

# COMMUNICATION PROBLEMS OF THE ELDERLY

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## ABSTRACT

A discussion is presented of the communication problems typically encountered in the elderly. Though speech, language, and hearing impairments appear to be frequent among aging persons, dependable data on the types and frequency of these problems are not yet available.

Recommendations are made for research into all facets of communication problems of the elderly, for university courses dealing with factors in aging, and for an increase in clinical services to the old.

## INTRODUCTION

It is estimated that by the year 2000, ten per cent of the Canadian population will be 65 years of age and older. This increase in the percentage of elderly people is due to factors which have been operating for many years: lengthening life span and a falling birth rate.

In recent years there has been a significant increase in programs which aim to meet the desires and needs of the elderly. For example, special health and educational programs are emerging across the nation; residential buildings are being constructed which are designed to meet the interests of aging people. In practically every area of human activity, something is being done to enhance the quality of life for older people.

The hypothesis that communication problems increase with aging is supported in a practical way through our clinical experiences: aging appears to be accompanied by an increase in the frequency of certain types of production and reception problems (Darley, 1963, and Oyer et al., 1976). At this time, however, exact incidence information about communication problems after age sixty-five has not been obtained.

Communication through language is one of the most human of endeavours; it is as important to the seventy-year-old as it is to the child. When a person experiences a loss in communicative integrity, that person is "dehumanized" to an extent whatever his or her age. It is important for audiologists and speech pathologists to increase their knowledge of the kinds of speech, language, and hearing problems that are manifest in the elderly and to step up the amount of rehabilitative time spent with this segment of our population.

## SPEECH AND LANGUAGE IN THE AGED

When there is an alteration in intellectual functioning associated with aging, there will be an effect on communication. The person may lose the motivation to engage in the intellectual activity of talking. As a result, talking practice will diminish. The content and the complexity of the message may be affected. By no means do all old people show a decline in intellectual behavior. Those with higher intelligence seem to be affected the least; they retain more and they continue to learn more easily than the less intelligent person (Hutchinson and Beasley, 1976).

There is a scarcity of organized information available on speech and language changes in the "normal aging". A study by Halpern et al. (1973) on a very small group of subjects with degenerative impairments revealed hardly any grammatical problems, but there were inadequacies in word definition, reading comprehension, and arithmetic skills. These same subjects were quite impaired in fluency. Since Halpern's subjects were much worse off physically than the average old person, relating these data to the aging population in general must be done with caution.

There is considerable information regarding acoustic and perceptual changes in the speech production of the aged. From experimental data, Mysak (1959) inferred that as men age from 50 to 85, there is a gradual increase in voice fundamental frequency and a slowing down in speaking rate. He was not sure why the fundamental frequency went up, but he guessed that it might be due to physiological and socioeconomic factors. The change in speaking rate, Mysak said, might be related to a general slowing down of neuromuscular activity. Other studies of men and of women - both cross-sectional and longitudinal studies - have been done and the findings on fundamental frequency seem to be too inconsistent to permit highly confident statements about voice pitch in later life (McGlone and Hollien, 1963; Hollien and Shipp, 1972).

In a study of changes in speech acoustics from age 40 to age 79, Ryan (1972) found that his experimental 70 year-old group (all normal in hearing) had increased voice loudness and talked at a slower rate than his 40-year old group. Ryan suggested that the increased loudness and slower speaking rates might have been employed unconsciously by his subjects to increase feedback for speech monitoring purposes.

Several studies show that listeners can make very accurate judgements of the ages of persons by listening to recordings of their voices. In a paper by Shipp and Hollien (1969) a correlation of +0.88 between guessed ages of recorded speakers and actual ages was reported. Since such a high reliability exists in making direct age estimations from hearing a voice, there must be a set of acoustic cues that permit this accuracy. In one study (Ryan and Burk, 1974) the six most important predictor variables of age were: 1) laryngeal air loss, 2) laryngeal tension, 3) voice tremor, 4) imprecise consonants, 5) slow articulation rate, and 6) mean fundamental frequency. Four of these important predictors of age are related to laryngeal function. This suggests that aging may cause an alteration in the fine control of vocal fold vibratory activity.

