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AUDIOLOGICAL SERVICES FOR THE DEAF

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The philosophy of audiology has evolved gradually over the past 30 years. The audiologist of World War II generation frequently had experience in deaf education. The audiologic emphasis in those years was on rehabilitation and not on diagnostics. This was followed in peace time by the military compensation-oriented audiologist which in turn evolved to the diagnostic audiologist. In the years of the 60's identification of the site of lesion and diagnosis became the emphasized aspects of audiology (Ventry, 1965; Katz, 1972). Audiologists acquired the Bekesy, the SISI and SAL, the tone decay and aural overload test, the SWAMI, the ABLB, the DFA, EDA, ERA, the ENG, and acoustic impedance measurement with the Zwislocki and Madsen bridges, to mention just a few of the diagnostic tests and equipment.

The primary role of the clinical audiologist of today continues to be a diagnostic one. With his extensive test battery he helps determine the degree of the deafness, the type of hearing loss, and the site of lesion. This audiologic information is important to the otolaryngologist in reaching a diagnosis. It also provides an indispensable foundation for habilitative and rehabilitative procedures.

Audiological evaluation is one of the most valuable services offered by the audiologist, but it is not always available to the deaf adult. The emphasis of many speech and hearing programs is on the hard of hearing and speech defective. When services are available they do not seem to be utilized maximally.

In a survey (Ventry, 1965) of 206 speech and hearing clinics only 58% (119) offered services to the deaf. More than half of the 119 facilities served fewer than 50 deaf clients in 1963. Six clinics while offering services to the deaf, did not see any deaf clients that year. Seventeen clinics did not see any deaf individuals over 16 years of age. A study by Northern, Teter, Krug (1971) of 122 deaf adults revealed that 65% had never, or at least had not within the past 10 years received a test of their hearing. The group reflected a great deal of excitement and anticipation about the results of their hearing

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tests given as part of the survey, but the researchers felt that on their own, the majority would not have sought professional services.

When the deaf are offered audiological service the most frequently obtained is the audiological evaluation (Ventry, 1965). Too often, however, the evaluation is not available as rapidly as desired by either the client or rehabilitation counselor. The waiting period can range from a few months to years. Once an evaluation has been obtained many additional weeks may pass before a report of findings reaches the referral agency or patient. This extreme slowness to provide service is frequently caused by limited professional and secretarial staff. If the audiological clinic is part of a university training program the emphasis is apt to be on student training. Service is a by-product. The patient load is largely determined by the needs of the students and the time the professional staff have available for supervision. This may be defensible from the pedagogic point of view, but it is not very satisfying to the patient who has waited over six months for service or for the rehabilitation counselor who needs an evaluation for his client prior to vocational placement. The future should see some modification in this philosophy as more universities begin to assume a dual mission of education and community service.

Once the evaluation is obtained and the diagnostic report is received by the rehabilitation counselor, the audiologist may receive additional criticism for his use of language and terminology known only to other audiologists. This problem could be alleviated to some extent if the persons receiving the reports were more familiar with audiologic terminology, concepts, and procedures. The audiologist, via conferences and short courses, should assume the responsibility for acquainting rehabilitation counselors and others who routinely receive his reports with some of the necessary terminology and procedures. It would also be helpful if audiologists reduced to a minimum the technical terms appearing in their reports.

The hearing aid evaluation is another diagnostic service provided by audiologists. The survey of 119 facilities offering services to the deaf found that only 37 clinics offered hearing aid evaluations to deaf adults (Ventry, 1965). Hearing aid selection has been a controversial aspect of clinical audiology for the past 25 years. Audiologists disagree on the methods to be used in the hearing aid evaluation, on the type and reliability of the signals to be employed, and on the electroacoustic characteristics suitable for different hearing impaired populations (Ross, 1972a). In addition, they disagree on whether the end of the evaluation procedure, if an aid is indicated, should be the recommendation of a specific brand and model.

Whatever the procedure employed by the audiologist, the question to be answered is whether the client is able to communicate more effectively with than without a hearing aid. In all cases, the client's motivation and communicative needs must be considered. An aid should make life better for the individual or it should not be recommended. The technical measurement of a loss and the selection of the aid may be correct, but the rehabilitative

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outcome a failure. Fewer hearing aids would be lying in chest drawers if the audiologists who recommended them had been more knowledgeable about the needs of the deaf.

