PERCEPTIONS OF OCCUPATIONAL THERAPISTS AND PHYSIOTHERAPISTS ON COMMUNICATION WITH POST-STROKE APHASIA CLIENTS DURING REHABILITATION IN BANGLADESH

By

Muhsina Abedin Rezwana

4th year, B.Sc. in Speech & Language Therapy Department

Session: 2020-2021

Bachelor of science in Speech & Language Therapy

Bangladesh Health Professions Institute (BHPI)

(*Academic institute of CRP*)

Faculty of Medicine, Affiliated by

University of Dhaka

[January, 2026]

PERCEPTIONS OF OCCUPATIONAL THERAPISTS AND PHYSIOTHERAPISTS ON COMMUNICATION WITH POST-STROKE APHASIA CLIENTS DURING REHABILITATION IN BANGLADESH

A Research presented to the

Bangladesh Health Professions Institute *(The academic institute of CRP)*

University of Dhaka

By

Muhsina Abedin Rezwana

rezwana7ana@gmail.com

Submitted to

Md. Mizanur Rahman

Assistant Professor

Department of Speech and Language Therapy

Bangladesh Health Professions Institute (BHPI)

In partial fulfillment of the requirements for the degree of

B. Sc. in Speech & Language Therapy

[January, 2026]

APPROVAL

We certify that we have carefully read and recommended to the Faculty of Medicine, University of Dhaka, for the acceptance of dissertation entitled "**Perceptions of occupational therapists and physiotherapists on communication with post-stroke aphasia clients during rehabilitation in Bangladesh.**"

Muhsina Abedin Rezwana

4th year, B.Sc. in Speech & Language Therapy

Approved By

Signature of the Supervisor

……..

Md. Mizanur Rahman

Assistant Professor

Department of Speech and Language Therapy

Bangladesh Health Professions Institute (BHPI)

CRP, Chapain, Savar, Dhaka-1343, Bangladesh

Signature of Head of the Department

…….

Md. Sazzad Hossain

Head & Assistant Professor

Department of Speech and Language Therapy

Bangladesh Health Professions Institute (BHPI)

CRP, Chapain, Savar, Dhaka-1343, Bangladesh

DECLARATION

I am **Muhsina Abedin Rezwana**, would like to declare that every single part of this research is done by me & will not be harmful to anyone. All data from the resources have been cited correctly. I take full responsibility for any mistakes in this research.

Signature & Date

……

Muhsina Abedin Rezwana

4th year, B.Sc. in Speech & Language Therapy Department

Bangladesh Health Professions Institute (BHPI)

CRP, Chapain, Savar, Dhaka-1343, Bangladesh

DEDICATION

Dedicated to……

……*My beloved parents*

TABLE OF CONTENTS

TABLE OF CONTENTS ..... *i*
LIST OF FIGURES ..... *iii*
LIST OF TABLES ..... *iv*
LIST OF ANNEXURES ..... *v*
ACRONYMS ..... *vi*
ACKNOWLEDGEMENT ..... *vii*
ABSTRACT ..... *viii*
CHAPTER 1 INTRODUCTION 1
1.1 Introduction 1
1.2 Significance 4
1.3 Research Question 5
1.4 Objectives 5
1.4.1 General Objective 5
1.4.2 Specific Objectives 5
1.5 Literature Review 6
1.6 Operational Definition 10
1.6.1 Stroke 10
1.6.2 Post-stroke Aphasia 10
1.6.3 Communication Strategies 10
1.6.4 Occupational Therapists 10
1.6.5 Physiotherapists 10
CHAPTER 2 METHODOLOGY 11
2.1 Study design 11
2.2 Sample selection 11
2.2.1 Study place 11
2.2.2 Study population 11
2.2.3 Sample size 11
2.2.4 Sampling procedure 13
2.2.5 Inclusion criteria 13
2.2.6 Exclusion criteria 13
2.3 Data collection 14
2.3.1 Data collection instrument 14
2.3.2 Data collection procedure 14

2.3.3 Pilot Study....14
2.3.4 Informed Consent....14
2.4 Data Analysis....15
2.5 Ethical consideration....15
CHAPTER 3 RESULT....16
CHAPTER 4 DISCUSSION....29
CHAPTER 5 LIMITATIONS & RECOMMENDATIONS....31
CHAPTER 6 CONCLUSION....32
CHAPTER 7 REFERENCES....33
CHAPTER 8 ANNEXURES....43

LIST OF FIGURES

Number of figures	Topics	Page No
3.1.1	Importance of communication to the PTs and OTs while communicating with PSA patients	17
3.1.2	Effectiveness of communication with PSA patients	18
3.1.3	Confidence of PTs and OTs while communication with PSA patients	18
3.2.1	Communication strategies during rehabilitation to assist clients with post-stroke aphasia	19
3.2.2	Communication strategies during rehabilitation to assist clients with post-stroke aphasia to express themselves	20
3.3	Challenges faced by professionals to communicate with PWA	21
3.3.1	Other challenges faced during rehabilitation	22
3.4.1	Assets for communication with PWA	23
3.4.2	Helpfulness of the asset	24
3.4.3	Potential Assets for Improving Communication Between PWA and Professionals	25
3.4.4	Input from speech-language therapists	26
3.4.5	Training topics on supporting Clients with Post-Stroke Aphasia received by professionals	27
3.4.6	Willing to receive more training on communication strategies	27
3.4.7	Future Training Topics to Support Communication with PWA	28

LIST OF TABLES

Number of table	Topics	Page No
Table 1	Importance, effectiveness and confidence on communication with PSA patient	16

LIST OF ANNEXURES

Annexure	Topic	Page No.
Annexure 1(a)	Informed consent form (Bangla)	**44**
Annexure 1(b)	Informed consent form (Bangla)	**45**
Annexure 2(a)	Questionaries (English)	**46-54**
Annexure 2(b)	Questionaries (Bangla)	**55-64**
Annexure 3	Permission from author for Questionaries	**65**
Annexure 4(a)	IRB Permission	**66**
Annexure 4(b)	Research conduction permission	**67**
Annexure 5	Permission	**68-74**

ACRONYMS

AAC	Augmentative and Alternative Communication
BHPI	Bangladesh Health Professions Institute
CPT	Conversation Partner Training
CRP	Centre for the Rehabilitation of the Paralysed
GBD	Global Burden of Disease
HP	Health Professional
IRB	Institutional Review Board
NCD	Non-Communicable Diseases
OT	Occupational Therapist
PPA	Primary Progressive Aphasia
PSA	Post Stroke Aphasia
PT	Physiotherapist
PWA	People With Aphasia
SLP	Speech and Language Pathologist
SLT	Speech and Language Therapist
WHO	World Health Organization

ACKNOWLEDGEMENT

In the name of Allah, the Almighty, who is gracious and kind. Without Allah's guidance and the support of several amazing individuals, I could not have completed this dissertation.

First and foremost, I would want to express my appreciation to my supervisor, Md. Mizanur Rahman (Assistant Professor, Speech and Language Therapy Department, BHPI), who had the mindset and character of a genius. He consistently and effectively encouraged them to put in more effort. Without his outstanding leadership from start to finish, this study would not have been feasible. I am really appreciative of my friends' assistance during my study, especially Samira Akter Nepa, Most Afroza, and Lam Yea Jannat for giving me support.

And finally, I am so gratitude to my parents, grandparents and all my family member for supporting me through the time.

ABSTRACT

Aphasia is a common post-stroke condition that seriously affects social communication and has influenced the outcomes of rehabilitation. The views of PTs and OTs on how to interact with people with aphasia during rehabilitation were explored in the present study. A descriptive cross-sectional design was used for obtaining data from 100 rehabilitation specialists (86 PTs and 14 OTs) using an adopted structured questionnaire. Within the data, more than 80% of participants believed that good communication affects rehabilitation and over 91.9% PTs and 85.7% OTs considered this important as well. A large number of therapists reported moderate or low confidence in their skills for communicating with people with aphasia, however 86% felt confident. All therapists used at least one communication strategy; most popular strategies were gestures, Yes/no questions, giving more time to respond, demonstrations and use of family members. However, significant challenges were also reported including: the level of severity of aphasia (more than 65% of PTs and OTs describing this as a major to moderate obstacle), time barriers, lack of resources and inadequate understanding and knowledge about communication strategies. 100\% of respondents reported the need for additional training in aphasia communication strategies. Most respondents (70.9% PT; 64.3% OT) reported that support from speech and language therapists (SLTs) was "very helpful", with all participants identifying a role for frequent SLT input. To facilitate the success of patient centered rehabilitation for patients with aphasia, the results highlight barriers to communication in OTs and PTs Details of how loss of a shared language impacts on access to healthcare are supported by these findings and highlights provision of basic communication training and development or use of enhanced multidisciplinary working approaches.

Key Words: *Stroke, Post stoke Aphasia, Communication Strategies, Occupational Therapist, Physiotherapist*

CHAPTER 1 INTRODUCTION

1.1 Introduction

Stroke is a leading cause of morbidity and mortality worldwide. The 2021 Global Burden of Disease (GBD) estimates have shown that stroke is the second leading cause of death worldwide, with nearly 7 million deaths and the third leading cause of death plus disability with more than 160 million Disability-Adjusted Life Years (DALYs) associated judged by the nature (Feigin et al., 2024). In South-Asian region stroke related deaths are significantly higher in low-income countries and Bangladesh is the major contributor among them. Cardiovascular diseases and strokes happen a decade earlier in the bases of the developing world escalating the burden on public health (World Health Organization [WHO], 2001). A developing country, Bangladesh is witnessing alarming rise in non-communicable diseases comprising stroke and coronary artery disease due to diet, urbanization and longer life span. From a total of 82,039 stroke deaths survived in 2011 which amounts to 8.57% of annual mortality from all causes, for Bangladesh; stroke is now the third leading cause of death (Aziz et al., 2025).

Similarly, 21–38% stroke is suffered with post-stroke aphasia (PSA), a frequently happened neurological disability (Peng et al., 2025). According to Thomas et al. (2025), this syndrome is a form of acquired communicative impairment in which there are abnormalities in processing speech and language that result in considerable social isolation, vocational restrictions, and diminished quality of life. When the language centres of the brain are damaged, post-stroke aphasia is often the result, causing both speech and comprehension impairment. The impact of aphasia on health and associated negative sequelae even when general cognitive abilities are preserved makes illness states in patients more undesirable, with a dramatic decrease in quality of medical care and outcomes (Carragher et al., 2024). Aphasic patients experience difficulties in representing their hospital needs to clinical staff, with negative consequences for well-being and a higher incidence of preventable adverse events (Moretta et al., 2025).

Aphasia rehabilitation is commonly managed by speech-language therapists (SLTs); however, the role of non-SLT rehabilitation staff, such as occupational/rehabilitation and physical therapists (OTs/PTs), has not been well explained, especially in low human resource countries like Bangladesh. It is possible that the OTs and PTs will use

unorthodox methods in communicating with aphasic patients as they may not often be exposed to specialized training on SLT. However, little is known about how HCPs perceive and manage communication difficulties in contexts where SLT input may be limited. Because OTs and PTs may be the greatest healthcare contact for aphasic patients in some cases, particularly when there is no access to SLT interventions, this represents a significant gap in the research.

Aphasia appears to have a considerable effect on functional communication; patients often suffer from anomia, agrammatism, and problems with meaningful speech production (Kristensson et al., 2023). During such an interventionist rehabilitation for communication deficits (both expressive and receptive) including speech production, language comprehension, and cognitive deficient are crucial. According to Breitenstein et al. (2017), speech-language therapy is an evidence-based intervention backed up by promising evidence even for people in chronic phase of stroke when provided at high intensity. However, resource-poor countries like Bangladesh sometimes have weak access to the specialist SLT services (Sheppard & Sebastian, 2020).

Although it is recognized that OTs and PTs have a vital role to play in helping people with aphasia communicate more effectively, such healthcare professionals face several barriers, including poor training, lack of confidence, and limited resources (Van Rijssen et al., 2021). This study attempts to fill in this gap by exploring how OTs and PTs in rehabilitation centres in Bangladesh perceive their communication practices with post-stroke aphasia patients, especially when SLT interventions are very limited or absent.

What is more, little is yet known about the possibilities offered by technology to support communicative activities in the context of aphasia rehabilitation. We know little of how digital tools and mobile applications are actually used in healthcare settings in Bangladesh, although there is evidence to suggest that they could support communication amongst aphasic individuals (Casey et al., 2023). The aim of this study is to explore if and how technology can support improvements in communications challenges during post-stroke aphasia rehabilitation when used alongside traditional rehabilitation methods.

This work is built upon the Communication Access Framework that advocates adjusting interventions to individuals' specific communication needs, which people with communication impairment may present (Palmer et al., 2018). In addition, the study serves as a pragmatic examination of our conceptual foundation for rehabilitation, the multidisciplinary Patient-Centered treatment Model leveraging coordinated patient-

driven intervention built on collaborative teamwork and shared treatment based on patient needs and goals (Northcott et al., 2016). The exploration of the ways that OTs and PTs can best contribute to improved communication outcomes in patients with aphasia, particularly where access to SLT is limited, will have its basis in this integration.

1.2 Significance

This research explores the views of OTs and PTs in relation to their encounters with people with PSA while in rehabilitation. OTs and PTs are necessary to stimulate communication across provisional care, especially when there is very little SLT input despite the fact that speech-language therapists (SLTs) are the leading professionals treating aphasia. The paper highlights challenges and strategies adopted by OTs and PTs when working with aphasic clients, illustrating how communication access is undermined in multidisciplinary rehabilitation. It highlights the importance of person-centred care in contemporary health systems, wherein aphasic individuals without OTs' and PTs' confidence and procedures might be excluded from rehabilitation (in a breach of ethical principles such as informed consent and respect for patient autonomy).

