PARTICIPANT MODELLING : AN EFFECTIVE TREATMENT STRATEGY FOR STAMMERING

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SUMMARY

Six cases of stammering, free from gross organic and psychological abnormality were taken up for treatment by participant modelling. All the cases showed substantial improvement with this treatment model.

In this report the use of "Participant Modelling" is discussed as an effective, easy and rather less time consuming treatment modality for stammering. Participant modelling is based upon the assumption that successful performance is the most effective means of inducing psychological changes. Participant modelling has been effective in group and individual applications with a variety of fears and client population (Bandura, 1971; Ritter, 1968; 1969a and 1969b). Participant modelling includes three basic components, viz., modelling, guided participation and reinforcing experiences. Participant modelling is shown to be effective in obsessive compulsive neurosis (Rachman et al., 1970, 1971), in autistic children (Lovaas, 1967) and assertiveness (Bandura, 1973).

Several techniques have been tried in cases of stammering with a degree of success, as reading a passage along with experimenter and whispering (Cherry and Sayers, 1956), and by preventing the reinforcement of stuttering (Sheehan, 1953). Earlier experiences of the author with conditioning with metronome produced good results but generalization outside the clinic remained a problem.

DESCRIPTION OF CASES

In the past 8 months from Feb. 1980 to Sept. 1980 in all six cases of stammering who came to therapist for consultation were taken up for modelling. The details of cases have been presented in Table-1.

TREATMENT PROCEDURE AND RESULTS

The number of sessions for each of the patients was not fixed. After detailed history and clinical examination the patients were instructed to attend the clinic twice a week in the beginning and later, once a week depending upon the levels of recovery. Each session was of forty minutes duration. The total number of sessions given to each of the patients and follow up schedule is shown in Table-2.

A detailed history and clinical examination had revealed that the patients suffered from no gross psychological or organic abnormalities. The case numbers two and three who happened to be children had average intelligence. Except in these cases, a baseline recording of frequencies of stammering was done. The patients were asked to speak extempore continuously. Three periods of three minutes each were taken for recording. The frequencies were recorded in three segments of one minute each. In total the frequencies were recorded in nine such segments. The frequency recording was deferred in the case of children since it was difficult to induce them to speak continuously. After pre-treatment recording of stammering frequencies, following general instructions were given to the patients. In cases of children instructions were given to the parents as well.

(i) To speak with slow speed.

(ii) To pause for few minutes in between two words.

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### TABLE 1—Showing Description of Cases

| S.No. | Case | Age in yrs | Sex | Occupation | Duration of symptoms | Situation in which stammering increases | Consequences                                                                 |
|-------|------|------------|-----|------------|----------------------|-----------------------------------------|------------------------------------------------------------------------------|
| 1.    | S. S. | 22         | M   | Police constable | 4 yrs                | In presence of strangers, seniors and elder persons | Patient fears removal from job as a result of stammering                      |
| 2.    | H    | 7          | Mch | Child student | 1½ yrs               | When child is excited he is not able to speak for some time | Grimacing while speaking.                                                   |
| 3.    | V    | 5          | Mch | Child K. G.    | Exactly not known    | Under excitement on when he describe some thing. | Parents having anxiety.                                                      |
| 4.    | A. B. | 20         | M   | Student B.A.   | 5 yrs                | Off and on in class, when faces persons of importance and when anxious. | Afraid of facing interview and lack of confidence.                           |
| 5.    | I. S. R. | 20       | M   | Student Engineering | 3 yrs                | Any time, while patient is speaking suddenly he feels that he would not be able to speak some words he starts stammering. | Lack of confidence.                                                        |
| 6.    | P. S. | 19         | M   | Student       | 8 yrs                | In front of strangers, Elders and seniors. | Lack of confidence.                                                          |

