

## AN EDUCATIONAL MODEL FOR HEARING IMPAIRED-MENTALLY RETARDED ADOLESCENTS

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The identification and subsequent education of hearing impaired-mentally retarded (HI-MR) children is an important concern of special educators today.

The problems inherent in accurately assessing the intellectual functioning of deaf or hearing impaired individuals are generally recognized. Vernon and Kilkullen comment on the major causes of misdiagnosis of mental retardation in the deaf population in their 1972 article. Although the degree of retardation is difficult to determine, it is known that a high incidence of mental retardation exists in a deaf or hearing impaired population. The Annual Survey of Hearing Impaired Children and Youth reported that 7.7% of hearing impaired students enrolled in special education programs in the United States during the 1972-73 school year are also reported as mentally retarded (Annual Survey, 1972-73).

Conversely, the definitions of hearing impairment and deafness in incidence

reports tend to be variable and inconsistent. According to Moores (1976), "the definition of what an 'educationally significant' hearing loss for a retarded individual entails is unclear and criteria vary from study to study". Lloyd (1973) has addressed this problem and defines hearing impairment as "a deviation in hearing sufficient to impair aural-oral communication". Whatever the criteria applied, however, it has been shown that hearing impairment frequently accompanies the mental retardation disability. In one comprehensive study, Lloyd and Moore (1972) concluded that 15% of children in schools for the retarded have educationally significant hearing losses. Lloyd (1973) states that "approximately 10% to 15% of retarded children have a communicatively and/or educationally significant hearing impairment".

Once an individual is identified as possessing this dual handicap, the problems of placement and specialized program development become obvious. Moores (1976), referring to the state of

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affairs for deaf retarded individuals, comments that "educational programs (for these individuals) are low on the list of priorities, are poorly staffed, and receive limited administrative support".

Recognizing that there were a considerable number of children possessing "educationally significant" hearing losses in conjunction with an "educationally significant" degree of mental retardation, Suburban Hennepin County Joint Independent School District Number 287 (District 287) developed a plan to serve these students within its existing structure by providing specialized support personnel.

The students served are described as HI-MR which is defined as the presence of hearing impairment and mental retardation to such a degree as to be an "educationally significant" handicapping condition for that child.

The need for special programming for these students became acutely obvious during the 1972-73 school year. At that time, the Cooperative School Rehabilitation Center (CSRC), a District 287 special public school for trainable and low educable mentally retarded students, was serving nine HI-MR children and twenty more were being referred for the next school year.

Since the Center (CSRC) was designed to provide a high school equivalent educational-vocational program for mild to severe mentally retarded students, it was not prepared to program for a large number of hearing impaired students. Therefore, in 1973 the District applied for and received Title VI-B funds to provide specialized support services for HI-MR students who were to be integrated into regular CSRC classes.

### DESCRIPTION OF SCHOOL DISTRICT 287 AND THE COOPERATIVE SCHOOL REHABILITATION CENTER

In order to better understand the Title VI-B project, it is helpful to understand the role of District 287, CSRC, and the participating school districts.

District 287 is comprised of thirteen school districts in the west metropolitan area of Minneapolis with the purpose of providing vocational education to the residents of the thirteen districts and special education services for students with a low-incidence handicapping condition. Educational services are also offered to nearby school districts on a tuition basis. The District presently sponsors eight special education programs for over 1,000 preschool to post secondary level students with varied handicaps.

The program at CSRC serves mild to severe mentally retarded adolescents who cannot be appropriately educated in the special education programs of their home school districts. Students are bused to CSRC from their homes each day. During the 1975-76 school year, 380 students were served representing 38 school districts. The program emphasizes individual planning to achieve educational growth, community competence, and vocational readiness. Particularly in the latter years, the program stresses vocational and subsequent placement. Students who attend CSRC range in age from fourteen to twenty-one.

### PURPOSE OF TITLE VI-B

There were three primary reasons why District 287-CSRC was chosen to provide service for HI-MR students (Title VI-B, 1973): (1) It served the mild to severe mentally retarded adoles-

cents of the west metropolitan area of Minneapolis; (2) There was no other agency in the west metropolitan area serving HI-MR students; and (3) In 1970, District 287 was given authority to expand its programs to provide special services for students with a low incidence handicapping condition.

Important impetus resulted from the fact that several hearing impaired students had already been enrolled at CSRC. These students were unable to receive full benefit from the existing program options at CSRC due to the communication handicaps resulting from their hearing impairments. The profoundly hearing impaired students had been excluded from four of the program options and had shown poor participation in all other program areas. These experiences impressed upon staff and administration the need for additional services.