OTs and PTs use communication strategies, but doubt their effectiveness according to the study. This discloses a significant void where SLTs could play an important role helping non-speech-specialist rehabilitation professionals enhance their communication abilities. OTs and PTs could utilize more effective forms of communication given structured training and advice from SLTs, thereby improving the rehabilitation outcomes for aphasic patients. The findings suggest that SLTs are likely to assume further instructional and consultative roles, supporting direction and knowledge for improving communication access and overall care.

The fact that OTs and PTs wanted to enhance their communication skills suggests that it may be beneficial for SLT consultations-for rehabilitation in settings like South Africa, where therapy resources are limited. The study suggested that SLTs need to be more actively involved in multidisciplinary teams and should be seen as key advisors and trainers, in order to improve client communication; make care more person-centred, and ultimately improve systems. The results of this study call for a more widespread inclusion of SLT consultations and training in rehabilitation contexts, and demonstrate the importance of speech-language therapy skills within rehabilitation teams.

1.3 Research Question

What are the experiences of occupational therapists and physiotherapists on communication with post-stroke aphasic clients in rehabilitation setting in Bangladesh?

1.4 Objectives

1.4.1 General Objective

To explore occupational therapists' and physiotherapists' views about how they communicate with stroke patients with aphasia during rehabilitation in Bangladesh.

1.4.2 Specific Objectives

- To describe OT and PT perception of the importance, effectiveness and confidence about communication while working with clients who have post-stroke aphasia (PSA).
- To determine which communication items are most critical in OT and PT when working with clients who have post-stroke aphasia (PSA).
- To identify the principal barriers/challenges faced by OTs and PTs when communicating with people with aphasia.
- To explore how the role of speech-and language therapist (SLT) input in supporting communication with PSA clients is perceived by occupational therapists (OTs) and physical therapists (PT).

1.5 Literature Review

Stroke is one of the most important causes of mortality and morbidity worldwide. 15 million strokes occur annually each year, causing 6 million deaths and lifelong disability in 5 million cases (Aziz et al., 2025). Approximately 80% of NCD deaths are in low and middle-income countries (LMICs). Stroke is one of the leading causes of death and disability throughout the world. Stroke ruins lives every year, with 10.3 million new cases, 6.5 million deaths and about 26 million survivors living with disabilities (Mondal et al., 2022).

Stroke-induced aphasia is associated with poor outcomes in the acute and chronic phases (Lazar & Boehme, 2017). Post-stroke aphasia constitutes one of the most disabling impairments for a patient during rehabilitation and generally for the total outcome of stroke. Moreover, aphasia is one of the conditions that causes most negative impact on a person's health-related quality of life including increased risk for depression and reduced return to work (Grönberg et al., 2022).

The incidence of aphasia is still inconsistent across studies possibly because of differences in the time at which patients were identified, category of stroke site to be a risk factor, means used for ascertainment and characteristics of the study population. There are about 2,500,000 aphasia patients in the United States from different acquisition sources (Lima et al., 2019). Aphasia is a language disorder which affects an individual's ability to communicate, understand, express, name, repeat and/or read and write. 5 Patients with poststroke aphasia were three times more likely to be depressed than their non-aphasic counterparts. 661 The existence of aphasia after stroke* indicates high-quality rehabilitation treatment7 is required and may preclude resumption of employment. 8 Adverse outcomes of poststroke aphasia, including death, and longer recovery courses drive the cost of care (Wu et al., 2020).

Aphasia results in more complications and length of stay, which becomes a burden to the treatment and the whole-healthcare system. Speech impairment is a handicap at least as severe as hemiplegia. Prolonged lengths of stay contribute to increased healthcare expenses (Boehme et al., 2016). The most frequent type was global aphasia (50.5%), followed by motor (27.8%) and sensory aphasia (11.1%). Conductive and nominal aphasias were rare (8.3% and 2.8%). Our results are in line with others who reported global and motor aphasia as predominant types (Khedr et al., 2019). Aphasia can present significantly from one person to another and may not be consistent by all aspects

of communication for any one particular individual. Rehabilitation implementations and support programs are, therefore required to provide individualized adaptations adapted both to the variation of clinical profiles. Yet these very individualized and interdisciplinary therapies can be a financial burden to the family and the economy with healthcare costs post-stroke being significantly higher in PWA than patients without aphasia (Adikari et al., 2023).

People with poststroke aphasia have communicative difficulty, and AAC tools can enhance social engagement. Nevertheless, using AAC interventions as a compensatory strategy is still in its infancy. There is no standard therapy model in AAC intervention that can guide therapists, people who use AAC, their families or even manufacturers when deciding which interventions are the best ones to get (Russo et al., 2017). SLPs do not hear and judge in just one way. Different strategies were pursued to implement varying types of AAC, for instance as starting with unaided and transiting stepwise to aided or vice versa starting directly on aided AAC. It is understandable to consider different approaches, given the many facets that may influence people post-stroke based on the range of contexts in which they work. Functional Classification Paradigm the SLPs were comparable within the functional classification of Garrett and Lasker (Tdnslng, Odendaal & Tönsing, 2024).

The "quality" of speech-language therapy for treating language recovery following stroke in severe aphasia is mapped out through evidence. Augmentative strategies work on promoting functional communication, and are personalized to the individual with language difficulty regardless of level of lost functioning: dealing with what is there (Russo et al., 2017). SLPs are instrumental in the assessment and categorization of aphasia subtypes, as well as in intervention that involves multifaceted treatment goals designed to meet an individual's communication and quality of life requirements. SLPs have identified barriers to holistic, personalized intervention, however. Several factors affect discharge planning, including the shortage of staff and absence of community support services. This is in part a reflection of current service provision that has an acute and sub-acute health focus, with limited funding for long-term care and community-based programs for those living with chronic aphasia (Adikari et al., 2023).

SLPs are well positioned to improve interactions at medical visits with this group of patients. They can also facilitate communication in medical consultations by mediating between patients with CAs and their health care providers (Burns et al., 2015).

Aphasic persons can profit from very many forms of interaction aids. CPT One approach is of educating and learning the conversation partner (conversation partner training, CPT). CPT educates persons with aphasia about useful strategies and resources for talking to an individual with aphasia (Casey et al., 2023).

Interprofessional education enhances communication of patients with communicative disorders, their relatives and the medical profession during medical encounters. SLPs, like physicians, possess addressable information that can be used to enhance communication during these encounters. Encouraging interprofessional education between SLPs and physicians could work together to enhance the medical interaction in sharing vital information. Speech-language pathologists and doctors can teach. Physicians need to be given resources by healthcare administrators for the care of these patients. Doctors emphasized the importance of being trained in training communication skills for placation with patients who experience communicative difficulties (Burns et al., 2015). HPs, particularly non-SLPs, tend to be generally less knowledgeable about and skillful with individuals with aphasia. Communication training in PWA may increase confidence and proficiency of HCW interacting with PWA in hospitals (Cameron et al., 2017).

For better communication with aphasic individuals' conversation partners could incorporate such simple techniques like imitation, gestures and drawing or the use of dedicated conversation tools. Why HCPs do not use these strategies and tools The reasons for non-use of SLT approaches are related to self-perceived incompetence, shortage of resources, lack of belief in the effectiveness and absence of training (Van Rijssen et al., 2021).

There is potential for healthcare professionals to use technology to facilitate improved communication in these individuals, who often have significant communication problems. Yet there is a lack of knowledge about the encounters between people with aphasia and healthcare personnel in community-based health-care encounters. There is also a dearth of evidence related to how technology, for example an app could help with healthcare communication when dealing with persons with aphasia. The broad aim of the study is to explore through interviews with healthcare professionals (and persons with aphasia) how, when and where HCPs come into contact with people with aphasia in community settings and whether a custom designed app can aid this interaction (Casey et al., 2023).

Health care workers in South Africa experience some of the communication difficulties with PWA, reported within literature from high-income countries. Therapist-related issues, including insufficient time for therapy, environmental (noise/distraction) or resource challenges also affected professionals' communication with PWA. Physiotherapists reported that the factors were more likely to be demanding compared with occupational therapists. Participants employed a range of communication methods to communicate with PWA, this included family effort, professionals' comfort in communicating, advice from SLTs and time allowed for strategies and fixing breakdowns (Slater n.d.).

SLTs and researchers can help to develop CPT interventions for health professionals. CPT indicates complex interventions targeting partners' behaviors in individuals with aphasia (Van Rijssen et al., 2021). Teaching conversation partners helpful conversation skills and tools is a central part of CPT. Studies have shown that successful collaborative pressure therapy depends on leadership involvement, reflecting on existing practices and participation of senior staff and management (Van Rijssen et al., 2021).

Most trained HPs said that their communication skills and confidence with PWA had improved. Focused training enhances confidence, competency, and communication in health care conditions. CPT provides education about aphasia and communication strategies, opportunities to practice with PWA (Cameron et al., 2017)

Healthcare professionals, including OTs and PTs, should be educated on tactics to support communication, resources that make it accessible and how aphasia effects communication. Training on supportive conversation strategies may improve professionals' communicative behaviors with PWA and increase their perceived confidence (Slater, n.d.). Training the communication partners may improve coverage of communication for persons with aphasia post-stroke. It is practical to train both experienced professionals and undergraduate students. An overall analysis found a trend of supportive communication training for all groups. SLTs can train other professionals in facilitative conversation techniques (Slater, n.d.).

1.6 Operational Definition

1.6.1 Stroke

A stroke is a medical emergency that occurs when something prevents your brain from receiving adequate blood flow. A blocked blood artery or bleeding in the brain can cause a stroke (*Stroke*, 2025). Stroke is included in this research because it is the primary cause of post-stroke aphasia, which directly affects patients' ability to communicate.

1.6.2 Post-stroke Aphasia

A stroke can cause damage to the brain areas responsible for language processing. Aphasia, which impairs a person's capacity to communicate and talk, can develop after a stroke (Richards, 2023). PSA is included in this research because it significantly affects social communication and participation in rehabilitation.

1.6.3 Communication Strategies

Communication is an essential function in both personal and professional life. It is how we exchange ideas, thoughts, emotions, and information with others (Vedantu & Vedantu, 2025). Communication strategies refer to the specific methods and techniques used to facilitate effective interaction with patients who have post-stroke aphasia. They are included in this research because they help overcome barriers caused by language impairments, enhance patient understanding, and support successful participation in rehabilitation.

1.6.4 Occupational Therapists

An occupational therapist is a healthcare professional who works with you to improve your capacity to complete daily chores. They provide occupational therapy treatment to help you learn how to move about your environment and use various aids to engage in your activities securely (Professional, 2025). In the context of this research, OTs are specifically involved in the rehabilitation of post-stroke patients with aphasia.

1.6.5 Physiotherapists

A physical therapist, often known as a physiotherapist, is a healthcare professional who works with you to enhance the way your body moves. They will assist you in controlling symptoms such as pain, stiffness, and discomfort. Many people consult with a physical therapist while recuperating from an injury or surgery. A physical therapist can work with your primary care provider to treat and prevent mobility difficulties (Professional, 2025). In the context of this research, PTs are involved in the rehabilitation of post-stroke patients with aphasia.

CHAPTER 2 METHODOLOGY

2.1 Study design

Clients with post-stroke aphasia: An occupational therapist and physiotherapist Survey The study aimed to implemented a non-experimental, cross sectional survey design Integration of people with aphasia in carried out via a questionnaire perception of the interaction on a personal social and daily living level 28-item with clients (aphasic client group). Medical rehabilitation concept participants were explored concerning communication within the Rehabilitation phase were included. It was an appropriate methodology for information collection at one point in time to examine the strategies of communication, perceived effectiveness and barriers of OTs and PTs' as reported by the OTs and PTs to answer our study objectives immediately. The survey contained items of both quantitative (Likert) and qualitative (open-ended) formats to provide a comprehensive picture of the issue. Eligibility criteria were used for participant selection. This cross-sectional approach was deemed appropriate since it enabled swift, efficient data gathering to meet the research aims (Simply Psychology 2023; Setia 2016).

2.2 Sample selection

2.2.1 Study place

The study was carried out on Centre for the Rehabilitation of the Paralysed (CRP) and other therapy centers, medical college and hospital.

2.2.2 Study population

Study population the specific set of people from which data are collected in a study to answer a particular question, known as the study population. (study population definition - AP research key term | Fiveable, n.d.). All OTs and PTs were included in this study.

