

THE EFFECT OF TRAINING PROCEDURES ON MOTHER-TO-CHILD VERBAL STATEMENTS

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ABSTRACT

The effect of training procedures on mother-to-child verbal behavior was investigated. The subjects were five mothers of preschool children with cleft lip and/or palate demonstrating language delay. Mother-to-child verbal statements were evaluated before and after training procedures according to the "Interaction-Process-Analysis" scale described by Kasprisin-Burrelli, Egolf and Shames, 1972. The results showed a significant increase in the proportion of positive mother-to-child verbal statements after training.

In addition to the problems in articulation of children with cleft lip and palate, they also may have a slight reduction in language skills (Brown et al, 1956; Bzoch, 1957; McWilliams, 1956; Morris, 1962; Nation, 1970a; Nation 1970b; Philips and Harrison, 1969; Shames et al, 1966; Smith and McWilliams, 1968a; Smith and McWilliams, 1968b; Spriestersbach et al, 1958), decreased creativity (Smith and McWilliams, 1966) and emotional problems (McWilliams, 1956; Tisza and Gumpertz, 1962). The reasons for this are not clear. However, it is frequently reported that parents' reactions to the child and the quality of the child's communication environment may be contributing factors (Nation, 1970a; Philips and Harrison 1969; Smith and McWilliams, 1969). By inference then, parental attitudes and personalities warrant the attention of clinicians.

Many authors concerned with the interdisciplinary treatment and management of children with cleft lip and/or palate have recommended parent counselling. However, there are few reports of counselling techniques which systematically and quantitatively describe the nature of parent-child interactions. Recently, a systematic and quantitative method of analyzing parental verbal behavior was developed by Kasprisin - Burrelli, Egolf, and Shames (1972). This scale (Appendix 1) describes the nature of verbal interaction patterns across 35 thematic categories, 17 positive and 18 negative. In discussing the "Interaction Process Analysis Scale", the authors state:

"Generally, a positive statement is one that encourages mutual respect between parent and child, encourages verbal output on the part of the child, and indicates acceptance of the child's feelings and ideas. A negative statement is one that fosters hostility, distrust, aggression or silence."

The purpose of this paper is to describe the effects of training procedures using the "Interaction Process Analysis Scale" on mother-to-child verbal behavior.

METHOD

The subjects were 4 mothers and 1 grandmother of preschool children with cleft lip and/or palate receiving speech and language therapy at the Cleft Palate Center, University of Pittsburgh. With the exception of subject #5, all had completed high school. The identification data for the subjects and their children are shown in Table I. The subjects served as their own controls; they constituted the sole study population.

The study involved 13 consecutive weekly sessions (Table II). The subjects were exposed to a 5 week control and experimental training period. Before the control period, and before and after the experimental period, 15-minute segments of mother-child verbal interaction were recorded. These recordings took place in a small quiet room. A set of toy dishes were made available as stimulus material and the subjects were instructed to talk and play with their children. Two cassette tape recorders (Panasonic Model #RQ 409S) were used. The information obtained from these two baseline and one post-experimental recordings constituted the data for the experiment.

Table I. Identification data for subjects

Subject			Child			
Subject	Status	Age (Yr)	Education	Age (Yr)	Sex	Cleft Type
1	Mother	36	high school	3	Male	Bilateral complete cleft lip and palate
2	Mother	32	high school	4	Male	Cleft soft palate
3	Mother	40	high school	4	Male	Right complete cleft lip and palate
4	G/mother	56	high school	4	Female	cleft soft palate
5	Mother	34	2 years high school	5	Male	Left complete cleft lip and palate.

Table II. Summary of events

Session 1	Baseline Recording 1
Session 2 - 6	Control Period
Session 7	Baseline Recording 2
Session 8 - 12	Experimental Period
Session 13	Post Experimental Recording

During the control period the subjects brought their children to the Clinic for therapy but they received no information from the experimenters concerning parent-child verbal interaction.

The experimental training period consisted of five two-hour weekly sessions. At the first session, the categories in the Interaction Process Analysis Scale and their effects on verbal output were explained to the subjects. A demonstration tape recording was used in this process. In each of the other training sessions, each mother was assigned a different child for 15 minutes and was instructed to play with and encourage the child to talk with her; these verbal interactions were tape-recorded. For the remainder of each two-hour session, the subjects individually analyzed and discussed with the experimenter their recorded utterances according to the "Interaction Process Analysis Scale".

