ISSN 1449-8677

Middle East Journal of Age and Ageing 2008; Volume 5, Issue 5

ME-JAA

Middle East Journal of Age and Ageing

Contents

Volume 5, Issue 5
October 2008

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Editorial

Author
Dr Abdulrazak Abyad
Chief editor

Welcome to the November issue of the Middle east Journal of Age and Ageing.

A paper from Iran looks at Picture naming of patients with Alzheimer' disease , aphasia and the healthy elderly. The authors concluded that The results showed that there is a significant difference in correct responses without any cues between the 2 groups(p=0.000) with aphasic patients being less able to name the pictures correctly. Significant differences were also seen by using semantic (p=0.000) and phonological priming (p=0.000).

A paper from Issam M. Al-Bataineh, MD looks at Rehabilitation of Facial Palsy in Elderly People.

A paper from Australia looks at abdominoplasty results in middle aged and elderly people.

Finally a paper from Ontario looks at Oral Health Services in Nursing Homes.

Original Contribution/Clinical Investigation

Jaundice in the elderly: A retrospective study of causes and prognosis

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ABSTRACT

The first session of the Middle-East Academy for Medicine of Ageing, the MEAMA, started with a focus on demographic aspects in the region and the problems the participants meet in their own countries related to the services for health related problems in older people. Also several medical topics were discussed. The MEAMA uses the methods of the EAMA, which have been proven to be attractive for participants and speakers.
In the discussions the question was raised how to start the process to develop and enhance the services. It was suggested to start with the organization of national societies and interact with neighbouring countries before presenting measures needed at the national level. The MEAMA might be an excellent forum for the discussion how to stimulate the development of the services for older people in the Middle-East area.

Introduction

In the mountain area of Lebanon a symposium was organized in Ain Wazein in 2001. It was the first international symposium for geriatric medicine in the Middle East are. During the symposium a discussion was started about the demographic expectations for the Middle-East area and the services for the health related problems in the rapidly increasing number of older people. Here the initiative was born to start a Middle-East Academy for Medicine of Ageing, the MEAMA. From October 2nd through 5th , 2003, the first session of the first course of the MEAMA was organized in Tripoli, Lebanon. Background of the course was to create an opportunity to stimulate the development of services for health related problems in older people in the Middle-East area. A description of the goals and the methods of the MEAMA will be given with a short comment ater the first session.

Goals and Methods

The main goal of the MEAMA is to stimulate the development of the services for health related problems in older people in the Middle-East area. In some countries initiatives have been started already in the community and the second goal is to enhance these services and to harmonize these services across the Middle-East area. In this process interaction with leading countries in geriatric medicine is necessary. The mission of the MEAMA is to train interested physicians, leading nurses and health officers, to enhance their competence and increase their level of knowledge, communication skills and teaching skills. A network between the interested persons is essential for the exchange ideas and to harmonize services, education and training programmes. For the strategy the MEAMA has adopted the methods of the European Academy for Medicine of Ageing[1,2].

These methods have been proven to be successful and attractive for both the participants of the courses as well as for the teachers. To increase knowledge well known teachers are invited to present state-ofthe- art lectures. Besides the transfer of knowledge, the discussions between teachers and participants will contribute to increase the level of knowledge and understanding. Other steps to increase knowledge are the presentation of a state-of-the-art lecture by the participants and their participation in the discussions in small groups, where different topics will be covered. Communication skills are trained in the discussions with the teachers and in the groups discussions, but also in chairing and reporting the

discussions. Teaching skills are influenced by presenting state-of-the-art lectures by the participants. About two months before a session will start, participants receive a subject for a state-of-the-art lecture and they have to make an abstract with a limited number of well chosen references. All activities are evaluated and each of the participants has a tutor for individual evaluation after the presentation of his or her lecture, or after chairing or reporting a group's discussion. The members of the executive board are the tutors and they have to participate in the whole session of the course. The participants subscribe not just for one session, but for the course of four sessions with an interval of about six months. To come back and meet the same colleagues from former sessions is essential to exchange ideas and build up the feeling of working together and to participate in a network of colleagues with comparable interests. A limited number with a maximum of about 35 participants can be managed for this type of courses.

Bringing them together during the course, lunchtime and diner and accommodating participants, board members and teachers at one location highly contributes to the interactions between all participating persons. In this way an optimal profit of a course can be obtained.

First Session of the First MEAMA course

Inviting people to participate in a course and transferring EAMA methods to another area in the world is a challenge for participants and organizers. Two times the first session had to be postponed, first in the autumn of 2002 after the '11th of September' and the second time in the spring of 2003, because of the war in Iraq. In October 2003 we could start the first session. 16 persons participated, half of them women and men and with a good mixture of the three invited disciplines. The first teachers' state of the art lectures focused on demographic aspects in the Middle-East area(3). Life expectancy at birth has been presented in table 1. The range is between 68.3 years in Egypt to 76.3 years in Kuwait.

Comparing these figures with some European and other areas in the world, we see for Europe a range from 75.9 years in Portugal to 79.9 years in Sweden. In the USA it is 76.9 years and the highest score is in Japan with 81.3 years. Most Middle- East countries have a lower life expectancy than most of the member countries of the European Union. Like in nearly all countries the composition of the population will change from the pyramidal shape to the cone shape, with a decrease in the potential support ratio, the number of persons aged between 15 and 65 years of age per one older person aged >65 years of age.

The problems the Middle-East area faces are similar to these in the European Union and North America.

Table 1 Life expectancy at birth for 2001 in Middle-East countries

Egypt 68.3 years
Iran, Islamic Republic of 69.8 years
Jordan 70.6 years
Syrian Arabic Republic 71.5 years
Qatar 71.8 years
Saudi Arabia 71.9 years
Oman 72.2 years
Libyan Arab Jamahirya 72.4 years
Lebanon 73.3 years
United Arabic Emirates 74.4 years
Bahrain 73.7 years
Kuwait 76.3 years

Source: Human Development Report 2003[3]

Table 2 Life expectancy in different parts of the world with a 'high human development'

Portugal 75.9 years
United Kingdom 77.9 years
Spain 79.1 years
Sweden 79.9 years
United States of America 76.9 years
Australia 79.0 years
Canada 79.2 years
Japan 81.3 years

Source: Human Development Report 2003[3]

The participants presented lectures about the situation in their own countries. Differences were observed between the countries, although in most countries the problems in older people have been recognized and initiatives to meet these problems have been started. During the discussions questions were raised about which services are needed and how to estimate the quality of the services? How to influence the process of input and output variables and how to build up a system with quality indicators? What is the best way to meet older patients' health related problems, to build new nursing homes or to propagate the formation of home care teams? Medical subjects got also attention, like the increasing number of patients with heart failure, diabetes mellitus, osteoporosis, dementia, depression and behavioural disturbances. Special awareness was given to the position and the essential role of nurses in the services for the health related problems in older people. One of the interesting observations in the discussions was the recognition of the high impact of the role of nurses in all countries.