2.2.3 Sample size

The sample size of a study, or experiment, is the number of observations or subjects. It is number of individuals, objects or data points selected from a larger population and used to describe statistically it (Staff, 2025). Determining appropriate sample size is important in order to obtain statistically sound and credible data in a cross-sectional study (Sample Size Determination in Cross-Sectional Studies, 2025). There are 496 number of occupational therapists in Bangladesh, as reported by the Bangladesh Occupational Therapy Association and there are 3000 physiotherapists in Bangladesh

so far reported by the Bangladesh Physiotherapy Association. Thus, the researcher employed proportional stratified sampling technique for the study. The advantage of proportional stratified sampling is that it represents the actual make-up of the population and sample mirrors size of each subgroup in reality (Team, 2025). So, the equation would be,

We know that,

Sample Size for stratum, $\mathbf{n_h = (N_h \div N) \times n}$

where, n_h= Sample size using proportionate stratified sampling
N_h= Total stratum population
N = Total population
n = Sample size

Sample size, $n = \frac{z^2 p(1-p)}{d^2}$

$= \frac{1^2 \times 0.5(1-0.5)}{0.05^2}$

$= 100$

where,
n = required sample size
z = confidence level at 68% (standard value of 1)
p = estimated the prevalence of subject 0.5
d = margin of error at 5% (standard value of 0.05)

Here,
Stratum[1]= 3000
Stratum[2]= 496
and, the N= (3000+496) = 3496

for the stratum[1],

n_h= (3000÷3496) × 100
= 85.8 or 86

Where,
For the stratum[1],
Total number of PT = 3000
For the stratum[2],
Total number of OT = 496
Sample size, n= 100

for the stratum[2],

n_h = (496 ÷3496) × 100
= 14.18 or 14

So, the sample is 86 Physiotherapist and 14 Occupational therapists.

2.2.4 Sampling procedure

Sampling: the choice of some subset of people for the purpose of predicting characteristics in a larger population and making statistical conclusions Sampling can be considered to select on, because by selecting certain individuals to be studied, researches choose to ignore others. The objectives of the investigation, available resources (money and time), and research hypothesis determine the most appropriate type of sampling for a study (Bisht, 2025). Purpossive sampling (non-random Sampling technique) was used by the researcher from the population meeting inclusion and exclusion criteria. This sampling process is intentionally not random and "aims to select a population or area on the basis of a particular characteristic" [8]; the researcher has deliberately employed this method of selection for a clear reason in order to satisfy an aim of the study.

2.2.5 Inclusion criteria

- Male and females.
- Four years BSc course.
- Currently working as OT or PT in Bangladesh.
- Have experience in assessing and treating patient with post-stroke aphasia.

2.2.6 Exclusion criteria

- Those who are not practitioner.
- Participants who do not want to participate.

2.3 Data collection

2.3.1 Data collection instrument

For the purpose of the present study, the investigator used a questionnaire developed by JP Slater (2023), translated from English to Bangla and retranslated again to Bangla language followed by another person who was blinded about in its processes to make sure that were understandable for participants. This instrument was chosen as it can be used to assess the patterns of communication in post-stroke aphasics. The translated version was found to be dependable. To ensure that the tool was culturally appropriate for Bangladesh, additional culturally adapted items were included with expert input.

2.3.2 Data collection procedure

With the approval from the SLT department of BHPI, directors of other therapy centres/Medical College and heads of Physiotherapy/Occupational Therapy departments in CRP, direct interviews were conducted providing supportive information. The IRB also provided the ethics approval. The informed consent of the subjects was obtained, after guaranteeing the confidentiality of their private information. Confidentiality will be preserved as all data are anonymous and safely stored with no personal information linked to the data collected.

2.3.3 Pilot Study

A small number of Bangladesh public health professionals were invited to participate in a pilot study to test the clarity and relevance of the translated instrument. The translated version showed acceptable accuracy. To ensure its contextual appropriateness, culturally specific items were included in the scale following expert comments. The researcher collected seven quantitative data. The field test results were employed to readjust some demographic information.

2.3.4 Informed Consent

The researcher used a consent form in Bangla to secure the participation of subjects. The study information was made available to participants through the consent form. Participant consent to participate in the study and investigator permission to commence with the data collection sessions are indicated on the consent form. The researcher took measures that all information will remain confidential.

2.4 Data Analysis

Summary descriptive statistics was used by the researcher to analyze the results of the study. Descriptive Statistics Descriptive statistics are to ways of summarizing the values associated with a dataset. Descriptive statistics (descriptions of the sample and data measurements, including information on how the characteristics 15 Data were selected) While I don't understand why that would be better for the experimental stack I am still disagreeing with this fact: "The best purpose of descriptive from a theoretical perspective, in exploratory designs, is to describe the nature and magnitude of each variable." Descriptive statistics are used to provide an overview of the survey responses by summarizing, organizing and describing the main characteristics of the data (Pedersen 2024). The researcher used descriptive analysis and evaluated the "Statistical Package for the Social Science version 22 (SPSS 22)" on one hand to run this analysis; due to the fact that it was survey finding. Descriptive statistics for the close-ended questions was calculated in Excel and SPSS. And with quantitative content analysis open-ended questions were coded in an Excel file. Descriptive statistical analysis was done and the data accordingly converted into percentage and discussed as table, bar graph, pie chart.

2.5 Ethical consideration

Results Ethical approval The Institutional Review Board (IRB) of Bangladesh Health Professions Institution (BHPI) approved this study before data collection. This authorisation ensured that the institutional rules and ethical norms were respected in designing, collecting and analysing data.

- Obtained each participant's consent to confidentiality before any information was gathered.
- Ensured the confidentiality and privacy of any personal or sensitive information/data collected as part of the study.

CHAPTER 3 RESULT

3.1 OTs' and PTs' perceptions of how important, effective and confidence they are on their communication strategies during rehabilitation for clients with PSA

The participants responded to questions about the significance and efficacy of their contact with PSA patients as well as their level of confidence in doing so. They were asked to rate their emotions. The Likert scale was used to rate each of the three factors, with 1 being the lowest and 5 being the highest. One hundred PTs and OTs responded to these enquiries.

Table 1

Importance, Effectiveness and Confidence on communication with PSA patients

			PT		OT	
			Frequency	Percentage	Frequency	Percentage
Importance	1	slightly Important	0	0	0	0
	2	Moderately Important	1	3.5	0	0
	3	Important	3	1.2	0	0
	4	Very Important	3	3.5	2	14.3
	5	Extremely Important	79	91.9	12	85.7
Effectiveness	1	slightly effective	0	0	0	0
	2	Moderately effective	9	10.5	0	0
	3	effective	5	5.8	2	14.3
	4	Very effective	23	26.7	4	28.6
	5	Extremely effective	49	57	8	57.1
Confidence	1	slightly confidant	5	5.8	0	0
	2	Moderately confidant	7	8.1	2	14.3
	3	confidant	28	32.6	3	21.4
	4	Very confidant	21	24.4	6	42.9
	5	Extremely confidant	25	29.1	3	21.4

The table compares the results of two groups, PT (86 respondents) and OT (14 respondents), for three aspects on the grid Importance, Effectiveness and Confidence. With regard to the Importance, most reported that it was "Extremely Important"

(91.9% in PT and 85.7% in OT). With respect to Effectiveness, the majority of PT respondents (57%) rated it "Extremely effective" and OTs considered it "Very effective" (28.6%). With Respect to Confidence, PT respondents were primarily "Confident"(32.6%) or "Extremely Confident" (29.1%) whereas OT respondents trended towards "Very Confident "(42.9%). Likert-type ratings, ranging from "Not at all important" to "Extremely important," were used to quantify these results; higher values denoted more significance, efficacy, or confidence. The responses were aggregated to construct a composite communication confidence index, which demonstrated strong internal consistency with a Cronbach's alpha of 0.89 for PTs and 0.93 for OTs in order to evaluate the reliability of these measures.

3.1.1 Importance of communication to the PTs and OTs while communicating with PSA patients

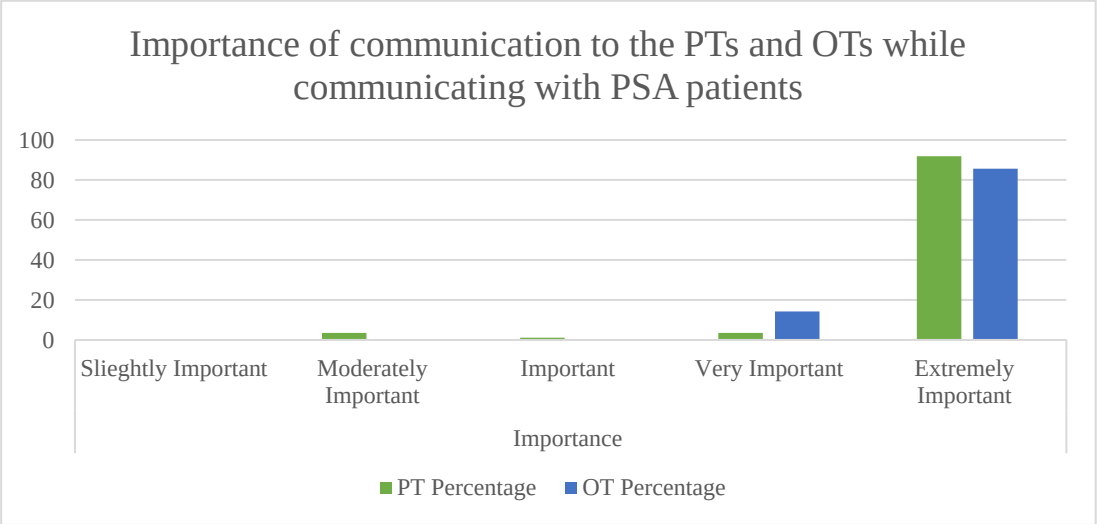


Figure: 3.1.1 Importance of communication to the PTs and OTs while communicating with PSA patients

The majority of therapists-79 physical therapists (PTs), 91.9%, and 12 occupational therapists (OTs), 85.7%-said that communication is important to aphasia patients' recovery. Three physical therapists (3.5%) and two occupational therapists (14.3%) regarded communication as highly important, whereas just one physical therapist (3.5%) thought it was moderately important. Interestingly, none of the therapists stated that communication was unimportant.

3.1.2 Effectiveness of communication with PSA patients

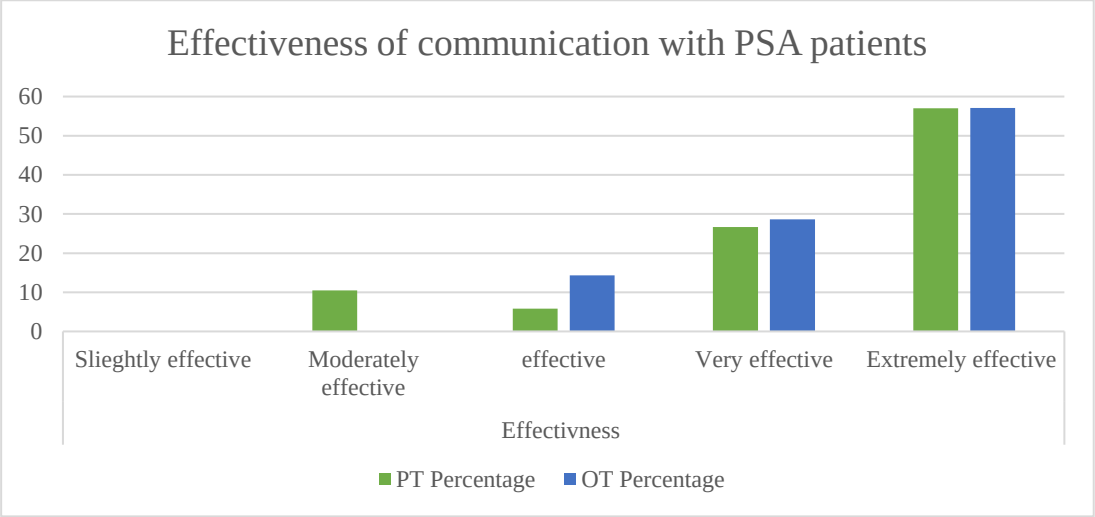


Figure: 3.1.2 Effectiveness of communication with PSA patients

Regarding efficacy, most therapists stated that communication is crucial to recovery; 49 PTs (57%) and 8 OTs (57.1%) said that communication is extremely successful in treatment. Furthermore, it was deemed somewhat successful by 4 OTs (28.6%) and 23 PTs (26.7%). Some therapists said communication was only effective (9 PTs, 10.5%), while a smaller percentage assessed it as moderately successful (5 PTs, 5.8% and 2 OTs, 14.3%).

3.1.3 Confidence of PTs and OTs while communication with PSA patients

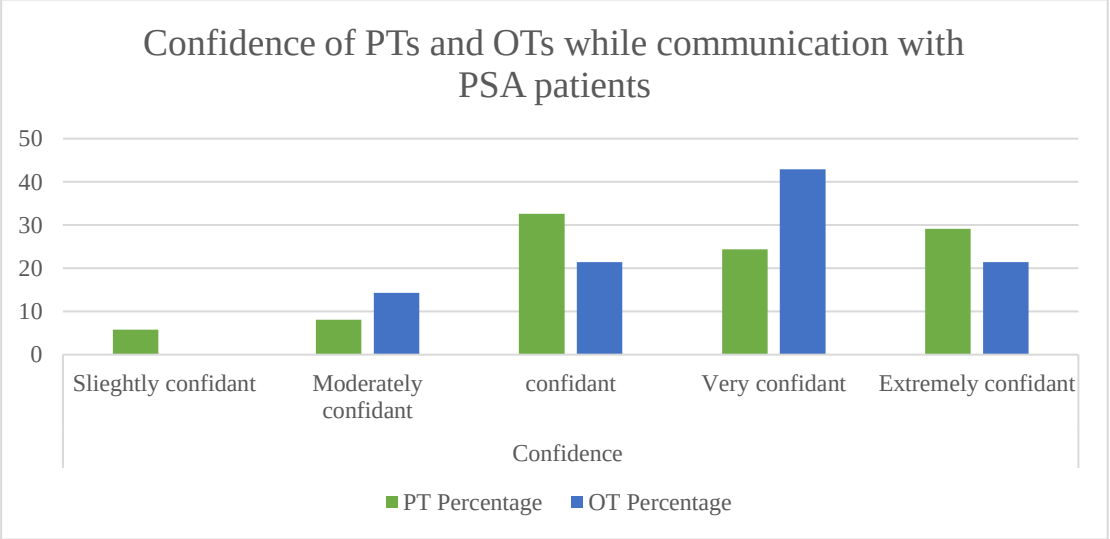


Figure: 3.1.3 Confidence of PTs and OTs while communication with PSA patients

In terms of self-confidence, 3 OTs (21.4%) and 28 PTs (32.6%) reported feeling the most confident about their communication skills. Additionally, 21 PTs (24.4%) and 6

OTs (42.9%) were very confident in their communication abilities, while 25 PTs (29.1%) and 3 OTs (21.4%) were extremely confident. While some therapists reported feeling just somewhat confident (5 PTs, 5.8%) or highly confident (7 PTs, 8.1% and 2 OTs, 14.3%), overall, 86% of therapists expressed confidence in their skills.

