The management and referral by physicians in Montana of communicatively-impaired adults to speech and hearing services

Susan Gifford Duffey

The University of Montana
THE MANAGEMENT AND REFERRAL BY PHYSICIANS IN MONTANA
OF COMMUNICATIVELY-IMPAIRED ADULTS
TO SPEECH AND HEARING SERVICES

By
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B.S. University of Wisconsin, 1963
Presented in partial fulfillment of the requirements for the degree of Master of Speech and Pathology and Audiology

University of Montana

1967

Approved:

Chairman of Committee

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DEC 5 1967

Date
ACKNOWLEDGEMENT

The author wishes to express her gratitude to the Department of Speech Pathology and Audiology of the University of Montana for the encouragement and support offered throughout the course of her graduate studies.

Special thanks are extended to Dr. Robert B. Chaney, Jr. and Mr. Peter B. Smith, for their guidance and invaluable assistance throughout the preparation of this paper.
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CHAPTER I

INTRODUCTION

There is growing concern in the United States regarding the rehabilitation of adults with communicative impairments. This concern is concurrent with an increasing number of adults with such impairments due to: 1) a generally-increasing population; 2) lengthening life span resulting in a greater aging population; 3) a higher survival rate among those who undergo surgical procedures in critical areas such as the brain, the vocal mechanism and the heart; and 4) more combat veterans with acquired speech, language, and hearing impairments due to traumatic war injuries.

There are many professional people who may contribute to the rehabilitative needs of the adult having a communicative problem. The diagnosis of the medical aspects of the problem can, of course, only come from a physician. Frequently then, referral of an individual for appropriate rehabilitation for speech and hearing problems is made by a physician, and for purposes of this study it is assumed that the majority of communicatively-impaired adults managed by speech and hearing clinicians are referred to them by physicians.

Therefore, members of the medical profession and speech and hearing clinicians both assume important roles in the rehabilitation of communicatively-impaired adults.
Throughout our country there is a rising need for more professional personnel, services and awareness of the various communicative problems which affect adults. Before these needs can be fully met it may be helpful to assess current Physician management and referral practices.

This author was of the opinion (based on personal professional experience) that Montana physicians were not generally referring communicatively-impaired adults for speech and hearing services. The purpose of this study, therefore, was to discover and describe how physicians in Montana had been managing those adults with communicative problems whom they had seen.

It was believed that information describing how communicatively-impaired adults were being handled by physicians would contribute to an understanding of how adequately the needs of these individuals in Montana were being met. To this extent then, this study provides an indication of current needs in rehabilitation in communicative impairments. Recommendations are then made as to steps that can be taken to meet them.

BACKGROUND

The terms "impairment", "disability" and "handicap" are often confused or used interchangeably. To distinguish among them, they are defined as follows as they were used in this study.
The American Medical Association's (1958) definition of "impairment" refers to a medical condition affecting one's personal efficiency in daily activity which can only be determined by a physician. When referring to the evaluation of hearing, "impairment" should be evaluated by one's ability to hear everyday speech under everyday conditions (Lierle, 1959).

The term "disability" is administrative rather than medical and includes an individual's ability to engage in gainful activities. "Permanent impairment is, therefore, a contributing factor to, but not necessarily an indication of, the extent of a patient's permanent disability. (American Medical Association, 1958) as it is regarded in the legal sense.

"Handicap" refers to the totality of factors resulting from impairment or disability or both. Adults (individuals 21 and over) who have speech and/or hearing impairments may also be experiencing personal, social, and vocational handicaps accompanying physical impairment. Some of the handicap of any communicative problem is apt to be emotional - fear, anxiety, frustration, embarrassment, inadequacy, and rejection by family and friends. The communicative handicap in its entirety may then be physical, personal, social and vocational.

Van Riper's (1954, p. 19) definition of speech impairment takes this aspect into consideration in defining speech as being defective "when it deviates so far from the speech of
other people that it calls attention to itself, interferes with communication or causes its possessor to be maladjusted." (Wright (1961, p. 4) further emphasized the totality and effects of a communicative impairment by stating that "the adult whose hearing or speech is impaired has lost contact with much of his interpersonal world."

Therefore, the goal in rehabilitative management is ultimately to meet the patient's communicative needs in all aspects of daily living - the primary concern being with the actual communicative impairment and the disabling and/or handicapping problems which can result.

Incidence of Communicative Impairments Among Adults

Recent data as to the prevalence of communicative impairments among the adult population are limited and general. They do, however, indicate that the magnitude of the problems is increasing. Sources from three large institutions which provide rehabilitative services to communicatively-impaired adults state that reliable national incidence figures are not available (Simonson; Darley; Sarno; 1967). The American Speech and Hearing Association was not able to provide such information or suggest where it might be obtained.

The literature does indicate, however, that there are increasing numbers of adults with communicative problems. Some of the contributing factors are as follows:
1. **Increasing Population.** - The Bureau of the Census reports for April of 1960, estimated the total resident population to be about 179,000,000 with 108,000,000 21 years and over. In July of 1966, the total resident population was about 196,000,000 with 115,000,000 21 years and over. This is an increase of about seven million in both the total population and the adult population (U. S. Bureau of the Census, 1966).

2. **Lengthening lifetime resulting in an increasing aging population.** - In the Journal of the American Medical Association (1961), it was stated that the average length of life in the United States reached an all-time high of 69.7 years in 1959-1960, and those who attained the age of 69 could expect to live an average of 11.7 years longer. According to Taylor (1964, p. 139), "as a direct outgrowth of lengthened life span, there is an increased incidence of cerebral vascular disease and of patients who have residuals of brain damage from accidents, surgical procedures, and other diseases." Communicative impairments, especially language impairments, frequently result.

That there is an increase in the aging population is confirmed by the United States Bureau of Census (1966) estimates. In the six-year period from 1960-1966, there was an increase of about two million in the 65 and over group alone; an increase from 16-1/2 million to 18-1/2
million. Within this "exploding" geriatric population there is a growing chronic disease population among which communicative problems are prevalent. (Taylor, 1954).

3. Higher survival rate among those who undergo radical surgical procedures such as brain surgery (Taylor, undated) and removal of the vocal mechanism (Levin, 1966), and among those with heart disease (Taylor). - Fairly reliable incidence figures can be cited only for laryngectomees. Levin (1966) estimated 25,000-35,000 now living in the United States, with about 2,000 total laryngectomy operations being performed each year.

4. More injured combat veterans with acquired speech and language impairments and hearing handicaps due to traumatic war injuries (Taylor, 1964). - Anderman (1960), estimated that 56,000 veterans of World War II had service connected hearing impairments or diseases of the ear. Recent military conflicts would add to this figure. Johnson (1960) estimated 2 to 5 per cent of the population or three to eight million persons in the United States, or approximately 50-125 million throughout the world to have serious communicative disorders. The Midcentury Whitehouse Conference (Johnson, 1952, p. 130) published gross estimates for all age levels based on an assumed total population of 150,000,000. It was stated that approximately 5 per cent of that census had speech defects.
In a report titled Prevalence of Selected Crippling Conditions, the Care and Treatment Service of the National Society for Crippled Children and Adults (1966) estimated a total of about 12,000,000 people in the United States to have communicative disorders; this is about 6 per cent of the population.