The audiologist should be highly skilled in ascertaining the extent to which an individual can utilize his residual hearing and the expected benefits from a hearing aid, but we find that clinical audiologists have been accused of overemphasizing the value of amplification and its effect on educational progress and social adjustment (Ventry, 1965; Ross, 1972b). Ross (1972b) suggests that the poor results attained after more than 20 years of widespread use of amplification lends credence to this accusation as the average hearing impaired child is still sorely deficient in his speech, language, and educational achievements. Ross blames the unskilled application of amplification for the failure, and points out that optimum training and use of residual hearing require the best possible signal consistent with the hearing loss. When systematic checks of hearing aids are made (Gaeth and Lounsbury, 1966; Zink, 1969), it is the exception rather than the rule to find a child's hearing aid working properly. The findings are similar when classroom auditory trainers are examined (Matkin and Olsen, 1970). Even if the hearing aids are functioning properly, the acoustical environment of most classrooms would preclude the best possible auditory signal reaching the ear of the deaf child. Ross (1972b) concludes that unless we ensure that hearing impaired children receive an excellent signal, the advantages of amplification will tend to be of more theoretical than practical significance.

This pattern of early hearing aid usage may be a factor in these findings about hearing aid usage among the adult deaf. Less than 10% of the deaf adults in a sample of 10,101 used a hearing aid either at work or elsewhere. Over 75% reported that they did not wear an aid at all (Lunde and Bigman, 1959). Another study of 122 deaf adults reported that 20% used hearing aids. Almost 80% did not use any amplification and 38% of these had never tried a hearing aid (Northern, Teter, and Krug, 1971). Successful usage of a hearing aid in childhood may be the best basis for successful usage in adulthood.

The audiologist will usually begin orientation and counseling at the conclusion of the hearing aid evaluation. Too often, this is the extent of these services which are offered or accepted by the client (Ross, 1972a). Clinics that have tried more extensive hearing aid orientation programs report little interest by the clients and poor attendance by those who begin the program. This situation does not exist because all of our clients find adjustment to aid use easy. One survey (Rassi and Harford, 1968) of hearing aid users found 38% experienced problems adjusting to their new hearing aids. A hearing aid orientation program may be especially important for the deaf adult. His use of an aid will be limited because the auditory area that remains will lie near the threshold of pain.

If a hearing aid is recommended the patient should return to the clinic for a check of the purchased aid. It is advisable for the rehabilitation

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counselor not to authorize purchase of a hearing aid unless the client has received a hearing aid check. The audiometric testing consists of the same tests used in the initial evaluation and the results obtained are compared. If discrepancies occur the hearing aid representative is contacted. This contact after a trial period with the hearing aid also enables the audiologists to assist with any special problems concerning aid use which the client has encountered.

Although a check of the purchased aid is considered to be an important service to the patient it is not actually obtained by the majority of patients. Only about 25% ever return for the aid check (Rassi and Harford, 1968). If we were more certain of ourselves and the value of the services we provide, the hearing aid check would seem more important to our patients (Ross, 1972a). Unfortunately, some audiological clinics do not even offer this service.

The audiologist's responsibilities to a client should encompass more than audiological evaluation and the selection of a hearing aid. The client's need for aural rehabilitation (speechreading and auditory training) should be assessed. The survey of 119 speech and hearing clinics undertaken to determine the kinds of services provided for the deaf also investigated who provided speechreading and auditory training to deaf adults and most frequently they were provided by speech pathologists. It was suggested that this situation existed because audiologists have become so involved with audiological evaluations and hearing aid selection that they have relinquished their traditional responsibility for aural rehabilitation (Ventry, 1965).

The drift from aural rehabilitation has become so extensive that it represents a change in the basic orientation of the field (Rosen, 1967). Historically, aural rehabilitation constituted the foundation upon which all other specialized aspects of audiology were developed. The principles and procedures for aural rehabilitation have changed little over the past 20 years, and as a consequence it has become increasingly unattractive to audiologists as well as their patients (Northern and Sanders, 1972).

Williams (1968) believes that the current attitude toward aural rehabilitation can be traced to inadequate training and lack of clinical opportunity in our training institutions. Support for this conclusion can be found in the results of a survey (Ventry, 1965) of 84 university audiology training programs. A course in speechreading was required by 79%, and 61% required supervised practice in auditory training. Fifty per cent required a course in speech and language development, and only 25% required a course in the psychology of deafness. Rosen (1967) accurately describes the situation when he concludes that it is a comparatively rare audiologist who emerges from our training institutions both willing and able to provide rehabilitation services along with the audiometric tests which are supposed to determine the need for such services. Katz (1972) reports there are indications that the audiologist of the 70's will become more rehabilitation oriented while still maintaining a strong diagnostic emphasis.

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Comparatively few speech and hearing programs offer services to the deaf; however, evidence exists which show the facilities offering services do not evaluate many deaf clients. More referrals might be made by rehabilitation counselors if the waiting time for service were shortened and audiologists through increased contact and knowledge of the needs of the deaf improved their services to this segment of the hearing impaired population.

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