3.2 Various elements of communication used by Occupational Therapy (OT) and physiotherapy (PT), while dealing with clients who have post-stroke aphasia (PSA)

3.2.1 Communication strategies during rehabilitation to assist clients with post-stroke aphasia to understand what is said

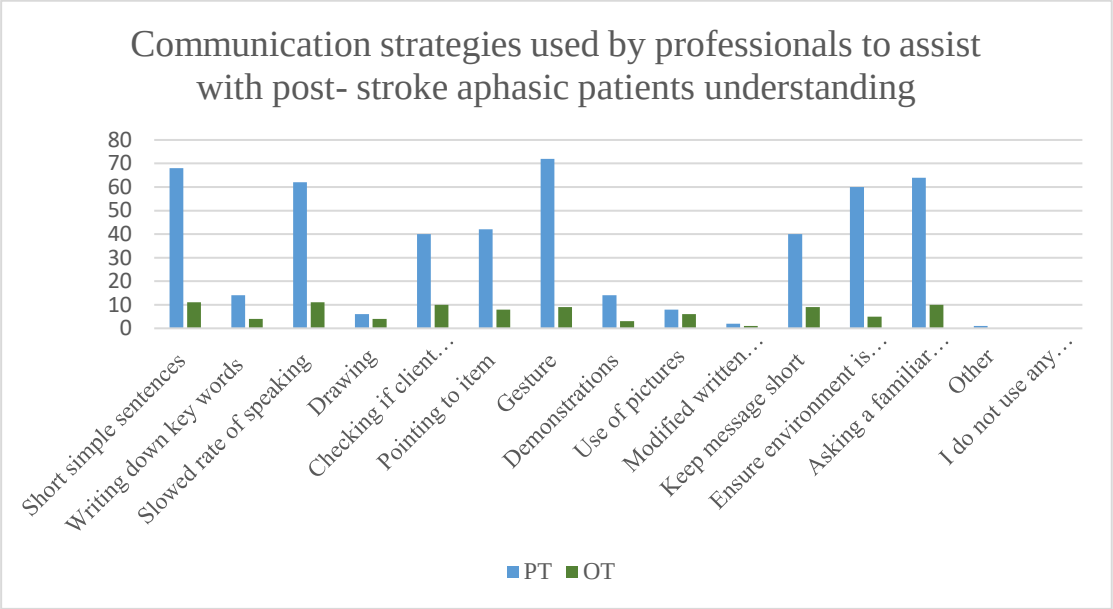


Figure: 3.2.1 Communication strategies during rehabilitation to assist clients with post-stroke aphasia to understanding

To assist individuals with post-stroke aphasia (PSA) in understanding verbal communication, therapists use a range of communication techniques. Short, straightforward sentences-reported by 68 PTs (79.1%) and 11 OTs (78.6%)-and speaking slowly-reported by 62 PTs (72.1%) and 11 OTs (78.6%)-are among the most commonly employed tactics. 14 PTs (16.3%) and 4 OTs (28.6%) reported writing down significant words, whereas 42 PTs (48.8%) and 8 OTs (57.1%) reported pointing to things. Additionally, 9 OTs (64.3%) and 72 PTs (83.7%) often used gestures. Additional tactics included visuals (8 PTs, 9.3%; 6 OTs, 42.9%), modified textual material (2 PTs, 2.3%; 1 OT, 7.1%), and demonstrations (14 PTs, 16.3%; 3 OTs, 21.4%). Additionally, therapists stressed the need of maintaining a peaceful setting (60 PTs, 69.8%; no OTs reported this method) and keeping messages concise (40 PTs, 46.5%; 10 OTs, 71.4%). Additionally, 64 PTs (74.4%) and 10 OTs (71.4%) employed

the tactic of requesting a familiar partner to deliver the information. When working with individuals who have aphasia (PWA), just one physiotherapist mentioned utilizing tactile signals as a communication technique. These techniques highlight the value of a multimodal approach to communication, in which therapists use environmental, visual, and linguistic cues to promote comprehension.

3.2.2 Communication strategies during rehabilitation to assist clients with post-stroke aphasia to express themselves

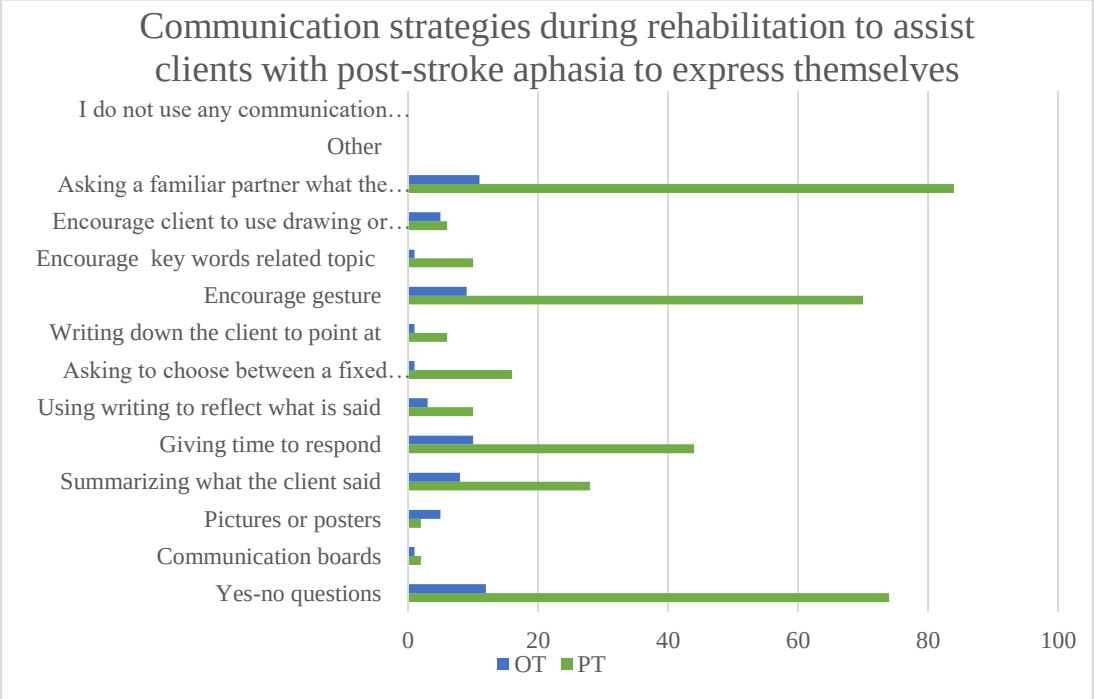


Figure: 3.2.2 Communication strategies during rehabilitation to assist clients with post-stroke aphasia to express themselves

Therapists often used communication boards (2 PTs, 2.3%; 1 OT, 7.1%) and yes-or-no questions (74 PTs, 86%; 12 OTs, 85.7%) to help clients with PSA express themselves. While 28 PTs (32.6%) and 8 OTs (57.1%) utilised summaries of the client's statements, 2 PTs (2.3%) and 5 OTs (35.7%) used pictures or posters. Additionally, therapists stressed the need of writing down items for the client to point at (6 PTs, 7%; 1 OT, 7.1%) and allowing clients time to reply (44 PTs, 51.2%; 10 OTs, 71.4%). Seventy PTs (81.4%) and nine OTs (64.3%) utilised encouraging gestures as a major approach, while ten PTs (11.6%) and one OT (7.1%) used encouraging key phrases linked to the topic. Additionally, 84 PTs (97.7%) and 11 OTs (78.6%) invited a familiar partner to repeat what the client said, and therapists encouraged clients to express themselves through writing or painting (6 PTs, 7%; 5 OTs, 35.7%). In order to enhance clients' expression, 100 therapists (PTs and OTs) reported employing a combination of yes-no questions,

visual aids, greater time for replies, encouragement of gestures and nonverbal communication, and family engagement. These results demonstrate the comprehensive and customized approach both professions use to assist customers in communicating more successfully.

3.3 The primary limitations and challenges that OTs and PTs experience when communicating with aphasic clients

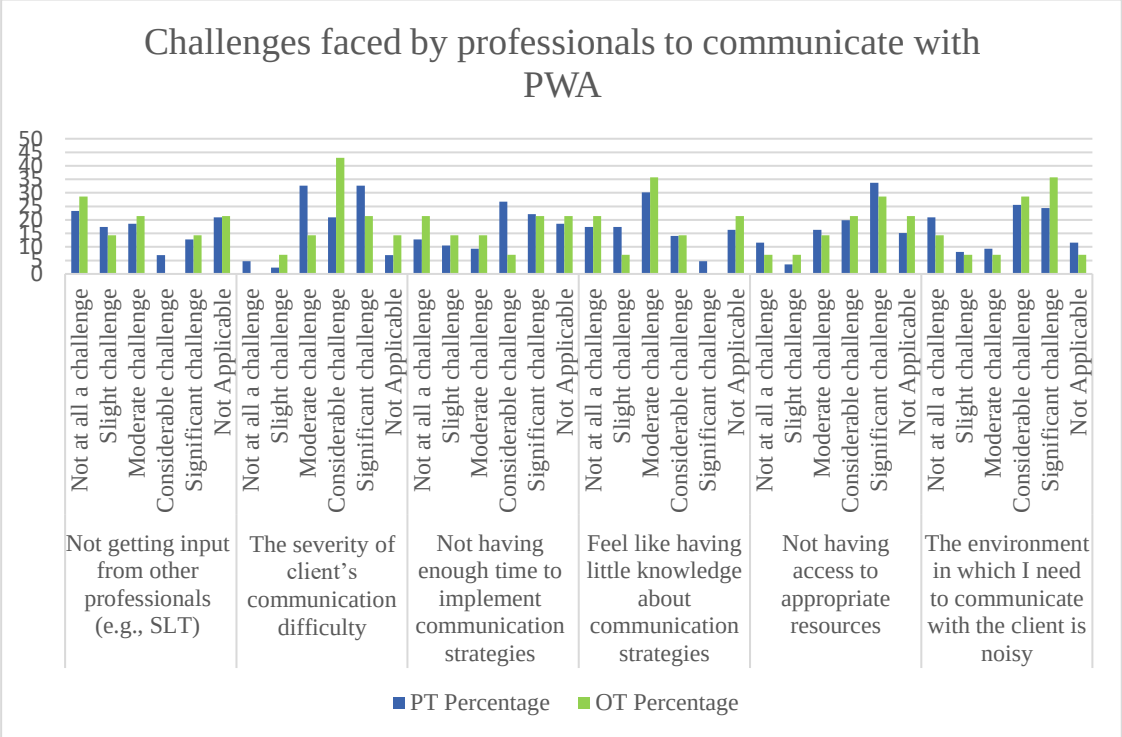


Figure: 3.3 Challenges faced by professionals to communicate with PWA

When speaking with patients suffering from post-stroke aphasia (PSA), therapists noted a number of difficulties, one of which was the absence of feedback from other specialists, such as speech-language therapists (SLTs). In particular, 4 OTs (28.6%) and 20 PTs (23.3%) said it was not at all difficult to get feedback on the client's communication requirements and skills. On the other hand, 11 PTs (12.8%) and 2 OTs (14.3%) thought it was a major problem, while 16 PTs (18.6%) and 3 OTs (21.4%) reported moderate difficulties. Only 4 PTs (4.7%) and no OTs reported no difficulty with the severity of aphasia, which was shown to be a significant communication obstacle. However, 28 PTs (32.6%) and 3 OTs (21.4%) thought it was a moderate task, while another 28 PTs (32.6%) and 3 OTs (21.4%) thought it was a substantial challenge. Another major issue that surfaced throughout rehabilitation was time limits. While 23 PTs (26.7%) and 1 OT (7.1%) reported significant difficulty, 19 PTs (22.1%) and 3

OTs (21.4%) reported moderate challenges, highlighting the pressure of limited time in therapy sessions, and 11 PTs (12.8%) and 3 OTs (21.4%) reported no difficulty in implementing communication strategies or resolving communication breakdowns.

Another issue was a lack of knowledge about communication strategies; 26 PTs (30.2%) reported considerable difficulties and 12 PTs (14%) reported substantial difficulty. Two OTs (14.3%) noted a major issue, while five (35.7%) indicated moderate difficulty. Limited access to appropriate resources, such pictures, message boards, or readily available information, was another prevalent problem. While 14 PTs (16.3%), 17 PTs (19.8%), and 29 PTs (33.7%) encountered moderate, considerable, and severe barriers, respectively, 2 OTs (14.3%), 3 OTs (21.4%), and 3 OTs (21.4%) reported comparable levels of difficulty with resource availability. Eight PTs (9.3%) and twenty-two PTs (25.6%) noted moderate and severe difficulty, while twenty-one PTs (24.4%) identified major difficulties. Environmental issues, especially noisy or distracting environments, also constituted a significant barrier. In a similar vein, 5 OTs (35.7%) experienced serious problems with environmental noise, while 1 OT (7.1%) and 4 OTs (28.6%) reported moderate and great difficulties.