The incidence of various types of communicative disorders in the schools and general population of the United States as reported by Spilka and Steen in 1951 was cited by Van Riper (1963, p. 36) and is shown in Table I:

**TABLE I**

<table>
<thead>
<tr>
<th>Disorders</th>
<th>School Age Population</th>
<th>Total Population</th>
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<tbody>
<tr>
<td>Functional Articulation</td>
<td>1,324,840</td>
<td>6,139,600</td>
</tr>
<tr>
<td>Stuttering</td>
<td>231,847</td>
<td>1,074,430</td>
</tr>
<tr>
<td>Voice</td>
<td>165,605</td>
<td>767,450</td>
</tr>
<tr>
<td>Cleft Palate Speech</td>
<td>33,121</td>
<td>153,490</td>
</tr>
<tr>
<td>Cerebral Palsy Speech</td>
<td>66,242</td>
<td>306,930</td>
</tr>
<tr>
<td>Retarded Speech Development</td>
<td>165,605</td>
<td>767,450</td>
</tr>
</tbody>
</table>

According to Johnson's (1960) estimates, one-half of one per cent of the entire adult population have articulation disorders, more than one of every 1000 adults have severe voice disorders, seven of every 1000 adults stutter and about five of every 10000 have impaired hearing. Estimates of other specific communicative impairments were not noted. Additional figures citing the incidence of hearing impairments were not noted. Additional figures citing the incidence of hearing impairments were found in the Department of Health, Education and Welfare health statistics gathered from a
United States National Health Survey (1961). For the period of July, 1959 through June, 1961, about five-and-a-half million over the age of 25 had hearing impairments of all degrees of severity. In the same report, it is estimated that among the general population about 35 of every 1000 individuals have hearing losses.

From these data it is clear that individuals of all ages having communicative impairments make up a sizeable portion of the population although the exact number is in some question. This may well be due to differences in data collection procedures as well as the criteria used for determining what comprises a communicative impairment. From the estimates mentioned a reasonable estimate of the number of adults having communicative disorders would appear to be about 5 per cent of the adult population (about 6 million individuals). Due to the problems and differences mentioned this figure could well be an underestimate.

The incidence figures presented thus far have referred to the total adult population in the United States. Since this paper is concerned with communicative problems of those adults residing in Montana, a pro-rating of national statistics is necessary.

With a 5 per cent rate of incidence of communicative impairments prorated on the 1966 Montana population estimates, 19,750 Montana residents age 21 years and over, and 3,350 age 65 years and over could be expected to have communicative impairments.
TABLE II

MONTANA POPULATION ESTIMATES (U.S. BUREAU OF THE CENSUS, 1966)

<table>
<thead>
<tr>
<th></th>
<th>Total Resident Population</th>
<th>21 years and over</th>
<th>65 years and over</th>
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<tr>
<td>April, 1960</td>
<td>674,767</td>
<td>388,673</td>
<td>65,420</td>
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<tr>
<td>April, 1966</td>
<td>702,000</td>
<td>395,000</td>
<td>67,000</td>
</tr>
<tr>
<td>Increase in 6 year period</td>
<td>27,233</td>
<td>6,327</td>
<td>1,580</td>
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Rehabilitation of Adults Having Communicative Impairments

Isolated incidence figures are available concerning rehabilitation of adults with certain communicative impairments. The 1961 reports from the Office of Vocational Rehabilitation reported 1200 persons with speech impairments rehabilitated in 1960. However, this figure did not include other disabilities with which speech impairments may have been an associated problem. Later reports from the Office of Vocational Rehabilitation (Schor, Scholnick, and Peters, 1964) showed that of 110,000 rehabilitated through their public rehabilitative programs during the 1963 fiscal year, 6 per cent were deaf or had hearing impairments and one per cent had speech impairments. It is of interest that one-third again as many had been rehabilitated in 1963 as had been five years previously. For the year 1964 Vocational Rehabilitation statistics estimated that 63 of every 100,000 individuals were receiving rehabilitation (included were all types of
handicapping problems) but that to meet the 1965 need, 153 of every 100,000 would have to be rehabilitated.

In regard to specific types of communicative problems, the prognosis for speech rehabilitation of laryngectomees appears to be favorable. Levin (1966) estimated that 65 to 80 per cent can regain speech without artificial aids after the necessary training by competent teachers. The need for specialized rehabilitative service was emphasized here.

In considering the effects of vascular lesions, Kuhn (1963) stated that they represent the third leading cause of death in the country and the fourth leading cause of fatalities in the 25 to 44 age group, that of the young adult. Baker and Iannone (1961) stated that the primary pathologic change that occurs is in the cerebral blood vessels. In analyzing 1175 consecutive autopsies it was discovered that the most frequent and severe lesions occurred in four areas of the Circle of Willis. Two of these four areas were the middle and posterior cerebral arteries which provide the main blood supply to the cerebral hemispheres. It is reasonable to assume that of those who do not die from vascular lesions many may be left with major handicapping symptoms, of which impairment of the language modalities is one. Injury or disease to the speech-dominant cerebral hemisphere can be expected to leave symptoms of brain damage manifested in the patient's verbal behavior—aphasia (Taylor, undated). Occlusion of the main trunk of either the middle or posterior cerebral artery may cause motor
and/or sensory asphasia if the dominant side is involved (Baker and Iannone, 1961).

Vascular diseases are predominant among older people. Information provided by Sarno (1967) stated that in a group of 235 asphasic patients with right hemiplegia, the median age was slightly above 65. Two-thirds of the cases fell between 61 and 75 but fifteen per cent of the group were under 45 years of age. Again, the young adult is frequently involved.

In an article by Kuhn (1963), estimates for the incidence of strokes were about 400,000 occurring annually in the United States with 85 per cent of these being disabling to some extent. Two million in the United States who are now living have had cerebrovascular accidents at one time in their lives. This information was based on a Public Health Survey (household) with individuals being asked if they had major symptoms due to strokes. The survey found about 300,000 hemiplegics - 200,000 with complete paralysis and 100,000 with paresis. The population of hemiplegic patients with communicative impairments was estimated to be over one million people with about 10 per cent receiving rehabilitative services in language therapy (Taylor). According to Chandler (1965), about 200,000 stroke patients are in need of vocational rehabilitation; currently, however, only about 1,000 are rehabilitated annually into jobs by Vocational Rehabilitation Offices.

Sixty to 70 per cent of all stroke patients can be re-
habilitated under the supervision of the family physician (Knottke, 1965). A specialist is needed, however, when there is language impairment. Knottke (1965, p.31) stated that the patient "who has severe or multiple disabilities . . . . will need intensive rehabilitative services requiring more time and specialized services than the general physician is able to provide." (Author's italics.) Speech and hearing clinicians consider the degree of impairment, and the capacity to adapt when determining who needs a rehabilitative program. The need for specialized rehabilitative services is certainly not limited to stroke patients. Adults having any communicative impairments requiring more time and specialized service than the physician is able to provide are in need of special rehabilitative services from speech and hearing clinicians.

