

EDUCATIONAL PROVISIONS FOR MENTALLY RETARDED DEAF STUDENTS IN RESIDENTIAL INSTITUTIONS FOR THE RETARDED

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The number of children with multiple handicaps is on the increase, and mental retardation occurs most frequently as one of the handicaps. Among deaf children, mental retardation occurs more frequently than any other second handicap. The problems involved in educating these children involve identification, determination of IQ, satisfactory audiological testing, and adequate preparation of teachers to work with the children who are both mentally retarded and deaf. At least 50 per cent of the teachers reported in this study have no preparation for working with the deaf. A routine procedure should be established between institutions for the deaf and those for the mentally retarded so that transition from one to the other can be made easily, so that the pupils will receive the best possible education. It is highly desirable that professional people working in the fields of deafness and retardation join hands in developing educational programs for mentally retarded deaf pupils.

ATREND IN THE INCIDENCE OF handicapped children shows that, while the proportion of children with single handicaps is diminishing, the proportion of children with multiple handicaps is on the increase (Dunn, 1963). Among the multiply handicapped groups, the largest group has mental retardation as one of the disabilities (Cruickshank, 1957). Among deaf children with multiple disabilities, again the retarded deaf constitute the largest group (*American Annals of the Deaf*, January 1961). A major proportion of the retarded deaf population is located in state residential institutions for the retarded.

According to Kodman et al. (1958), the incidence of hearing loss of 30 dB (ASA) or more among institutionalized mentally retarded children is about four times as great as that estimated for the normal school population. Siegenthaler and Krzywicki's (1959) investigation with an adult mentally retarded population showed an equally

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high incidence of hearing loss. On a survey of the literature, Rigrodsky, Prunty, and Glovsky (1961) reported that percentages of hearing loss in a mentally retarded population varied from 13 to 55.5 per cent. In a review of the literature involving 15 references, Lloyd (1965) found that estimates of hearing loss (excluding untestable children) among the retarded ranged from 8 to 49 per cent. According to Kodman (1958), the wide variability in the results of the different studies is not only due to a lack of a standardized criterion for defining hearing losses, but is also due to several impeding factors encountered in testing. These comprise neurological pathology, psychogenic hearing loss, inability to follow directions, malingering, and test variability. Kodman points out that, with a standardized criteria of a 30 dB (ASA) or greater loss at one or more frequencies in either ear, the incidence in the retarded population would be 15 to 20 per cent. The problem of providing programs for education and vocational placement for this special disability group is, therefore, significant in terms of numbers alone.

Statement of the Problem

The study was designed to conduct a survey of the provisions currently being made to develop programs for school age, mentally retarded deaf children in state residential facilities for the retarded. The purpose was to analyze those provisions, which might provide some guidelines for program planning. The present investigation was also purported to serve as a complementary study to the one conducted by Anderson, Stevens, and Stuckless

(1966) which deals with educational provisions for mentally retarded deaf students in residential schools for the deaf.

Method

This was a questionnaire study, in which rating scales were used for classification of retarded deaf children. Two sets of questionnaires—one for the chief administrator and the other for the classroom teacher, and two rating scales—one a hearing scale and the other a behavior rating scale—were sent to each of the 142 public residential institutions in the United States included in the AAMD listings for 1965.

In all, 71 returns were received, which were usable in some form or the other. These returns represented four categories: Institutions with programs for the mentally retarded deaf—34; institutions without specific programs for the mentally retarded deaf—24; institutions with unidentified mentally retarded deaf residents—8; and institutions without mentally retarded deaf residents—5. Information, compiled from the returns, was sorted, classified, and presented under four broad topics: identification of mentally retarded deaf children, evaluation of programs, instruction, and special provisions for program development.

Results

Identification

The technique of team evaluation is the common practice for identification of retarded deaf children. The team members most frequently reported are the following: the physician, the psychologist, the social worker, the speech pathologist, the teacher, the audiolo-

gist, and the neurologist. The bases of identification used more frequently than others are: a medical report, individual IQ, teacher's judgment, hearing level in the better ear, and speech articulation evaluation. The highest IQ most often used for this purpose is 70, and the hearing level so used is 60 dB (ISO).

Psychological and audiological tests are invariably used to aid in the identification of retarded deaf children. Out of a series of standardized tests, two most commonly used are the Vineland Social Maturity Scale and Wechsler Intelligence Scale for Children (Performance). Among the audiological tests, the pure-tone air conduction, the pure-tone bone conduction, and speech audiometric techniques are used more frequently than others. Facilities for speech therapy are available in 85 per cent of the reporting institutions.