3.3.1 Other challenges faced during rehabilitation

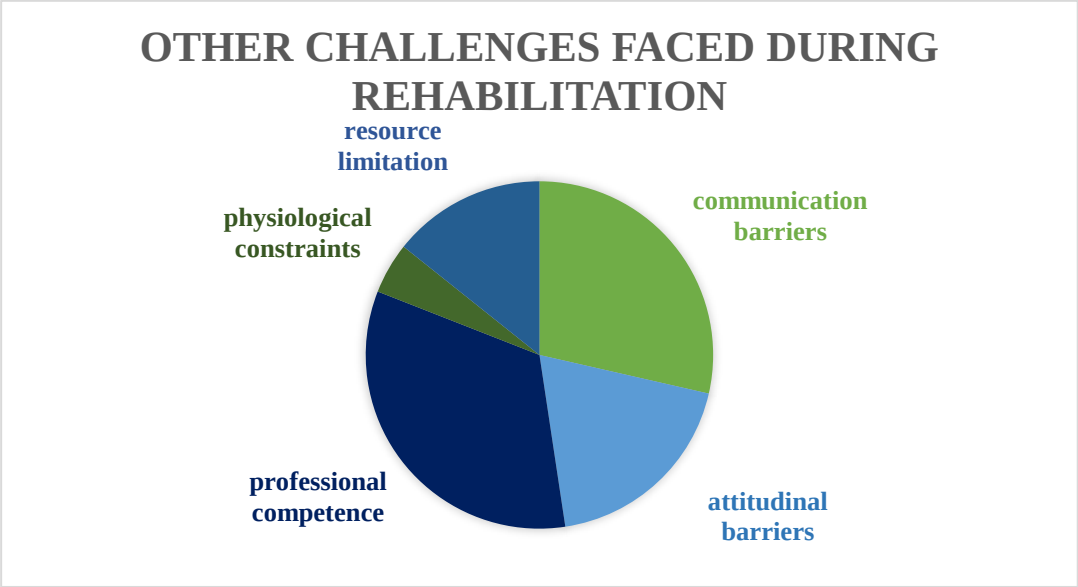


Figure: 3.3.1 Other challenges faced during rehabilitation

Ten therapists reported facing additional difficulties during rehabilitation in addition to the typical difficulties mentioned above. Their answers revealed five important issues: 50% of therapists reported persistent communication challenges as a result of patients'

language impairments and engagement issues, while 58% of therapists voiced worries about their professional competency in terms of education and abilities. 33% of therapists noticed attitude obstacles, which are caused by unfavorable opinions held by therapists or others. Additionally, 8% of therapists claimed that their ability to communicate effectively under high-stress situations was impacted by physiological constraints, and 25% of therapists reported having limited access to necessary resources, such as communication tools. These difficulties are a reflection of the intricate and varied nature of communication in rehabilitation, where efficient patient care depends on both internal and external elements.

3.4 Occupational therapists (OTs) and physical therapists (PTs) acknowledge the function and importance of guidance from speech-language therapist (SLTs) in facilitating communication with PSA clients

3.4.1Assets for communication with PWA

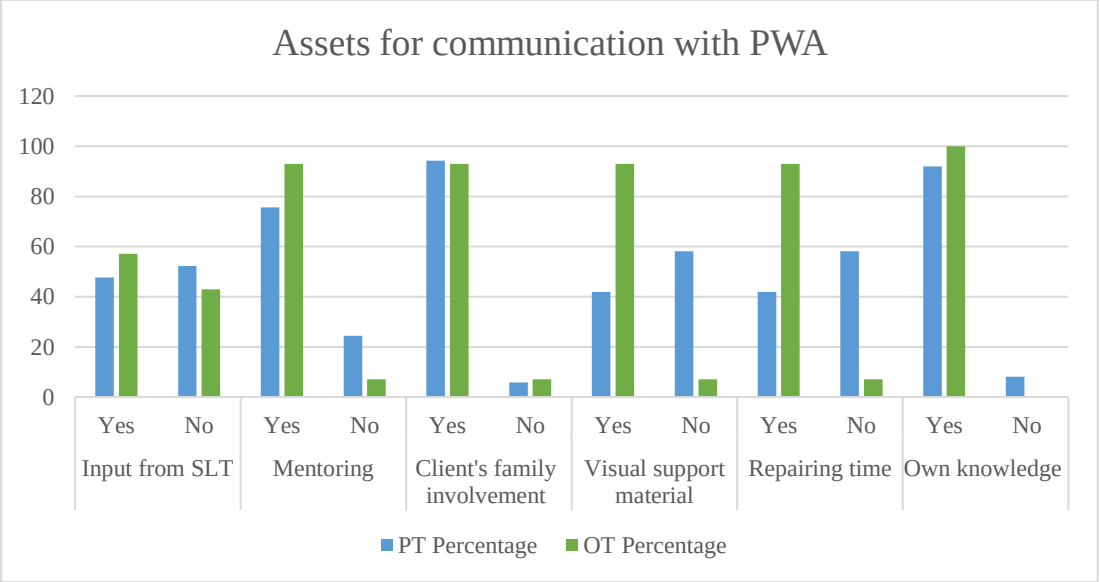


Figure: 3.4.1 Assets for communication with PWA

In order to help patients with post-stroke aphasia (PSA) communicate, therapists reported using a variety of tools. In terms of feedback from speech-language pathologists (SLTs), 57.1% of occupational therapists (OTs) and 47.7% of physical therapists (PTs) reported receiving advice from SLTs, whereas 52.3% of PTs and 42.9% of OTs did not. While 24.4% of PTs and 7.1% of OTs did not benefit from mentoring, 75.6% of PTs and 92.9% of OTs used it. Another important resource was family participation; 94.2% of PTs and 92.9% of OTs reported involving the patient's family

in therapy, indicating a high dependence on family support. 41.9% of PTs and 92.9% of OTs used visual aids, indicating a significant disparity in resource usage between the two groups. Furthermore, 41.9% of PTs and 92.9% of OTs used additional time (also known as "repairing time") to address communication breakdowns, highlighting the significance of time in guaranteeing successful communication. Just 8.1% of PTs said they did not think their knowledge was important, whereas 91.9% of PTs and 100% of OTs said they relied on their own expertise as a crucial tool for communicating with PSA customers.

3.4.2 Input from speech-language therapists

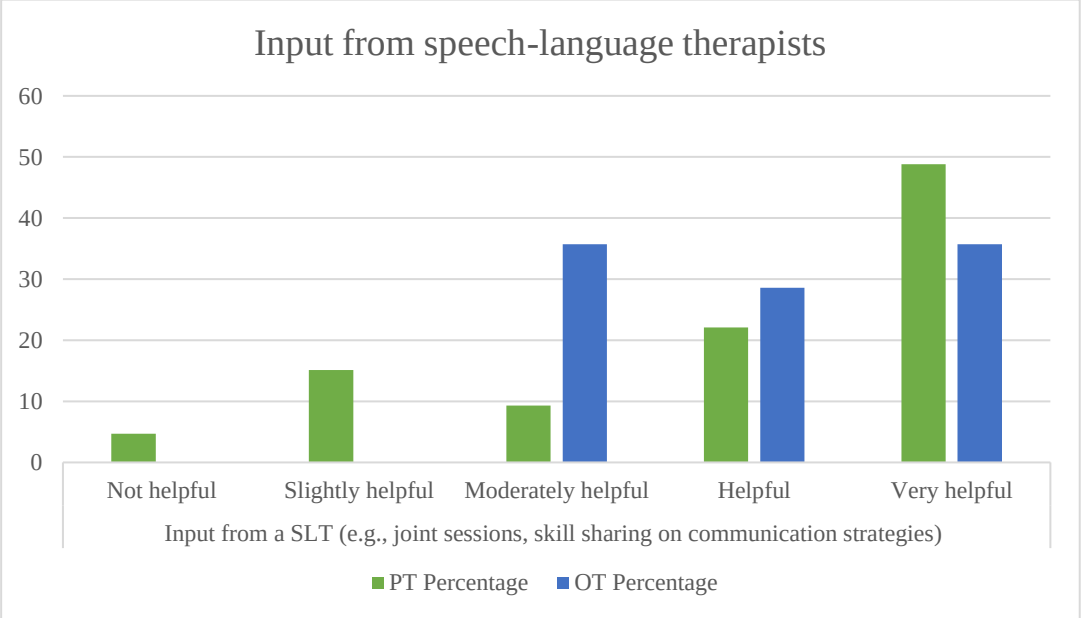


Figure: 3.4.2 Input from speech-language therapists

Most therapists thought that SLT involvement was beneficial. SLT involvement was deemed unhelpful by just 4.7% of PTs and none of the OTs. SLT input was considered somewhat beneficial by 15.1% of PTs and none of the OTs. Compared to 9.3% of PTs, a higher proportion of OTs (35.7%) thought it was rather helpful. 48.8% of PTs and 35.7% of OTs rated SLT input as highly helpful, indicating that a sizable portion of therapists thought it was very valuable. This demonstrates that while both PTs and OTs recognise SLT's critical role in communicating with PSA clients, the majority of OTs view SLT engagement as more than marginally useful. Figure 1 further confirms that both PTs (100%) and OTs (100%) agree that regular SLT input is desired for improving patient care.

3.4.3 Helpfulness of other the assets

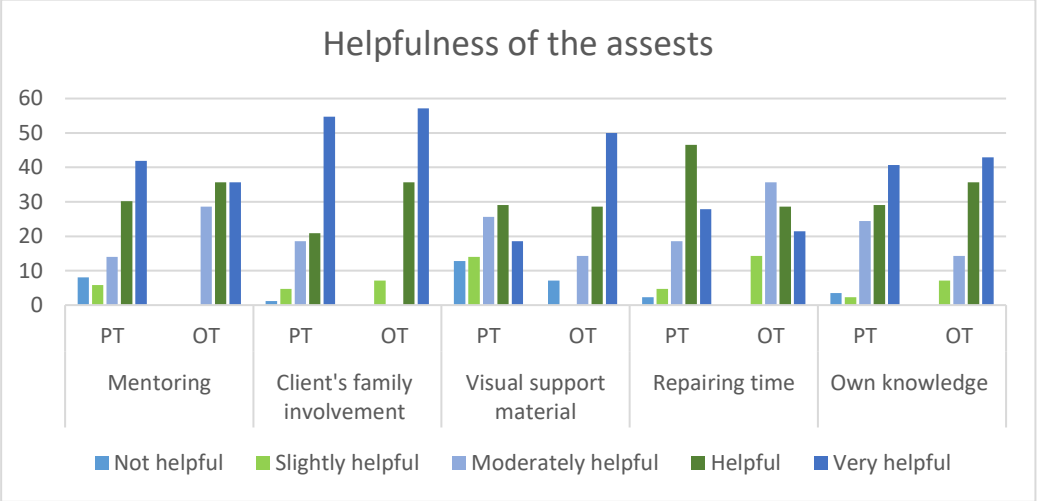


Figure: 3.4.3 Helpfulness of the assets

Therapists found mentoring as useful, with 30.2% of PTs and 35.7% of OTs rating it as helpful or very helpful (41.9% of PTs, 35.7% of OTs). Only 8.1% of PTs felt mentorship was not effective. Twenty percent of PTs and 35.7% of OTs rated client family engagement as good, whereas 54.7% of PTs and 57.1%, respectively, found it to be very helpful. Most therapists indicated that visual support resources were helpful (94.2% of PTs and 92.9% of OTs), although higher proportions of OT's found them to be helpful (28.6%) or very helpful (50%). PTs, however, were more divided, with 14% reporting them as somewhat effective and 12.8% not finding them effective. Finally, 28.6% of OTs and 46.5% of PTs valued mending time—additional time to repair breakdowns in communication—but fewer (21.4% of OTs and 27.9% of PTs) found it absolutely helpful than beneficial. Interestingly, none of the OTs and only 2.3% of PTs felt that fixing time was irrelevant. Further, 29.1% and 35.7% of PTs and OTs respectively rated their own expertise "useful" in communicating; 40.7% and 42.9% of PTs and OTs respectively found this to be "very helpful."

3.4.4 Potential Assets for Improving Communication Between PWA and Professionals

To better address the needs of PSA patients, most therapists would like further training. Of the PTs, 72 (or about 84%) asked for training to be able to communicate with people with aphasia and all of the PTs and OTs said that they would like regular feedback from

SLTs. To better address the needs of PSA patients, most therapists would like further training.