It is apparent then that the literature indicates special services are frequently necessary for those adults with communicative impairments if they are to be rehabilitated. It is also indicated that the considerable time and specialized service which these individual need cannot always be provided by physicians. Even though physicians themselves may be not able or trained to supervise the communicative aspects of the rehabilitation of communicatively-impaired adults they are usually in good positions to refer the individuals, no matter what the physical impairments may be, to speech and hearing services for rehabilitation.
There is evidence to suggest that physicians and hospitals together comprise the largest referral group. Of those rehabilitated in Vocational Rehabilitation's public programs—physicians, hospitals, and sanatoria—did more referring than any other single group (Schor, Scolnick, and Peters, 1964).

There is concern among some members of the speech and hearing profession as to whether or not physicians are assisting as much as they could be in meeting the rehabilitation needs of communicatively-impaired adults. Lack of, or unsatisfactory, services may be reasons, but Van Riper (1954) indicates that physicians in the United States do not seem to be as concerned about communicative impairments as they are about other handicaps. He (1954, p. 11) revealed his disappointment in the medical profession by stating that "in this country the medical profession which in Europe treated or supervised the treatment of speech defectives, has seemed uninterested in the problem." This is not interpreted as advocating that physicians engage in actual speech and/or hearing therapy, but rather that they assume more of a responsibility in the referral of these adults to insure the provision for rehabilitative services when they are needed.

This author had been of the opinion that Montana physicians had not generally been referring adults with communicative problems for speech and hearing services. The author's concern was a personal one, for having been employed in two large Montana communities by agencies providing speech and
hearing services to adults, few were referred for services. In each community, there was only one speech and hearing agency that provided service to adults. The four adults seen by the agencies had been referred, not by physicians, but by other professional persons. The patients' families reported that physicians had given no counseling about the communicative disorder and had provided no information about special services where help could be obtained. In all instances, the speech and hearing agencies considered the cases to be amenable to therapy.

The purpose of this study, therefore, was to describe how Montana physicians had generally been managing those communicatively-impaired adults whom they had seen. For if physicians were not referring for speech and hearing services, it followed that the rehabilitative needs of many individuals were not being fully met. Reasons as to why adults were not being referred might be of special interest to individuals and agencies in the state that provide speech and hearing services to adults. If physicians' referrals were not being made due to lack of knowledge or awareness, there is cause to promote "public relations" efforts by the agencies involved. By making the services of these agencies known, discussions might be held with physicians whose assistance could be requested in improving current conditions. If there were other reasons for inadequate referral practices such as lack of locally-available services, incompetent or sporadic services,
perhaps some public relations work within the rehabilitative agencies might also be in order.

In summary it can be stated that medical attention alone is frequently not sufficient to meet all needs of the communicatively-impaired adult. As mentioned previously the goal in rehabilitative management is ultimately to meet the patient's communicative needs in all aspects of daily living (Morley, 1952). Therefore, the patient will often be in need of specialized services. It was believed that one possible way to determine how adequately the needs of communicatively-impaired adults were being met, was to describe how physicians were managing those adults whom they saw, and why they were managing them as they did.
CHAPTER II

PROCEDURE

A mail survey was conducted to gather descriptive information as to how Montana physicians have typically managed communicatively-impaired adults and what their referral practices have been in the past. A questionnaire consisting of two parts, an "incidence" section and an "attitude" section, was sent to physicians throughout the state.

POPULATION

The survey was limited to those Montana physicians considered most likely to provide services for and have direct contact with adults having communicative problems. Therefore, pediatricians, obstetricians, gynecologists, pathologists and radiologists were excluded. The surveyed population consisted of all other physicians whose names appeared in the 1966 Montana Medical Association directory. Questionnaires were sent to a total of 505 physicians residing within the state.

QUESTIONNAIRE

The use of a mailed questionnaire granted the respondents freedom to answer items without the pressure of time or the presence of an interviewer as would be true in the direct interview method.
The letter of introduction and the questionnaire used in the study are found in Appendix A. Both were formulated with the assistance of a medical consultant to promote development of a questionnaire that would be meaningful to physicians and hopefully receive their consideration.

To gather incidence data, a chart was designed enumerating specific types of communicative impairments and various physician management practices. The physician was asked to indicate how he had typically managed each type of communicative problem over the period of the preceding three years. It is believed that, "How a person has behaved in the past in a certain type of situation is, in the absence of contradictory evidence, an indication of what his future behavior will be in similar situations." (Selltiz, Jahoda, Deutsch, and Cook, 1959).

The three-year period was based on the assumption that physicians were more likely to be able to recall and estimate the number of communicatively-impaired adults they had managed when the time limitation was not too restrictive. On the other hand it was considered a possibility that within a period of one year, a physician might not have seen any communicatively-impaired adults, but that within a period of three years he most likely would have seen one or more.

A physician's individual responses on the chart disclosed, among other things, whether or not he referred individuals for speech and hearing services. The physician was asked to
respond by estimating incidence figures which, although feasibly not reflecting the exact number, were at least indicative of the approximate number of adults with each type of problem he had managed. Numbers were considered preferable to using a check or mark to indicate a certain type of management procedure in that numbers, however approximate, more clearly indicated how the majority of individuals with specific impairments had generally been managed. This was necessary, for the instructions permitted the respondents to indicate more than one management procedure for each communicative problem.

The second section of the questionnaire was designed to elicit attitudinal data. Four attitudinal items were presented. The first question allowed the physician to comment more specifically about his management and referral practices than he was able to in the incidence section. If he typically did not refer communicatively-impaired adults for speech and hearing services, he was asked to give some indication as to why this was his practice. The second question was related to the availability of speech and hearing services for adults in or near the physician's local community. By answering question number three, the physician was able to comment on the adequacy of speech and hearing services for adults in Montana. The last question allowed the physician to comment upon any problems he was aware of in referring adults with communicative problems for speech and hearing services. The
respondents were encouraged to comment, express opinions or attitudes, or make suggestions about any issues raised in the questionnaire.

The reasons for including an attitudinal section in the questionnaire were twofold. The primary reason was to assist in interpreting the meaning of the responses in the first section (incidence). The second reason was to promote respondent interest in the questionnaire that otherwise might not have existed had they not been given freedom to comment and express opinions about both personal referral practices, and speech and hearing services. Therefore, the attitudinal items may have provided incentive to complete and return the entire questionnaire.

Other steps were taken in an attempt to insure the highest possible rate of return and accuracy in completing the questionnaires:

1) Assurance that anonymity of the respondent and the reporting of the information in the study was guaranteed to the respondent.

2) Notation in the introductory letter that a summary of the results of the study would be made available to the individual respondent upon his request.

3) Use of a brief and specific questionnaire.