The last presentation made a comparison between the Middle-East area and the European Union[4]. The patient related problems in the two parts of the world are the same, although the quantity of the services showed great differences. For example in the Middle-Eats countries the

number of general practitioners diverged from country to country and the curriculum for medical students and nurses students seldom includes the health care problems in older people. Some countries have home care teams, others just have nursing homes with a high percentage of social indicated admittances.

In the Middle-East area the services for health related problems in older people is community oriented and general practitioners are the physicians concerned. In the European Union geriatric medicine is a recognized specialty in most member states, with specialists for community services and for hospital services. A great difference exists between both national and international structures for the development and stimulation of the care for older people. The European Union has a well developed system of organizations, which contribute to the control and improvement of the quality of services, education and training of physicians. For nurses the first steps have been made to set up a European structure. In the Middle-East area this has to be started and needs the support of the international organisations, like the geriatric medicine societies in the European Union. In the discussions it was suggested to start the development of the structure for the Middle-East area with bringing together interested persons at the national level and to start national societies. Before these national societies present measures needed at the national level, it was recommended to co-operate with societies in neighbouring countries, to try to harmonize the development of services, education and training. During the session it was an advantage to have the speakers from the Middle East all days and from the European countries nearly always with us. It contributed to the high quality level of the discussions.

Discussion

The problems have been recognized the societies will meet in the Middle-East area, regarding the increasing number of older people and their health related problems. In some countries initiatives have been undertaken to develop services in the community. Comparing the situation in the Middle-East area with the European Union large differences were shown.

Although it was suggested to start national societies and to harmonize the developments between countries, it has also been advised not to copy the European Union structure, but just to use knowledge and experiences from the European Union to build up a system adapted to the regional needs and cultural habits. It was a pleasure to feel the engagement of the participants to combine their experiences with the problems in their patients, with the whish to build up a sufficient structure at the national and international level. The discussions started during this first session and the MEAMA seems to be an excellent forum for the exchange of ideas and knowledge between countries to stimulate the developments for services, education and training.

An important problem for both the Middle-East area and the European Union is the shortage of well trained professors, teachers and scientists for the field of health care for older people for both physicians and nurses[5]. A problem that can only be solved by the selection of promising young persons to be educated and trained for teaching and research positions. The evaluation of the session by the participants was excellent, with correct critical and constructive remarks. After this discussion the topics for the next sessions were changed.

The next session in April 1-4, 2004, will be focused on 'Care for older patients: who should be referred to hospital?' and 'Which facilities needs a hospital to meet the problems of older patients?' and 'Common problems in older patients?'. For the third session in October 7-10, 2004, the subject is 'Care for older patients: quality of life, services and education; guidelines and how to improve quality?'

Conclusion

The Advanced postgraduate Course Number 2 is currently being conducted in Tripoli Lebanon and is accredited by MMU, and supported by the European Academy for Medicine of Ageing, European Union Geriatric Medicine Society, Geriatric Medicine Section of the European Union of Medical Specialists, European Region of the International Association of Gerontology, Laboratory of Neurogeriatrics, Case Western Reserve University, School of Medicine, and the Arab Scientists Organisation.

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Original Contribution/Clinical Investigation

Picture Naming of Patients with Alzheimer' Disease, Aphasia and The Healthy Elderly

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ABSTRACT

Background and Objectives Many neurological conditions including neurodegenerative diseases such as dementia of Alzheimer's type(DAT) and acute brain lesions leading to aphasia bring about confrontational naming deficits. The purpose of the present study was to compare visual confrontation naming performance of patients with DAT and aphasia and to evaluate the effects of semantic-phonologic priming on this performance.

Method 20 patients with DAT compared with 17 patients with aphasia using a reference group of healthy elderly people. All the participants were examined using Farsi Aphasia Naming Test developed by Nilipour (2004). Data regarding the correct responses without any cues, with semantic priming and with phonological priming were gathered and analyzed by T test .

Results The results showed that there is a significant difference in correct responses without any cues between the 2 groups (p=0.000) with aphasic patients being less able to name the pictures correctly. Significant differences were also seen by using semantic (p=0.000) and phonological priming (p=0.000). DAT group functioning improved by semantic priming, whereas the aphasic group did better with phonological priming.

Conclusion It is concluded that naming difficulties in DAT patients are mostly arising from semantic memory deficits, whereas in aphasic patients the problem has a lexical-phonological origin.

Key Words anomia , fluent aphasia, Alzheimer'disease, ageing people.

Introduction

Confrontaton naming performance is one of the important language functioning indices which is often assessed by picture naming tests.These neuropsychological tests typically include pictures of familiar objects such as tools, fruits, animals, etc. which should be named by the subject. Anomia is one of the very early symptoms observed in patients with dementia of Alzheimer type (DAT) and, also, a universal frequent symptom in aphasic patients. However the nature of the two problems is considerably different. As Randolph et al. mentioned ," ... little work has been done... to determine how various demographic, linguistic, and disease status variables influence

patterns of performance on these tests"[1]. Anomia in patients with DAT is supposed to have a semantic nature[2,3] resulting from deterioration of semantic memory. But some studies have stressed the role of post semantic deficits such as phonological lexicon activation in DAT patients[4]. A tendency is increasing among researchers to consider semantic anomia in DAT patients as a category - specific deficit[5,6,7] but this category specificity is by no means so prominent in aphasic patients, a fact which may be confirmed by the well-known verb-noun double dissociation in aphasic patients[8,9]. Also some authors are opposed to the semantic nature of anomia in DAT patients and attribute it to visual object recognition deficits[10,11,12]. The status for local acute lesions is much different. Aphasia arising from selective local impairments has been the subject of more detailed linguistically based tasks and, also, development of useful tools for testing psycholinguistic models[13]. Margolin et al showed that impaired word finding reflected impaired processing of semantic information in the patients with DAT, whereas in the anomic patients impaired processing related to the lexical-phonological information[14]. Some studies have shown that phonological priming is the most effective cue in confrontational tasks for aphasic patients regardless of type and severity of their impairments[15,16]. But Stimely et al. claimed that naming accuracy of aphasic patients was facilitated by both phonemic and semantic cues[17]. Also, Butterworth et al. discussed that the incidence of semantic comprehension errors was not related to aphasic diagnostic group but to the overall severity of aphasia[18] The present study was designed to compare visual confrontation naming performance in patients with DAT and aphasic patients and to assess the effects of semantic-phonologic priming on their performance.

