

October 2019

Telecommunications: It's Potential and Application for Rehabilitation Services to Deaf Persons

Henry C. Warner

Region IV Associate Regional Representative, Office of Human Development

Follow this and additional works at: <https://repository.wcsu.edu/jadara>

Recommended Citation

Warner, H. C. (2019). Telecommunications: It's Potential and Application for Rehabilitation Services to Deaf Persons. *JADARA*, 11(3). Retrieved from <https://repository.wcsu.edu/jadara/vol11/iss3/3>

TELECOMMUNICATIONS: ITS POTENTIAL AND APPLICATION FOR REHABILITATION SERVICES TO DEAF PERSONS

Henry C. Warner

A revolution is underway. One that promises to change our lives in the coming years and offer greater opportunities for improving our lives that seems almost beyond imagination. This revolution is quietly taking place in what is simply termed "telecommunications," but the broadness of the term can produce a vagueness in our thinking. For the deaf person, telecommunications may mean a teletype instrument to access himself and others to the use of the telephone system. For others, it may mean the use of broadcast radio and/or TV signals, and one or two-way cable TV. All these may be included within the term of telecommunication services.

The Rehabilitation Act of 1973 specifically included telecommunications as a rehabilitation service to be provided handicapped persons who have the need of such services in order to become employable. This addition to the Act highlighted Congress' perceptiveness in the potential that these services could have on benefiting handicapped persons.

Discussions among rehabilitation administrators and professionals lead one to believe that much of the effort to utilize telecommunications has been limited and somewhat narrow in its perspective. This is to explore some practical applications of telecommunications to the rehabilitation services program. Some may be more suitable in one community than another depending upon the various communication systems in place locally. Each step in the rehabilitation process has some potential that could be enhanced through the use of telecommunications. Agency program and administration are equal areas that can benefit from these technological advances.

Mr. Warner is Region IV Associate Regional Representative, Office of Human Development.

possibility of extending the services of the rare physician who has knowledge of deaf persons and is skilled in communication.

Job Placement

The state employment agencies in most states have up-to-date listings of job openings in one's locality, state, and nation. These are frequently updated. Employment assistance through these agencies for many deaf persons is not routine because of the communication barriers that deaf persons face with most public agencies. TTY's placed in interpreter and referral centers, rehabilitation facilities, and employment offices might alleviate some of the obstacles in accessing deaf persons to these services.

These are only examples of what may be done now or in the future to utilize telecommunications in providing and improving services to deaf persons.

Miscellaneous Ideas

Since TTY time on long distance can be extremely expensive, it would seem appropriate that a WATS line system might be established for deaf persons wishing to communicate with public agencies that have TTY equipment. It is possible for all stations or for limited stations to transmit messages through centralized points to deaf persons on the NET. Examples are daily news, employment opportunities, new services, training opportunities, weather warnings, etc. I recently talked with a deaf man from Louisville, Kentucky, who had hooked up his "TTY" to a "phonemate," an automatic answering device. When the phone rings the "phonemate" runs a TTY signal stating to the caller he is out and would they please leave a message. The message is then recorded. When he comes home that evening he then runs the tape through his TTY machine.

Training

Telecommunication can be used to assist professionals to acquire, evaluate, and improve their skills.

In August of 1975, the Alabama Division of Vocational Rehabilitation, jointly with the University of Tennessee, initiated a week's in-service training to improve skills of counselors in serving low achieving deaf persons.

Video taping was used so that each counselor could view a short story to the training group, he had signed, they in turn interpreted what was said. The accuracy of their responses was then verified by the counselor. Using a recorded tape with earphones, a counselor was then asked to interpret what he hears to another counselor in training in low language communication, using combinations of signs, gestures, mime, etc.

TELECOMMUNICATIONS: ITS POTENTIAL FOR REHABILITATION SERVICES

Further, video tapes of deaf persons relating personal events in their lives were presented to the group. This, supported by excellent training in comprehensive communication skills, provides an effective utilization of media that could not be achieved separately.

The use of 2-way cable TV could allow for programmed training of staff with the capability to question the instructor or verify one's progress in skill training.

The potential utilization for rehabilitation facility staff for the training of evaluators and/or adjustment counselors for the deaf is substantial. The ability of one well-trained evaluator to extend his expertise through monitoring, training, and evaluating the performance of newly trained staff serving the deaf could be exceedingly helpful.

Interpreter Training

In-circuit or interactive cable TV can be readily applied to interpreter training, evaluation, and certification. It could be used to apply uniformly for certification testing to assure adequate skills of those who desire to provide interpreter services.

In the Future

The U.S. News & World Report, issue dated November 24, 1975, reported a fascinating development taking place in research laboratories of communication firms, "The Harnessing of Light." The field of fiber optics is close to widespread application in telecommunications. Light is the medium used for transmission of signals instead of electricity.

Strands of glass fiber will replace copper wire. Electrical impulses are coded in pulsing beams of light focused into the glass fiber line. A bundle of optical fibers a quarter of an inch in diameter could carry hundreds of thousands of phone calls simultaneously or a single strand of optic fiber could carry four television channels.

