A COMMUNITY-WIDE PROGRAM IN GERIATRIC AURAL REHABILITATION

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INTRODUCTION

There are an estimated 3.3 million elderly individuals in the United States with some degree of hearing impairment. Although some procedures for the aural rehabilitation of these hearing-impaired patients have been previously outlined, in gereral, they appear to be concerned with those geriatric clients who are ambulatory enough to visit an outpatient clinic. A survey conducted by Leutenegger and Stovall (1971) indicated, however, that of the 20 million individuals over age 65, 6% or 1.2 million live in a nursing/retirement home environment. According to Chaffee (1967) 90% of this confined population are significantly hearing handicapped. In essence then, statistics indicate that at least one third of all the geriatric hearing-impaired population live in a nursing/retirement home. These facts demonstrate that if a comprehensive program in geriatric aural rehabilitation is to exist, the confined population must be included.

The purpose of this paper is to describe a working community-wide program in Geriatric Aural Rehabilitation conducted by the Department of Communication Disorders, Area of Rehabilitative Audiology, University of Northern Colorado, Greeley, Colorado. This program has been in existence for four years in all of the Greeley, Colorado, nursing/retirement homes and is staffed by individuals in the following positions:

1. Director of Audiology, U. N. C.
2. Clinical Coordinator of Adult and Geriatric Aural Rehabilitation, U. N. C.
3. Graduate Clinicians in Rehabilitation Audiology, U. N. C.
4. The Direcors of all Greeley, Colorado, Nursing homes.
5. Activity Directors of all Greeley, Colorado Nursing Homes.
6. Nursing Home Nurses.
7. Nursing Home Aides.
8. Family Members of the Nursing Home Residents.

Although these homes are proprietary, county, and religiously financed, the program has been successful in each setting, i.e., with modifications relative to individual needs within the various retirement homes. Clients include the ambulatory, non-ambulatory, visually handicapped, and psychologically impaired. All possess various degrees of hearing impairment, either congenital or adventitious. Numbers of residents within these nursing/retirement homes range from 78 in the smallest center to over 500 in the largest.

The basic philosophy of this endeavor is not new to our field, as various individuals have recognized or implied for some time that

any program providing aural rehabilitation to the geriatric client must be as comprehensive as the hearing impairment itself (Alpiner, 1968; Barr, 1970; Pang and Fujikawa, 1969; Parker, 1969; and Willeford, 1971). This community-wide effort encompasses the areas of motivation-counseling, audiometric evaluation, amplification, speechreading-auditory training, speech and language therapy, in-service training for the nursing/retirement home staff, and counseling the family members of the nursing home resident.

THE PROGRAM

Administrative and Financial Support. The program is funded by the individual nursing homes on a pro-rated basis depending upon their population size. These monies are channeled into a Fellowship in Geriatric Aural Rehabilitation, a fellowship originated between the nursing home administrators and the Rehabilitative Audiology Area, Department of Communication Disorders, at the University of Northern Colorado. Recipients of the fellowship are graduate clinicians in Rehabilitative Audiology. Each works at least ten hours per week in his assigned retirement home under the supervision of the University of Northern Colorado staff. Among the retirement homes, the largest receives services thirty hours per week.

The program is co-ordinated by the Director of Audiology and the Clinical Coordinator of Adult and Geriatric Audiology of the University of Northern Colorado and the directors of the five nursing homes. Administrative coordination is maintained by periodic meetings of the aural rehabilitation clinicians receiving monies through the fellowship, the Director of Audiology and Clinical Coordinator of Adult and Geriatric Aural Rehabilitation of the University of Northern Colorado, the directors of the five retirement homes, their activity directors and heads of nursing to discuss matters relating to this Program. A yearly meeting is held each Fall to determine the need for continuance of the program in each retirement home.

