Tutorial

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Inadvertent Reinforcement in Oral Myofunctional Therapy

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The possibility of inadvertent reinforcement of undesirable behaviors during oral myofunctional therapy is examined. It is suggested that inappropriate use of therapist attention is often responsible for such reinforcement and it is concluded that: 1) attention may function as a positive reinforcer for any behavior upon which it is contingent, 2) attention may serve as a reinforcer regardless of the intent of therapists' verbal statements which accompany it, and 3) therapist attention affects group behavior and patterns of peer reinforcement.

Introduction

Oral myofunctional therapy, like other forms of therapy that deal with strongly habituated behaviors, is highly dependent upon the motivational level of the client. Most therapists recognize the futility of trying to modify a behavioral pattern that has been practiced many times daily throughout a client's life, without his or her understanding, cooperation and determination. The problem of client motivation becomes even more acute when we consider the fact that a recommended beginning age for oral myofunctional therapy is in early childhood whenever possible (Barrett and Hanson, 1974). It is generally noted that there are more motivational problems evident in therapy with young clients than with adults. This is evidenced by the fact that special therapy techniques, hypnotherapy for instance, have been utilized in an attempt to deal with this problem in children (Barrett and Hanson, 1974).

Not only is client motivation necessary in carrying out home assignments and "real world" exercise of proper deglutition, but it is also necessary in the therapy room encounter between the oral myologist and the client. Most therapists have

experienced the frustration that results from attempting to conduct a myotherapy session with a child who is poorly motivated. A carefully planned session can degenerate significantly when client motivation is missing. Motivation is, therefore, one of the most important concerns of therapy.

Motivational problems have been reexamined in recent years in light of developments in behavioral psychology. Rather than speaking of motivation as a presumed internal state within the client, behavioral research has provided evidence that motivation is primarily dependent upon environmental reinforcement. Yet even when therapists give careful consideration to the use of reinforcers, there still are clients who are disruptive, uncooperative or otherwise exhibit behaviors indicative of "poor motivation." This suggests that there are often other reinforcing circumstances occurring in therapy that are not adequately controlled and which may contribute to, or account for, motivational problems in the therapy encounter.

If the myofunctional therapist is going to avoid inadvertent reinforcement of inappropriate behaviors, serious consideration must be given to the fact that reinforcers are, by definition, anything which causes a contingent behavior to increase in rate. Therefore, the analysis and monitoring of reinforcers must extend beyond the selection of food or tokens as "rewards" and include anything the therapist does that results in an increase in the clients' behavior.

It is proposed that clinician attention is one of the frequently ignored and yet potent reinforcers affecting therapy. Since this potential reinforcer is present and in operation in every therapy session, it deserves careful examination.

Many behaviors such as eye contact, touching, verbal exchange, etc. are often considered to be forms of attention. Our purpose, however, is to examine attention independent of the verbal statements of praise or blame, or the touching, or the facial expressions of smiling or frowning, that may accompany it. Therefore, let us define attention as any overt cue conveying obvious awareness. The overt cue may indeed be verbal expression or physical contact, etc. but the attention itself is not necessarily dependent upon any one of these behaviors. Thus when a therapist looks at a child and says "Bad girl, Sandy," we can discuss the eye contact or the verbal reprimand, but must also realize that the attention conveyed by these acts may produce different effects from those produced by the acts themselves. That is to say that the reprimand may have some negative effect but the attention, the obvious awareness conveyed by the act of looking and speaking, may be reinforcing.

The Reinforcing Effects of Attention

There seems to be little doubt that attention operates as a strong positive reinforcer for behaviors upon which is contingent. Ayllon and Michael (1959) report, for instance, that psychiatric nurses were able to increase and maintain prosocial behaviors of patients in an institutional setting by controlling attention, praise, proximity and other social stimuli. Attention and the social responses that accompanied it operated as positive reinforcers for desired behaviors.

