CHAPTER

2

Utilizing Trained Volunteers to Treat Aphasia:

A Potential Plagued with Malignant Misinterpretation and Enigmatic Evidence

Robert T. Wertz

Ecology involves the relationship between organisms and their environments. Chapters 1 through 4 are designed to explore potential differences between aphasic patients' performance in the environment where speech-language pathologists reside, the clinic, and where aphasic people reside, their homes and communities. The purpose of these chapters is to discuss using a trained volunteer from an aphasic person's environment to improve the aphasic person's participation in his or her environment.

RATIONALE

Use of trained volunteers to treat aphasic patients has not suffered from a lack of interest. At least four investigations (Meikle et al., 1979; David, Enderby, and Bainton, 1982; Shewan and Kertesz, 1984; Wertz et al., 1986) have been reported. All were motivated by similar rationale: (1) Many aphasic people live where treatment does not exist; (2) many cannot afford the cost of traditional treatment; (3) many need to remain inpatients if they are to receive treatment; (4) many do not have or cannot afford transportation to get to treatment; and (5) traditional treatment may be limited in its intensity and duration. Utilizing a trained volunteer to provide treatment in an aphasic person's home is a potential solution for getting treatment to those who may not otherwise receive it.

Unfortunately, the results of these investigations — no significant differences between speech pathologist–treated patients and volunteer-treated patients — have led to two erroneous conclusions: Language treatment for aphasia is not efficacious, and speech pathologists can be replaced by volunteers. Both are incorrect.

THE DATA

Two studies (Meikle et al., 1979; David et al., 1982) compared treatment administered by speech pathologists with treatment administered by volunteers. The first study observed improvement in two groups: volunteer-treated patients who received three to five sessions a week for 2 to 48 weeks and speech pathologist–treated patients who received three to five sessions a week for 7 to 84 weeks. Both groups improved, and there were no statistically significant differences in improvement between groups. The second study also observed improvement in two groups, one treated by volunteers and one treated by speech pathologists. Both groups were given 30 hours of treatment during 15 to 20 weeks. Both improved, and there were no statistically significant differences in improvement between groups.

Two additional studies (Shewan and Kertesz, 1984; Wertz et al., 1986) compared speech pathologist–treated patients, volunteer-treated patients, and patients who received no treatment. Shewan and Kertesz provided 3 hours of treatment each week for at least 3 months to two groups treated by speech pathologists and one group treated by volunteers, and they followed a self-selected group that received no treatment. Both groups treated by speech pathologists made statistically significantly more improvement than the self-selected no-treatment group. The speech pathologist–treated groups did not differ statistically significantly in their improvement from the volunteer-treated group. And, the volunteer-treated group did not make statistically significantly more improvement than the self-selected no-treatment group. In the second study, aphasic patients were assigned randomly to three groups: one treated 8 to 10 hours each week for 12 weeks by speech pathologists, one treated 8 to 10 hours each week for 12 weeks by trained volunteers, and a deferred treatment group that was not treated for 12 weeks and then received 12 weeks of treatment by speech pathologists. The deferred group, therefore, constituted a randomly assigned no-treatment group during the first 12 weeks of the treatment trial. Results indicated speech pathologist–treated patients made statistically significantly more improvement than the untreated, deferred patients. Speech pathologist–treated patients did not differ statistically significantly in improvement from volunteer-treated patients. And, volunteer-treated patients did not differ statistically significantly in improvement from the untreated, deferred patients.

One additional effort has surfaced in the literature. Quinteros, Williams, White, and Pickering (1984) compared one group of aphasic patients who were treated by speech pathologists with another group of aphasic patients who received combined speech pathologist and volunteer treatment. The latter group improved more than did the former group.

MALIGNANT MISINTERPRETATIONS

Two malignant misinterpretations have followed the results of these studies. First, some have inferred that speech pathologists can be replaced by volunteers. This is totally inappropriate, because speech pathologists provide pre- and post-treatment evaluations and located and trained the volunteers in all studies. In some investigations, speech pathologist developed the volunteers' treatment plans and materials and monitored and modified the volunteers' treatment. The results — no significant difference in improvement between speech pathologist–treated patients and volunteer-treated patients — may indicate that speech pathologists can

modify their traditional role as a treatment provider and act as a consultant to the aphasic patient and the volunteer therapist. But, there is no evidence to indicate that speech pathologists can be replaced by volunteers.

