

Current status of availability of speech and language pathologist for individual with Parkinson disease: In a metropolitan city

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Abstract

Introduction: Worldwide, prevalence of communication disorder in Parkinson Disease (PD) is 89%, however only 3-4% receives Speech Therapy. This highlights the need for an increase in the number of professionals to manage the various communication problems these individuals with PD face. This study was conducted using small sample survey on individuals with PD, medical professionals and Audiologists and Speech Language Pathologists (ASLP). **Aim:** Information about the need, availability and any other difficulties encountered for communication management were procured. **Methodology:** 56 individuals with PD, 30 medical professionals consisting of Neurologist and ENT and 158 ASLP were surveyed. To corroborate availability of speech language pathologists, intake capacity of Audiology and Speech Language Pathology students for graduation and post graduation in Mumbai and a rough estimate of their post education status in terms of area of practice was obtained. **Results:** Though more than 50% individuals with PD face communication difficulties only 5% are taking therapy. Over 50 % medical professionals stated difficulty in finding a speech therapist to refer the individual with PD. Only 10% of practicing speech therapists treat individuals with PD on a regular basis. On an average only around 27 post graduates pass out per year in Mumbai, roughly 50% of the same opt for a career in Speech language pathology. **Conclusion:** This fact highlights the need for increase in the man power development. This study on PD is a preliminary estimate of one of the many communication disorders that come under the treatment purview of a Speech and Language Pathologist.

Key words: Availability, Parkinson's disease, speech therapist

Introduction

Parkinson's disease (PD) is a chronic progressive neurodegenerative disorder of insidious onset, characterized by the presence of motor and nonmotor

symptoms. Dysarthria and hypophonia lead to difficulties in communication, while the presence of dysphagia increases the risk of aspiration pneumonia.^[1] Current treatment protocols for PD worldwide include neuropharmacological therapies, neurosurgical treatment, rehabilitative therapies, or a combination of all. A combination of behavioral speech therapy and medical therapy appears to offer the greatest improvement for communication difficulties.^[2]

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It is estimated that about 70/10,000 population of India suffer from PD. Based on this, if India's population is over one billion, estimated population of individuals with PD is approximately 7 million.^[3] Worldwide, the prevalence of communication disorder in PD is 89%; however, only 3–4% receives speech therapy.^[4] This highlights the need for large number of professionals to manage the various communication problems these individuals with PD face. Thus, there is an enormous number of individual with PD but probably not enough professionals to take care of them. This miss-match between actual demand and PD receiving services for communication problems needs exploration. One of the factors which need attention is workforce development.

In the Indian scenario, the Rehabilitation Council of India^[5] has 444 institutions, with an intake capacity of 17,745, which are recognized to conduct courses in the area of Visual, Mental, Hearing, and Locomotor disability. The Indian Speech and Hearing Association^[6] have over 2500 hearing and speech professionals all over India. In the city of Mumbai, a graduate program for Audiology and Speech-Language Pathology (ASLP) consists of an intake of 48 graduates and 27 postgraduates every year.^[7] The magnitude of brain drain among students' of speech and hearing graduates is 48% according to a survey in the year 2006.^[8]

Therefore, this study was conducted using small sample survey on individuals with PD, medical professionals, and ASLP. Information about the need, availability and any other difficulties encountered for communication management were procured.

Aims and objectives

To observe how many individuals with PD have communication difficulty and how many are undergoing treatment for the same. To see how many medical professionals are referring individuals with PD for speech therapy. To see how many ASLP's are treating individuals with PD.

Methodology

In this study, 56 individuals with PD as diagnosed by a neurologist were subjected to a survey on the current treatment they are undergoing and difficulties faced, if any, in availing the same. The individuals with PD were taken with permission from the PD and Movement Disorder Society of Mumbai. There were 14 females and 42 males. The age range of these individuals is 57 years to 81 years, the mean age being 63 years.

Each individual was asked four questions regarding their speech/communication difficulty and treatment considerations and two questions regarding physical difficulty and treatment for the same [Appendix 1a].

Then, thirty medical professionals consisting of neurologist and ENT who were treating individuals with PD were given a questionnaire to fill or asked telephonically about referral protocol for individuals with PD [Appendix 1b].

Similarly, 158 Audiologist's and Speech and Language Therapists (ASLP) were asked to fill the questionnaire or telephonically a few questions on frequency of treating individuals with PD [Appendix 1c].

The questionnaire prepared was shown to three senior speech therapists for an expert content validation of the questions.

To corroborate availability of speech language pathologist intake capacity of ASLP students for graduation and postgraduation in Mumbai was obtained through the official website mentioning rules, regulation, and admission procedure. Furthermore, a rough estimate of their posteducation status in terms of area of practice was obtained by telephonically contacting 2–3 individuals from the past 5 years batches and finding the current occupational status of all the pass outs.