Institutional distribution of retarded deaf people varies considerably. The range is from 21 per cent to less than one per cent, and the mean is about 4.29 per cent of the resident populations. About 6 per cent of retarded deaf residents are preschool age children, approximately 47 per cent are of school age, and the balance 47 per cent are adults. Only 33 per cent of school age, retarded deaf children are in some educational/training programs in the reporting institutions.

There is widespread disparity in both IQs and hearing levels of retarded deaf pupils in institutional programs. The two rating scales used in this study, however, indicate that about 80 per cent of retarded deaf pupils in the reporting institutions

have borderline to mild retardation with severe to profound hearing loss.

Program Evaluation

An analysis of the program objectives for retarded deaf children revealed three most common goals: communication skills, social adjustment, and academic skills in rudiments of tool subjects. It was further discovered that educational work-experience programs are provided in 45 per cent of the responding institutions. The most frequently reported job areas in which retarded deaf pupils are tried are: laundry helper, kitchen helper, janitor, cafeteria worker, gardener, and laborer. Only a few institutions (about 14 per cent) have facilities for job training and placement in the local work community.

Among the professional personnel responsible for day-to-day operation of the program, the teacher ranks first followed by the recreational therapist, the language/speech therapist, and the social worker. Because of the teacher's special position in program implementation, the bases for teacher selection were particularly investigated. Three factors most frequently reported are: the teacher's well-adjusted personality, extensive training for teaching mentally retarded children, and ability to control multi-handicapped children.

Instruction

Individual and group instruction is provided simultaneously in most of the institutions with programs for the retarded deaf. If few in number, retarded deaf pupils are generally integrated into classes for the educable and the trainable retarded. The criteria for instructional grouping most fre-

quently reported include: achievement level, chronological age, social maturity, mental age, and intelligence quotient.

For instructional purposes the most frequently used method of communication is a combination of oral and manual methods. As regards the curricular content, the following arts and skills were reported more frequently than others: communicating by oral/manual methods, socialization skills, health habits, self-help skills, language development, motor development, number and time concepts, and perceptual-motor skills.

Qualifications of teachers were analyzed from three aspects. In formal education the highest level is an M.A. degree held by about 17 per cent of the responding teachers. A B.A. or B.S. degree is held by about 65 per cent, a high school diploma by 17 per cent, and a normal school certificate by 1 per cent of the teachers. In the matter of teacher certification, 52 per cent of the reporting teachers hold state certification, and the remaining 48 per cent hold certification from other sources. As regards special training, 50 per cent of the responding teachers have practical experience in teaching mentally retarded children, and 19 per cent in teaching deaf children. Thirty per cent have practical training in teaching various combinations of the three categories: the retarded, the deaf, and the retarded deaf. Only 1 per cent have no training at all. Suggestions from teachers for their professional preparation include: advanced studies in certain specified fields, practical training to teach certain categories of exceptional children,

and proficiency in communication skills for retarded deaf children.

Special Provisions

An analysis was made of the special provisions which the institutions have and which they most need for program development. The items possessed by the institutions and most frequently reported include the following: tape recorders used as a teaching device, individual hearing aids and teachers trained in their use, record players and recording for auditory training, audiovisual materials, and large mirrors for training in lipreading. Of the desiderata, two items most wanted are acoustically treated classrooms, and counselors trained in oral/manual methods of communication. The reasons most frequently reported by administrators for non-acquisition of certain essential provisions are lack of funds, and lack of qualified personnel.

Discussion

Identification of retarded deaf children is a prerequisite for organization of services for them. Assuming that most of the nonresponding institutions in this study have not so far identified the population, it may be worthwhile to speculate that not more than 25 per cent of the existing institutions have established specific programs for the retarded deaf. Clinical diagnosis of multiply handicapped children and development of programs require a multidisciplinary approach, involving qualified personnel and adequate funds. It is evident from the findings that many of the institutions which are lagging behind in program development lack the necessary resources. At least one of the respond-

ing institutions was candid enough to mention that "no audiological test is administered." A second institution stated: "Range of IQ: 20-53; most have not been tested." A third one said: "Deaf persons are not admitted; no hearing evaluations."