The Title VI-B Project was approved on July 1 of 1973 and the program began in the fall. Initial goals were to (1) improve the students' communication skills, (2) integrate hearing impaired students into the regular CSRC program and (3) improve the quality and extent of service options to these students from their entrance into the program, during their training and with placement and follow-up.

To accomplish these goals, the project planned to provide staff to support the hearing impaired student in the general training program within CSRC. The project's focus was to expand the options in services for the students, thereby providing alternatives for students who were unable to meet the demands of a regular junior or senior high program for hearing impaired students. It also provided an option for those hearing im-

paired students in institutional settings for mentally retarded individuals by enabling them to return to the community.

### STUDENT SUPPORT PROGRAM FOR HEARING IMPAIRED STUDENTS

In the initial year of the project, 1973-74, three full-time staff members and one half-time staff member were employed to serve the hearing impaired students — a casemanager, two interpreters and one half-time teacher. The experience of this year demonstrated a need for a full-time teacher of the HI-MR students who was subsequently hired. Support services have been provided by this team for the past two years. Each member of the team has a particular function in providing the support services needed by the individual student. The roles of the team members are as follows:

#### *Casemanager for hearing impaired students*

The casemanager directs initial referrals, maintains communication between home and school, provides day to day counseling, plans students' schedules with their assistance, helps the students develop vocational plans, and makes subsequent vocational placements upon graduation. Through these activities, the casemanager serves as the student's advocate and liaison to all other agencies working with the student.

#### *Teacher of hearing impaired students*

The teacher of the hearing impaired students operates a resource room where facilitation in language development is provided. The emphasis is on expanding the students' sign vocabularies in conjunction with improving the usage and understanding of connected language in written and signed/spoken English. Pre-

paratory training prior to integration into other program options as well as ongoing tutoring in these areas is provided when necessary. Instruction in total communication is stressed for a group of students who lack a receptive and/or an expressive means of communication.

A basic sign vocabulary is taught along with the understanding of connected language. Use of signs is facilitated both at school and at home. To accomplish this objective the team provides sign language instruction to interested staff members at CSRC and to parents, siblings, relatives, and friends of the students with excellent participation

### *Interpreters*

To achieve the major goal of integration, the interpreters provide interpreting and tutoring services to the HI-MR students, enabling them to participate in the various program options and extracurricular activities at CSRC. Additional responsibilities of the interpreters are to provide sign language classes to peers of hearing impaired students and to compile sign language manuals which correspond with specific program areas.

### POPULATION SERVED

During the first three years of operation, the secondary program for HI-MR students at CSRC served 53 students. All of these students were classified as being mildly to severely mentally retarded, and the majority possessed hearing impairments ranging from moderate to profound losses (30dB-90dB). However, several students with no hearing loss were served in the program because of their severe communication handicap. Even though these students demonstrated no discernible hearing loss, total communication was taught as an alternative

mode of communication. In addition to hearing and mental disabilities, some of the students have other handicaps. These handicaps include cerebral palsy, emotional involvement, vision impairments, orthopedic handicaps, and health impairments.

Of the students involved in the program, ten had been in state institutions for mentally retarded, two were from private schools for the deaf, one was from a public school for the deaf, two were from hearing impaired programs in public schools, and the remainder had been in public school classes for trainable mentally retarded students.

The students served by this special program are classified in three major categories which define the type of service needed by the students. These categories are: Deaf, Hard of Hearing, and Communication Handicapped.

### *Deaf*

During 1975-76 there were nine deaf mentally retarded students who received support from all four members of the team. All of the students depended on total communication and used an interpreter in most classes.

### *Hard of Hearing*

Twenty-eight students were served who had a moderate or greater (30dB-90dB) hearing loss. Within this category two types of students were defined, each requiring differing services. The majority of these students (23) possessed oral expressive communication and used speech as their primary means of communication. These hearing impaired students were served on a "maintenance" schedule; i.e., teacher contact regarding implications of students' loss, updating audiological information, and caseman-

ager support services. The other five hard of hearing students were instructed in the use of total communication because of their lack of intelligible speech.

### *Communication Handicapped*

Five students who had no identified hearing loss were served because they were nonverbal and total communication was chosen as an alternative means of communication. They were included in the program after parent conferences, gathering of case histories, and an in-depth speech and language evaluation.

### INDIVIDUAL STUDENT PROGRAMMING

In achieving integration, the hearing impaired students are offered any combination of 35 specific program options at CSRC. Individual programming from these options is based on the need of each student.