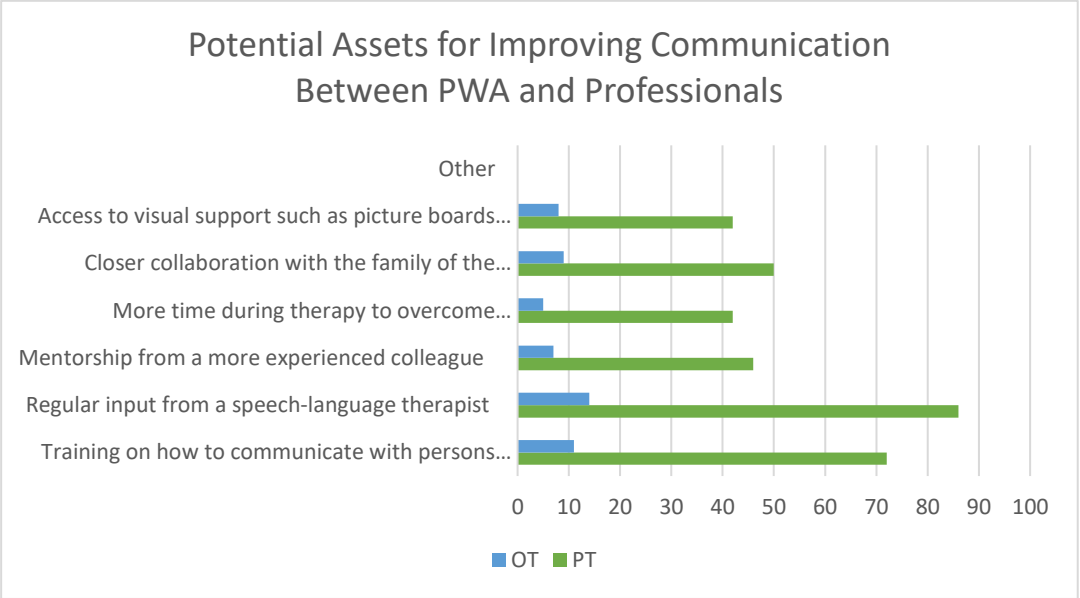


Figure: 3.4.4 Potential Resources to Enhance the Communication between PWA and Professionals

Of the PTs, 72 (or about 84%) asked for training to be able to communicate with people with aphasia and all of the PTs and OTs said that they would like regular feedback from SLTs. More time in building communication bridges during treatment (49% of PTs, 36% for OTs) and mentorship from experienced colleagues (53% for PTs, 50% for OTs) were further retraining needs. The need for tighter family alignment was another across-the-board request: 58% of PTs and 64% of OTs wanted more help from families, while 49% of both PTs and OTs wished for access to visual materials such as picture boards or educational leaflets.

3.4.5 Topics on caring for Clients with Post-Stroke Aphasia addressed in Training Education received by professionals

Only 4 percent of interviewees reported having received specialized training on how to help customers with aphasia, they specified further when asked follow-up questions. The following pattern seems to have emerged across the material from which we sampled: three key themes – knowledge about aphasia and the impact on communication, communication strategies for clients with aphasia, and making communication materials accessible – were generally covered in training.

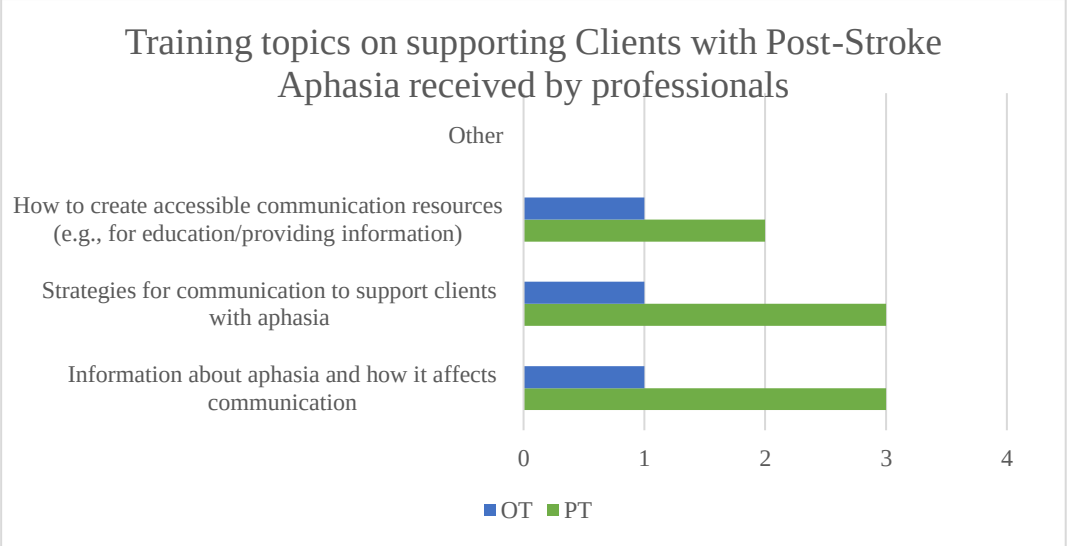


Figure: 3.4.5 professionals' Training topics on supporting Clients with Post-Stroke Aphasia

Most PTs (92%) stated they would like to receive training in these areas with 57% preferring a focus on development of resources and 79% a focus on communication strategies. OTs expressed great need for learning functional skills to facilitate their communication with PSA clients, as indicated by the 36% who selected information on aphasia and 79%, information on modes of communicating.

3.4.6 Willing for future training on communication strategies

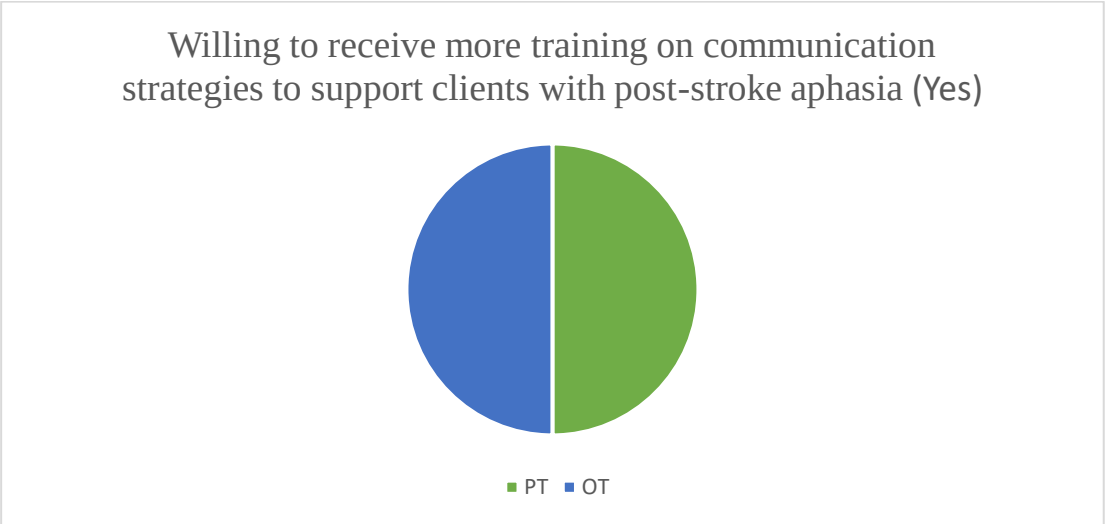


Figure: 3.4.6 Willing for future training on communication strategies

All participants stated that they wanted more training to help clients with post-stroke aphasia, 100% of PTs and OTs, respectively.

3.4.7 Future Training Subject for Communication with PWA

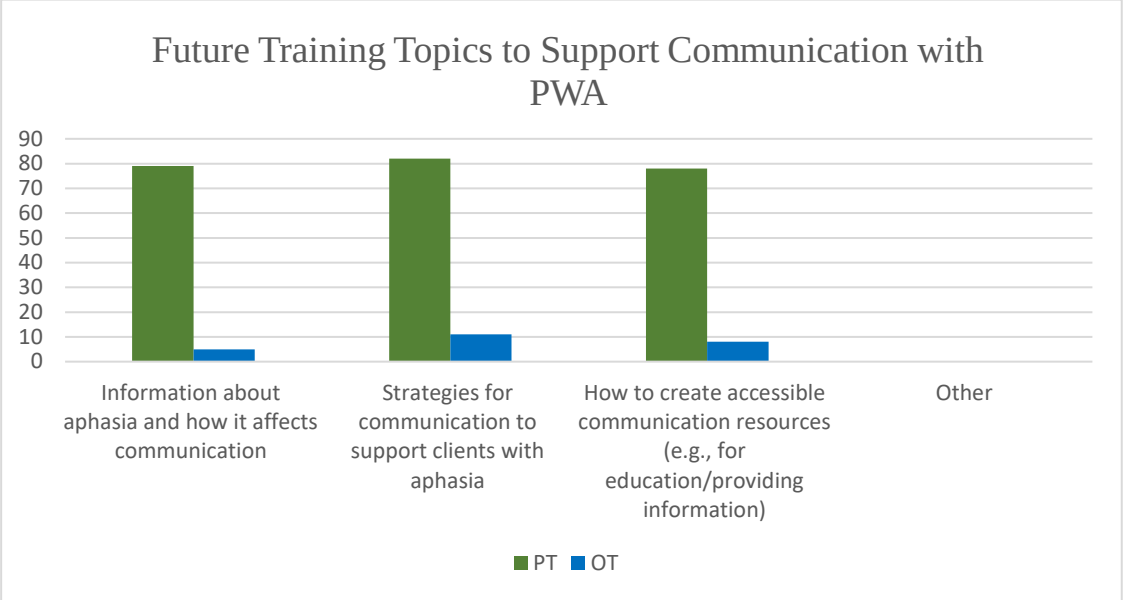


Figure: 3.4.7 Further training topics to facilitate communication with PWA

Next on the furure training: communication strategies, practical communication aids and aphasia education. Seventy-nine percent of OTs selected this option compared to 92% of PTs who were interested in how to communicate with clients and develop accessible materials. This data suggests a broad consensus that we need to be trained in these areas to enhance rehabilitation and more effectively counsel PSA patients.

CHAPTER 4 DISCUSSION

The researchers were primarily interested in the thoughts of occupational therapists and physiotherapists about interacting with patients recovering from stroke. The results of the study will be presented in this part, in relation to each sub-aim and alongside relevant literature.

Both OTs and PTs overwhelmingly rated communication with clients with PSA as very or extremely important, mirroring findings from Slater (2023), which similarly reported that rehabilitation professionals value communication but see room for improvement in its effectiveness (Slater, 2023). While PTs rated their communication effectiveness slightly higher than OTs, both groups reported moderate to high confidence levels, indicating a generally positive self-assessment of communicative competence, despite known challenges.

These perceptions are consistent with research highlighting the importance of communication confidence (i.e., self-efficacy) in aphasia programming, which can influence engagement and persistence during rehabilitation interactions (King et al., 2023). Confidence is increasingly regarded as a key component of communicative participation and quality of life for people with aphasia, suggesting that professional perceptions of effectiveness and confidence are not merely attitudinal but have practical relevance (King et al., 2023).

Consistent with the literature on supported communication, therapists in this study frequently used short, simple sentences, gestures, visual supports (e.g., pictures), pointing, and asking yes/no questions – strategies commonly recommended to facilitate understanding and expression in aphasia care (National Guidelines, 2025; Stipinovich et al., 2023).

Multimodal communication approaches (e.g., gestures, visuals, written words) are widely endorsed in aphasia rehabilitation to reduce language and cognitive demands on clients and to support expressive abilities (Stipinovich et al., 2023). Additionally, involving familiar partners (family) used frequently in your sample reflects best practice recommendations emphasizing the role of communication partners to enhance conversational access and participation (Aphasia Best Practice Statements, 2024).

Therapists consistently reported that severity of aphasia, limited time, lack of knowledge of communication strategies, and limited resources were substantial

barriers. These findings reflect known barriers identified in both clinical and service contexts. For instance, environmental and systemic barriers - such as time constraints or lack of appropriate tools impede communication efficacy and participation for people with aphasia and are echoed in qualitative reviews of aphasia communication challenges (Poirier et al., 2024).

Similarly, the limited training and professional knowledge reported by many therapists in your study aligns with evidence that both health professionals and students often feel underprepared to communicate effectively with clients with aphasia unless they receive targeted training (Knight et al., 2013). This underscores the need for structured education, which therapists in your study also strongly supported

Both PTs and OTs indicated that input from speech-language therapists (SLTs), mentoring, and family involvement were valuable assets for enhancing communication. This resonates with evidence showing that communication partner training, including training for health professionals, improves skills and attitudes that support people with aphasia (Simmons-Mackie et al., 2016; Aphasia Best Practice Statements, 2024). These assets ultimately help create a supportive communicative environment, which is critical for rehabilitation success.

Almost all participants expressed willingness to receive further training in communication strategies for PSA, reflecting a clear professional need. Such training is widely recognized as essential in communication disability contexts to improve confidence, reduce avoidance, and enhance therapeutic effectiveness (Hinckley & Jayes, 2023).

Given the integration of communication into all aspects of care, multidisciplinary education that incorporates SLT expertise and fosters shared responsibility could improve outcomes. Effective communication plans and supported communication training have shown promise in enhancing practitioner confidence and client participation (Hinckley & Jayes, 2023).

Overall, these findings suggest that while therapists recognize the importance of communication in PSA rehabilitation, targeted training, interprofessional guidance, and resource provision are essential to optimize patient care and participation.

CHAPTER 5 LIMITATIONS & RECOMMENDATIONS

5.1 Limitations

The investigator had made greatest efforts to complete the study well as reported but subject to some situational limitation and barriers during the period of conducting the study. The limitations are;

- The participants in the research were insufficient due to time constraints of only one month for the researcher.
- The survey was limited to Dhaka city.
- There was little time and resources, but it had a profound impact on the survey.

