Literature Review Project, contact the Practice Department at the American Occupational Therapy Association, 301-652-6611, x 2040.



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