Consumer Satisfaction with Speech-Language Services: An Analysis by Respondent Group and Delivery Mode

La satisfaction du consommateur vis-à-vis des services d'orthophonie : Une analyse par groupe de répondants et par mode de prestation

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Abstract

This study investigated consumers' satisfaction with one school district's speech-language services as expressed by parents, teachers, and principals. Responses were analyzed according to five variations in mode of service delivery. Although generally satisfactory ratings were obtained, there were interesting variations related to respondent group and mode of delivery. Hypotheses were developed regarding changes that might increase consumer satisfaction.

Résumé

Cette étude a porté sur la satisfaction du consommateur vis-à-vis des services d'orthophonie offerts par une école de district, comme l'ont exprimé les parents, les professeurs et les directeurs. Les réponses ont été analysées selon cinq variations du mode de prestation de services. Même si des résultats satisfaisants ont généralement été obtenus, il y a eu des écarts intéressants selon les groupes de répondants et le mode de prestation utilisé. Des hypothèses ont été élaborées en ce qui concerne les changements qui pourraient augmenter le degré de satisfaction du consommateur.

A critical aspect of school speech-language pathology (SLP) programs is the review and evaluation of program goals, operational efficiency, and service effectiveness (Asha, 1983). One component of such program evaluation is the investigation of attitudes held by consumer groups toward school speech-language services (Phelps & Koenigsknecht, 1977). Although treatment outcomes were considered as an aspect of satisfaction, consumer attitudes, rather than treatment effectiveness, were the focus of the present study.

Attitudes of principal consumer groups (teachers, parents, and principals) have been studied in a number of investigations (Pannbacker, 1985; Signoretti & Oratio, 1981; Clauson & Kopatic, 1975; Lloyd & Ainsworth, 1954). The survey (Jackson, 1988) has been the primary research method; a questionnaire or attitude scale has been the most frequently used instrument (e.g., Phelps & Koenigsknecht, 1977; Ruscello et al., 1980). Phelps and Koenigsknecht (1977) developed the Scale of Educators' Attitudes towards Speech Pathology (SEASP) to investigate the attitudes of teachers and principals toward speech-language programs in suburban public schools. A moderately favorable overall reaction was reported. Ruscello, Lass, Fultz, and Hug (1980) used the SEASP to measure attitudes of teachers within two rural school systems. They also reported favorable attitudes toward SLP programs. However, in both studies respondents expressed the attitude that caseloads were too large and therapy time employed per case was inadequate to provide satisfactory remedial help to each child.

Parent attitudes have been studied less frequently. Watson and Thompson (1983) investigated parent attitudes toward information received from speech-language pathologists in diagnostic reports and conferences. They found that more parents than expected understood the information and found it useful and accurate. A recent study of parent attitudes regarding preferred degrees of family involvement determined that the desired involvement depended upon the type of problem, age of the child, size of the school district, and extent of improvement (Andrews, Andrews, & Shearer, 1989, p. 397).

Previous research on consumer attitudes toward SLP services has not considered the form of service delivery. Several alternatives to traditional direct SLP service have been utilized. These have included parent and teacher conducted programs, the use of speech aides, and varying the quantity of service (Garrard, 1979). Moreover, no known study has compared the perceptions of major consumer groups (teachers, principals, and parents).

The data to be reported here were generated as part of a larger external evaluation of an urban school district's SLP program. The policies of this program identified direct therapy by a speech-language pathologist as the delivery system of choice. All other models of service delivery had been developed in response to the unavailability of resources for

direct treatment. The service delivery mode for a specific school was determined by district policy, the availability of resources, and the judgment of the individual speech-language pathologist regarding the needs of that school. This model of service delivery was in contrast to the consultative model, which focuses upon teacher-SLP collaboration (Marvin, 1987).

Attitudes of parents, teachers, and principals were obtained from a sample of schools receiving each of five different service delivery forms or modes. This allowed for an analysis of the attitude data according to consumer group and treatment mode in order to generate tentative hypotheses for future research and program development.