### TABLE 2—Showing the number of sessions and follow-up Schedule of Patients

| S. No. | Case | No. of sessions attended | Follow up                                                                 |
|--------|------|--------------------------|--------------------------------------------------------------------------|
| 1.     | S. S. | 16                       | Dropped after 16 sessions, maintaining the improvement at the time of dropping out. No information is available thereafter. |
| 2.     | H    | 11                       | Dropped after 11 sessions, maintaining the improvement at the time of dropping out. No information is available thereafter. |
| 3.     | V    | 13                       | Dropped after 13 sessions, maintaining the improvement at the time of dropping out. No information is available thereafter. |
| 4.     | A. B. | 22                       | In follow up for past 3 months on once in 15 days basis; maintaining the improvement. |
| 5.     | I. S. R. | 19                   | In follow up for past 2 months on once in 15 days basis; maintaining the improvement. |
| 6.     | P. S. | 24                       | Treatment terminated as patient migrated to another place. Improved at the time of termination. |

### TABLE 3—Showing the extent of improvement in Patients after completion of 10 Sessions

| S.No. | Patients | Pre-treatment frequency of stammering* | Post treatment frequency of stammering | Collateral changes |
|-------|----------|----------------------------------------|---------------------------------------|--------------------|
| 1.    | S. S.    | 11/min                                 | Nil (No stammering)                   | Increased confidence decreased insecurity of job. |
| 2.    | H        | Could not be recorded                  | Nil                                   | Reduced anxiety in parents. |
| 3.    | V        | Could not be recorded                  | Nil                                   | Reduced anxiety in parents. |
| 4.    | A. B.    | 9/min                                  | Nil                                   | Increased confidence reduced fear of facing interview. |
| 5.    | I. S. R. | 2/min                                  | Nil                                   | Increased confidence. |
| 6.    | P. S.    | 13/min                                 | Nil                                   | Increased confidence. |

*Each halting in stammering was counted as one error.
(iii) The larger words to be broken in syllables.
(iv) To give longer pause after completion of sentences.
(v) Whenever the patient felt that he was about to stammer he was to stop and relax for a few moments.

The therapist acted as model for the patients. The patients were instructed to converse with the therapist in the manner the therapist was speaking. The conversation proceeded according to the general instructions given earlier. In case of children the parents acted as models along with the therapist. The therapist first acted as model for the parents. The parents learned through modelling the ways to affect change in their children. The parents were instructed to communicate with their children in the same pattern and in turn to act as models for them at home.

The desired activity, that is, speaking without stammering was repeatedly modelled increasing the speed of speaking progressively. By the end of the session one patient was able to converse with the therapist without any stammering, though at a very slow speed. In the remaining cases post treatment recording of stammering at the end of session one revealed no stammering in any of the segments.

The patients were instructed to speak in the same fashion at home keeping in mind the general instructions given to them. For children the parents were asked to selectively reinforce the non-stammering behaviour. They were instructed to insist upon the child to speak according to the general instructions. They were not to respond when the children tried to speak faster or excitedly.

After the demonstration of speaking without stammering at slower speed in the subsequent sessions the patients were provided opportunities to enact the modelled behaviour with different individuals. Also the speed of speaking was gradually increased in subsequent sessions.

**DISCUSSIONS**

Participant modelling comprises of three components viz. modelling, guided participation and reinforcing experiences. The behaviour selected for modelling was stammering free speech. The therapist acted as model and spoke on the line of general instructions outlined earlier. The patient emulated the modelled behaviour and conversed with the therapist in the manner therapist was speaking. The speed of speaking remained very slow. The therapist slowly increased the speed of speech, guiding the patient slowly towards the desired speed of speaking.

Successful performances in all the cases acted as reward contingencies to effect the change. Further in children reward contingencies were so adjusted to be followed only after non-stammering behaviour. It was also observed that number of aids acting as models resulted into rapid progress. It was observed that a sense of mastery and control over the speaking itself acted as reward and incentive for the patients to continue in the treatment programme and recovery from stammering.

Treatment aimed at improving behavioural functioning, i.e., stammering free behaviour produced diverse collateral changes in affect, attitude and self evaluation. The success experiences in almost all cases generated more confidence, positive attitude and a sense of competence.

Participant modelling affected improvement in cases of stammering. This can therefore serve as an effective treatment strategy for stammering.

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