Material and Methods

Two groups of patients participated in this study.The first group included patients with dementia of Alzheimer type (DAT) who were the clients of Iranian Alzheimer Association, Tehran division and who had been successively presented to the attending psychiatrist of the association and met the criteria of DSM-IV-TR for the diagnosis of Alzheimer's disease and also the MMSE score < 27 at the interval of 2005-2006.

The second group consisted of aphasic patients who were referred by the speech therapy section of rehabilitation centers of Tehran and Mashhad at the interval of 2005-2006 to the researchers of the present study. They all suffered from an ischemic CVA damaging left perisylvian area which primarily included left temporoparietal region leaving them with a somewhat fluent aphasia, relatively spared oral expression skills and anomia. All the patients were literate (able to read and write) and in both bilinguals and monolinguals, Farsi was their primary language at the time of the disease.

We also used a control group consisting of healthy elderly individuals.All the controls were literate (able to read and write) and in both bilinguals and monolinguals, Farsi was their primary language at the time of the study. None of them had a history of neurological, sensory or motor problems or any complaints of memory loss in the last few months.

After clearly explaining the aim and the process of the present study to the referred persons, those who signed the consent letter entered the study. The letter was signed by the primary care-giver in the case that the patient was not able to give informed consent due to her/his cognitive impairment. This study, also, gained the approval of the Research Ethical Committee of the University of Social Welfare and Rehabilitation.

A questionnare designed to gather demographic and medical data was applied to all of the subjects. MMSE scores of patients with DAT and the normal group were obtained by using MMSE section of the Pocket Guide of Elderly Health Evaluation provided by Iranian Research Center on Aging(19). The aphasic patients were examined by Farsi Aphasia Test[20] to provide the differential diagnoses and the whole picture of the patient's language performance. The major tool of the study was Farsi Aphasia Naming Test[21] which is structurally much similar to Armstrong Naming Test[22]. It is a picture naming test consisting of 50 pictures of familiar objects including ordinary tools, animals and fruits. Each picture is shown to the subject and (s)he is asked to name it orally. There are 4 columns in the answer sheet consisting of

1) responded without any priming,
2) responded with semantic priming,
3) responded with phonological priming and
4) the type of error.

Every noun is characterized by an underline below the first syllable used for phonological priming and a short sentence describing the name used for semantic priming. At first the participant is subjected to the picture without any help. If (s)he could not respond in 10 seconds, the semantic priming is introduced and again if (s)he could not respond, the phonological priming is given. Finally the rates and percentages of the responses in each column are converted into a profile.

Results

The data analysis showed that the first group, the patients with Alzheimer's disease, consisted of 20 patients including 8 females and 12 males with the mean age of 75.85 (age range= 61-82, SD=5.32) and the mean length of education of 7.10 (SD=4.33). 3 of them were bilingual

and 17 were monolingual and all were in the mild to moderate stages of the disease (mean MMSE=18.95, SD=6.18, MMSE range=12-27). The second group, aphasic patients, consisted of 17 patients and included 6 females and 11 males with the mean age of 66.82 (age range=60-78, SD=6.18) and the mean length of education of 11.52 (SD=6.49). 8 of them were bilingual and 9 were monolingual. The control group included 8 females and 12 males with the mean age of 67.25 (age range=60-82, SD=6.21) and the mean length of education of 9.30 (SD=4.31). Their mean MMSE score was 28.50 (MMSE range=25-30, SD=1.67) and 8 were bilingual and 12 were monolingual.

As it is shown in Figure 1, healthy elderly persons showed the highest and aphasic patients showed the lowest correct responses to 50 items of the test.

As the Kolmogorov-Smirnov test proved the normality of data, T test was used for analysis. T test revealed that there is a significant difference in the mean scores of correct responses without any cue between DAT patients and aphasic patients (p= 0.000).

Figure 2 shows the frequency of correct responses after introducing semantic or phonological priming to the subjects. T test revealed significant difference (p = 0.000) between the mean score of DAT and aphasic patients regarding their reaction to semantic priming indicating a greater effect in DAT patients (Table 1). Also it is apparent from Figure 2 that aphasic patients have shown a greater effect in phonological priming than the other group and T test revealed that the difference is significant (p = 0.000)(Table 1).

Figure 3 summarizes some of the results obtained from the naming test .The number of wrong responses in DAT patients were less than aphasics which was shown to be significant (p< 0.05) by T test (Table 2). Also aphasic patients showed more “no response” than the other group and T test revealed the significance of this difference (p = 0.000)(Table 2). As indicated in Figure 3 total correct responses the sum of correct responses without any cue, with semantic priming and with phonological priming) is higher in DAT patients than aphasics which is proved to be significantly different (p = 0.000) by T test (Table 2).

Discussion

Figure 3 summarizes some of the results obtained from the naming test .The number of wrong responses in DAT patients were less than aphasics which was shown to be significant (p< 0.05) by T test (Table 2). Also aphasic patients showed more “no response” than the other group and T test revealed the significance of this difference (p = 0.000)(Table 2). As indicated in Figure 3 total correct responses the sum of correct responses without any cue, with semantic priming and with phonological priming) is higher in DAT patients than aphasics which is proved to be significantly different (p = 0.000) by T test (Table 2).

Conclusions

OBS in hospitalized older people is common and frequently diagnosed late. It has a varied presentation. The attending Medical Officers and Trainee Specialists need to consider this great heterogeneity when caring for patients, and when considering this syndrome. We possess more questions than answers at this moment but the fact that so many questions are being asked proves that brain diseases in the elderly, acute and especially chronic, are no longer the neglected backwaters of neuropsychiatry. The importance of these disorders, in both numerical and personal terms, is being appraised in an increasing manner and is reflected in the advances that have already been made. Their recognition as diseases, and not inevitable concomitants of aging, should be a harbinger of improved treatment, and perhaps even of prevention.

Conflict of interest declaration

Although the present research has been funded by Iranian Research Center on Aging, there is no predetermined agreement between the researcher and the institute on the methodology and results of the study. The authors have had full control on their data , analysis and interpretation of results.

Description of authors’ roles

F.Yadegari has been the main administrator of the research , proposing the topic and design, controlling data collection, reviewing literature and writing the article. M. Froughan cooperated in designing study, introducing patients and consulting on differential diagnosis procedures of Alzheimer patients, analyzing and discussing the results and organizing the paper. A. Mehri helped much in aphasic section of the study, review of literature and writing the proposal. And finally P.Shirinbayan was responsible for research methodology and statistical analysis.