As stated above, full information about the frequency of speech and language problems in the aged is not yet available. The kinds of problems encountered, however, are reasonably well known through clinical experience and through at least one survey done in a public medical care facility by Bloomer (1960). (Incidentally, of the 62 **institutionalized** patients studied by Bloomer, 45 per cent were judged to have impairments of speech or language). The types of problems encountered by Bloomer were dyslalia, dysarthria, aphasia, dysphonia, and twelve patients with "linguistic evidence of mental confusion." Bloomer does not elaborate on this latter category other than to ascribe the condition "...in part to organic brain damage." Bollinger et al. (1977) refer to this same condition in this way: "Characteristics which are common to the confused patient are disorientation to time and place; memory loss (particularly short term memory); difficulty "tuning in" to what is said; impairment of comprehension; rambling and incoherent speech; and inability to function on an abstract level. This patient may have periods of delirium and/or hallucinations. It is not uncommon for the confused patient to have moments of depression, paranoia, and agitation." The types of communication problems which Bollinger et al. write about in **Communication Management of the Geriatric Patient** are aphasia, dysarthria, and the

"confused patient." Bloomer and Bollinger et al. are writing principally about institutionalized people; it should be pointed out that less than ten per cent of the elderly are living in nursing homes or in similar facilities. Most of them are living in their own homes.

Hutchinson and Beasley (1976) and Darley (1963) discuss the speech and language problems of the elderly in general, not just that of institutionalized persons. They confine their discussion to "disorders of ideation" (due to relatively severe diffuse central nervous system pathology), "disorders of symbolization" (aphasia), "disorders of translation" (apraxia), and "disorders of execution" (dysarthria). Darley focusses his treatment of the speech and language problems of the elderly on aphasia, dysarthria, and speech after laryngectomy.

The review of these four papers suggests that common speech and language problems in the elderly, whether institutionalized or not, are aphasia and dysarthria. "Confused speech" is mentioned by Bloomer and Bollinger et al. as being present in some institutionalized patients.

Patients in institutions frequently do not communicate enough to satisfy their social drives. Sometimes the patients may not even talk enough to get their most basic cares met. The reduction in communication becomes greater when the patient's communication skills are impaired. Bloomer observed that about 50 per cent of his institutionalized subjects "impressed the examiner as being in need of social stimulation as a means of improving or maintaining their interest in communicating with other people." A visit to a nursing home or to an auxiliary hospital will confirm Bloomer's observation that many patients are gradually losing contact with life because their speaking and listening opportunities are diminished or almost nonexistent.

### HEARING IN THE AGED

Of all the sensory changes which occur with aging, one of the most devastating is the reduction in hearing sensitivity that happens to most old people. There is a sharp increase in hearing loss in people over 65 years of age.

Many anatomical changes occur in the ear as age advances. Some of the changes affect hearing: cilia in the auditory canal become less active and wax impaction results; the ossicles may become arthritic; there is a loss of nerve fibers in the inner ear; there are vascular changes in the inner ear; and there is a decrease in the number of fibers in the acoustic nerve.

The reduction of hearing acuity in the aged very often results in the withdrawal of the person from communication. A tremendous amount of skill and time is required to motivate the person who is losing the sense of hearing to participate in aural rehabilitation activities.

### DISCUSSION

Although it is true that speech pathologists and audiologists have been providing some services to the aged for many years, most of their attention has been given to younger people. The following observations indicate the need for correction of the imbalance: 1) some elderly people have communication problems which limit their life experience; 2) the communicative abilities of old people may deteriorate if steps are not taken to prevent that; and 3) aging does not prevent learning.

An immediate need is research programs which will produce information about the incidence of communication problems in the elderly, types of problems which are presented, and productive rehabilitation tactics. These data are needed in order to plan adequately for therapeutic programs.

Another requirement is for university educational programs to offer courses to their students in the sociology, biology, and psychology of aging and to present courses which deal specifically with the remediation of speech and hearing problems of the elderly. This will be an important step in enhancing the profession's awareness of its obligation to aid the old and in improving the effectiveness of clinicians.

An imperative and current need is increased clinical services to the elderly. As this goal is met, a deserving segment of the population can realize a fuller life experience.

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