More recently, school psychologists have investigated the effects of attention on classroom behavior. Since many oral myologists deal with young clients in groups as well as in individual therapy, the effects of teacher attention on the behavior of children in

classrooms should be relevant to the examination of attention as a reinforcer in therapy. For example, Becker, Madsen, Arnold, and Thomas (1967) trained teachers to use attention, praise, rules, and the ignoring of inappropriate behavior in the classroom. The results of this training were dramatic reductions in inappropriate behaviors and an attendant increase in prosocial acts among the children.

The following year Thomas, Becker, and Armstrong (1968) demonstrated that when teachers were taught systematically to vary approving and disapproving behaviors by controlling praise, smiles, and physical contact, appropriate classroom behavior was maintained. When the teachers' approving behaviors were withdrawn, inappropriate behavior on the part of the students increased. Once again, teacher attention, accompanied by other forms of social reinforcement, acted as a positive reinforcer.

Others have reported similar findings and have concluded that teacher attention is an effective positive reinforcer for preschool and elementary school children (Hall, Lund, and Jackson, 1968; Ward and Baker, 1968).

Thus the positive reinforcing value of attention is well documented. Attention was accompanied by other forms of social reinforcement in these studies, however, leaving it unclear whether attention, *per se*, was responsible for the results or whether other variables such as praise, physical contact, smiles, etc. were the critical factors. On the other hand, since inappropriate behaviors, which received little or no social reinforcement, increased when teachers paid attention to them, it seems possible that attention alone was strengthening these behaviors. Let us therefore examine the possibility that the reinforcing value of attention may, under certain circumstances, override the intent of the verbal and motor responses that accompany it.

Inadvertent Reinforcement of Inappropriate Behaviors

In order to further our analysis of the reinforcing nature of therapist attention, let us establish a hypothetical therapy situation in which attention is focused upon an uncooperative child while approval, verbal praise and other social reinforcers are withheld.

Let us assume that an oral myologist is conducting a therapy session with four children, requiring each to demonstrate a series of "tongue-popping" responses. The first child carefully positions his articulators for the therapist and produces a series of loud pops. "Good boy, Sammy," states the myologist moving to the next child. The second child slowly gets set, then produces a series of correct tongue pops. "Good Girl, Monica," replies the therapist. "Larry, look at me and let's see how well you can do the tongue pops." But Larry remains passive. "Come on Larry, you can do it," encourages the therapist. Still the child does not respond. "Everyone watch Larry. He is going to show us how to do tongue pops." Still nothing happens. "Well, Sandra," states the therapist, moving to the fourth child, "Show Larry how to do it." Sandra emits a series of tongue pops. "Good girl, Sandra," reinforces the myologist, moving to the first child again. And so it goes.

An examination of the interaction between the therapist and the children in this example suggests that the therapist was using social reinforcement correctly. At least this is so to the extent that the children who cooperated and performed the exercise correctly were rewarded by social praise, i.e. "Good boy," "Good girl," etc., and social reinforcement was withheld from the child who refused to cooperate. The small amount of encouragement given that child seemed reasonable and could hardly be looked upon as reinforcing. Yet such appearances can be deceiving. Only a frequency count of the responses made by the children and of the therapist's consequent reactions would actually verify whether or not proper reinforcement was occurring. For instance, a simple measure of the duration of attention paid to each child would show that Larry actually received the greatest proportion of attention even though it was accompanied by verbal statements not usually considered reinforcing. If social praise was the most potent reinforcer in operation, then since Larry received little of it, his behavior should weaken and begin to extinguish over the course of the session. On the other hand, it is possible that attention was the strongest

reinforcer the therapist had to offer. If this is true, then Larry received more reinforcement than the other children and his uncooperative behavior should increase. Let us examine the problem more carefully.