Acknowledgement

This project has been benefited of the financial and scientific support of Iranian Research Center on Aging. The authors are thankful of Mrs. Soheila Hejrati, Mrs. Marzieh Amrovani, Mrs. Mitra Soltani and Dr. Lili Hayati for their help in different stages of the study. And also appreciate the help of Iranian Alzheimer Association and consider theirselves indebted to all patients, their families and also the healthy elderly who participated in this study despite all difficulties.

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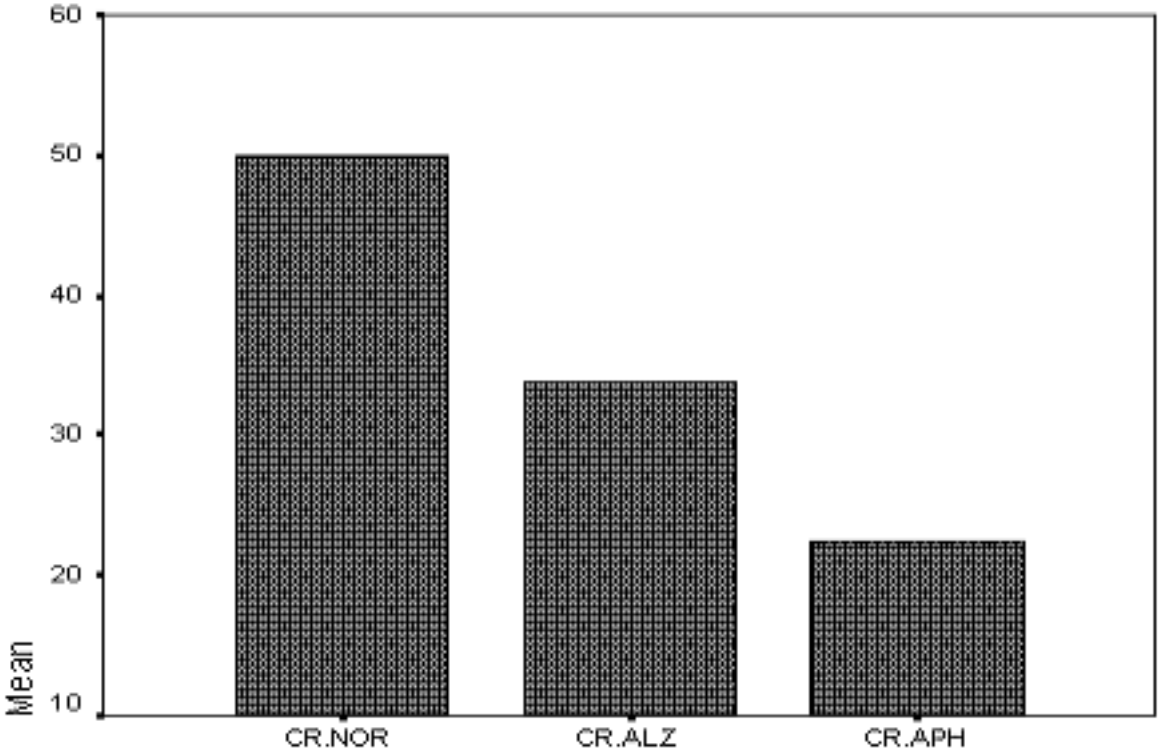
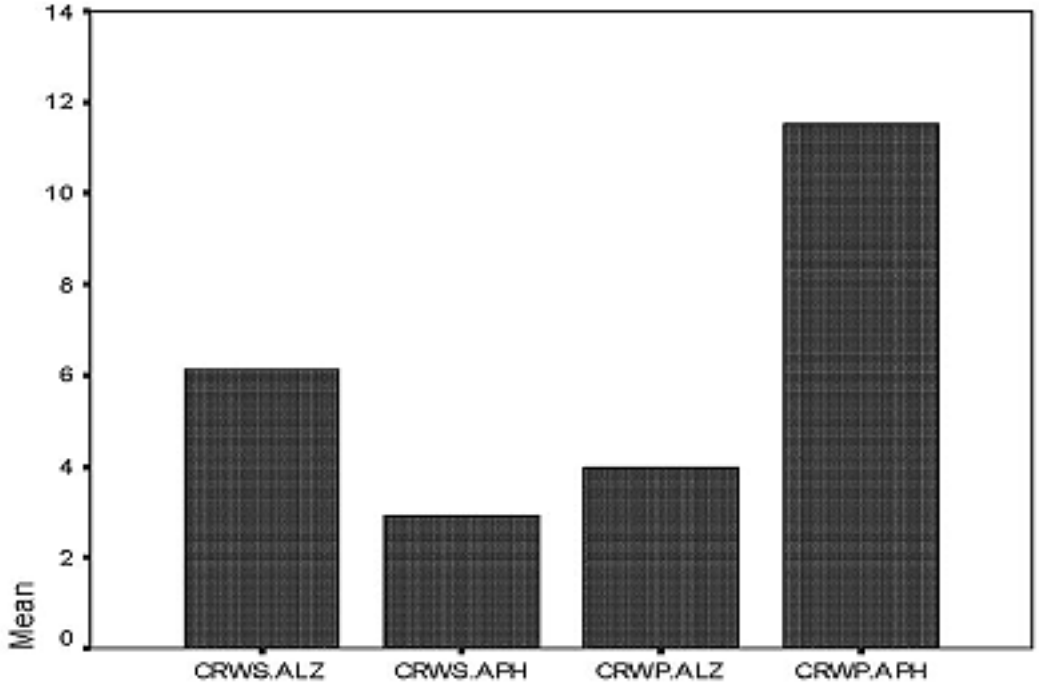
Figure 1. Frequency of correct responses without any cues in all three groups



