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ORIGINAL ARTICLE

Communication and Swallowing Difficulties in Geriatric Population

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ABTSRACT

Background: Human life would have had no purpose without the ability of communication. Immense dedication from the side of the teachers, parents and clinical professionals is placed to develop the communication ability in children. The communication of the geriatric demographic however is not paid as much heed as that paid to the pediatric population. This can be proved by the fact that there is unlimited literature readily available to address the communication needs of the children, unfortunately for the elderly, the literature is restricted.

Objective: Frequency of the difficulties of communication as well as swallowing were intended to be sighted by the work of the current investigation.

Methodology: Exploration of cross section type on the geriatric population that arrived in the tertiary setups, specifically to the Department of Speech and Language Pathology within the district of Lahore, Punjab was administered. Sampling characterized of convenient type to compile particulars and data was executed. Assembly of the details and data was practiced through the use of professional expertise and literature review inspired questionnaire. Analysis of figures and data was accomplished through SPSS 22.

Results: 82 (68.9%) males and 37 (31.1%) females, out of 119 participants with Mean age 59.31 ±7.955 years were included in this study. Dysarthria, was the most frequently observed motor disorder of speech. Dysarthria was diagnosed in (42%) meaning 50 individuals. Voice disorder was observed in 16.0% implying 19 had the disorder. 4 Fluency disorder found in 3.4% cases and lastly apraxia was diagnosed in 1.7% of the subjects. Among the disorders of language, subjects were mostly determined to have aphasia. It was found in 33.6% patients equating to 40. Dementia was found in 0.8% of the subjects. 10.9% of the subjects, implying 13 had dysphagia.

Practical implication

Conclusion: The elderly population concerns with communication and swallowing frequently. The disorder of speech diagnosed most frequently is dysarthria. In language disorders, aphasia was observed more often.

Keywords: Apraxia, dysphagia, geriatric, aphasia and dysarthria.

INTRODUCTION

Aging is an inevitable phenomenon. It affects physical health, memory, cognition and human body functions [1]. As a person ages, he or she goes through remarkable changes while swallowing and voice production, owed to the numerous anatomical and physiological transitions of the respiratory and digestive systems and their structures [2]. As people age, along with decrease in other functional abilities their ability to eat also declines. Of all daily living activities, eating is superior, significant and social. It is a need, a necessity for one's entire life. [3] . There are frequent and recurrent concerns among the geriatrics related to swallowing. Different abnormalities arise in swallowing due to decline in functional oral motor abilities with age [4]. Poor abilities to ingest and masticate a bolus, reduced ability of sipping through a cup are all signs of decreased skeletal; and facial muscle strength [5, 6]. Problems with tight lip seal, control of materials ingested, difficulties to bite and chew [7], poor saliva production, reduced bolus formation ability, inability to move the bolus towards the back part of the oral cavity, weak bolus flow control and slowed movement of bolus are also problems to be reported.[8] . Physiological transitions in swallowing such as decline in pressure required to drive pharyngeal swallowing due to decreased tongue function also occur due to aging [9]. Deficits in sensory discrimination of pharyngolaryngeal area, results in silent aspiration [10]. Medicines slowing or altering the function of the central nervous system also leads to dysphagia in the elderly. The patient might present with significant signs of swallowing difficulty due to the inability to maintain a balance of the age-related variations in the swallowing process [11].

The admired ability for individuals of all ages is communication. The purpose of human beings fails without the presence of communication. It is a tool that links people to their environment which breaks due to communication disorders [12]. Communication disorder is an inability to communicate. Communication disorders are commonly categorized into disorders of language and disorders of speech. Disorders of language are characterized as inappropriate disorders of expression, understanding and spoken language use, writing as well as different symbol systems [13]. A speech disorder is a disability of the three components of speech i.e. articulation of speech sounds, fluency and voice [14]. Neurological damage, sensory deficits such as hearing and visual loss, dementia and environmental changing are the usual causes that affect communication in older age [15]. Many age-related non pathological oro facial changes such as tooth loss, reduced sensory awareness and tongue movement [16] are found to alter the orofacial process which affects swallowing and speech both [17]. Immense dedication on part of the families, teaching staff and clinical professionals is put to develop communication skills in children. As evident from the literature present, awareness of communication processes and their disorders related to the pediatric population is more common in comparison to the geriatric population. The needs and difficulties of the geriatric population related to language and swallowing is still limited [18]. Advanced age and the ability to communicate is an important area which needs more attention [19]. The recently completed work aims to recognize swallowing and communication disorders frequency in the elderly.