The impact of this breakthrough is that it would allow for the practical installation and use of the 2-way video phone, potentially to every phone line in the nation. Estimated time for the installation of such a system is judged to be about 10-20 years.

The potential of 2-way cable TV to open up a broad spectrum of services for all handicapped persons is just beginning to have impact.

The use of new cable or glass fiber will cost much less, require less energy for the transmission of signals than a wire cable, and potentially, our country has suddenly virtual copper surplus instead of shortage within every community.

Funding

The Rehabilitation Act of 1973, as amended, specifically, included telecommunications as a service to handicapped individuals when this service was needed to effect his vocational rehabilitation.

Each State Vocational Rehabilitation Agency should have available for public review its policy in providing telecommunication services. The extent that telecommunication services will be available to clients is likely to vary considerably from state to state.

State Advisory Committees on Deafness, while being aware of all the VR Agencies' policies for providing services, should be especially concerned with the development of this policy to meet the needs of handicapped deaf persons.

While funding sources for the initiation and development of telecommunication services is not specifically identified beyond Title I, Section 110 of the Rehabilitation Act, project grant activities may incorporate telecommunications activities within their programs. For example, Section 302 (c) Rehabilitation Facility Improvement Grants could provide for both equipment and staff the equipment needed to provide those rehabilitation services that could be enhanced by telecommunications. A rehabilitation facility serving the deaf persons in this instance could be an interpreter and referral center.

Innovation and Expansion Projects

Section 121 of the Act could provide similar support. This part of the Act is essentially administered by the State VR Agencies. The purpose is to expand or innovate services to the severely handicapped.

Impediments in the Application of Telecommunications

- 1.) High costs of software development.
- 2.) Skills needed for their utilization are not readily available.
- 3.) Rehabilitation personnel, because of a lack of demonstrated capability of its benefits, feasibility, and administrative impact, may feel uncomfortable concerning the use of the telecommunications.
- 4.) VR Agencies have not generally promoted a concerted effort to utilize telecommunications services on a systematic basis.
- 5.) The agencies may have difficulties in demonstrating cost benefits for provision of telecommunication services.

Teletypewriters

Teletypewriters and similar equipment couple to the telephone system and enable the severe hearing impaired to have access to this system. Nationwide, over 5,000 teletypewriters are reported to be in use by deaf persons or organizations serving the deaf. In the eight states covering Region IV, there are over 1,200 TTY's presently in use. It is estimated that approximately 100 additional TTY's are being put in use by deaf persons or agencies serving the deaf in Region IV every month.

The National Census of the Deaf reports in the Southern Region of the United States an estimated 4 million hearing impaired persons. The number of individuals who are unable to understand speech is at the rate of 467 persons per 100,000 of population. This includes those who were born deaf and those who have lost hearing at varying stages of their lives.

Teletypewriters for the deaf, used on a systematic basis, (i.e., formed in a communication network) are envisioned to have these functions:

- 1.) Immediate response to emergency situations on a 24 hour basis, such as police, fire, and health services - on a local area or statewide basis.
- 2.) To secure and assist in the development and coordination of interpreter services.
- 3.) Information giving and sending to and from the deaf community; e.g., referral to appropriate public agencies for services. This would include such information as opportunities for continuing education, job opportunities, social events of the community that may be of interest to deaf persons.

The kinds of persons that can be reached through the use of teletypewriters are:

- 1.) Hard of hearing persons (who cannot use auditory amplification).
- 2.) Deaf (not all deaf persons have sufficient language skills to use the TTY) persons. The average graduate of a residential school for the deaf is reported to attain a language level of 5th grade achievement.
- 3.) Deaf-Blind persons.
- 4.) Relatives or friends of the hearing impaired.
- 5.) Public agencies having TTY equipment.

TELECOMMUNICATIONS: ITS POTENTIAL FOR REHABILITATION SERVICES

What might be some of the benefits of such a system?

1.) The hearing-impaired community would have greater access to public information and public agencies would have greater awareness and sensitivity to the needs of deaf people.

2.) The use of TTY instruments on a frequent basis may improve language skills of deaf persons.

3.) It would create an avenue of emergency contact not previously available to deaf persons.

4.) For many deaf children in residential schools away from home, the use of telecommunications may reinforce family ties.

5.) For those who are isolated or homebound, it provides a means for socialization.

6.) Information on TTY systems may potentially lead to job opportunities for deaf persons.

It would seem that we could begin to organize the use of TTY's in a way to expand these benefits to deaf people. Informally, our office has inquired of every state in Region IV to ask if they would be willing to designate a central communication terminal that could act as an information and answering service concerning public programs.

Some cities have established Interpreter and Referral Centers as a TTY center for communication linkage to and from the deaf community.

Through support from the Tennessee Division of Vocational Rehabilitation, the Nashville League for the Hard of Hearing has initiated such a service. In its first 11 months of operation, the 24 hour answering service handled 862 TTY calls, with 64 deaf people requesting services of interpreting and/or information and referral.

We are on the threshold of developing a systems approach to the use of telecommunications, and as we bring together our present technology and apply it, we can alleviate the communication barriers. Many hearing impaired persons may soon realize greater opportunities for them to participate more fully in society, its benefits and responsibilities.