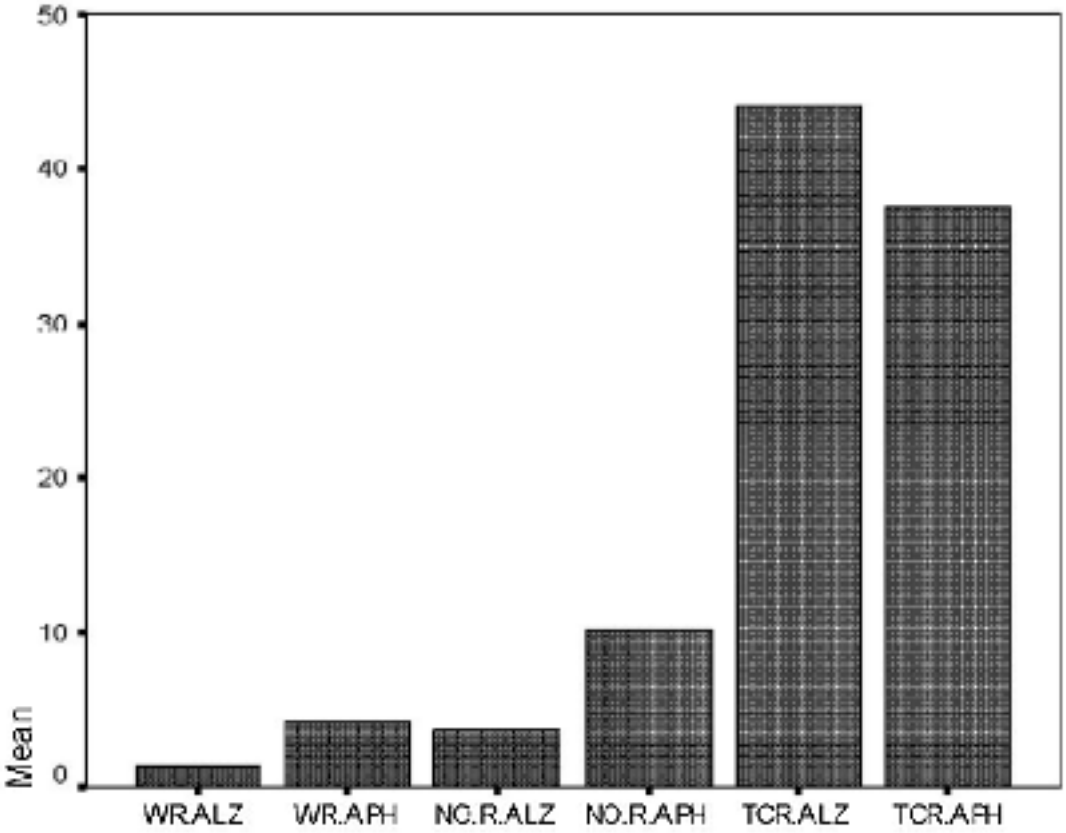
CR.NOR = the number of correct responses without any cue in normal group
CR.ALZ = the number of correct responses without any cue in DAT group
CR.APH = the number of correct responses without any cue in aphasic group

Figure 2. The effects of different primings on eliciting correct responses in DAT and aphasic patients



CRWS.ALZ = the number of correct responses with semantic priming in DAT group
CRWS.APH = the number of correct responses with semantic priming in aphasic group
CRWP.ALZ = the number of correct responses with phonological priming in DAT group
CRWP.APH = the number of correct responses with phonological priming in aphasic group

Figure 3. Comparison of overall performance of DAT and aphasic patients in naming task



WR.ALZ = the number of wrong responses in DAT group
WR.APH = the number of wrong responses in aphasic group
NO.R.ALZ = the number of no responses in DAT group
NO.R.APH = the number of no responses in aphasic group
TCR.ALZ = the number of correct responses in DAT group
TCR.APH = the number of correct responses in aphasic group

Table 1 Comparison of correct responses without and with priming between DAT and aphasic patients

response	Test value = 0t	df	Sig (2-tailed)	Mean difference	95% CI lower	95% CI upper
CR.ALZ	17.780	19	0.000	34.1000	30.0857	38.1143
CR.APH	5.620	16	0.000	22.4706	13.9946	30.9465
CRWS.ALZ	5.667	19	0.000	6.0000	3.7839	8.2161
CRWS.APH	4.375	16	0.000	2.9412	1.5160	4.3664
CRWP.ALZ	4.518	19	0.000	3.7500	2.0129	5.4871
CRWP.APH	5.631	16	0.000	11.5294	7.1890	15.8698

CR.ALZ : Correct responses without any ques in DAT group
CR.APH : Correct responses without any aphasic group
CR. WS.ALZ: Correct responses with semantic priming inDAT group
CRWS.APH : Correct responses with semantic priming in aphasic group
CRWP.ALZ : Correct responses with phonological priming in DAT group
CRWP.APH : Correct responses with phonological priming in aphasic group

Table 2 Comaprison of wrong, no response and total correct responses between DAT and aphasic patients

Response	**test value = 0t**	**df**	**Sig (2-tailed)**	**mean difference**	**95% CI lower**	**95% CI Upper**
WR.ALZ	2.463	19	0.024	1.10000	0.1652	2.0348
WR.APH	2.324	16	0.034	4.2353	0.3726	8.0980
NOR.ALZ	4.893	19	0.000	4.0000	2.2888	5.7112
NOR.APH	3.005	16	0.008	10.2353	2.0153	17.4553
TCR.ALZ	47.893	19	0.000	43.8500	41.9337	45.7663
TCR.APH	10/.017	16	0.000	37.4118	29.4943	45.3293

WR.ALZ = wrong responses in DAT group
WR.APH = wrong responses in aphasic group
NOR.ALZ = normal responses in DAT group
NOR.APH = normal responses in aphasic group
TCR.ALZ = total correct responses in DAT group
TCR.APH = total correct responses in aphasic group

Models and Systems of Elderly Care

Oral Health Services in Nursing Homes? A Survey of Nursing Homes in Simcoe County, Ontario

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Introduction

The elderly population today is less likely to utilize dental services than any other population group in developed countries, such as the United States. Similarly, the 1978-79 Canadian Health Survey showed that 67% of the elderly had not visited a dentist within the previous 5 years. A comparison of the attendance of elderly Canadians with their U.S. and U.K. counterparts over a one year period indicates the level of attendance in Canada (23%) is half that of the other countries. Some studies indicate that attitudes, with respect to dentistry, may be changing. Several authors have stated, that as people age, a brighter picture may emerge, as the elderly will:

- Be better educated than the previous generations of older adults,
- Have higher expectations about maintaining and preserving their natural dentition, and
- Have the financial resources to fulfill their expectations.

As a result a question arises as to the impact of changing attitudes on the provision of oral health care services for those most in need - the institutionalized, medically or physically compromised elderly.

The provision of dental services to elderly populations is a complicated area. Dental consultation and treatment of older adults can be more difficult depending on physical and mental changes, as well as the problems of access to care for the more medically compromised clients and the experience of dental professionals providing the care. When the client is cognitively impaired, a new set of variables are introduced in the form of designated family members, caregivers or administrators, who are responsible for the oral health care of the client and the treatment the client will receive. The problems can be grouped as follows:

- Access to care
- Perceptions of the importance and need for oral health care services
- The delivery of dental services
- The benefit of providing dental services

Kiyak suggests that the reasons for low utilization patterns in the elderly are related to perceived need for care and perceived importance of oral health, as well as the number of natural remaining teeth and knowledge of the available dental resources in the community. The more traditionally cited barriers of - cost, fear and physical access are thought to be less important. This may be the case in some parts of the elderly population, who can decide for themselves the type of healthcare they wish to receive. Differences in attitudes and

perceptions of stakeholders, with respect to oral health, may lead to better or worse access for institutionalized clients, because of the positive or negative effects on the provision of services for the populations. The stakeholders affecting access to oral health care for this population are many and include:

· Clients
· Caregivers
· Family members
· Nursing staff
· Physicians
· Administrative staff
· Dental professionals
· Faculties of dentistry
· District Health Units
· Local government-health advisers
· Federal government-health advisers
· Professional dental organizations
· Professional dental licensing authorities

Negative influences may be governed by the perceptions or beliefs held by stakeholder groups. These perceptions may result from lack of education in the importance of oral health care to perceived lack of benefit from oral health services in the elderly. In order that the key areas of access and barriers to care can be fully understood and action taken, which is appropriate to the population, perceptions and attitudes of all stakeholders have to be investigated.