A study conducted by Madsen, Becker, Thomas, Koser, and Plager (1968), in which the effects of teacher attention on standing behavior in an elementary school classroom were examined, provides some information. The study took place during periods when the children were supposed to be seated. Frequent standing occurred, however, and the teacher was asked to vary responses to the inappropriate behavior as follows. During one portion of the study the teacher reprimanded each standing child by telling him or her to "Sit down." At other times, the standing child was ignored and teacher attention was directed toward the sitting children. It was found that when the teacher paid attention to the standing children, the rate of standing increased in spite of the fact that the teacher's attention was accompanied by the verbal command "Sit down." On the other hand, when the teacher's attention was directed toward the children who were cooperating, standing behavior decreased. It seems, therefore, that the teacher's attention was more reinforcing than the words accompanying it were punitive. "Sit down," actually led to an increase in standing.

Thomas, Becker, and Armstrong (1968) varied teacher's responses to children's appropriate and inappropriate behaviors in class and found that teacher attention was a positive reinforcer for appropriate behaviors when delivered contingent upon them. Of possibly greater significance to our question regarding the potency of attention as a reinforcer, however, is a statement made by these researchers regarding the findings of their study. Thomas and his associates noted:

On the other hand, the teacher who cuddles the miscreant, tries pleasantly to get a child to stop behaving disruptively, talks with a child so that he 'understands' what he was doing wrong, or who pleasantly suggests an alternative activity to a child who has been performing inappropriately is likely to find an increase in the very behaviors she had hoped to reduce. (p. 44)

These investigators further noted that when the teachers tripled their disapproving responses the children responded by significantly increasing their inappropriate behaviors in the form of increased motor and noisemaking activities.

If we now apply the conclusions of these studies to our hypothetical therapy session, it appears likely that the therapist's increased attention to Larry, the uncooperative child, would cause an increase in the very behaviors the oral myologist was trying to eliminate. As well intended as the therapist's responses were, they would tend to inadvertently reinforce undesirable behavior. This would appear to be a justified conclusion since attention has been shown to operate as a powerful reinforcer for behaviors upon which it is contingent and may also override the effects of verbal reprimand or explanations accompanying it.

Most of what has been presented to this point would appear to suggest valid concerns for individual therapy as well as group sessions. That is to say that attention must be carefully withheld from inappropriate behaviors and delivered contingent upon correct responses and cooperative behaviors in the most consistent manner possible. If the inadvertent reinforcement of inappropriate behaviors occurs, however, it can pose some additional problems for group interaction.

The Effects of Inadvertent Reinforcement on Group Interaction

Questions may be posed, from the hypothetical example given earlier, concerning the effects of inadvertent reinforcement on the group as a whole. (1) Does the oral myologist's attention to Larry, the uncooperative child, increase the risk that the other children in the group will also become less cooperative? (2) Does the therapist's inappropriate use of attention affect the status of peer reinforcement in the group?

Schutte and Hopkins (1970) examined the effects of teacher attention to cooperative behavior with a group of normal preschool children attending a kindergarten class. Contingent teacher attention to cooperative behavior reliably increased the probability that every child in the group would follow the teacher's instructions. When attention was

directed toward the cooperative child, all of the children in the group became more cooperative.

Similar findings have been reported regarding the effects of teacher attention on the attending behavior of two students sitting near each other in class (Brodén, Bruce, Mitchell, Carter, and Hall, 1970). Increasing the attending behavior of one of the two children through contingent attention resulted in an increase in the attending behavior of the second child as well.

It appears probable, therefore, that the therapist's attention affects not only the child who receives it, but also encourages the other children in the group to display similar acts to that which commands attention. If, as in the example, the behavior that is reinforced is uncooperative in nature, it is reasonable to assume that the other children in the group might increase their rate of uncooperative behavior along with that of the child receiving the inadvertent reinforcement.