Results and Discussion

The data obtained were subjected to a percent analysis. It was observed that 98% (55 out of 56) of the individuals with PD have difficulties with overall physical motor movements, and 84% (47 out of 56) are taking physiotherapy for the same. On the other hand, 67% have speech difficulty (38 out of 56), 78% have voice difficulties (44 out of 56), and 50% have dysphagia (28 out of 56) of various degree [Figure 1].

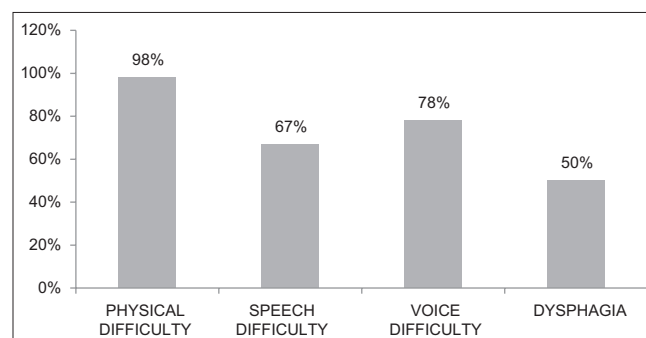


Figure 1: Difficulty faced by individuals with Parkinson disease

Only 5% are taking speech therapy (3 out of 56). As reported, only 19% have been referred for speech therapy (19/56), 30% want therapy (17/56) but have difficulty finding a therapist and 10% (6/56) mentioned financial and logistics difficulties in availing therapy.

Of the 30 medical professionals, 47% (14/30) see individuals with PD on a weekly basis and 53% (16/53) on a monthly basis. Nearly 67% (20/30) of medical professionals believe that regular long-term speech therapy is beneficial. About 80% (24/30) professionals generally do not refer individuals with mild or severe degree of speech problems but refer moderate speech difficulties. When asked reason for reduced referral, 73% (22/30) believe, especially for milder cases, medical benefits suffice and more than 50% (17/30) stated that finding a speech therapist is difficult and about 6% (2/30) believe that there is poor prognosis, especially for the severe cases.

Of the 158 Audiologist's and Speech and Language Therapists (ASLP), 51% (82/158) are practicing audiology full time and are not exposed to any speech cases. Of the remaining 76, only 10% (8/76) treat individuals with PD on a weekly basis. About 62% (47/76) see them monthly and 28% (21/76) once in a few months [Figure 2]. About 6% (11/158) of the total 158 professionals do not believe in long-term therapy for individuals with PD as it is a progressive disorder.

The intake of seats in ASLP in Mumbai for a graduate program is 48 and postgraduate is 27. Roughly when enquired for the last 5 years, 5–6 graduate students out of the 48 (12%) pursue postgraduation abroad. Approximately, 50% of the postgraduate students opt for a career in Audiology which leaves only around 13 speech

therapists per year. Observation shows that practicing speech therapists prefer to opt out for specialized practice in a given disorder or condition such as voice disorders, child and language disorders, speech disorders, and neurological disorders. Thus, the available professionals specializing for given conditions are very few. Therefore, PD and the referring medical personnel find it difficult to get speech therapist. If available, the logistic in terms of distance to travel, time taken and availability of accompanying person pose problems. Thus, mismatch between the demand and availability is huge.

Conclusion

This small sample survey was conducted to find out the problems faced in availing management for PD. Although more than 50% individuals with PD face difficulties with speech, voice or dysphagia only 5% are taking treatment. Although the need for therapy is felt, the problems faced for the same include finding a speech therapist and financial and logistics difficulties in availing therapy.

Over 50% of medical professionals stated difficulty in finding a speech therapist to refer the PD. Only 10% of practicing speech therapists treat individuals with PD on a regular basis. This study on PD is a preliminary estimate of one of the many communication disorders that come under the treatment purview of a Speech and language pathologist. On an average, only around 27 postgraduates pass out per year in Mumbai, roughly 50% of the same opt for a career in Speech-language pathology. This fact definitely states the paucity in availability of speech therapist even in a metropolitan city like Mumbai. This highlights need for an increase in the workforce development. This could be undertaken by an increase in the intake of seats for graduate and postgraduate programs.

Limitations

This is a small sample size limited to one city. The details of the occupation of students over the last 5 years were taken by word of mouth.