4) Inclusion of a return, self-addressed, stamped envelope with each questionnaire to denote the importance of its immediate return, and

5) Appearance of signatures of the following individuals on the introductory letter:

Susan Gifford, Graduate Student

Robert B. Curry, M.D., Medical Consultant
CHAPTER III

RESULTS

RESPONSE TO THE QUESTIONNAIRE

A questionnaire was sent to that population of Montana physicians considered most likely to have contact with adults having communicative problems. The physicians were asked to contribute information about ways in which they had typically managed such adults. They were also asked to express attitudes concerning existing speech and hearing services in Montana, and to comment on problems and needs in rehabilitating adults having communicative impairments.

Of 505 questionnaires distributed, 161 (33 per cent) were returned by the deadline. Some physicians specifically stated that the questionnaire did not apply to them because of limitations of their positions or medical specialties; therefore, their questionnaires were not included when results were tabulated. Of the respondents, 125 (25 per cent) provided data that were used in the actual study.

It was considered important that physicians in almost all regions of Montana responded, contributing information both quantitative and qualitative. Communities from which questionnaires were returned are shown in Fig. 1. From each community, the total number of returned questionnaires was recorded as well as the total number of questionnaires...
initially sent to that community. It was thereby possible to note the percentage and regional distribution of returned questionnaires that provided data utilized in the study.

There seemed to be lack of agreement in the literature as to what percentage of return of questionnaires was significant (Eigelberner, 1926, pp. 150-151; Pope, 1928, p. 115). There was some agreement that the better educated and the more intelligent the group addressed, the larger the percentage of returns expected. Sellitz, Jahoda, Deutsch, and Cook (1959, p. 241) noted that when questionnaires were mailed to a random sample of the universal population, the percentage of returns was usually low and varied from 10 to 50 per cent.

Because the population of physicians was a select population drawn from the universal population, it did not seem possible to predetermine what a significant rate of return would be. The return of questionnaires contributing data used in the study was 25 per cent. Returns came from physicians residing in large and small communities in all regions of the state. The presence or absence of speech and hearing services in or near respondents' communities did not appear to influence the type of responses given to some questions, for similar attitudes were shared and comments expressed by physicians throughout the state.

Requests for summaries of the study came from almost half of the respondents. The requested information was sent to them. Judged by the number of requests, it was
considered significant that so many members of the medical profession appeared to share a concern for providing speech and hearing services to communicatively-impaired adults.

**INCIDENCE SECTION**

Management of Speech Problems

Of the total number of communicative problems reported, approximately three-fifths were speech problems. The percentage of speech-impaired adults receiving each kind of management is shown in Fig. 2.

**FIGURE 2**

**PHYSICIAN MANAGEMENT OF ADULTS WITH SPEECH PROBLEMS**

- Treated in office (hospital)
- Not referred for speech-hearing services
- Directly referred for speech/hearing services to a clinician in private practice or with an agency
- Referred for speech/hearing services through another physician, OVR, rest home, etc.
- Counseled family or guardian regarding communicative problem
Those adults referred directly or indirectly to speech services accounted for over one-fourth of all adults managed. Only about one-fifth of the patients' families were counseled about the communicative problems by the physician. Less than one-fifth were treated in the physician's office or hospital. The remaining third were not referred in any way for further assistance for the speech problem.

Management of Hearing Problems

Fig. 3 shows the percentage of hearing-impaired adults receiving each type of management. The most frequent type of management (37 per cent) was direct referral for special services. An additional 10 per cent were referred for speech and hearing services through other sources such as another physician, a rest home, and the Veterans Administration. Almost one-fourth of all the hard-of-hearing were treated by physicians in their offices. A minimal amount of counseling about the problem was done in this area; for only about one-tenth of these individuals was counseling given. The remainder (17 per cent) were not referred for specialized services.
Management of Hearing Problems vs Management of Speech Problems

When comparing management procedures of hearing problems with those for speech problems, it is interesting to note that many more hearing-impaired than speech-impaired adults were referred either directly or indirectly for special services. Forty-seven per cent of those having hearing difficulties were referred for special services as opposed to only 28 per cent of those with speech problems being referred. The question arises as to what the reason or reasons might have been. Perhaps physicians felt that more services were available for those with hearing impair-
ments, perhaps physicians were just more aware of hearing impairments or found them easier to diagnose, or possibly physicians considered rehabilitative prognosis for hearing-impaired adults to be more favorable than for the speech impaired. It is also possible that physicians referred those with hearing problems to hearing-aid dealers.

When compared to those with hearing problems, more adults with speech problems were not referred for specialized services. Seventeen per cent of those with hearing problems were not referred whereas 32 per cent of those with speech problems were not referred. About the same percentage, however, were referred for speech and hearing services through other sources.

It was significant to note that in both areas, relatively little counseling was given to families or guardians of patients in regard to the communicative problems. Since speech and hearing clinicians usually consider family counseling to be an integral part of habilitative or rehabilitative management, it was deemed significant that so little of it was done. It was considered possible that with the increasing demands being made upon physicians and consequently, the limited time available to devote to individual patients, the average physician has little or no time to provide family counseling. If such should be the case, it would be even more important to refer communicatively-impaired adults directly to speech and hearing services where such counseling could be provided.
Management of Specific Communicative Problems

Table III shows the percentage of estimated adults having each specific communicative problem, estimated to have received each specific type of physician management.

Directly referred for speech/hearing services to a clinician in private practice or with an agency.—Loss of voice due to laryngectomy was the disorder leading the list in having referrals (62 per cent) made directly to speech and hearing services. It was followed by cerebral palsy (40 per cent), cleft palate speech (29 per cent), voice problems (28 per cent), and stuttering (25 per cent).

Few adults having brain damage were referred directly for such services: chronic brain syndrome (8 per cent), aphasia (13 per cent), and dysarthria (20 per cent). Since the majority of these problems occur among those in the fifth and sixth decades of life, one questions if the relative age of the patient was not a determining factor in considering referral.

Referred for speech/hearing services through another physician, VRA, rest home, etc.—Although less than one-sixth of those with brain damage were referred for speech services indirectly through other sources, that problem represented the majority of communicative impairments receiving that type of physician management.