Methods

This study was undertaken at the request of the school district. The range of service delivery modes used in this district was determined from discussions with the Speech-Language Pathology staff. The components of these service delivery modes were delineated as follows:

Forms of Service

1. Direct: speech-language pathologist or speech aide provided treatment directly to the child. (Each speech aide was supervised by an SLP and assumed roles consistent with professional guidelines.)

2. Indirect: speech-language pathologist provided consultation with, and/or materials for, a parent's or school staff member's contact with the child.

Quantity of SLP Contact with a School

1. Low: One day or less per month.

2. Moderate: More than one day per month; less than two full days a week.

3. High: Two full days or more per week.

Modes of Service Delivery

Because the form of service delivery often was related to the quantity of contact, service delivery occurred within the five modes described in Table 1. These five treatment modes appeared to represent the typical SLP services that might be available in most school programs.

Table 1. Modes of Service Delivery.

Mode	Description	Code
1	indirect service (IS) provided by SLP (SLP) low frequency of contact (L)	IS:SLP-L
2	indirect service (IS) provided by SLP (SLP) moderate frequency of contact (M)	IS:SLP-M
3a	direct service (DS) provided by SLP (SLP) moderate frequency of contact (M)	DS:SLP-M
3b	direct service (DS) by Speech Aide (SA) moderate frequency of contact (M)	DS:SA-M
4	direct service (DS) provide by SLP (SLP) high frequency of contact (H)	DS:SLP-H

Each of the four SLPs provided the names of five schools, each school an example of one of the five modes, for a total of 20 schools. For each school the evaluators obtained the names of: (1) all teaching staff, (2) the principal, and (3) the parents of children receiving speech-language services in that school for the current year.

A questionnaire (Appendix A) was developed to assess consumer attitudes regarding a range of specific program features and goals, ranging from cooperation among personnel to adequacy of service. The questionnaire was developed to address terms of reference provided to the evaluation committee as well as the different modes of service. This precluded the use of any existing instrument. The questionnaires were distributed to the principal and all teachers assigned to each school in the study. In addition, for each of these schools one-sixth of the parents of children receiving SLP service were randomly selected for inclusion in this study. The respondents returned the questionnaires to the investigators directly in sealed envelopes.

Of the 378 questionnaires mailed, 268 were completed and returned, giving an overall return rate of 71% (Table 2). This was substantially higher than the 35% to 63% return reported in similar studies (Signoretti & Oratio, 1981; Watson & Thompson, 1983; Andrews, Andrews, & Shearer, 1989). Consequently, the 71% return rate was viewed as adequate for subsequent analysis.

Table 2. Return of Questionnaires by Mode and Respondents.

Respondent	Treatment Mode 1	2	3a	3b	4	Total
Parents	80%	44%	50%	68%	63%	60%
	(4/5)	(4/9)	(9/18)	(13/19)	(15/24)	(45/75)
Teachers	80%	72%	65%	80%	70%	73%
	(40/50)	(43/60)	(45/69)	(40/50)	(38/54)	(206/283)
Principals	75%	75%	75%	100%	100%	85%
	(3/4)	(3/4)	(3/4)	(4/4)	(4/4)	(17/20)
Total	80%	68%	63%	78%	70%	71%
	(47/59)	(50/73)	57/91	57/73	57/82	268/378

Results

A mean satisfaction rating was computed for each questionnaire. These consumer satisfaction data were evaluated using a two-way analysis of variance with Respondent (3) and Treatment (5) as between group factors. An experiment-wise alpha of 0.05 was selected as the criterion for statistical significance. Table 3 provides a summary of the analysis of variance. There was a significant main effect for Respondent and Treatment but no significant interaction.

Table 3. Anova Table for a 2-Factor Analysis of Variance.

Source	df:	Sum of Squares:	Mean Square:	F-test:	P value:
Treatment (A)	4	7.565	1.891	5.07	.0008*
Respondent (B)	2	3.301	1.65	4.424	.0139*
AB	8	3.7	0.463	1.24	.2815
Error	124	46.257	0.373		

*$p<0.05$

Tukey's HSD Test (Bruning & Kinitz, 1977) was used for post hoc analysis of each significant main effect. The results for Treatment are presented in Table 4. Consumers were significantly more satisfied with Treatments 3a (DS: SLP-M) and 4 (DS: SLP-H) than with Treatment 1 (IS: SLP-L). There were no significant differences in consumer satisfaction between the other Treatment group means, however the differences between Treatment 1 (IS: SLP-L) and 3b (DS: SA-M) and between Treatment 2 (IS: SLP-M) and Treatment 4 (DS: SLP-H) approached significance, with Treatments 3b (DS: SA-M) and 4 (OS:SLP-H) reflecting greater consumer satisfaction.