Future implications

Similar studies should be carried out in other geographical areas.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

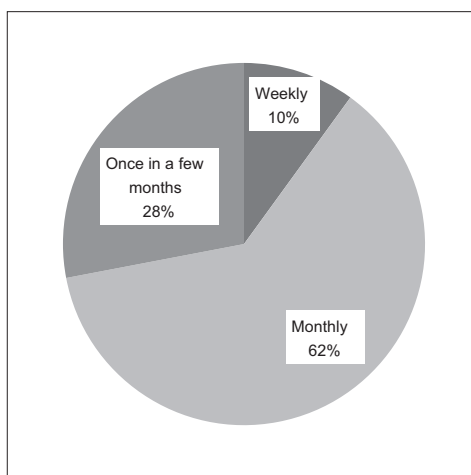


Figure 2: Exposure of speech language pathologists to Parkinson's disease

References

1. WHO Library Cataloguing-in-Publication Data, Neurological Disorders Public Health Challenges; 2006. Available from: http://www.who.int/mental_health/neurology/introduction_neuro_disorders_public_h_challenges.pdf?ua=1. [Last cited on 2015 Aug 18].
2. Schulz GM, Grant MK. Effects of speech therapy and pharmacologic and surgical treatments on voice and speech in Parkinson's disease: A review of the literature. *J Commun Disord* 2000;33:59-88.
3. Behari M, Bhatnagar SP, Muthane U, Deo D. Experiences of Parkinson's disease in India. *Lancet Neurol* 2002;1:258-62.
4. Ramig LO, Johnson A, Freed C. Speech treatment for Parkinson's disease. *Expert Rev Neurother* 2008;8:299-311.
5. RCI Statistics- Department of Disability Affairs Draft Awareness Brochure. Courses for Rehabilitation Professionals Conducted by the National Institutes. Available from: http://www.alimco.in/WriteReadData/UserFiles/file/ddabad_01032013.pdf. [Last cited on 2015 Aug 18].
6. ISHA Statistics. Available from: <http://www.ishaindia.org.in>. [Last cited on 2015 Aug 18].
7. Intake of Students Statistics. Available from: <http://www.muhs.ac.in/>; <http://www.rehabcouncil.nic.in/>; <http://www.dmer.org/vol2013.htm>. [Last cited on 2015 Aug 18].
8. Nambiar S, Shah U. Brain Drain – Is it Affecting the Speech and Hearing Services in India? Unpublished Project Report. Mumbai: AYJNIHH; 2006.

APPENDIXES

APPENDIX 1a

Questionnaire for the individual with Parkinson disease

Name:

Age/Sex:

Do you have speech/voice or swallowing difficulties?

- Yes
- No

If yes, have you been referred to a speech therapist for regular speech therapy?

- Yes
- No

If no, have you been referred to a speech therapist for consultation to rule out any difficulties, since symptoms may occur at a later point in time

- Yes
- No

Speech therapy is NOT an option because

- We were not referred
- No speech difficulties
- Cannot travel for therapy/financial difficulties
- Cannot find therapist
- Therapist does not recommend long-term therapy
- Parkinson's is progressive, no point in taking therapy

Other

Do you have any physical difficulty?

- Yes
- No

Are you taking physiotherapy?

- Yes
- No

APPENDIX 1b

Questionnaire for the Medical Professional

How frequently do you treat individuals with Parkinson's?

- Weekly
- Once a month
- Once in a few months

Have you referred the patient for speech therapy if he/she is showing speech or swallowing difficulties?

- Yes
- No

Would you refer the patient to the speech or language/therapist if there are no/minimal symptoms, keeping in mind that symptoms may occur later?

- Yes
- No

Would you refer the patient to a speech therapist if the patient has severe difficulties or complete loss of functions?

- Yes
- No

Besides medication, are you of the opinion that long-term, regular rehabilitation, like speech therapy, is beneficial for those patients with symptoms?

- Yes
- No

If the answer to any of the previous questions is NO, please tick on the option/s below for plausible reasons

- Symptoms reduce/disappear with medication
- Speech therapist not available
- Parkinson is degenerative, rehabilitation or long-term follow-up is of no/minimal use
- Prognosis is poor
- Patient not affording
- Difficult for patient to travel
- Speech Therapist not willing for long-term treatment

Referred but found not useful

Other

APPENDIX 1c

Questionnaire for Audiologist and Speech and Language Therapist

How frequently do you treat individuals with Parkinson's?

- Weekly
- Once a month
- Once in a few months
- Not treated

Do you think speech therapy can help in any manner for individuals with Parkinson disease?

- Yes
- No

How often would you take therapy?

- 1–2 times in a week
- 1–2 times in a month

- 1–2 times a year
- On a follow-up basis

Others

How often would you reassess the patient?

- Three months
- Six months
- Annually

Do you take home visits for these patients?

- Yes
- No

What is your opinion of speech therapy for individuals with Parkinson's or other degenerative disorders?