The goals of the investigation are:

* Better understanding of the barriers to care faced by nursing home administrators.
* Better information on where and how to target educational and service resources, in order to reduce barriers.

The specific objective is to:
Investigate the desires of nursing home administrators in the provision of oral health care to elderly populations.

Methods

A survey questionnaire was developed to ascertain the commitment of the nursing homes to provide on-site oral health services to their residents. Questions were asked of nursing home administrators in the following areas:

* Interest in a dental program
* Willingness to support a dental program
* The level of support for a dental program
* Estimated level of resident participation in a dental program
* Likely acceptable cost for the program
* Types of services, which would be desirable (screening, referral, cleaning of natural and artificial teeth, and denture labeling)

A separate section was also included in the questionnaire for input on other dental services, which would be desirable or of interest to the residents in the home, and how, in the opinion of the nursing home administrator, could the health unit assist in maintaining the oral health of the residents.

The names and addresses of all 24 nursing homes in Simcoe County, Ontario, were collated from District Public Health Unit records. The survey questionnaire and explanatory letter was sent by mail to the 24 identified nursing homes in Simcoe County, Ontario, Canada. The nursing homes were subsequently contacted by telephone within one week of the questionnaire being sent to provide additional information on the nature and aim of the study. An introduction to the questionnaire was also provided, and any questions regarding the survey were answered.

Results

Twenty-four nursing homes were sent a questionnaire and 22 completed and returned the questionnaire (92%). The two non-responders did not reply because one was due to close imminently and the other was a residential home, where the residents attended their own dentist outside of the home. The majority of nursing homes that responded were from major towns in Simcoe County, Barrie and Orillia (five from each). The number of residents in the nursing homes that responded ranged from 20 to 155, with a mean number of 78 residents. Of the 22 nursing homes that responded some did not fully complete the questionnaire, and this is reflected in the numbers and percentages quoted below.

The support for a dental program in nursing homes was strong (Figure 1). More than 90% (19) of the nursing homes surveyed were interested in having a dental program provided by the District Public Health Unit. In addition, 90% (17) of the nursing homes said that they would be willing to provide support to the District Public Health Unit for the program. The actual level of support was more variable: 94% (17) said they would be prepared to request a consent signature for program participation on admission to the nursing home, 80% (16) would designate a staff or volunteer to assist with onsite visits, and only 64% (14) would be willing to collect an annual fee on behalf of the District Public Health Unit.

The estimated numbers of residents who would be willing to participate in a dental program varied from nursing home to nursing home (Figure 2). Of the 16 nursing homes that answered this question, 9 (56%) felt

that more than 50% of the residents would participate in a dental program provided by the District Public Health Unit.

An estimate of the acceptable annual cost for a dental program in the nursing homes was recorded (Table 1). Of the 16 nursing homes that responded to this question, several gave more than one acceptable cost (or range of costs) for a dental program. The majority of responses (60%) identified an acceptable cost of under $35.

Figure 3 shows the nursing homes responses to the desirability of four dental services cited in the questionnaire. The vast majority of the nursing homes desired the following services: dental screening (90%), referral for treatment (86%), cleaning of natural or artificial teeth (82%), and denture labeling (73%).

When the nursing home administrators were asked to comment on other services that they would be interested in receiving from the District Public Health Unit or other general comments related to assisting in them in maintaining the oral health of the residents, the following themes emerged:

In-service Education for Staff
Several nursing homes identified the need for staff education on oral health care of their residents in the following areas. Specific comments were:

In-service on techniques to clean residents own teeth, particular those with dentures.

Health Teaching regarding care of elderly clients and their own teeth/dentures, especially of the cognitively impaired.

Keeping our staff up to date with latest tools in providing and maintaining good oral health.

Provision of Current Information
Current information on the importance and benefits of oral health care and best practices should be provided to staff and residents. Specific comments were:

Provide current information on evidenced- based best practices that are feasible and recognized the limitations that LTC has to provide services. Identification of Dentists willing to provide services to the elderly whose office will accommodate visits.

Cost and Budget Restrictions
Nursing home administrators identified limits on the cost of a dental program for residents. Specific comments were:

$50 too prohibitive for most - If issues of use and access are not addressed first the rest is just an academic exercise.

Residents cannot/will not pay more than $25, more than this and few will participate.

Discussion
Perceptions of the importance and priorities of dental services have not been reported in the literature. The importance of perceptions lies in the exploration of the concept of access. Part of the concept includes the notion of acceptability of the services to the gatekeeper of care, nursing home administrators.

The emerging profile of the desired dental services in nursing homes from this study is one which provides screening, referrals for interventive care when appropriate, and basic denture care as necessary. Staff education was seen as important by administrators. Complex care was not considered a priority. Services, which are not identified as important, can also provide information on the types of services, which perhaps would not be utilized even if offered.

The inference of the responses from nursing homes administrators is that a basic program is desired not one providing a comprehensive list of services. If this opinion truly reflects the desires of this population then a modest range of services could be provided at minimal cost by utilization of the whole dental team. For example:

* Screening, referral and education - Dental Hygienist
* Prevention (including denture cleaning and labeling) - Dental Hygienist
* Diagnosis/restorative care/extractions/denture alteration or fabrication - Dentist and Dental Nurse

The willingness of the nursing home administration to participate and support a dental program in this setting is demonstrated in this study. The estimates of the numbers of residents of nursing home prepared to participate are also encouraging. However, the limiting factors of providing such a service may be the barrier that has been identified for all population groups, that of cost of the service.

It would seem that the gatekeeper stakeholders are willing to participate in service development. The range of services desired is limited, but prevention focused. There is also an identified need for in-service education, which emphasizes the importance placed on dental knowledge in this environment and has been identified in the literature. The willingness of the professionals to commit in a similar manner may depend on the support for this type of initiative from local government funding

agencies. Administrators identify the importance of cost barriers. A financial investment from government for this type of program may be essential to overcome this problem.