Second, some have inferred that no statistically significantly difference between speech pathologist–treated patients and volunteer-treated patients indicates treatment for aphasia is not efficacious. This, again, is totally inappropriate because a comparison of treatments provides no evidence about the efficacy of treatment. A comparison of treatments will show whether one treatment is the same as, better than, or worse than the other treatment. But, a comparison of treatments is not a test of the efficacy of treatment.

ENIGMATIC EVIDENCE

Nevertheless, the evidence on volunteer treatment is enigmatic. In all studies, improvement in patients treated by speech pathologists did not differ statistically significantly from improvement in patients treated by volunteers. In studies that compared volunteer treatment with no treatment, improvement in volunteer-treated patients did not differ statistically significantly from improvement in patients who received no treatment. And, in studies that compared speech pathologist–treated patients with no treatment, improvement in speech pathologist–treated patients was statistically significantly better than in patients who received no treatment. Thus, we can conclude the following: Treatment administered by speech pathologists is efficacious, treatment administered by volunteers is not efficacious, and treatment administered by speech pathologists does not differ statistically significantly from treatment administered by volunteers.

This enigma requires exploration. If speech pathologist treatment is better than no treatment, speech pathologist treatment does not differ from volunteer treatment, and volunteer treatment does not differ from no treatment, we must conclude that volunteer treatment is both the *same as* and *different from* speech pathologist treatment. Essentially, we are left with antinomy, and there is some work to be done. Before we advocate treatment as an alternative management for aphasia, we must demonstrate that volunteer management is clinically significantly better than no treatment — that it is efficacious.

Certainly, developing and administering a volunteer treatment program is difficult. Appropriate volunteers are not always available. They must be trained. They must be given a treatment program, the program must be changed when necessary, and it must be monitored. Volunteers must administer the treatment program developed, and they must deliver the prescribed amount of treatment in the prescribed intensity. Finally, the

patients treated must be evaluated and periodically reevaluated to assess improvement or the lack of it.

The traditional approach for testing whether volunteer treatment is efficacious would be a clinical trial that assigns patients who meet selection criteria randomly to two groups: volunteer treatment and no treatment. Significantly more statistical and clinical improvement in volunteer-treated patients than in patients who receive no treatment would demonstrate the efficacy of volunteer treatment. The traditional approach for modifying the previous negative results on the efficacy of volunteer treatment might change the previously employed selection criteria, seek the very best volunteer therapists and improve their training, increase the duration and intensity of treatment, and improve the treatment administered.

ECOLOGICAL IMPLICATIONS

If we are really interested in how aphasic patients relate to their environments, we may want to design and administer ecological outcome measures for an aphasia treatment trial that tests the efficacy of volunteer treatment. Few conversations consist of "As completely as possible, tell me what you do with each of these." Families do not pass the evening asking one another to point to the small blue circle. And, it is rare table talk that includes a repetition of "Pack my box with five dozen jugs of liquid veneer."

In addition, we may want to ask volunteers to administer treatment designed to assist aphasic people in doing what they did before becoming aphasic. Volunteer treatment in patients' homes would certainly permit aphasic persons to do what they do, where they do it, and with the people they do it with. Lomas, Pickard, and Mohide (1987) have demonstrated that aphasic people have different priorities, needs, and wants than speech pathologists think they have. Perhaps we need to ask our patients what it is they want to accomplish, design our treatment to accomplish those things, and refurbish our traditional measures to tell us if we are accomplishing what our patients want.

The possible results of an ecological aphasia treatment trial that employs ecological measures are as follows: Ecological treatment will show change on ecological measures, ecological treatment will show change on traditional measures, the efficacy of ecological treatment will not differ from the efficacy of traditional treatment, or ecological treatment will not differ from no treatment. We do not know what the results will be, but we do need to determine what they are.

CONCLUSIONS

Aphasia treatment can be an institutionalized activity, and while it may be absolutely necessary, it can be absolutely inadequate — time is provided, not dignity or understanding or hope. Figure out how to spend that time so that what is done provides what is needed is a constant test to be passed, to be flunked, or — which is the same thing — to be ignored. Considering, exploring, and testing an ecological approach to aphasia assessment and management that utilizes a volunteer in aphasic persons' environments to help them improve relationships with that environment may be better than, as good as, or worse than our current management or no management. This is exactly what we need to find out. Rosenbek (1979) has suggested that clinicians who stand in the stream of clinical change can be identified by their wrinkled feet. It may be added that clinicians who lay back and believe the eschatology of aphasia management is complete can be identified by their wrinkled rumps.

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