Counseled family or guardian regarding communicative problem.—Counseling of the family or guardian regarding the
<table>
<thead>
<tr>
<th></th>
<th>Estimated No. in 3 year period</th>
<th>Treated in office</th>
<th>Counselled family or guardian regarding communication problem</th>
<th>Directly referred for speech/hearing services to a clinician in private practice or with an agency</th>
<th>Referred for speech/hearing services through another physician, VRA, rest home, etc.</th>
<th>Not referred for speech/hearing services</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SPEECH PROBLEMS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aphasia</td>
<td>962</td>
<td>124(13%)</td>
<td>278(29%)</td>
<td>121(13%)</td>
<td>123(13%)</td>
<td>354(37%)</td>
</tr>
<tr>
<td>Dysarthria</td>
<td>251</td>
<td>41(16%)</td>
<td>59(24%)</td>
<td>51(20%)</td>
<td>35(14%)</td>
<td>65(26%)</td>
</tr>
<tr>
<td>Chronic Brain Syndrome</td>
<td>742</td>
<td>139(19%)</td>
<td>198(27%)</td>
<td>61(8%)</td>
<td>109(15%)</td>
<td>341(46%)</td>
</tr>
<tr>
<td>Loss of voice due to Laryngectomy</td>
<td>40</td>
<td>6(15%)</td>
<td>--</td>
<td>25(62%)</td>
<td>2(5%)</td>
<td>3(8%)</td>
</tr>
<tr>
<td>Stuttering</td>
<td>178</td>
<td>28(16%)</td>
<td>32(18%)</td>
<td>44(25%)</td>
<td>19(11%)</td>
<td>26(15%)</td>
</tr>
<tr>
<td>Voice Problems</td>
<td>275</td>
<td>122(44%)</td>
<td>18(7%)</td>
<td>78(28%)</td>
<td>32(12%)</td>
<td>83(30%)</td>
</tr>
<tr>
<td>Cleft Palate Speech</td>
<td>160</td>
<td>9(6%)</td>
<td>16(10%)</td>
<td>47(29%)</td>
<td>1(6%)</td>
<td>6(4%)</td>
</tr>
<tr>
<td>Those sometimes seen in Cerebral Palsy</td>
<td>98</td>
<td>11(11%)</td>
<td>18(18%)</td>
<td>39(40%)</td>
<td>9(9%)</td>
<td>12(12%)</td>
</tr>
<tr>
<td>Problems not Listed above</td>
<td>28</td>
<td>13(46%)</td>
<td>6(21%)</td>
<td>1(4%)</td>
<td>4(14%)</td>
<td>4(14%)</td>
</tr>
<tr>
<td>Totals:</td>
<td>2734</td>
<td>493(18%)</td>
<td>625(22%)</td>
<td>457(16%)</td>
<td>334(12%)</td>
<td>894(32%)</td>
</tr>
<tr>
<td><strong>HEARING PROBLEMS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Totals)</td>
<td>2093</td>
<td>503(24%)</td>
<td>247(12%)</td>
<td>771(37%)</td>
<td>216(10%)</td>
<td>356(17%)</td>
</tr>
</tbody>
</table>

*An individual may have received more than one type of management, explaining why percentages of types of management for each problem may exceed 100 per cent when totaled.
communicative problem appeared to be limited. No counseling was reported having been done for laryngectomees and little counseling was provided in other areas. Most of the counseling concerned those with brain damage. Family or guardian counseling was initiated for fewer than one-third of the asphasics, and for approximately one-fourth of the dysarthric and chronic-brain syndrome patients. It is interesting that, most of the counseling was done concerning those problems infrequently referred for speech and hearing services. On the whole, however, little counseling was done.

Treated in office.—Of all communicative problems receiving treatment in physicians' offices or in hospitals, voice and hearing problems constituted the majority. Almost one-half of those with voice problems and one-fourth of the hard-of-hearing were treated thusly. Occasionally, physicians reported managing patients having communicative problems that were not mentioned specifically in the questionnaire, such as "loss of tongue." These problems were infrequent (comprising less than one per cent of the total) and one-half of them were treated by the physician in the office or hospital.

ATTITUDE SECTION

Attitudinal items were included in the questionnaire to allow respondents the opportunity to express opinions and to volunteer information not revealed through the incidence section. In the incidence section, physicians reported
management used; in the attitude section, they had the opportunity to explain why certain management had or had not been used.

To promote freedom of expression some questions were generally formulated.

In analyzing responses, there was little difficulty in categorizing them by content. The results and summaries of physician responses to the five attitudinal items follows.

(Question 1.) "If you do not typically refer communicatively-impaired adults for speech and hearing services can you please give some indication as to why you do not?" (Fig. 4)

Of those responding physicians who in the past typically have not made referrals, two-thirds gave some indication as to why this has been their practice. One-fourth of them stated that patients were not always amenable to therapy, citing a variety of reasons. Generally, the patient's over-all state of physical and/or mental health was a determent to referring him. Advanced age, poor general health, senility, lack of motivation for improvement, lack of desire for assistance, and the communicative problem being part of another problem requiring priority for treatment - were determining factors cited.

One-fifth of all physicians who responded to this question stated that they had no occasion or reason to make referrals. They did not refer if they were not in private practice, if they were specialists treating the patient of a family physician, if the patient was currently receiving
FIGURE 4
PHYSICIANS' REASONS FOR FAILURE TO REFER TO SPEECH AND HEARING SERVICES

<table>
<thead>
<tr>
<th>Problem</th>
<th>5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>not amenable to therapy</td>
<td></td>
</tr>
</tbody>
</table>

| Available Services                        | 14%  |
| are lacking                               |      |

| Physician                                 | 21%  |
| has no occasion or reason to refer        |      |

| Patients                                  | 25%  |
| are not always amenable to therapy        |      |

| Physicians specifically stated they do refer or gave no explanation as to why they do not refer | 35%  |

therapy, or if the patient had previously had therapy.

Referrals could not be made if speech and hearing services were not available, 14 per cent of the respondents commented. If such services were available, physicians wanted to know where facilities were located and what services they offered.

A limited number of physicians (5 per cent) alleged some types of communicative problems not to be amenable to therapy, such as stuttering and foreign dialect. Therefore, they did not refer adults with such problems. The question arises as
to why physicians believed these problems not to be amenable. It is possible that age was a factor considered in not referring stutters and that the home environment (bilingual) was a reason for not referring those with a foreign dialect. Of the remainder of physicians answering Question 1., it was either stated that referrals were made, or no explanations were given as to why they had not referred.

Many respondents who did not directly answer this question, did answer Question 4., which asked

"What problems (if any) are you aware of or concerned with in referring communicatively-impaired adults for speech and hearing services?"

Physicians stated that their "problems" in making referrals were often their very reasons for not referring at all. Since physicians responses to this question proved to supplement Question 1., it followed a logical order of progression to present them at this point.

The majority of respondents (four-fifths) answered the fourth question, giving insight into problems and difficulties they have had in referring adults. A report of their responses can be seen in Table IV. Lack of available services, diagnostic and therapeutic, accompanied by lack of information about established and available services comprised one-fourth of physicians' complaints. Twelve per cent specifically mentioned lacking services for the hearing impaired and the brain damaged (stroke) patients.
<table>
<thead>
<tr>
<th>Problem</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inconvenience: Travel, distance, expense involved in sending patients</td>
<td>15%</td>
</tr>
<tr>
<td>Long distances</td>
<td></td>
</tr>
<tr>
<td>Lack of available services for diagnosis and therapy</td>
<td>7%</td>
</tr>
<tr>
<td>Delays and long waiting periods upon referral</td>
<td>5%</td>
</tr>
<tr>
<td>Communications between referral sources and services are poor.</td>
<td></td>
</tr>
<tr>
<td>Lack of competent, trained personnel</td>
<td>9%</td>
</tr>
<tr>
<td>Lack of information about established and available services</td>
<td>7%</td>
</tr>
<tr>
<td>Where are they located; what are their staffs; what do they require in fees?</td>
<td></td>
</tr>
<tr>
<td>Lack of available services in two main areas:</td>
<td>12%</td>
</tr>
<tr>
<td>Hard-of-hearing (speech reading training and hearing aid evaluations)</td>
<td></td>
</tr>
<tr>
<td>and brain damage (stroke) patients</td>
<td></td>
</tr>
<tr>
<td>Not aware of any problems</td>
<td>29%</td>
</tr>
<tr>
<td>No answer</td>
<td>16%</td>
</tr>
</tbody>
</table>

TABLE IV
PROBLEMS IN REFERRING ADULTS TO SPEECH AND HEARING SERVICES AS NOTED BY PHYSICIANS
Problems involving delays and long waiting periods before acceptance into programs and inconveniences of having to travel long distances to existing facilities were expressed by about one-fifth of the respondents. Some specifically mentioned the instability and inconsistent availability of clinicians and services to be real problems, as was the lack of competent, trained personnel (9 per cent). A considerable portion, almost one-third, testified to not being aware of any problems; some said this was because they were new to the state. It is possible that the design of the question permitted respondents to react passively to it; they might not have wanted to take the time to write in an answer. Perhaps if multiple choice answers had been provided, respondents could have indicated an answer by selecting an appropriate one, and more information would have been provided.