Generally, institutions which have the wherewithal for clinical evaluation use interdisciplinary teamwork and administer a battery of psychological and audiological tests. The psychological tests most widely used are the Vineland Social Maturity Scale and the Wechsler Intelligence Scale for Children (Performance). Neither of these two scales is specifically designed for deaf children. Use of the Vineland Scale suggests that the measure of adaptive behavior is of primary significance in the differential diagnosis. The WISC (Performance) is regarded as equally important for purposes of determining the level of intellectual functioning. In the study by Anderson, Stevens, and Stuckless (1966), the WISC (Performance) was also found the most preferred test for obtaining estimates of intelligence of retarded deaf children in residential schools for the deaf. It is rather interesting to note that the instruments specially constructed for deaf children, such as the Arthur Point Scale of Performance Tests, the Nebraska Test of Learning Aptitude, and the Ontario School Ability Examination are not so much in use as some of the other performance tests. Another point which may be mentioned in this context relates to the method of testing. One of the institutions reported as follows:

The psychologist who collaborated in the selection of the tests has pointed out

that few if any of these tests are used fully, or in the standardized fashion. For example, the psychometrist might omit some subtests, and might show the child the task more often than the manual dictates.

It, therefore, appears that in this case the psychologist not only used his discretion in selecting the tests, but he also exercised considerable flexibility in administering such tests. Obviously, some of the subtests cannot be used with this population. Accordingly, there is a need for research to discover a battery of instruments which will be most useful for retarded deaf children in assessing their potentialities for educational/training programs.

In regard to audiological tests, the traditional instruments—pure-tone air and bone conduction, and speech audiometric techniques—are widely in use. Much research is under way to determine a combination or combinations of tests which might be helpful for evaluation of auditory impairment in retardates. It appears that the techniques like the tangible reinforcement operant conditioning audiometry (TROCA) found useful with profoundly retarded and difficult-to-test children, and the evoked response audiometry capable of discriminating evoked auditory responses from spontaneous brain-wave activity have great promise with retarded deaf children.

For identification of retarded deaf subjects, two important criteria are individual IQ and hearing level in the better ear. Both these factors vary over a wide range in individual institutions. Highest IQs range from 55 to 85, and hearing levels from 20 to 90 dB (ISO) in the institutions under study. Because of the wide variability

in both these measures and restrictive enrollment policies of some of the institutions, it is no wonder that the prevalence data in respect of the retarded deaf populations in the concerned institutions range from less than 1 per cent to about 21 per cent. The overall prevalence figure of 4.29 per cent in respect of these institutions is, however, much less than the incidence of hearing loss in institutionalized mental retardates found in most of the studies based on individual institutions. The discrepancies in results between the findings of the present study and those of others may be due to differences in testing procedures and classification standard. Moreover, "mental age and the organismic integrity of an individual" are important factors in evaluating "hearing thresholds or potentialities in the area of auditory training" (Frisina, 1958). Criteria for all these variables are to be established before an intensive study is undertaken to determine valid prevalence figures for retarded deaf children in residential institutions for the retarded.

The present study reveals that about 47 per cent of the retarded deaf residents in the reporting institutions are of school age, and approximately 33 per cent are in some educational/training programs in institutions having such programs. A study conducted by MacPherson in 1952 (Part II) found that school-age retarded deaf children constituted 19.2 to 24.01 per cent of the retarded deaf populations in residential institutions for the retarded. This increase by about 23 to 28 per cent in the number of school-age retarded deaf children over the past 16 years reflects the concern in

the gradual rise of multiply handicapped deaf children expressed by Weir (1963) and others, even assuming that a part of this increase is attributable to improved testing procedures. MacPherson's study did not, however, indicate the number of children in institutional programs. Obviously, few institutions had specific programs for the retarded deaf in those days.

The findings of the present study suggest that about 80 per cent of the retarded deaf pupils in institutional programs have borderline to mild retardation with severe to profound hearing loss. These findings generally support MacPherson's study which reported that most of the retarded deaf people in institutions for the retarded were either deaf or severely hard of hearing.

The specific objectives of the programs for retarded deaf children do not differ much from those of the retarded, except that in the case of the former the primary emphasis is on developing communication skills which are basic to social adjustment. Institutional programs are invariably oriented toward vocational goals, that is, work placement. According to the hierarchy of their maximum level of functioning and ability to communicate, retarded deaf pupils are placed in institutional work or in outside work in the community. The institution work programs are actually on-going programs for the mentally retarded in which the retarded deaf are incorporated. Facilities for placement in off-campus work are available only in 31 per cent of the institutions having work-experience programs. Unskilled

jobs in service facilities constitute the bulk of work placements both in, and off campus.