MATERIALS AND METHODS

A cross sectional study was carried out in tertiary care clinics and hospitals, department of Language and Speech Therapy within the vicinity of Lahore district. Once approved by the Riphah International University ethics review committee, the specimens were compiled via convenience non-probability selection or

sampling procedure with ages 50 years and over without taking into regard their education and whether they are males or females. After taking written informed consent from each subject, data was collected using a self-structured questionnaire. Formulation of the questionnaire was carried out with the aid of available literature and professionals with this specific area of expertise. Content Validity Index (CVI) was applied to validate the questionnaire. Subsequently, 5 professional consultants with minimum experience of 5 years working with adults and geriatric patients of language and speech disorders were then officially invited. The data was analyzed using the content validity scale by the investigator. CVI above 0.75 items in the questionnaire were included in the ultimate questionnaire, all the other items were released.

Information related to demographics such as the name, gender, age and various others related to individual material were compiled from each subjects. The speech and language therapist entered the data in the questionnaire related to the disorder the patients were diagnosed with. Data was analyzed using SPSS 22 to determine how frequent were the swallowing and communication problems experienced by the elderly population. Demographic variables were described out by descriptive statistics. Frequencies and percentages were analyzed using categorical data.

RESULTS

There were 119 subjects with mean age of 59.31 ±7.955 years. The minimum age was 50 years and maximum age was 95 years. There were 82 (68.9%) males and 37 (31.1%) females in our study.

Table 1: Frequencies of different Speech, Language and Swallowing disorders found in geriatric population

Name of Disorder	Frequency	Percent
Dysarthria	50	42.0
Voice disorder	19	16.0
Fluency Disorder	4	3.4
Apraxia of speech	2	1.7
Aphasia	40	33.6
Dementia	1	0.8
Dysphagia	13	10.9
Odynophagia	1	0.8

Table number 1 shows the frequencies of different communication and swallowing disorders. Out of communication disorders, speech disorders were found more frequent than language disorders [20]. Among speech disorders Dysarthria was seen in 50 participants (42%), Voice disorders in 19 (16%) and Fluency disorders in 4 (3.4%). In language disorders aphasia was seen in 40 participants (33.6%). And dysphagia was seen in 13 participants (10.9%).

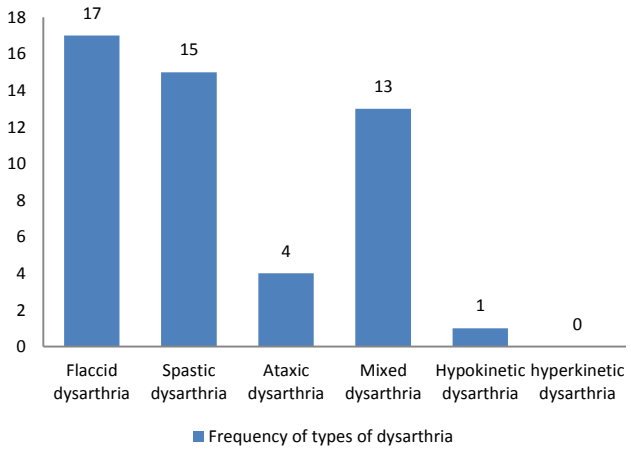

Figure-1: Frequency of types of Dysarthria

Among types of dysarthria, Flaccid dysarthria was seen in 17 participants (34%), spastic dysarthria in 15 participants (30%) and mixed dysarthria in 13 participants (26%).

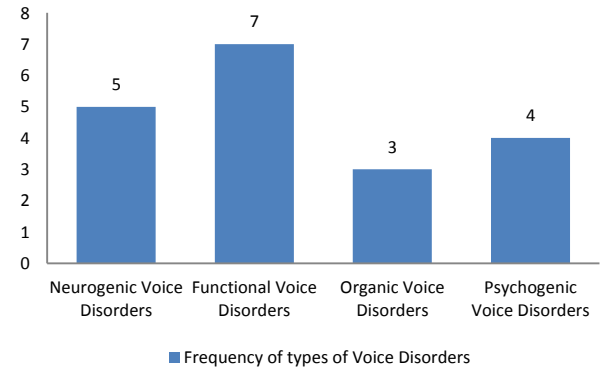

Figure-2: Frequency of types of voice disorders

In voice disorders, functional voice disorders were most frequent (36.9%) then neurogenic disorders 26.3% and psychogenic disorders 21.1%.