Question 2. "Are speech and hearing services for communicatively-impaired adults available in your community?" (Fig. 5)

Over one-half the respondents claimed the availability of services in or near their communities. Of those who answered "yes" indicating services were available locally, 12 per cent specified the services to be "seldom available," "part-time," "itinerant," or "not consistent." Of the other "yes" respondents, some were from communities having only part-time services but they did not so specify on the questionnaire. A "yes" answer to Question 2. did not indicate, therefore, the consistent availability of full-time speech and hearing services.
About one-third gave a negative answer — local services for adults were not available. Some (5 per cent) stated "I don't know," "I don't know for adults," or "I am uninformed" when asked about the existence of local services. Some physicians did not answer the question.

For the convenience and reference of the reader, Fig. 6 has been included to show the regional distribution of speech and hearing services in Montana; both full-time and part-time services are shown. Since information regarding clinicians in private practice is limited, no reference to their services is made.
Full-time services * (3)

Part-time or itinerant services * (19)

*(As of May, 1967)
Question 3. "In your opinion, how adequate are the speech and hearing services available to adults in this state?" (Fig. 7)

"Inadequate," "poor," "limited," or "good in large communities only," were the attitudes expressed by one-third of the responding physicians. Of those who termed state services as being "inadequate," one-third stated that services were numerically inadequate but considered ones that did exist to be good. The other two-thirds specifically referred to existing facilities as being "not very good." Ten per cent claimed facilities to be "fair" and another 9 per cent, "adequate." Few respondents (8 per cent) considered facilities to be "good."

A large proportion of respondents (almost one-third) said they were not aware of how adequate Montana's services to adults were. Some admitted their "shame" at not knowing and expressed a desire to become better informed. Some specifically asked for information and publicity regarding state services. The remainder of the physicians (11 per cent) did not express any opinion.

Physicians were encouraged to comment, express opinions, or offer suggestions about any of the issues raised in the questionnaire. Many did so by expressing what they considered to be currently existing needs (see Table V). The needs were for more speech and hearing services for communicatively-impaired adults - providing both diagnostic and therapeutic services. Physicians were not satisfied with facilities.
Figure 7

PHYSICIAN ASSESSMENT OF ADEQUACY OF SPEECH AND HEARING SERVICES AVAILABLE TO ADULTS IN MONTANA

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TABLE V

PHYSICIANS' SUGGESTIONS CONCERNING CURRENT NEEDS

NEED FOR SERVICES

in speech
in hearing diagnostic and therapeutic

in every community, large and small locally

NEED FOR CLINICIANS

in private practice to visit hospitals and nursing homes

to work with the brain damaged, especially the stroke patient

NEED FOR STABILITY

and consistent availability of speech and hearing facilities and clinicians

NEED FOR INFORMATION AND PUBLICITY

of existing facilities, services, availability of clinicians, and fee and financial arrangements
being available in large communities only, but considered it
important that they be available locally in all communities.
The need for stable and consistently-available clinical
speech and hearing programs was stressed, indicating that
part-time programs were unsatisfactory.

Lack of information about the locations of existing
facilities and kinds of services offered, strongly suggested
a need for publicity. It was indicated that little was known
about what financial arrangements concerning such rehabili-
tative programs could be made and/or who operated the various
facilities - were they public or private.

Finally, there was the need expressed for more clinicians,
especially in private practice to meet the demands of visit-
ing hospitals and nursing homes - to work with the brain
injured, especially the stroke patient. It was the opinion
of several respondents that clinicians within the state had
been transient; they had been available for periods of time
but then had moved, usually leaving Montana.
CHAPTER IV

DISCUSSION

The purpose of this study was to gather data that would contribute to an awareness of current rehabilitative management of those adults having speech and hearing problems. Since physician referral and management is often the initial step in providing rehabilitative services, Montana physicians were questioned about the roles they have assumed in such management.

Based upon personal professional experience this author had been of the opinion that Montana physicians frequently have not assumed as responsible a role in managing communicatively-impaired adults as they might.

When the survey was completed results were obtained which in part were contrary to what had been expected. The incidence data indicated that although only 28 per cent of the speech impaired and 47 per cent of the hearing impaired were referred to speech and hearing services, significant reasons were often given as to why the remainder had not been referred. The reasons were contributed by physician responses to the attitudinal items and in part, underscore the need for having included that section.

It had been anticipated that the majority of physicians would have little knowledge of communicative problems and
therefore, of rehabilitative needs in the area. Information contributed by responding physicians, however, indicated that most of them were knowledgeable about such problems, but were lacking information about existing speech and hearing services and frequently were not able to refer adults because of problems that hindered or prevented referrals. Those two issues noted by respondents will be discussed shortly.

An analysis of the incidence data revealed that little counseling was provided to families or guardians of those having communicative problems. This is an area of concern to most speech and hearing clinicians. Counseling is usually considered by them to be an invaluable part of any rehabilitative program. When it is denied to a client or his family there is apt to be considerable difficulty in the family's attempt to cope with the impairment. Factors which contribute to this difficulty are lack of understanding about the impairment and resulting handicapping effects, the patient's own fears, the family's concern and reactions, and friends' reactions. Neither the family nor the patient knows what to expect. If physicians find their time too limited to offer counseling, services of a speech and hearing clinician may be of assistance. To this end, physicians should at least be informed of those individuals and agencies where counseling could be provided.

Another problem was exposed in that many physicians admitted not being aware of those speech and hearing facilities
available in the state. There were those who know of existing facilities but had no idea as to the services offered. Some respondents asked to be informed of available services and facilities at regular intervals. Another common complaint was that services and clinicians were not consistently available; therefore, physicians had no way of knowing whether or not they could make referrals to certain agencies. Certainly they could not refer a client to an agency that had had a clinician the previous year but didn't at the present.

"Inform us," physicians stated. Results of this request suggest the need for an annual or biennial directory, listing all individuals and agencies offering speech and hearing services to adults (as well as children) to be published and sent to all physicians residing in the state. It could also be sent to hospitals and rest homes where adults with communicative impairments are certainly found. This could be a project that might be of interest to a professional group such as the Montana Speech and Hearing Association.