The Post hoc analysis results for Respondent are presented in Table 5. There was a significant difference between teachers and principals. Principals were more satisfied with the SLP services than were the teachers. The difference between principals and parents approached significance.

Table 4. Post Hoc Comparisons of Service Delivery Modes.

Comparison	Mean Diff.
1 vs. 2	-.306
1 vs. 3a	-.565*
1 vs. 3b	-.445
1 vs. 4	-.72*
2 vs. 3a	-.259
2 vs. 3b	-.139
2 vs. 4	-.415
3a vs. 4	.121
3b vs. 4	-.276

* $p<0.05$, *C Diff.* = .486

Discussion

The ratings of satisfaction of teachers and parents were more closely aligned with each other than with the ratings of principals. This is perhaps not surprising given that teachers and parents are more direct recipients of SLP services than are principals. These results are limited by an unavoidably small sample of principals.

Table 5. Post Hoc Comparison of Respondent Groups.

Comparison	Mean Diff.
Parent vs. Principal	-.322
Parent vs. Teacher	.04
Principal vs. Teacher	.361*

* $p<0.05$, *C Diff.* = .361

The five modes of treatment were not clearly differentiated by consumer satisfaction ratings. Only the largest differences in treatment means — Treatment Modes 1 (IS: SLP-L) and 3a (DS: SLP-M), and 1 and 4 (DS: SLP-H) — were significant. Both comparisons involved differences in both the form and the quantity of service. Mean ratings were generally quite favorable for all modes (i.e., rated at least *somewhat satisfactory* or above). This was surprising initially, given clearly identifiable differences in the treatment modes. However, previous research has indicated a generally positive response to SLP services by various consumer groups (Phelps & Koenigsknecht, 1977; Ruscello et al., 1989). Moreover, similar to previous research, (Phelps & Koenigsknecht, 1977; Ruscello et al., 1989) the written comments supplied by consumer groups, including parents, reflected a recognition that the SLPs were performing to their maximum in coping with heavy caseload demands.

Consumer empathy is clearly a potential variable influencing satisfaction ratings of SLP services. More differentiated ratings of consumer satisfaction might have been obtained if the various treatment modes utilized in this school system were determined by philosophies rather than resources. As described earlier, direct SLP services were considered the primary form of intervention in the philosophy of this SLP program, however, caseload size precluded direct SLP service for many children. It would be interesting to determine whether consumer attitudes are determined by a district's philosophy regarding the preferred mode of service delivery. That is, do consumers want "regular" treatment, regardless of which delivery system has been chosen as the "regular" mode of delivery?

Given the pervasiveness of heavy SLP caseloads, it is difficult to avoid consumer empathy as a confounding variable in program satisfaction research. Perhaps consumers should be instructed to indicate their satisfaction based on both actual and preferred services. In the present study it is puzzling that consumers were as satisfied with an indirect service of moderate quantity (Treatment 2 - IS: SLP-M) as with a direct, high quantity mode of service (Treatment 4 - DS: SLP-H). If this is truly the case, there are several possible explanations. Perhaps the respondents were not well informed, or perhaps there was a fortuitous matching of service delivery modes to schools' needs, or perhaps the questionnaire was not sufficiently sensitive to identify differences in attitude regarding these different services.

Despite the generally high ratings overall and the limited number of significant differences, the data do allow for some speculation regarding the effect of form and quantity of service on consumer satisfaction in a district with the direct treatment philosophy. The following tentative hypotheses for future research and program management were generated by utilizing Treatment Mode 1 (IS: SLP-L), a minimal amount of service, as a baseline condition for comparing consumer satisfaction with all other treatment modes. In other words, what would be required in both directness and quantity of service, beyond the basal level of intervention, to achieve greater consumer satisfaction? It can be hypothesized that:

1. Increasing only the quantity of contact from low to moderate while maintaining an indirect form (Treatment 2 - IS: SLP-M) is unlikely to result in a significant increase.