The study reveals that the most commonly used mode of communication for purposes of instruction of retarded deaf pupils is the simultaneous method, that is, a combination of oral and manual systems. Communicating by oral and/or manual methods is also reported as the primary skill taught in the specialized curriculum. Teachers in the institutional programs do not, however, seem to be well equipped for the purpose. At least 50 per cent of the reporting teachers have no training to work with the deaf. MacPherson also concluded in his study that "institutions for the mentally deficient lack personnel trained in the handicap of deafness to work with the deaf and/or hard of hearing mentally deficient." It appears that the situation has not improved over the years because of an imbalance in the demand and supply position of qualified teachers. Another factor which may also contribute to this state of affairs is the emphasis placed on the teaching of the mentally retarded who are the primary responsibility of the teachers in these residential institutions. Teachers trained in both the fields of mental retardation and deafness are not available in sufficient number. The reverse is the case with residential schools for the deaf, in which at least 69 per cent of the teaching staff in retarded deaf programs have no certification in mental retardation. However, in the matter of formal education, the teachers in institutions for the retarded compare well with their compeers in

residential schools for the deaf (Anderson, Stevens, and Stuckless, 1966).

Suggestions from teachers for professional preparation give equal importance to advanced studies and practical training in certain fields related to the handicaps of mental retardation and deafness. "Speech and hearing" tops the list of suggested studies, and practicum with the mentally retarded deaf heads the list of training areas. These are the areas in which the teachers in institutions for the retarded are really deficient. Training in communication skills comes next to advanced studies and practicum, signifying thereby that the teachers are not oblivious of their weakness in this area.

The study clearly brings out that certain categories of trained personnel imperative for development of retarded deaf programs are in short supply. These are counselors, teachers, and language therapists trained in oral/manual methods. As regards facilities, provisions like acoustically treated classrooms equipped with group hearing aids, and separate units for retarded deaf residents within the institutional set up are considered most essential. Financial considerations and lack of institutional leadership seem to be responsible for non-acquisition of these facilities.

CONCLUSIONS AND RECOMMENDATIONS

Problems of Wrong Diagnosis

In residential institutions the prevalence of a large proportion of borderline and mildly retarded children who are deaf or severely hard of hearing brings to the fore the question posed by Harlow (1967): "Men-

tally Retarded or Hearing Impaired?" She cites a tragic case of misdiagnosis in which three teenage boys originally institutionalized for mental retardation were found to have more intellectual potential than at first suspected, but their hearing was found severely impaired. With the use of hearing aids, two boys were later admitted on a trial basis in a school for the deaf. The third boy was not accepted by the school, because of his behavior problems which he probably developed as a result of his long association with retarded children.

To deal with the problems of such misdiagnosis, it is not only essential that deaf children should be identified at an early age, but they should be provided proper educational facilities as soon as their handicap is determined. For this purpose, a procedure should be established which would develop a smooth dialogue between state residential schools for the deaf and state institutions for the mentally retarded. The two types of institutions should then be able to function in complementary roles, facilitating transitions from one to the other without red tape. The State Department of Institution and Health or some other department specially nominated for the purpose may play a leadership role in this arrangement.

Implications for Program Development

The wide dispersion of retarded deaf children in state institutions makes it difficult, if not impossible, to build up worthwhile programs. To meet this contingency one or two institutions in each state, depending upon the population of the retarded

deaf, should be designated as the center for retarded deaf training for the entire state. This is on the model of the Lapeer State Home and Training School in Michigan. Children entering other institutions who are found to be deaf, in addition to their retardation, should be transferred to this center for thorough diagnosis and training for habilitation. Here again the state government can play an important role by providing funds and overall direction for the operation of the program. The federal government has also its part to play. It should ensure that at least one project specifically designed for the retarded deaf is set up in each state. Financial assistance on a formula grant basis may be necessary for this purpose.

Problems of Communication

Obviously, one of the responsibilities of the state projects should be to train personnel in the problems of the retarded deaf. Communication skills in which the staff members in residential institutions are generally deficient should receive the highest priority in the staff training program. Besides oral and manual methods, professional workers should be trained in Cued Speech if facilities for the same could be provided. Although still in the experimental stage, Cued Speech which utilizes the basic principles of both oralism and manualism seems to have good potential for deaf and severely hard of hearing children with borderline to mild retardation.

Cooperation Among Professional Organizations

It is highly desirable that professional organizations working in the fields of mental retardation and deaf-

ness should join hands in developing programs, formulating curriculum guides, and promoting research projects which would benefit the retarded deaf in their training and habilitation. In this cooperative venture, the Alexander Graham Bell Association for the Deaf, the American Association on Mental Deficiency, the American Instructors of the Deaf, the American Speech and Hearing Association, the Conference of Executives of American Schools for the Deaf, and the Council for Exceptional Children should be represented. One of these organizations should take the initiative to establish a joint committee which might usher a new era in the care and service of the retarded deaf.

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