5.2 Recommendation

In Bangladesh, no study was done regarding perception of Occupational therapist and Physiotherapist in communicating with post stroke aphasia patient during rehabilitation. So, the researcher had some challenges in the questionnaire. The implications for further study are;

- Structured communication training for OTs & PTs in Post-Stroke Aphasia.
- SLT-Coordinated Training Programs for Rehabilitation Professionals.
- Further research is recommended to assess the feasibility and effectiveness of communication training programs within the Bangladeshi rehabilitation context.

CHAPTER 6 CONCLUSION

Aphasia is a common consequence of stroke, and its occurrence severely impacts communication as well as the course of rehabilitation. OTs and PTs rely heavily on good communication in order to facilitate therapy, provide instructions and assess the needs of stroke survivors. But communicating with aphasia patients can be challenging - a challenge that influences the effectiveness of therapy and patient engagement. The aim of this study was to explore the experiences of speech and language therapists, physiotherapists and occupational therapists working with aphasia patients during rehabilitation. Data were collected through structured questionnaires in a descriptive type of study among practicing OTs and PTs. The study focused on identifying communication breakdowns, how aphasia impacted treatment sessions and how prepared therapists were to deal with communication difficulties. Results There are significant communication challenges with people who have aphasia for many Ot and Pts. Most participants reported that their confidence in the therapy room was negatively affected by a lack of professional training in aphasia communication approaches. Commonly there was an appreciation that the specialized skills of SLTs were valuable in treating communication problems, although not all rehabilitation settings used SLTs. A few therapists reported that when they did obtain SLT, the advice had improved their understanding of aphasia and promoted; the use of basic communication strategies (e.g., gestures, demonstration, visual cues, and simplified language). Yet, most of the students had minimal exposure to regular collaboration or structured SLT-focused teaching.

The finding of the study indicates how challenging it is for occupational therapists and physiotherapists to interact with individuals with aphasia during rehabilitation. Findings indicate the necessity for increased awareness of and basic training in aphasia-friendly communication, despite OTs and PTs consciously adapting their communication methods. It also suggests that the appropriate utilization of SLT, particularly in a teaching or advising capacity could support rehabilitation services and enhance patient (and family) involvement in the treatment process. Consequently, enhancing multidisciplinary teamwork might enhance the overall quality of aphasic rehabilitation treatment.

CHAPTER 7 REFERENCES

Adikari, A., Hernandez, N., Alahakoon, D., Rose, M. L., & Pierce, J. E. (2023). From concept to practice: a scoping review of the application of AI to aphasia diagnosis and management. *Disability and Rehabilitation, 46*(7), 1288–1297. https://doi.org/10.1080/09638288.2023.2199463

American Speech-Language-Hearing Association. (n.d.). *Aphasia*. https://www.asha.org/practice-portal/clinical-topics/aphasia/?srsltid=AfmBOopuLCyhPrVY28J82OJxTT7ar5lvuOXYrt78YubBrM9W7HSwJE91

Aziz, M., Bipasha, N., Gupta, U., Ramnarine, I. V. P., Redgrave, J., Ali, A. N., Majid, A., & Bell, S. M. (2025). Stroke in Bangladesh: A Narrative review of Epidemiology, risk factors and acute stroke services. *Journal of Cardiovascular Development and Disease*, *12*(2), 58. https://doi.org/10.3390/jcdd12020058

Aziz, M., Bipasha, N., Gupta, U., Ramnarine, I. V. P., Redgrave, J., Ali, A. N., Majid, A., & Bell, S. M. (2025b). Stroke in Bangladesh: A Narrative review of Epidemiology, risk factors and acute stroke services. *Journal of Cardiovascular Development and Disease*, *12*(2), 58. https://doi.org/10.3390/jcdd12020058

Bisht, R. (2025, August 25). *What are sampling methods? Techniques, types, and examples | Researcher Life*. https://researcher.life/blog/article/what-are-sampling-methods-techniques-types-and-examples/#What_is_sampling

Boehme, A. K., Martin-Schild, S., Marshall, R. S., & Lazar, R. M. (2016). Effect of aphasia on acute stroke outcomes. *Neurology*, *87*(22), 2348–2354. https://doi.org/10.1212/wnl.0000000000003297

Breitenstein, C., Grewe, T., Flöel, A., Ziegler, W., Springer, L., Martus, P., Huber, W., Willmes, K., Ringelstein, E. B., Haeusler, K. G., Abel, S., Glindemann, R., Domahs, F., Regenbrecht, F., Schlenck, K., Thomas, M., Obrig, H., De Langen, E., Rocker, R., . . . Bamborschke, S. (2017). Intensive speech and language therapy in patients with chronic aphasia after stroke: a randomised, open-label, blinded-endpoint, controlled trial in a health-care setting. *The Lancet*, *389*(10078), 1528–1538. https://doi.org/10.1016/s0140-6736(17)30067-3

Burns, M., Baylor, C., Dudgeon, B. J., Starks, H., & Yorkston, K. (2015b). Asking the stakeholders: perspectives of individuals with aphasia, their family members, and physicians regarding communication in medical interactions. *American Journal of Speech-Language Pathology*, *24*(3), 341–357. https://doi.org/10.1044/2015_ajslp-14-0051

Burns, M., Baylor, C., Dudgeon, B. J., Starks, H., & Yorkston, K. (2015c). Asking the stakeholders: perspectives of individuals with aphasia, their family members, and physicians regarding communication in medical interactions. *American Journal of Speech-Language Pathology*, *24*(3), 341–357. https://doi.org/10.1044/2015_ajslp-14-0051

Burns, M., Baylor, C., Dudgeon, B. J., Starks, H., & Yorkston, K. (2015d). Asking the stakeholders: perspectives of individuals with aphasia, their family members, and physicians regarding communication in medical interactions. *American Journal of Speech-Language Pathology*, *24*(3), 341–357. https://doi.org/10.1044/2015_ajslp-14-0051

Cameron, A., McPhail, S., Hudson, K., Fleming, J., Lethlean, J., Tan, N. J., & Finch, E. (2017). The confidence and knowledge of health practitioners when interacting with people with aphasia in a hospital setting. *Disability and Rehabilitation*, *40*(11), 1288–1293. https://doi.org/10.1080/09638288.2017.1294626

Carragher, M., Steel, G., O'Halloran, R., Lamborn, E., Torabi, T., Johnson, H., Taylor, N. F., & Rose, M. L. (2024). Aphasia disrupts usual care: "I'm not mad, I'm not deaf" – the experiences of individuals with aphasia and family members in hospital. *Disability and Rehabilitation*, *46*(25), 6122–6133. https://doi.org/10.1080/09638288.2024.2324115

Carvalho, I. P., & Dores, A. R. (2022). Clinical communication in rehabilitation. *International Journal of Environmental Research and Public Health*, *19*(12), 7268. https://doi.org/10.3390/ijerph19127268

Casey, K., O'Halloran, R., Van Den Berg, M. E. L., & Rose, M. L. (2023). "We got there in the end. . .. somehow, we got there": a qualitative study of healthcare professionals providing care in the community to people with chronic aphasia, and how technology could assist.

Disability and Rehabilitation, *46*(16), 3681–3690. https://doi.org/10.1080/09638288.2023.2256666

Casey, K., O'Halloran, R., Van Den Berg, M. E. L., & Rose, M. L. (2023b). "We got there in the end. . .. somehow, we got there": a qualitative study of healthcare professionals providing care in the community to people with chronic aphasia, and how technology could assist. *Disability and Rehabilitation*, *46*(16), 3681–3690. https://doi.org/10.1080/09638288.2023.2256666

Feigin, V. L., Brainin, M., Norrving, B., Martins, S., Pandian, J. D., Lindsay, P., Grupper, M. M. F., & Rautalin, I. (2024). World Stroke Organization: Global Stroke Fact Sheet 2025. *International Journal of Stroke*, *20*(2), 132–144. https://doi.org/10.1177/17474930241308142

Finch, E., Fleming, J., Brown, K., Lethlean, J., Cameron, A., & McPhail, S. M. (2013). The confidence of speech-language pathology students regarding communicating with people with aphasia. *BMC Medical Education*, *13*(1), 92. https://doi.org/10.1186/1472-6920-13-92

Grönberg, A., Henriksson, I., Stenman, M., & Lindgren, A. G. (2022). Incidence of aphasia in ischemic stroke. *Neuroepidemiology*, *56*(3), 174–182. https://doi.org/10.1159/000524206

Hammond, L., Christensen, T., Fridriksson, J., & Ouden, D. B. D. (2025). Assessing Functional communication in persons with Aphasia: A scoping review of formal and informal measures. *International Journal*

of Language & Communication Disorders, *60*(3), e70051. https://doi.org/10.1111/1460-6984.70051

Hayes, A. (2025, September 25). *Descriptive Statistics: definition, overview, types, and examples*. Investopedia. https://www.investopedia.com/terms/d/descriptive_statistics.asp

Hinckley, J., & Jayes, M. (2023). Person-centered care for people with aphasia: tools for shared decision-making. *Frontiers in Rehabilitation Sciences*, *4*, 1236534. https://doi.org/10.3389/fresc.2023.1236534

Hinckley, J., & Jayes, M. (2023b). Person-centered care for people with aphasia: tools for shared decision-making. *Frontiers in Rehabilitation Sciences*, *4*, 1236534. https://doi.org/10.3389/fresc.2023.1236534

Hur, Y., & Kang, Y. (2021). Nurses' experiences of communicating with patients with aphasia. *Nursing Open*, *9*(1), 714–720. https://doi.org/10.1002/nop2.1124

Khedr, E. M., Abbass, M. A., Soliman, R. K., Zaki, A. F., Gamea, A., El-Fetoh, N. A., & Abdel-Aaal, M. A. (2019). A hospital-based study of post-stroke aphasia: frequency, risk factors, and topographic representation. *The Egyptian Journal of Neurology Psychiatry and Neurosurgery*, *56*(1). https://doi.org/10.1186/s41983-019-0128-1

Kristensson, J., Longoni, F., Östberg, P., Smith, S. R., Åke, S., & Saldert, C. (2023). Anomia in left hemisphere stroke, multiple sclerosis and

Parkinson's disease – a comparative study. *Disability and Rehabilitation, 46*(11), 2294–2316. https://doi.org/10.1080/09638288.2023.2219902

Lazar, R. M., & Boehme, A. K. (2017). Aphasia as a predictor of stroke outcome. *Current Neurology and Neuroscience Reports, 17*(11), 83. https://doi.org/10.1007/s11910-017-0797-z

Lima, R. R., Rose, M. L., Lima, H. N., Cabral, N. L., Silveira, N. C., & Massi, G. A. (2019). Prevalence of aphasia after stroke in a hospital population in southern Brazil: a retrospective cohort study. *Topics in Stroke Rehabilitation, 27*(3), 215–223. https://doi.org/10.1080/10749357.2019.1673593

Mondal, M. B. A., Hasan, A. H., Khan, N., & Mohammad, Q. D. (2022). Prevalence and risk factors of stroke in Bangladesh: A nationwide population-based survey. *eNeurologicalSci*, *28*, 100414. https://doi.org/10.1016/j.ensci.2022.100414

Moretta, P., Marcuccio, L., Cavallo, N. D., Galetta, R., Falcone, R., Masiello, V., Cavaliere, G., Miccio, C., Picciola, E., Losavio, E., & Spaccavento, S. (2025). Clinical and linguistic correlates of functional communication abilities after Stroke: a longitudinal study. *Brain Sciences*, *15*(10), 1027. https://doi.org/10.3390/brainsci15101027

Northcott, S., Simpson, A., Moss, B., Ahmed, N., & Hilari, K. (2016). How do speech-and-language therapists address the psychosocial well-being of people with aphasia? Results of a UK online survey. *International Journal of Language & Communication*

Disorders, *52*(3), 356–373. https://doi.org/10.1111/1460-6984.12278

Odendaal, I., & Tönsing, K. M. (2024). Augmentative and alternative communication for individuals with post-stroke aphasia: perspectives of South African speech-language pathologists. *Augmentative and Alternative Communication*, *41*(1), 56–64. https://doi.org/10.1080/07434618.2024.2374303

Palmer, R., Witts, H., & Chater, T. (2018). What speech and language therapy do community dwelling stroke survivors with aphasia receive in the UK? *PLoS ONE*, *13*(7), e0200096. https://doi.org/10.1371/journal.pone.0200096

Pedersen, M. (2024, December 12). How to Analyze Survey Data: A Comprehensive Guide - iMotions. *iMotions*. https://imotions.com/blog/insights/how-to-analyze-survey-data-a-comprehensive-guide/?srsltid=AfmBOoo3wFrpsjc1Q6ITgkQPR0VqSUQ_J4C7Y_KyKk0bMzb1MnBNFOuO

Peng, Y., Peng, K., Ying, Y., & Li, L. (2025). Research trends in post-stroke aphasia (2004–2024): a bibliometric and visualized analysis. *Frontiers in Neurology*, *16*, 1588130. https://doi.org/10.3389/fneur.2025.1588130

Professional, C. C. M. (2025, May 16). *Occupational therapist*. Cleveland Clinic. https://my.clevelandclinic.org/health/articles/24617-occupational-therapist

Professional, C. C. M. (2025b, May 16). *Physical therapist (Physiotherapist)*. Cleveland Clinic. https://my.clevelandclinic.org/health/articles/24625-physical-therapist

Richards, L. (2023, January 30). *What to know about aphasia after stroke*. https://www.medicalnewstoday.com/articles/aphasia-stroke