Throughout the three years of the program, hearing impaired students were integrated into all of the program options. During the first year of funding, interpreters provided service to students in ten program options. As the students' needs changed, provision of interpreter services expanded to nineteen of the program options. Attendance in certain classes did not require interpreter involvement either because of the nature of the class or because the teacher possessed total communication skills. The program areas are as follows:

#### *Academics*

Montessori class  
Edmark Class  
Reading center  
Phonetic reading  
Money class  
Math  
Time

#### *Physical Education*

Boys physical education  
Girls physical education  
Corrective therapy  
Mini-gym

#### *Home Economics*

Home economics class  
Family life  
Supervised living  
Sewing

#### *Communication*

Language development  
Speech  
Hearing impaired class  
Sign class

#### *Prevocational*

Industrial arts  
Industrial training  
Food service training  
(in school)  
Food service training  
(out school)  
Food service training  
(formal program at  
Vo-Tech school)  
Maintenance training  
Nurse's aide training  
Job stations  
Vocational-Technical  
training (provided at  
Vo-Tech school)

#### *Miscellaneous*

Crafts, group counseling,  
music, science, photography,  
total resource, Duso (social  
improvement group)

Hearing impaired mentally retarded students are also able to participate in other school related activities such as the following:

#### *Competitive Athletics*

Special Olympics  
Wrestling

Touch football  
Floor hockey  
Swimming  
Bowling  
Track and field

*Homecoming Activities*

*CSRC Scout Troop #331*

*Graduation Exercises*

*Parent-School Carnival Nite*

*Student Council*

*Field Trips*

*Transportation Training*

*Summer Camp*

*Apartment Living*

*School, Store & Bank*

*Friendship Program*

A hypothetical example can best illustrate the process involved for a HI-MR student referred to the District 287-CSRC program. Upon receipt of a referral, the casemanager interviews and tours CSRC with the parents, and assesses the student. After assessment, and with input from staff and parents, an educational plan is developed. The student attends five class periods daily, and, as an example, may attend reading, physical education, home economics, industrial training, and hearing impaired classes. She may also participate in swimming or any of the other extra-curricular activities. If she uses total communication, an interpreter would accompany her to most classes.

As the student matures and continues through her school program, her progress is constantly monitored, emphasis changed when appropriate, and the focus becomes more vocational. She may be exposed to various vocational training opportunities and experience working on

job stations, training in the District 287 Vocational-Technical school, and, possibly, part-time competitive employment depending on her ability level. When she reaches 'graduation' age or demonstrates readiness for other work, the case-manager assists in placement outside of CSRC, often in her home community and typically either in competitive employment, sheltered work, or in a work activity center.

### OUTCOMES

Follow-up services are provided for the graduates of CSRC who participated in the hearing impaired support program. This includes monitoring and supportive services by the casemanager, and an evening class held weekly focusing on their current responsibilities. The class also provides a social outlet (i.e., organized trips to various restaurants, Christmas shopping, and participation in winter sports). Of the 28 students served during the 1973-74 school year, two graduated in the spring of 1974. In the 1974-75 school year, 39 students were served and 3 students graduated. During the 1975-76 school year 4 students graduated with 42 students being served.

The outcome of the nine graduates are as follows:

#### *Competitive Employment*

Three graduates — two are earning \$2.40/hr in food services work. One is earning \$2.30/hr as a micro-film machine operator.

#### *Sheltered Employment*

Two graduates — one is earning \$1.30/hr and the other \$.90/hr. One graduate is in work adjustment training with the goal of sheltered employment.

### *Work Activity Center*

Three Students – These students participate daily and are on the work activity pay schedule.

These outcomes reflect the dispersion of other CSRC graduates. Typically, about 1/3 of CSRC graduates are competitively employed, 1/3 are in sheltered workshops, and 1/3 attend work activity centers (follow-up, 1975).

### IMPACT

The project at its inception was designed to facilitate the support of severe to profound loss hearing impaired retarded students in a larger program for mentally retarded adolescents. The effect of this program has impacted on several District 287 procedures and policies as follows:

1. A systematic hearing screening is planned to occur annually for all of the mentally retarded students in District 287.
2. A consistent follow-up medical and audiological service provision for this 'special' population is developing.
3. Further educational support services attending to unique needs of HI-MR students are emerging.
4. Alternate communication form usage (Bliss, Rebus, signs) with low functioning and multiply handicapped students is becoming formalized.

5. Referrals of students previously placed in residential centers for only hearing impaired or mentally retarded individuals continue to be received.
6. The program offers a potential model for other systems serving similar populations.

### CONCLUSIONS

The project has demonstrated effectiveness in providing an educational service option for HI-MR students within the framework of a broader program designed for trainable and low educable mentally retarded students. It offered a visible alternative for HI-MR individuals from a variety of programs and especially for a number of HI-MR individuals from state institutions for mentally retarded individuals.

Critical components of the program included (1) an existing well designed educational program for trainable and low educable mentally retarded students; (2) a well qualified and skilled support service staff; and (3) a cooperative and involved general staff.

Without any one of these components, a student support program for HI-MR students could not be successful.

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