The answer to the second question regarding peer reinforcement may lie in the findings of Wahler (1967). In examining the relationship between teacher and peer reinforcement, Wahler concluded that peer reinforcement takes over to a great extent when a teacher fails to provide adequate social reinforcement. Since a therapist who chooses to pay attention to uncooperative behaviors thereby reduces the attention available to the children who are cooperating, this result seems applicable. It suggests that unless the oral myologist makes an effort to support desired behavior with attention and other appropriate consequences, the behavior of the children in the group may be controlled by their peers. The lack of control over peer reinforcement under such circumstances could interfere with the goals of the therapist.

Discussion

It has been stated that, "What you pay attention to is what you get" (Moore, 1979, p. 98), and this seems to summarize the research findings dealing with the effects of attention on children's behavior. More specifically, however, one might conclude:

(1) Attention can act as a potent positive reinforcer that may significantly strengthen any behavior upon which it is contingent.

(2) The nature of the verbal statements and the motor responses accompanying therapist attention may be less significant than the attention itself.

(3) The focus of the therapist's attention not only affects the child receiving it but also influences others in a group session.

(4) Peer reinforcement is compounded and exaggerated when the therapist fails to provide adequate social reinforcement for appropriate behavior.

In analyzing the relationship of these conclusions to a hypothetical group therapy session, it appears that the positive reinforcing value of therapist attention cannot be ignored without serious consequences. The oral myologist who is unaware of the reinforcement potential of attention and delivers it contingent upon inappropriate behaviors is not only increasing the probability of uncooperative behavior from the children whom she or he is noticing, but is also decreasing the chances that the other children in the group will cooperate. Unless the therapist makes an effort to support desired behavior with attention and other appropriate consequences, the behavior of the children will be controlled by others in the group in ways that may interfere with the therapist's goals. An oral myologist who carefully considers the reinforcing nature of attention, however, increases the probability of experiencing a cooperative group encounter.

References

- Ayllon, T., and Michael, J. The psychiatric nurse as a behavioral engineer. *Journal of the Experimental Analysis of Behavior*, 2, 323-334 (1959).
- Barrett, R.C., and Manson, M.L. *Oral Myofunctional Disorders*. Saint Louis: The C.V. Mosby Company (1974).
- Becker, W.C., Madsen, C.H., Arnold, C.R., and Thomas, D.R. The contingent use of teacher attention and praise in reducing classroom behavior problems. *Journal of Special Education*, 1, 287-307 (1967).
- Brodén, M., Bruce, C., Mitchell, M.A., Carter, V., and Hall, R.V. Effects of teacher attention on attending

- behavior of two boys at adjacent desks. *Journal of Applied Behavior Analysis*, 3, 205-211 (1970).
- Hall, R.V., Lund, D., and Jackson, D. Effects of teacher attention on study behavior. *Journal of Applied Behavior Analysis*, 1, 1-12 (1968).
- Madsen, C.H., Becker, W.C., Thomas, D.R., Koser, L. and Plager, E. An analysis of the reinforcing function of "sit down" commands. In R.K. Parker (Ed.) *Readings in Educational Psychology*. Boston: Allyn and Bacon (1968).
- Moore, J.C. An analysis of the reinforcing function of clinician attention. *Language, Speech and Hearing Services in the Schools*, 2, 93-98 (1979).
- Schutte, R.C., and Hopkins, B.L. The effects of teacher attention on following instructions in a kindergarten class. *Journal of Applied Behavior Analysis*, 3, 117-112 (1970).
- Thomas, D.R., Becker, W.C., and Armstrong, M. Production and elimination of disruptive classroom behavior by systematically varying teacher's behavior. *Journal of Applied Behavior Analysis*, 1, 35-45 (1968).
- Wahler, R.G. Child-child interactions in free field settings: some experimental analyses. *Journal of Experimental Child Psychology*, 5, 278-293 (1967).
- Ward, M.H., and Baker, B.L. Reinforcement therapy in the classroom. *Journal of Applied Behavior Analysis*, 1, 323-328 (1968).