Physicians expressed concern about financial obligations for special services, stating that this was a frequent problem in referring adults. The respondents again indicated their lack of familiarity with many of the services, for some services offered through state and private agencies in Montana have fee schedules based upon an individual's income. If a family cannot afford fees, then service is not denied to them just because they cannot pay. Since some physicians believed
finances to be a burden to some patients, they mentioned this as a problem when considering making referrals. With the recent passage of the Medicare Bill, financial obligation for speech and hearing therapy services is eliminated, for those protected under Medicare are eligible to receive 100 hours of therapy. Since there has been some discussion of Medicare coverage being expanded to include those under age 65, the possibility exists that in the future free speech and hearing services can be made available to more adults. The Veteran's Administration and the Office of Vocational Rehabilitation are both frequently able to assume financial responsibilities for special services, including speech and hearing therapy, when adults qualify for their assistance. The Montana State Board of Health which recently expanded their services in some communities to make provisions for the hearing impaired and laryngectomized adult does not always request fees for its services.

There seems to be a need for information of financial assistance available for communicatively-impaired adults to reach individual physicians. It could be helpful to also inform them of all other agencies that can play a supportive role in adult rehabilitation. If a state directory of speech and hearing services were to be prepared and sent to physicians as suggested, this type of information could be included.
Even though interested professional organizations can assist in informing and publicizing, a greater share of the responsibility to remain informed of available social services and agencies would seemingly belong to state and local medical associations and to individual physicians themselves. It would appear desirable for every professional person to be personally responsible for familiarizing himself with the availability of such services, especially when he is in a position where he may be making referrals; a physician is frequently in a position to refer.

Within some Montana agencies, it appears as though there may have been difficulties within the past few years - some services and clinicians have not been consistently available. This was noted by some respondents to be a problem. If the condition does exist it is one that most likely would have to be controlled by the agencies themselves. Clinicians will undoubtedly continue to be transient and leaving Montana to move to other states, but does inconsistent availability of established clinical programs seem justifiable? What problems are these agencies trying to cope with? Are the problems financial? Administrative? Is one reason for clinicians not remaining in Montana due to the availability of comparably better salaries and established facilities elsewhere? What can Montana agencies do to improve such conditions, if they exist?
Mention was made of a need for more highly trained and competent clinicians. What qualifications do the various agencies require? Are they hiring clinicians with professional experience or if they have had no experience, are they being supervised by others who are experienced and more highly trained than themselves? Are those clinicians hired, trained to work with adults having communicative disorders or has their training been with children only? If clinician training is limited to servicing children, the question arises as to the adequacy of university training programs.

In a study of the training and experience of graduate students in speech pathology and audiology in dealing with communicative problems of older persons, Morley (1963, p.819) noted that only 4 of 150 students reported having taken courses exclusively devoted to communicative problems of adults - clinical audiology, adult aphasia, organic disorders of speech. Fifty-seven per cent of the group listed courses which included some consideration of speech and hearing problems of adults. Sixty-five per cent indicated that they considered their training in communicative problems of the aging (and adults) to be inadequate. Having had no experience in working with older persons was reported by a third of the students.

It is questionable how prepared to work with adults those at the undergraduate level are if those at the graduate level believe their own advanced training to be inadequate. To meet the rehabilitative needs of increasing numbers of
communicatively-impaired adults it appears that those training to be speech and hearing clinicians are going to need more specialized training in this area.

If there were no available clinicians in Montana having training in adult communicative impairments, then to inform physicians of speech and hearing services and to encourage physicians referral of adults for specialized services, would be of no avail.

What services do Montana facilities offer? Do they provide diagnostic and therapeutic services? Do they work with both the speech impaired and the hearing impaired? Surely all these questions must be answered before assessing the adequacy of rehabilitative programs for communicatively-impaired adults, and it is hoped that exploratory study will be initiated in the near future to provide such answers.

Within the state there are itinerant speech and hearing clinics being operated. What is their role in rehabilitation of the communicatively-impaired adult? Are they able to adequately service those adults referred to them? Many respondents believed they were not and expressed the need to have full-time services available in all communities. Because Montana is a sparsely populated state, it may not be realistic or economically feasible to have full-time speech and hearing services available in every community. The ideal is not always the most practical. The itinerant program would seem to provide invaluable services to small and distant
communities. Such programs can at least discover those cases that need further attention, refer them to larger communities where full-time services are available, and provide counseling to both the patient and family when it is needed. The vast area of the State of Montana and long distance between communities are conditions physicians may have to adapt to and accept. The fact that facilities may not be locally available hopefully will not discourage physicians from sending patients to wherever they do exist.

There are large populated areas also being serviced by itinerant programs. Based upon local physicians' responses, these communities are in need of established full-time services.

The need was expressed to have more speech and hearing clinicians established in private practice avail their services to hospitals and rest homes. The brain damaged, especially the stroke patient, could benefit from assistance provided by these clinicians. Several respondents mentioned that private clinicians were available in their communities and because of good rapport, physicians and clinicians collaborated to provide rehabilitative service to adults. If more clinicians in private practice could make their services known to physicians, this situation might be improved.

In summary, responding physicians commented on needs existing in two areas; one need is for information and publicity regarding available speech and hearing services through-
out the state - "We don't know what is available," the physi-
cians were saying, "inform us." The other need demonstrated
was for more speech and hearing clinicians in private practice
and with agencies, expanded diagnostic and therapeutic ser-
vices, and consistent availability of both clinicians and ser-
vices.

Questions as to what the implications of the present study
might be, have already been answered, in part, throughout
this discussion. To briefly recapitulate the implications
would be helpful to the reader.

There are many unanswered questions concerning those
Montana speech and hearing facilities that provide services
to communicatively-impaired adults. Considerable information
is needed concerning the role of these services; are they
assuming responsible roles in meeting rehabilitative needs
of adults? If not, why not? What problems are they concerned
with and how can these problems be alleviated or resolved?

Insight has been gained into physician management of
communicatively-impaired adults. Considerable information
is needed concerning the role of these services; are they
assuming responsible roles in meeting rehabilitative needs
of adults? If not, why not? What problems are they concerned
with and how can these problems be alleviated or resolved?

Insight has been gained into physician management of
communicatively-impaired adults; additional research to explore
and describe management of adults by the speech and hearing
services is now needed. Physicians revealed problems they have been aware of in regard to speech and hearing services in the state; what problems might the services feel the physicians are contributing to?

It is apparent that physicians want and need up-to-date information of Montana's speech and hearing services. It has been suggested that an annual or biennial directory be published listing locations of those individuals and agencies in Montana offering services; specific information concerning financial assistance for such services; special services offered (for laryngectomees, those in need of speech reading instruction, etc.); and listings of other supportive agencies (VA, OVR, etc.) involved in adult rehabilitation.

Hopefully there will be improved communication between the speech and hearing agencies and physicians, to discuss those needs of the communicatively-impaired adult. Hopefully, too, there can be a sharing of problems common to members of both professional groups who strive to provide the best rehabilitative care possible for those in need of it.
CHAPTER V

SUMMARY

Members of the medical profession and speech and hearing clinicians both assume important roles in the rehabilitation of communicatively-impaired adults.