2. Providing a speech aide and increasing the quantity of service from low to moderate may not result in a significant increase in consumer satisfaction.

3. Providing an SLP and increasing the quantity of service from low to moderate is likely to result in a significant increase in consumer satisfaction.

4. Providing an SLP and increasing the quantity of service from moderate to high will probably result in a substantial increase in consumer satisfaction.

These hypotheses are supported when a performance criterion is applied to the interpretation of the data. For example, the means for Treatment modes 1 (IS: SLP-L), 2 (IS: SLP-M), and 3b (DS: SA-M) were 3.50, 3.81, and 3.95 respectively; these fall into the *somewhat satisfied* to *satisfied* range on the attitude scale. On the other hand, the means for Treatment modes 3a (DS: SLP-M) and 4 (DS: SLP-H), 4.07 and 4.22, fall into the *satisfied* to *very satisfied* range.

These hypotheses are provided for both researchers in the area of program development and administrators involved in making program decisions. They should be interpreted as tentative hypotheses rather than established guidelines. In addition to the above, further program evaluation and research should also consider the biasing effects of the empathy factor.

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Appendix A
Evaluation of Speech-Language Services

Please respond to the following questions to the best of your ability. If you have no information on the question asked, mark "no opinion" and proceed to the next question.

I am a: ___parent ___principal ___regular teacher of grade__ ___special education teacher ___team member

☐ *Note: If you are unfamiliar with the speech-language services at* _____ *please mark the box on the left and return this questionnaire unanswered.*

No Opinion		Unsatisfactory	Somewhat Unsatisfactory	Somewhat Satisfactory	Satisfactory	Very Satisfactory
	GENERAL SATISFACTION					
☐ 1.	The speech language services received by _____ School this year were generally	–	–	–	–	–
☐ 2.	In comparison to all other special services with which I have had experience, this school's speech-language service is	–	–	–	–	–
	TIME ALLOCATION					
☐ 3.	The typical length of time lapse between the time of referral and the time of assessment of the child referred was	–	–	–	–	–
☐ 4.	The availability of the speech-language pathologists was	–	–	–	–	–
☐ 5.	The suitability of scheduling by the speech-language pathologist was	–	–	–	–	–
☐ 6.	The speech-language pathologist's use of time was	–	–	–	–	–
	THERAPY SERVICES					
☐ 7.	The therapy provided by the speech pathologist in solving speech-language problems was	–	–	–	–	–
☐ 8.	The review process and provision of review information in the fall was	–	–	–	–	–
☐ 9.	The TYPE (eg. direct therapy, speech aide, home program, etc.) of therapy provided in relation to the school's needs was	–	–	–	–	–
☐ 10.	The AMOUNT of therapy provided in relation to the school's needs was	–	–	–	–	–
☐ 11.	The appropriateness of materials used in the speech-language program was	–	–	–	–	–
☐ 12.	The school's support of the speech-language service was	–	–	–	–	–
	PROFESSIONAL RELATIONSHIPS					
☐ 13.	The speech-language pathologist's relationship with children was	–	–	–	–	–
☐ 14.	The liaison between the teachers and the speech-language pathologist was	–	–	–	–	–
☐ 15.	The speech-language pathologist's liaison with parents was	–	–	–	–	–
☐ 16.	The liaison between the speech-language pathologist and the principal was	–	–	–	–	–
	FOR TEACHERS, PRINCIPAL AND TEAM MEMBERS ONLY					
☐ 17.	The availability of information on the role of the speech-language pathologist and the range of disorders she serves was	–	–	–	–	–
☐ 18.	The length, clarity, content and format of the reports from the speech-language pathologist were	–	–	–	–	–
☐ 19.	The liaison between the speech-language pathologist and other team members of Student Services was	–	–	–	–	–
	FOR PARENTS ONLY					
☐ 20.	The explanation you have received regarding your child's speech problem was	–	–	–	–	–
☐ 21.	What is the nature of your involvement with your child's speech therapy program and how much time does it involve?_____					

ADDITIONAL COMMENTS

22._____

23._____