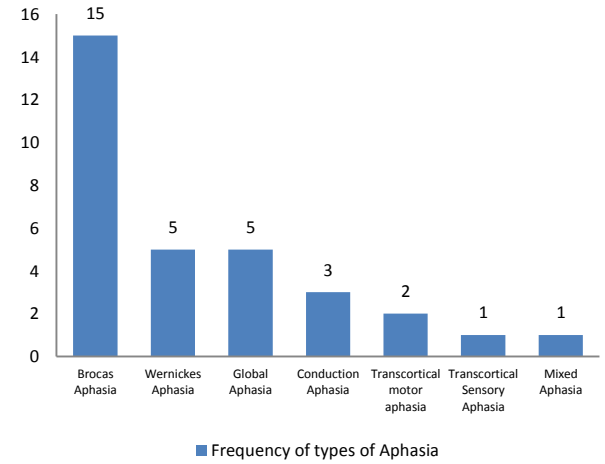

Figure-3: Frequency of types of Aphasia

Among aphasia, Brocas aphasia was seen in 15 participants (37.5%), anomic aphasia in 8 particioants (20%) and wernickes aphasia in 5 participants (12.5%).

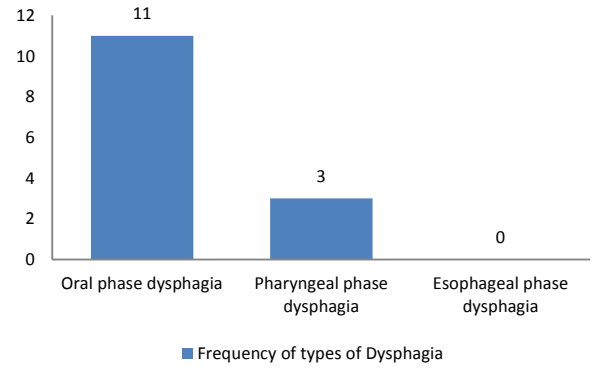

Figure-4: Frequency of types of Dysphagia

In dysphagia, oral phase dysphagia was seen most frequent in 11 participants (9.2%).

DISCUSSIONS

This investigation brought to light that elderly individuals displayed various signs and symptoms of communication as well as swallowing problems which were characterized to be either primary or secondary to their medical condition [21]. Medical reason specifically stroke was the major cause of speech and language disorders in the subjects [22]. Dysarthria was the most frequently presented speech disorder. 50 of the patients (42%) were dysarthric, 19 of them (16.0%) had voice pathologies, 4 of the subjects (3.4%) exhibited fluency problems and 2 of them (1.7%) were apraxic. The most regularly detected problem was found to be aphasia in 40 (33.6%) patients. 1 patient (0.8%) had dementia. A comparable study was carried out on disorders of communication in a hospital for older people in Dublin by T. Sweeney et.al. Older population was marked for deficiencies in language, speech, hearing, vision and cognition. The results indicated that 73%, had speech and language problems, 11 % had visual deficits, 36% had hearing problems, and cognitive deficit was found in 56% of the geriatric individuals screened on their entrance and admission to the clinics and hospital. 48% had deficits and problems in comprehension and expression of language, 35% had articulation problems. These results are similar to this study as Speech disorders were found to be 63%, Language deficits were, 37% [15].

Results of the present study show that dysphagia is found in 12 % patients. The results of the current study are complimented by Chen P-H et al. in their study, “Prevalence of perceived dysphagia and quality-of-life impairment in a geriatric population”. Of these, only 15% individuals stated swallowing problems [23] .

Flowers HL et al. in their study states that dysarthria as well as dysphagia arises recurrently in patients of stroke following an attack of ischemia in the elderly. Aphasia, dysphagia and dysarthria presented with the highest incidence 44%. Co-occurrence was observed to be the highest in people with comorbidities at 28% with dysphagia as well as dysarthria [24]. Another study by Azhar et al. provides evidence that aphasia is the most commonly reported disorder of language after stroke [25] both these studies support this study.

CONCLUSION

The elderly or the geriatric population displays various signs and symptoms of language, swallowing as well as speech disabilities as a result of a primary or a secondary and language disorders either primary or secondary to a certain health condition of the individual. The disorder of speech diagnosed most frequently is dysarthria. In language disorders, aphasia was observed more often.

Recommendations:

- Building awareness at the level of the public and the doctors respectively, so that a proper referral, diagnosis and therapy can be conducted on time.
- Mandatory screening of the geriatric population for the presence of any communication, swallowing and/or cognitive difficulties by a Speech and Language Pathologist.
- Facilitate hospitals to practice speech and language screening and/or evaluation by a qualified Speech and language Pathologist early on.

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