Motivation-Counseling. As Willeford (1971) suggests, the success of aural rehabilitation among the geriatric population is highly dependent upon the rapport established with the client. Many of these patients are 40 to 70 years older than the clinician which makes it difficult for them to understand how someone who has lived for such a short time could possibly know more than they. Although the expression "honor your elders" applies to the clinician working with this population, a polite, forceful manner is sometimes necessary. However, as Alpiner (1968) has indicated, the therapist must never lose sight that he is working with many physiological and psychological problems first, and hearing impairment second. Therefore, if the clinician establishes proper rapport, counseling may be enough to motivate the resident toward participation. If this is not the case, it may take a skillful clinician to manipulate such factors as peer group pressure, the family, the patient's own ego, and the nursing/retirement home staff to inspire participation in the aural rehabilitation program. To illustrate this type of needed support, the following cases are presented:

CASE I

A 92 year old woman demonstrated a profound bilateral sensorineural hearing loss. The patient's attitude was that she would die "any day now" so why purchase a hearing aid. The audiologist counseled her regarding amplification and appeared to be making no progress. However, two of her friends had worn hearing aids for over five years and they suggested that she try a hearing aid for one week. Two weeks later she purchased a body type aid and has shown progress. Her two friends, along with the audiologist, are presently helping in the adjustment process on a cooperative basis.

CASE II

An 85 year old woman demonstrated a severe bilateral sensorineural hearing loss. The aural rehabilitation clinician had recommended amplification many times and each time it was refused. It was found that the client's mother had purchased a hearing aid at one time and had not been able to utilize it effectively, so this client felt that trying amplification would not be worth her time. The client's roommate was approached and it was suggested that if this individual had a hearing aid she would be able to communicate better with her. The client's roommate did discuss this with her, and the following week the client consented to a hearing aid evaluation, and then finally to being fitted with amplification. She lived approximately a year after the hearing aid was initially fitted and was progressing in her adjustment until her death.

CASE III

A 93 year old male demonstrated a moderate to severe bilateral sensori neural hearing loss. Until recently the client would attend the speechreading classes regularly in his nursing home, but never responded to class materials or to the clinician. During one session a question was presented as the client was about to light a cigarette. The clinician took the client's matches and held them until a minimal response was obtained. This response was immediately rewarded by lighting the client's cigarette. The client has now found that he can participate in speechreading class, and is making progress without the reinforcer described above. Even though many counseling sessions had been held with this client, responses in speechreading class were not noted until an alert clinician began the reinforcement process.

Audiometric Evaluation. The audiometric procedures utilized in this program consist initially of pure-tone screening and a short interview. Complete evaluations after screening include pure-tone air conduction testing, tuning fork tests, hearing aid evaluations, and acoustic impedence measurement for clients with lack of response to traditional types of assessment and for assessment of middle ear function. Screening for the speech frequencies of 500, 1000, and 4000 Hz at 25-40 dB and a short interview with the patient enables the clinician to find those people with decreased hearing sensitivity and disorders of auditory discrimination. A traditional hearing and evaluation is performed at the Univer-

sity of Northern Colorado Audiology Clinic for ambulatory residents. Those patients unable to travel to the clinic are given a more subjective hearing aid evaluation. This method consists of trying several hearing aids in everyday environmental conditions under close supervision and counseling by the audiologist.

Impedence measurements have been extremely valuable in the assessment of those non-cooperative/non-alert individuals. These measurements are presently being conducted on a more routine basis in all retirement homes involved in this program. This audiologic information is utilized as a part of the hearing aid evaluation in regard to recruitment and/or to determine type of loss in this population.

All new incoming nursing home residents are evaluated for hearing function within two weeks after arrival. In this way participation in the Aural Rehabilitation Program can be initiated early if it is deemed necessary.

Amplificaion. Bringing representative hearing aids from the clinic for home trial and keeping the existing aids operational are the aural rehabilitation audiologist's responsibility. Hearing aids are consigned to the U. N. C. Audiology Clinic for this project by various manufacturers and hearing aid dealers, and are brought to the home for specific patients by the clinician assigned to that home. Each aid evaluated on nursing home residents is selected on the basis of the audiometric evaluation, the physical capabilities of the patient, his communication needs, and financial status. After an aid is selected that appears to benefit the patient, it is given to him for a trial period of one to two weeks. During this time, the resident is closely supervised by the audiologist and the nursing/retirement home staff regarding his use and adjustment to the hearing aid. If the patient purchases a hearing aid after this period and is fitted by the dealer representing the model of aid selected, he then undergoes carefully planned hearing aid orientation (Traynor and Peterson, 1973). If financial assistance is necessary for purchase of the hearing aid, there are many charitable organizations available that have been willing to help. Unfortunately, many residents are dissatisfied with amplification. In these cases, the alternatives of speechreading/auditory training are employed without the aid of amplification.