Conclusions

The residents of the nursing homes and their family members share similar views in the types and frequency of dental services that should be provided in the nursing home setting. They describe a basic dental service of check-ups and preventive care, with restorative, denture and surgical intervention where necessary. Complex care is not a priority. Services should be available once or twice a year.

There is an explicit wish on behalf of the nursing home administration to have dental services, which would be supported by staff in the nursing home environment. The services desired are preventive in nature and include in-service education of staff. However, but barriers exist to the development of such services and programs. The main barrier is cost. The estimated ability of the clients' ability to pay may fall between$20 and $50 per year. It is more than likely that the basic assessment and preventive services required would cost more than double this figure. A government investment for program development in nursing homes is required to make this a reality.

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Table 1: Acceptable Annual Cost of Participation in a Dental Program

Category	Count	% of responses	% of cases
Under $25	8	30	50
$25 to $34	8	30	50
$35 to $49	6	22	38
$50 or above	5	18	31

Note: Multiple response allowed, n=16 valid respondents

Figure 1 Level of support for dental program in nursing homes

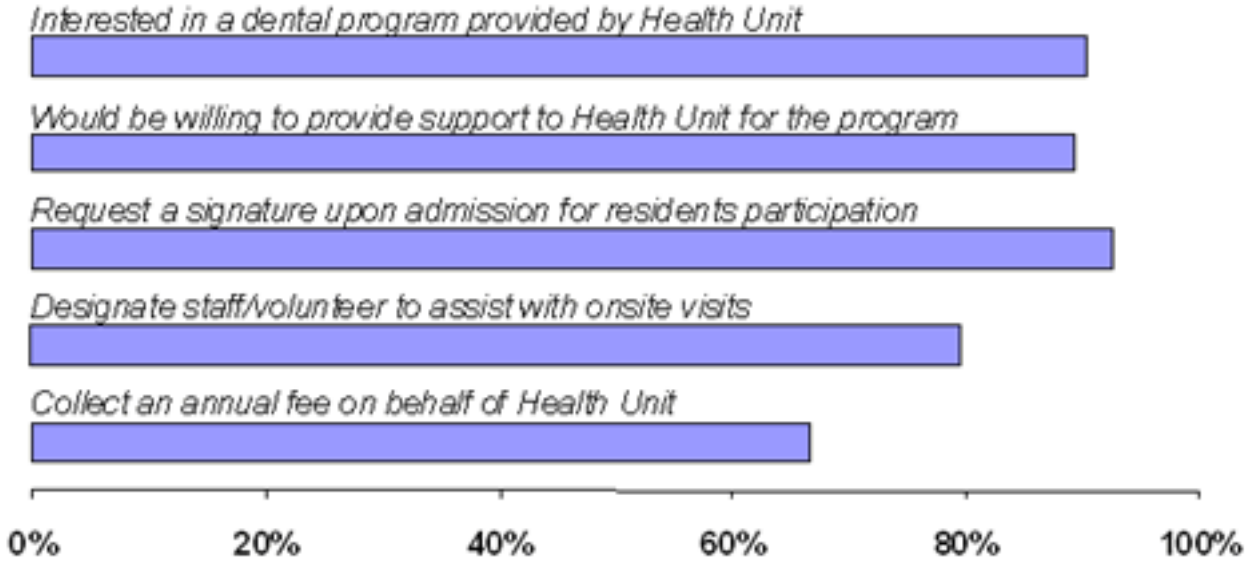


Figure 2. Estimated percentage od residents that would participate in dental program

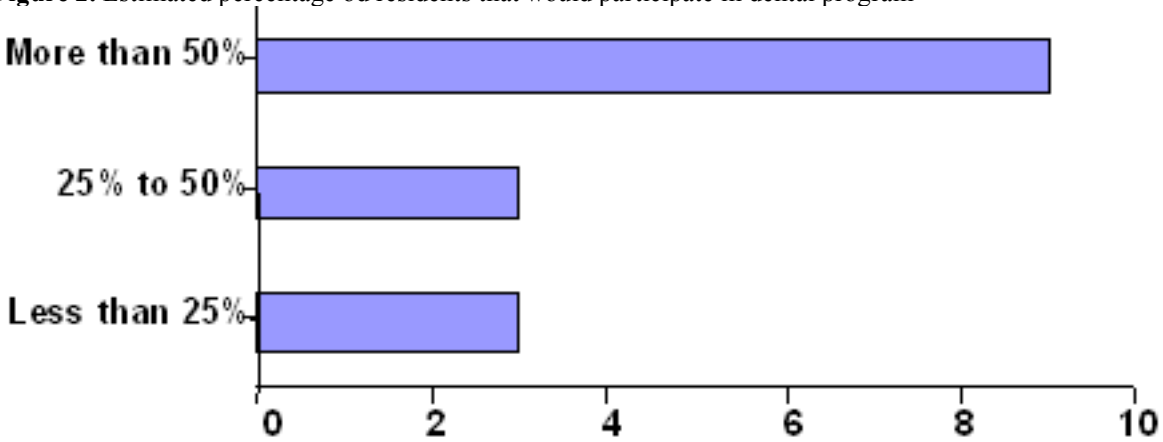
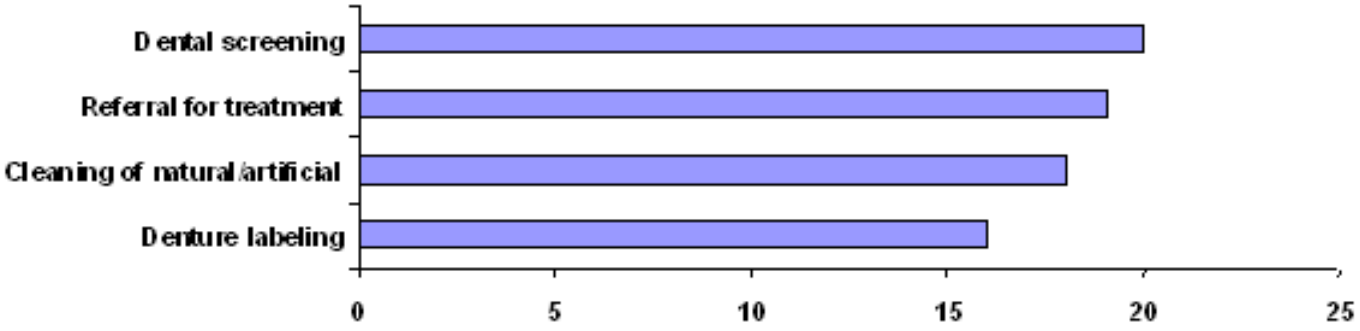


Figure 3. Types of Desired Dental Services



Models and Methods and Clinical Research

Rehabilitation of Facial Palsy in Elderly People

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ABSTRACT

Objectives: To study the value of physical treatment for elderly patients with facial palsy.