DATA ANALYSIS

Each recorded statement in the baseline and post experimental recordings made by the subjects was classified by two experienced judges according to the categories in the "Interaction Process Analysis Scale". Reliability for intercategory analysis yielded Person product-moment's of .89 for interjudge reliability, and .97 and .99 for intra-judge reliability.

Because of the limited size of the sample, each subject's data were treated separately rather than attempting group analysis. Three comparisons were made for each subject: (1) the two baseline measures were compared for each subject to assess the consistency of verbal output; (2) the two baseline measures were compared with the experimental result of each subject to determine the effects of the training procedures, (initially, all comparisons were in the form of the proportion of positive and negative statements for each subject,) and, (3) a nonparametric statistic, the binomial test, was performed (Seigel, 1956).

There were slight differences for all subjects in the proportions of positive negative statements between Baseline 1 and Baseline 2. The differences ranged from 1% to 9% (Table III). The results of a two-tailed binomial test indicated that these differences were significant for subject 2 in the positive direction and for subject 3 in the negative direction (Table IV).

Four subjects underwent the training procedures; the fifth declined to participate. For the four subjects who received training, there were marked increases in the proportions of positive statements from the baseline recordings to the experimental recordings. The increases ranged from 16% to 25% (Table III). The results of a one-tailed binomial test indicated that these increases were significant in a positive direction (Table IV).

Table III. Percentage of positive and negative utterances for each subject for baseline - 1, baseline - 2, and for the experimental recordings.

Subject No.	Positive			Negative		
	B-1	B-2	E-R	B-1	B-2	E-R
1	66	64	87	34	36	13
2	66	75	91	34	24	08
3	65	54	89	35	46	11
4	64	61	79	36	39	21
5*	62	61	65	38	39	35

* did not undergo training procedures.

Table IV. Scores attained in the binomial analysis.

Subject No.	Comparison		
	B - 1 to B - 2	B - 1 to E - R	B - 2 to E - R
1	- .04	+ 6.17**	+ 6.67**
2	2.74*	+ 6.68**	+ 4.81**
3	- 3.38**	+ 4.48**	+ 6.35**
4	- 0.87	+ 4.37**	+ 5.17**
5	- 0.29	+ 0.75	+ 1.04

+ - indicates direction of change

* $p < .01$

** $p < .001$

DISCUSSION

Our findings indicate that it is possible to significantly increase the proportion of positive mother-to-child verbal statements through training procedures. The "Interaction Process Analysis Scale" incorporated in the training procedures proved to be an effective tool for use in altering mother-to-child verbal statements. Also, as the study progressed, the experimenters became aware that, for the subjects, the scale was readily comprehended. They related easily to the categories, and the analysis required no particular background or skill. The scale demonstrated a strong face validity for the subjects.

After the final experimental measure was recorded, the subjects were asked to write down their impressions of the experiment. All of the mothers who participated in the experiment found it to be an extremely beneficial and worthwhile experience. The following are direct quotations from their written reports:

Subject 1

"It has taught me to listen closer to my children Since participation in this experiment I find myself applying these techniques to my other children".

Subject 2

"It's amazing how you can stimulate them to talk by the way you talk to them I have found I have more to say to all children, even little friends that happen to come into our house ..."

Subject 3

"I have stopped myself and thought first before I carry on a conversation with my child or others I believe it has helped both parents and children."

Subject 4

"Analyzing my own tapes helped me to watch how I say things, to try and talk positively and how to get a child to keep on talking. It was really hard sometimes to get them to say anything."

It is the opinion of the experimenters that the "Interaction Process Analysis Scale" used in the training procedures is a valuable tool for use in counselling parents of children with palatal clefts. It may also prove useful for children with other communicative disorders, but this remains to be tested. The scale also provides useful information for professionals regarding the specific areas to investigate in parent-child relationships. It not only gives the professional systematic, quantitative information but enables him to present parents with a systematic quantitative representation of their verbal interaction profiles. The procedure seems to allow both the professional and the parent to become aware of those aspects of verbal behavior which either encourage or discourage verbal parent-child interaction. It is important for the parent to be aware of the positive things he is doing as well as of the negative.