The aural rehabilitation clinician also insures that all of the hearing aids in use within the home are functioning properly. This is enhanced by demonstrating simple trouble-shooting techniques to the nursing/retirement home staff. If a serious malfunction occurs, the aid is either sent to Colorado Public Health Service, Department of Hearing and Speech for frequency-distortion analysis, or to the appropriate hearing aid dealer for repairs. The procedure described above has virtually eliminated the problem of the numbers of unwanted hearing aid dealers who have in the past used nursing homes in this community to simply sell hearing aids. The residents are thus protected from this type of pressure by being evaluated and counseled by the clinicians within this

Program and then fitted by reputable dealers through the Audiologist's recommendation and the client's consent.

Speechreading/Auditory Training. The speechreading approach utilized in this program is a modified version of the Linguistic Approach to Speechreading Instruction (Hull, 1969) which incorporates the predictability and structure of language with the use of visual and auditory clues. This method is easily adapted to auditory training to provide an interesting and effective approach to this age group. Each class is approximately 45 to 60 minutes in duration, once or twice per week, and is usually limited to 8 to 10 residents per class. At times, the speechreading/auditory training classes are used for socialization purposes to promote an atmosphere conducive to communication between residents within the retirement home. Another successful variation of the classes are Caption Films for the Deaf that are either presented once each week or once each month, depending upon the desire for these movies. These provide a break from the normal routine and can be an extremely valuable speechreading and auditory training exercise. Most homes have both an advanced and a beginning speechreading/auditory training class. In some homes, manual communication has been taught on an experimental basis. These classes are now a part of the normal week's activities and are extremely successful in helping the resident's communication problems by not only providing a means of communication for the profoundly hearing impaired client, but also another avenue for language stimulation for all clients. The nursing home staff is also being taught American Sign Language so that communication can exist with patients who are without useable hearing.

Speech and Language Therapy. The services of a speech pathologist have been initiated this year, primarily to provide therapy for aphasics. However, the speech clinicians have seen all types of clients with neurologically based communication disorders on a regular basis in nursing homes.

In-Service Training. As nursing/retirement homes traditionally have a fast turnover in personnel, in-service training sessions are routinely conducted once or twice each month. These sessions are usually one hour in duration and topics consist of: (1) the impact of presbycusis, (2) hearing aids, (3) how the ear functions, (4) what is speechreading, (5) how to best communicate with the aged, (6) how to trouble shoot for hearing aid malfunction, and (7) provide staff discussion regarding individual hearing-impaired residents. In essence, the in-service training provides the staff with insight to hearing disorders, their complications, and information about the progress of certain patients participating in the program. All nursing homes require new staff and previously employed staff members who have questions regarding clients to attend in-service training.

SUMMARY

During the past four years, clinicians in the University of Northern Colorado Community-Wide Program in Geriatric Aural Rehabilitation

have observed success with regard to hearing aid evaluation procedures, speechreading activities and motivation in individuals who formerly had isolated themselves within the confines of the retirement homes. Many of these individuals are now communicating with others when previously they did not know each other's name. Many who had given up attempting to communicate with their families are now willing to resume that association once again due to a combination of intensive hearing aid orientation, speechreading instruction and family counseling. Others are once again venturing out into the community to rebuild old relationships.

Many other retirement homes within this geographic area have requested participation in this program. Due to lack of personnel they have been encouraged to contact other University clinics or audiologists for help.

If we as professionals do not expand our services into retirement home, we will continue to neglect the 1.2 million aged individuals confined to that environment, isolated from the world the barrier of hearing impairment.

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