Methods: This study was conducted at the Royal Medical Services during the period between February 2006 and February 2008. 64 patients with facial palsy with incomplete recovery were referred from the ophthalmology clinic to the rehabilitation center. The patients' clinical picture was classified according to Facial Grading System to measure the degree of facial impairment. An individualized treatment-based category was assigned with muscle re-education exercise. Facial Grading System score was measured before and after therapy.

Results: The mean age of patients was 59.6 years with age range of 51 to 82 years. Forty - four patients had Bell's palsy, 14 had acoustic neuroma and 6 were post traumatic. The average number of treatment sessions was 16.4 over a period of 14.2 months on average. The average Facial Grading System score was 19.8 out of 100 before starting physical therapy; after treatment the average score was 61.5 out of 100. Patients with Bell's palsy had the most favorable outcome compared to the other three causes.

Conclusion: The use of individualized treatment-based category is helpful for rehabilitation of patients with facial palsy especially in those with Bell's palsy.

Keywords: Facial palsy, Bell's palsy, rehabilitation, facial grading system.

Introduction

Facial paralysis can be a disfiguring disorder that has a great impact on the patient. It may be caused by trauma, infection, tumor, congenital, iatrogenic or idiopathic. The latter is the most common cause and is called Bell's palsy. It is thought to account for about two thirds of cases of facial paralysis[1-3].

Whilst most patients with Bell's palsy recover without noticeable disfigurement, iatrogenic, traumatic and tumor related causes rarely recover. In addition, a good percentage of patients with Bell's palsy especially the elderly do not show complete recovery. The end result will be distorted facial expression and movement disorder with psychological and social disability and cosmetic inconvenience[4-5].

Long term treatment and physical therapy are important in patients with incomplete recovery. Rehabilitation measures include eye protection, and restoration of function of face. The latter includes microsurgical reanastomosis or nerve grafting, electromyography and conventional muscle re-education exercise[6].

In this study, we evaluated the effect of an individualized muscle re-education exercise on treating facial palsy according to its etiology.

Methods

This study was conducted at the Royal Medical Services during the period between February 2006 and February 2008. 64 patients with facial palsy with incomplete recovery were enrolled in the study. Patients were referred from ophthalmology clinic to a specialized rehabilitation center. Patients' clinical picture was classified according to Facial Grading System (FGS) to measure the degree of facial impairment[7]. This system consisted of grading resting posture, voluntary movement, and the presence of abnormal movement. An individualized treatment-based strategy that was previously assigned by Jennifer Brach and Jessie Van Swearingen using muscle re-education exercise according to patient clinical picture was adopted6. The FGS score was measured before and after treatment. P-

value was applied to see the success of therapy according to etiological factors.

Results

The mean age of patients was 59.6 years with age range of 51 to 82 years. Male to female ratio was 1.1 to 1. Bell's palsy was found in 44 patients, acoustic neuroma in 14 and post traumatic in 6. The average number of treatment sessions was 16.4 sessions over an average period of 14.2 months. The average Facial Grading System score was 19.8 out of 100 before starting physical therapy; after treatment the average score was 61.5 out of 100. Patients with Bell's palsy had the most favorable outcome (Table 1).

Table 1: The outcome of physical therapy according to etiology

Etiology	FGS score prior to therapy	FGS score after therapy	P-value
Bell's palsy	20.8	79.8	$P < 0.05$
Acoustic neuroma	18.7	40.1	$0.2 < P < 0.1$
Trauma	17.8	35.9	$0.2 < P < 0.1$
Total	19.8	61.5	

Discussion

Facial palsy may result in disfigurement and functional impairment if the patient is not completely recovered. It may result in abnormal movement (synkinesis), motor, social and psychological disabilities. Ocular complications are not uncommon ranging from lid problems to corneal perforation. In order to minimize these sequelae, prompt treatment is mandatory.

Traditional treatment programs included electrical stimulation and gross facial exercises even though there is evidence that these modalities are ineffective and may even interfere with neural regeneration[8-12]. Nowadays, neuromuscular retraining is becoming a widely accepted and effective treatment modality in the treatment of facial palsy with incomplete recovery[13]. In our study, we used an individualized neuromuscular retraining program based on the system assigned by Jennifer Brach and Jessie Van Swearingen 6 and relying upon Facial Grading System score to see the outcome of therapy[7]. This system consisted of grading resting posture, voluntary movement, and the presence of abnormal movement.

Resting posture has its grading according to palpebral fissure width, presence of eyelid surgery, nasolabial fold and angle of mouth positions. Voluntary movement includes brow elevation, eye closure, snarl, smile, and pucker. Synkinesis is also graded. The sum of this system is a score ranging from 0 or complete paralysis to 100 or full function.

We found that patients with Bell's palsy had the best outcome with FGS score improving from 20.8 to 79.8. This was statistically significant when compared to the other three causes. In our series, most patients with Bell's palsy were older than 50 years of age and all of them showed incomplete recovery over a period of 6 months.

Patients with acoustic neuroma improved after therapy with more than doubling of the score. All patients had surgery; four of them developed facial palsy after the operation.

Surgical procedures may be used to treat traumatic facial paralysis but this will not restore full function. Electromyography can be used to facilitate rehabilitation14. The six patients in our series showed improvement on individualized muscle re-education. The results were less favourable than those in Bell's palsy.

In conclusion, the use of individualized treatment-based category is helpful for rehabilitation of patients with facial palsy especially in those with Bell's palsy. The proper use of such exercises may prevent debilitating complications.

Conflict of interest declaration

Although the present research has been funded by Iranian Research Center on Aging, there is no predetermined agreement between the researcher and the institute on the methodology and results of the study. The authors have had full control on their data , analysis and interpretation of results.

Description of authors' roles

F.Yadegari has been the main administrator of the research , proposing the topic and design, controlling data collection, reviewing literature and writing the article. M. Froughan cooperated in designing study, introducing patients and consulting on differential diagnosis procedures of Alzheimer patients, analyzing and discussing the results and organizing the paper. A. Mehri helped much in aphasic section of the study, review of literature and writing the proposal. And finally P.Shirinbayan was responsible for research methodology and statistical analysis.

Acknowledgement

This project has been benefited of the financial and scientific support of Iranian Research Center on Aging. The authors are thankful of Mrs. Soheila Hejrati, Mrs. Marzieh Amrovani, Mrs. Mitra Soltani and Dr. Lili Hayati for their help in different stages of the study. And also appreciate the help of Iranian Alzheimer Association and consider theirselves indebted to all patients, their families and also the healthy elderly who participated in this study despite all difficulties.

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