

(Abstract)

Scheduling Speech and Language Services for Aphasic

Individuals Within a Rehabilitation Program

Connie A. Tompkins and Robert C. Marshall  
Veterans Administration Medical Center, Portland, Oregon

David S. Phillips and Lee Ann C. Golper  
University of Oregon Health Sciences Center, Portland, Oregon

Marie T. Rau  
Veterans Administration Medical Center, Portland, Oregon

This investigation assessed the effects of time of day on the communicative performance of fourteen aphasic adults participating in ongoing rehabilitation programs. Eleven subtests from the Porch Index of Communicative Ability (Porch, 1967) were administered to each subject, once in the morning and once in the afternoon, at specified hours. Order of scheduling was randomly assigned, with half of the patients tested first in the morning, and half first in the afternoon. Patients were seen no less than thirty minutes after completion of another aspect of their rehabilitation programs.

Statistically significant differences favoring morning scheduling were evidenced for the group on the average of all eleven subtests ( $p < .01$ ). Significant effects were also seen for the average of the five gestural tests ( $p < .01$ ), three verbal tests ( $p < .01$ ), and three graphic tests ( $p < .05$ ) administered. Four individual subtests also reached the level of significance (formulation, sentence completion,  $p < .01$ ; reading names of objects, reading functions of objects,  $p < .05$ ). See Table 1 for group results.

Scrutiny of individual data indicates cumulative performance, as measured by the average of all eleven subtests, to be better in the morning for all subjects. The largest morning-to-afternoon differences for all patients occurred in the verbal mode, with some subjects achieving higher scores in the afternoon.

Some salient implications emerging from this study are as follows:

1. Plan evaluation and treatment at the same time each day and each month, to avoid the confounding effects of time of day on the behaviors being measured.
2. Counsel the patients and their families about handling various communicative interactions in the afternoon. Patients can be alerted to areas of reduced efficiency as they are observed.
3. Consider the effects of time of day when speech and language activities are scheduled for different patients. Some aphasic individuals will make more errors at one time than another. These errors could serve to decrease further performance on language tasks (Brookshire, 1972; 1976) and thus reduce the benefits received from services offered. At the same time, afternoon scheduling might be important for some individuals, especially those returning to a working environment, who would need to be able to cope with reduced communicative effectiveness as the day progressed. Afternoon evaluations could help determine remediation priorities and compensations for times of less than optimal performance.

Table 1. Description of PICA subtests administered to aphasic subjects (N=14) and group mean scores for morning and afternoon testing.

Subtest	Description	AM	PM
* V	Reading cards describing use of objects	13.23	12.91
VI	Identifying objects by function	14.51	14.18
*VII	Reading cards giving name of objects	13.63	13.41
VIII	Matching pictures to objects	14.97	14.96
X	Identifying objects by name	14.38	13.87
**Overall Gestural		14.14	13.87
** I	Formulating sentences describing use of objects	9.17	8.51
IV	Naming objects	10.82	10.41
**IX	Completing sentences	12.28	11.21
**Overall Verbal		10.71	10.04
A	Writing sentences describing use of objects	7.47	7.19
B	Writing names of objects	9.79	9.69
C	Writing names of objects to dictation	10.34	9.74
* Overall Graphic		9.20	8.89
**Overall PICA		11.87	11.46

\*=significant,  $p < .05$

\*\*=significant,  $p < .01$

References

- Brookshire, R.H. Effects of task difficulty on naming by aphasic subjects. Journal of Speech and Hearing Research, 15, 551-558, 1972.
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