One of the primary needs in rehabilitation is physician referral and management. It was the intent of this study to describe current management practices of communicatively-impaired adults by Montana physicians.

Questionnaires were distributed to 505 Montana physicians considered most likely to have direct contact with adults having communicative problems. In an incidence section of the questionnaire physicians were asked to indicate how they had typically managed specific types of communicative problems. Problems listed were: aphasia, dysarthria, chronic brain syndrome, stuttering, cleft palate speech, those sometimes associated with cerebral palsy, loss of voice due to laryngectomy, voice problems, and hearing impairment. Physicians were asked if they had typically 1) treated the patients in the office; 2) counseled the family or guardian regarding the communicative problem; 3) directly referred for speech and hearing services to a clinician in private practice or with an agency; 4) referred for speech and hearing services through another physician, OVR, rest home, etc.; or 5) not referred for speech and hearing services.
In an attitude section of the questionnaire physicians were asked to comment on such factors as adequacy and availability of speech and hearing services, in addition to problems they were aware of in referring adults with communicative problems for speech and hearing services.

Results

One of every three physicians returned the questionnaire. Returns came from communities all over the state and the distribution suggested that returns were not unduly influenced by regional factors. The data provided were, therefore, considered indicative of physician management.

Only one-fourth of those adults with speech problems were referred for speech and hearing services whereas almost one-half of those with hearing problems were referred. It appeared significant that little counseling was given to families or guardians of patients regarding the speech or hearing problem. Since speech and hearing clinicians usually consider family counselling to be an integral part of rehabilitative management, this may represent a problem area which would warrant further study.

Two-thirds of the respondents gave indications as to why they did not refer if such was their practice. Among reasons cited were 1) lack of available services, 2) patients not always being considered amenable to therapy, and 3) physicians stating that they were not always in a position...
to refer. Respondents noted specific problems they have had in referring adults to speech and hearing services. Lack of publicity and information about existing services; sporadic services; lack of competent services and trained personnel; and inconvenience, travel, distance, and expense constituted the majority of problems recognized. At least one-third of the respondents considered existing Montana services to adults to be "inadequate," "poor" or "limited," only 8 per cent of the respondents said they were "good."

The needs were expressed for the consistent availability of more facilities, services, and clinicians in more Montana communities. Physicians strongly expressed their desire to receive publicity about existing facilities and information about services offered. Implications were as follows:

1. Need for considerably more counseling of patients and families regarding communicative impairments,
2. Need for publicized information regarding Montana referral services,
3. Need for improved, more consistent, more prevalent speech and hearing services available to adults.
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"63 Per 100,000 Rehabilitated in Past Fiscal Year," Rehabilitation Record, 6:8, January-February (1965).


Other Sources

**Personal Correspondence of the Author:**


Sarno, Martha Taylor, Director, Speech Pathology Services, New York University Medical Center, Institute of Physical Medicine and Rehabilitation. New York, New York. February 3 (1967).

Simonsen, Josephine. Lecturer, Aphasia Division, Speech Clinic of the Institute for Human Adjustment, University of Michigan, Ann Arbor, Michigan. February 1 (1967).

**Undated References**

Taylor, Martha L. "Speech Problems of Hemiplegic Patients," a paper presented at the Miami Beach convention of the National Society for Crippled Children and Adults.
Dear Physician:

A Master's Thesis study is being conducted at the speech and hearing clinic at the University of Montana to describe current rehabilitation management of adults with communication problems. It would be appreciated if you could assist by indicating on the following questionnaire how you as a physician have been managing these individuals and their communication problems.

On the following pages there are questions relating to the incidence and types of communication problems of adults. When answering the questions please include only those problems you have managed in Montana during the past three years.

Several more general questions have been included on a separate page. It is hoped that you will answer them feeling free to comment or express opinions and attitudes you may have.

There are a number of communication problems which affect adult members of our population—those 21 years and over. To make it easier to categorize them, for the purposes of this questionnaire they can be placed in one of two categories.

First, there are those problems of oral expression. A few examples are stuttering, aphasia, articulation disorders of speech sounds and hypernasal speech. You as the listener have difficulty understanding what the patient is saying to you.

The second category includes those problems of auditory reception, such as hearing loss. When such a problem exists, the patient has difficulty receiving and/or understanding what you are saying to him.

If you can take a few minutes from your busy schedule today to complete this questionnaire and mail it back to us, we would be most appreciative. For your convenience, an addressed, stamped envelope is enclosed.

Should you wish to receive a summary of the results of this study, it will be sent to you. Anonymity of participants and the reporting of information in the study is guaranteed. Your name is requested only that we may know who has not yet returned the questionnaire.

Thank you for your assistance.

Susan Gifford
Graduate Student

Robert B. Curry, M.D.
Medical Consultant

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On the following chart please indicate how you usually manage each type of communication problem.

For example, with the communication problem of Aphasia, estimate the number of Aphasics you have seen in the past three years and then indicate in the appropriate box or boxes, how you have usually managed them; if you 1) treated them; 2) counseled the family or guardian regarding the communication problem; 3) directly referred them for speech and hearing services to a clinician in private practice or with an agency; 4) referred them for speech and hearing services through another physician, the Veteran's Rehabilitation Administration, a rest home, etc.; 5) or did not refer them for speech and hearing services.

Definitions given at the bottom indicate how these terms are being used in this study, although it is recognized that they may be used differently in other situations.

**COMMUNICATION PROBLEMS OF ADULTS**

<table>
<thead>
<tr>
<th>Problems</th>
<th>Estimated No. in 3 year period</th>
<th>Treated in office</th>
<th>Counseled Family or Guardian regarding communication problem</th>
<th>Directly referred for speech/hearing services to a clinician in private practice or with an agency</th>
<th>Referred for speech/hearing services through another physician, VHA, rest home, etc.</th>
<th>Not referred for speech/hearing services</th>
</tr>
</thead>
</table>

**EXAMPLE:**

- **Aphasia:**
  - 20
  - 5
  - 15

1) Brain damage due to injury, disease, strokes, etc.
   a. Aphasia
   b. Dysarthrias
   c. Chronic Brain Syndrome

2) Loss of voice due to Laryngectomy

3) Stuttering

4) Voice Problems

5) Cleft Palate

6) Those sometimes seen in Cerebral Palsy

7) Hard-of-hearing or deafness

8) Any communication problems not listed above

* Aphasia - An acquired language disorder due to brain damage - disturbance in one or more areas: speaking, listening, comprehension, reading, writing, arithmetic

** Dysarthria - Decrease in intelligibility of speech caused by motor dysfunction of the speech musculature, as sometimes seen in Parkinson's Disease and Multiple Sclerosis

*** Chronic Brain Syndrome - trauma, senility, "punchy", etc.

**** Voice Problems - Disorders of quality, such as nasality, vocal cord nodules and ulcers, hoarseness, abnormal pitch level; intensity disorder.

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