APPENDIX A

Positive and Negative Language Categories used in the Interaction Analysis Process (Kasprisin-Burrelli et al. 1972)

A. Positive Categories

1. Positive Questions

Positive questions are those which encourage verbalization; eg., "What did you do in school today?"

2. Positive Advice

Advice which is preceded by understanding; eg., "If you are well rested you are stronger. That's why you should go to bed early".

3. Positive Praise

Praise aimed at the child's actions or deed instead of his personality; e.g., "You did a fine job washing the car."

4. Positive Comparison

A comparison that indicates understanding; eg., "Sometimes even I am afraid of the dark."

5. Event Feeling

A statement which takes into account the feeling of the child when he relates an event; eg., if the child says that the teacher yelled at him in school, a good event-feeling statement would be, "I guess you were quite embarrassed."

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6. Sequitur
Any statement which follows content-wise the direction of the child's conversation.
7. Positive Criticism
Criticism which is preceded by understanding; eg., "I know you are restless but you can't pull the curtain in the clinic."
8. Verbal Lubricant
Any utterance which demonstrates attentiveness and interest on the part of the listener; eg., "That's interesting, tell me more."
9. Mirrors Personality
A statement which reflects the child's apparent feelings; eg., "I see you are angry now."
10. Identifies Reasons for Emotions
A statement which should help the child localize the focus of his emotions; eg., "It looks like you might be kicking things around because your brother got a letter today and you didn't."
11. Understands Feelings
A statement which helps the child accept a feeling; eg., "I know you would like to receive a letter too."
12. Humour
Common laughter without any trace of sarcasm.
13. Qualifying
Statements preceded by "If, I think, I guess."
14. Information
Any statement which presents new information; eg., "While you were at school, Grandma called."
15. Parents' Thoughts and Feelings
Any statement that show the parent identifying his thoughts and feelings and the reasons for them.
16. Other
A residual category made available to place any positive statement that does not fit easily into any of the above positive categories.

B. Negative Categories

1. Negative Questions
Questions that cause the child to lie, that can be answered by a yes or a no, or that have obvious answers; eg., "Do you like your teacher?"
2. Negative Advice
Advice not preceded by understanding.
3. Negative Praise
Praise that is global and not directed to a specific act; eg., "You're such a good boy."

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4. Negative Comparison
Comparison which attacks the personality; eg., "Your brother never had a "D" in spelling.
5. Event-Feeling
A statement which shows a reaction to an event when a feeling should be reacted to; eg., if the child says he was "yelled at" in school, a negative response would be "You must have been bad."
6. Non-Sequitur
A statement which does not follow logically from the child's statements.
7. Negative Criticism
Criticism not preceded by understanding.
8. Insults
Self-explanatory
9. Sarcasm
Self-explanatory
10. Prophesying
A statement which makes a dire prediction; "If you keep rubbing your eyes, you will go blind."
11. Threats
"If you don't shut up you're going to get it when we get home."
12. Bribes
"If you are good, we'll stop at the store."
13. Dictates Feelings
Statements which tell the child how to feel; eg., "You should be happy."
14. Dictates Actions
Statements which direct the child's behavior: eg., "Look at the man when you talk."
15. Denials
Statements wherein the parent denies something without explanation; eg., "Your father wasn't mad at you."
16. Aborts
Statements which seemingly show acceptance but by their manner disrupt conversation; eg., "That's very interesting, but now I want to tell you something."
17. Interruptions
Self-explanatory
18. Other
A residual category made available to place any negative statement that does not fit easily into any of the above negative categories.

ACKNOWLEDGEMENTS

The senior author wishes to thank Betty Jane McWilliams, Donald Egolf, Herbert Rubin, Arlene Kasprisin-Burrelli and Linda Rosen for their assistance and support.

This paper was presented at the Thirty-third Annual Meeting of the American Cleft Palate Association in New Orleans, February, 1975, and the Seventeenth Annual Meeting of the Ontario Speech and Hearing Association in Toronto, October 1975.

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