Russo, M. J., Prodan, V., Meda, N. N., Carcavallo, L., Muracioli, A., Sabe, L., Bonamico, L., Allegri, R. F., & Olmos, L. (2017). High-technology augmentative communication for adults with post-stroke aphasia: a systematic review. *Expert Review of Medical Devices*, *14*(5), 355–370. https://doi.org/10.1080/17434440.2017.1324291

Sample size determination in Cross-Sectional Studies. (2025, April 4). Tutors India. https://www.tutorsindia.com/essays/business/sample-size-determination-for-cross-sectional-studies/

Setia, M. (2016). Methodology series module 3: Cross-sectional studies. *Indian Journal of Dermatology*, *61*(3), 261. https://doi.org/10.4103/0019-5154.182410

Sheppard, S. M., & Sebastian, R. (2020). Diagnosing and managing post-stroke aphasia. *Expert Review of Neurotherapeutics*, *21*(2), 221–234. https://doi.org/10.1080/14737175.2020.1855976

Slater, J. P. (n.d.). Perceptions of Occupational and Physiotherapists Regarding their Communication with Clients with Post-Stroke Aphasia During Rehabilitation - ProQuest. *www.proquest.com*. https://doi.org/10.25403/UPresearchdata.24999557

Staff, C. (2025, October 13). *What is sample size?* Coursera. https://www.coursera.org/articles/what-is-sample-size

Stipinovich, A. M., Tönsing, K., & Dada, S. (2023). Communication strategies to support decision-making by persons with aphasia: A scoping review. *International Journal of Language & Communication Disorders*, *58*(6), 1955–1976. https://doi.org/10.1111/1460-6984.12925

Stroke. (2025, September 11). Cleveland Clinic. https://my.clevelandclinic.org/health/diseases/5601-stroke

Study population Definition - AP Research Key Term | Fiveable. (n.d.). https://fiveable.me/key-terms/ap-research/study-population

Team, S. (2025, March 15). What is the benefit of proportional stratified sample? *Statsig*. https://www.statsig.com/perspectives/benefit-proportional-stratified-sample

Thomas, A. B., Fergadiotis, G., Nelson, L. A., Van Son, C. R., & Barbosa-Leiker, C. (2025). Understanding the care needs of People with Post-Stroke Aphasia: A Qualitative Study of Stroke Care Transitions. *Global Qualitative Nursing Research*, *12*, 23333936251346440. https://doi.org/10.1177/23333936251346440

Van Rijssen, M. N., Veldkamp, M., Bryon, E., Remijn, L., Visser-Meily, J. M. A., Gerrits, E., & Van Ewijk, L. (2021). How do healthcare professionals experience communication with people with aphasia and what content should communication partner

training entail? *Disability and Rehabilitation*, *44*(14), 3671–3678. https://doi.org/10.1080/09638288.2021.1878561

Vedantu, & Vedantu. (2025, December 4). *What is Communication In English? Types, Meaning, and Importance in Everyday Life*. VEDANTU. https://www.vedantu.com/commerce/communication

Vermeir, P., Vandijck, D., Degroote, S., Peleman, R., Verhaeghe, R., Mortier, E., Hallaert, G., Van Daele, S., Buylaert, W., & Vogelaers, D. (2015). Communication in healthcare: a narrative review of the literature and practical recommendations. *International Journal of Clinical Practice*, *69*(11), 1257–1267. https://doi.org/10.1111/ijcp.12686

Volkmer, A., Spector, A., Warren, J. D., & Beeke, S. (2018). Speech and language therapy for primary progressive aphasia: Referral patterns and barriers to service provision across the UK. *Dementia*, *19*(5), 1349–1363. https://doi.org/10.1177/1471301218797240

What is a stroke? | NHLBI, NIH. (2023, May 26). NHLBI, NIH. https://www.nhlbi.nih.gov/health/stroke

Wu, C., Qin, Y., Lin, Z., Yi, X., Wei, X., Ruan, Y., & He, J. (2020). Prevalence and Impact of Aphasia among Patients Admitted with Acute Ischemic Stroke. *Journal of Stroke and Cerebrovascular Diseases*, *29*(5), 104764. https://doi.org/10.1016/j.jstrokecerebrovasdis.2020.104764

CHAPTER 8 ANNEXURES

ANNEXURE-1 (A)

Informed Consent for Participants

Title: "Perceptions of Occupational and Physiotherapists regarding their communication with clients with post-Stroke Aphasia during rehabilitation"

Respected Respondents

Assalamualikum, the researcher, Muhsina Abedin Rezwana, a B.Sc. student of Bangladesh Health Professions Institute (BHPI), Faculty of Medicine, University of Dhaka, Speech and Language Therapy department, wants to research "Perceptions of Occupational and Physiotherapists regarding their communication with clients with post-Stroke Aphasia during rehabilitation." This study intends to discover the perceptions of Occupational and Physiotherapists regarding their communication with clients with post-Stroke Aphasia during rehabilitation.

The researcher will receive the participant's permission to participate in the interview. Their information will not be shared with others. The participants will not benefit or harm from this study. They are free to decline to answer any question during the interview. All the information collected from the interview will be kept safe and confidential. Participants can withdraw from the study at any time.

In this study, I am ..... a ....., and I have been informed about the purpose of the study. I am willing to participate in this study and have the right to refuse to participate at any time. For this reason, I will not be bound to answer to anybody. The researcher will be available to answer any related question or inquiry of the participant. So, to the best of my knowledge, I agree to participate willingly with my satisfaction in this study.

Signature of participant:	Date:
Signature of Researcher:	Date:

ANNEXURE- 1 (B)

সম্মতিপত্র অংশগ্রহনকারীর জন্য

গবেষণার শিরোনাম: "পুনর্বাসনের সময় স্ট্রোক পরবর্তী অ্যাফাসিয়ায় আক্রান্ত রোগীদের সাথে যোগাযোগ সম্পর্কে অকুপেশনাল এবং ফিজিওথেরাপিস্টদের ধারনা"

সম্মানিত অংশগ্রহনকারী,

আসসালামুয়ালাইকুম, গবেষণাকারী হচ্ছে মুহসিনা আবেদিন রেজওয়ানা, ঢাকা বিশ্ববিদ্যালয়, চিকিৎসা অনুষদের অধীনে বাংলাদেশ হেলথ প্রফেশন্স ইনষ্টিটিউট এর বি, এস, সি ইন স্পিচ এন্ড ল্যাংগুয়েজ থেরাপি বিভাগের একজন ছাত্রী। আমি একটি গবেষণা করতে চাই যে "পুনর্বাসনের সময় স্ট্রোক পরবর্তী অ্যাফাসিয়ায় আক্রান্ত রোগীদের সাথে যোগাযোগ সম্পর্কে অকুপেশনাল এবং ফিজিওথেরাপিস্টদের ধারনা"। গবেষণাকারীর উদ্দেশ্য হচ্ছে পুনর্বাসনের সময় স্ট্রোক পরবর্তী অ্যাফাসিয়ায় আক্রান্ত রোগীদের সাথে যোগাযোগ সম্পর্কে অকুপেশনাল এবং ফিজিওথেরাপিস্টদের ধারনা কেমন তা জানা। পরস্পর সাক্ষাতে অংশগ্রহন করার জন্য, অংশগ্রহনকারীর কাছ থেকে অনুমতি নিচ্ছে গবেষণাকারী। আপনাদের তথ্যগুলো অন্য কারো সাথে আলোচনা করা হবে না। এই গবেষণায় অংশগ্রহনকারীরা কোনো ধরনের লাভ বা ক্ষতির সম্মুখিন হবেনা গবেষণার মাধ্যমে। যেসব তথ্য সংগ্রহ করা হবে সাক্ষাৎ এর মাধ্যমে সেগুলো খুব গোপনীয়তার সাথে রাখা হবে। অংশগ্রহনকারীরা যে কোন সময় এই গবেষণা ছেড়ে চলে যেতে পারবেন।

এই গবেষণায় আমি....., একজন ..... অংশগ্রহনকারী এবং এই গবেষণার উদ্দেশ্য সম্পর্কে খুব ভালভাবে জানি। আমি নিজের আগ্রহে এই গবেষণায় অংশগ্রহন করতে চাই। আমার অধিকার আছে যেকোন সময় এই গবেষণার অংশগ্রহন থেকে চলে যাওয়ার। এই জন্য আমি আমার উত্তর দিতে দ্বিধাগ্রস্থ নই। গবেষণাকারীর গবেষণা সংক্রান্ত যে কোন প্রশ্নের উত্তর যে কোন সময় দিতে প্রস্তুত। সুতারাং আমি আমার সজ্ঞানে এই গবেষণায় অংশগ্রহন করতে ইচ্ছুক।

অংশগ্রহনকারীর নামঃ	তারিখঃ
গবেষকের নামঃ	তারিখঃ

ANNEXURE- 2 (A)

Questionnaire (English)

1. In general, how important is communication between you and your client(s) with post- stroke aphasia during rehabilitation?
Please rate on a scale of 1 (not at all important) to 5 (very important).

	Not at all important 1	2	3	4	**Very importa** 5
Importance of communication	○	○	○	○	○

2. In general, how effective is communication between you and your client(s) with post-stroke aphasia during rehabilitation?

Please rate on a scale of 1 (not at all important) to 5 (very important).

	Not at all effective 1	2	3	4	**Very effective** 5
Effectiveness of communication	○	○	○	○	○

3. How confident do you feel in communicating with clients with post-stroke aphasia?
Please rate on a scale of 1 (not at all important) to 5 (very important).

	Not at all confidant 1	2	3	4	Very confidant 5
Confidence in communication	○	○	○	○	○

4. Do you use any of the following communication strategies during rehabilitation to assist clients with post-stroke aphasia to understand what is said?
Please tick all the strategies you use.

- Short simple sentences (1)
- Writing down key words during a conversation (2)
- Slowed rate of speaking (3)
- Drawing (4)
- Checking/confirming if client understood (5)
- Pointing to item being spoken about (6)
- Gesture (Anything used to communicate meaning without words e.g., thumbs up, waving) (7)
- Demonstrations (e.g, demonstrating an exercise to the client) (8)
- Use of pictures or graphics/diagrams (9)
- Modified written information (increased text size, underlining and bold text for key words) (10)
- Keep message short and concrete (11)
- Ensure environment is quiet with as few distractions as possible (12)
- Asking a familiar partner (e.g., spouse) to relay the message to the client with aphasia (13)
- Other (please describe): (14)

_____

- I do not use any communication strategies (15)

5. Do you use any of the following communication strategies during rehabilitation to assist clients with post-stroke aphasia to express themselves?

Please tick all the strategies you use.

- Use of yes-no questions (1)
- Communication boards (2)
- Pictures or posters (3)
- Summarizing what the client has said back to him/her to check comprehension (4)
- Giving the client time to respond (5)
- Using writing to reflect what the client has said (6)
- Asking a client to choose between a fixed number of choices (7)
- Writing down choices for the client to point at (8)
- Encourage gesture ('can you show me?') (9)
- Encourage client refer to key words related to the topic which you wrote down earlier in the conversation (10)
- Encourage client to use drawing or writing (11)
- Asking a familiar partner (e.g., spouse) to relay to you what the client is trying to communicate (12)
- Other (please describe): (13)

  _____

- I do not use any communication strategies (14)

6. Please rate to what extent you experience any of the following challenges to communication with clients with aphasia.

Please rate on a scale of 1 (not a challenge) to 5 (significant challenge)

	Not at all a challenge 1	2	3		Significant challenge 5	Not applicable
I do not get input from other professionals (e.g., SLT) on client's communication	○	○	○	○	○	○
The severity of client's communication difficulty	○	○	○	○	○	○
I do not have enough time to implement communication strategies/resolve communication breakdowns	○	○	○	○	○	○
I do not feel I have knowledge about communication strategies to support clients with aphasia	○	○	○	○	○	○
I do not have access to appropriate resources (communication boards/pictures/accessible information)	○	○	○	○	○	○
The environment in which I need to communicate with the client is noisy and or contains distractions	○	○	○	○	○	○

7. Do you experience any other challenges in relation to communication with clients with post-stroke aphasia?

- Yes(1)
- No(2)

8. Please describe these challenges:

_____

_____

_____

9. Have you drawn on the resource/asset below to assist you in communicating better with clients with post-stroke aphasia:

Input from a speech language therapist (e.g., joint sessions, skill sharing on communication strategies)

- Yes (1)
- No (2)

10. How helpful has this resource been in your clinical practice?

	Not at all 1	2	3	4	Very 5
Input from a speech language therapist	○	○	○	○	○

11. Have you drawn on the resource/asset below to assist you in communicating better with clients with post-stroke aphasia:

Mentoring from colleagues (of my own profession) who are more experienced than I am

- Yes (1)
- No (2)

12. How helpful has this resource been in your clinical practice?

	Not at all helpful 1	2	3	3	Very helpful 5
Mentorin	○	○	○	○	○

13. Have you drawn on the resource/asset below to assist you in communicating better with clients with post-stroke aphasia:

Involvement of the client's family

- Yes (1)
- No (2)

14. How helpful has this resource been in your clinical practice?

	Not at all helpful 1	2	3	4	Very helpful 5
Input from a speech language therapist	○	○	○	○	○

15. Have you drawn on the resource/asset below to assist you in communicating better

with clients with post-stroke aphasia:

Access to visual support material such as information leaflets, picture boards, etc.

- Yes (1)
- No (2)

16. How helpful has this resource been in your clinical practice?

	Not at all helpful 1	2	3	4	Very helpful 5
Visual support material	○	○	○	○	○

17. Have you drawn on the resource/asset below to assist you in communicating better with clients with post-stroke aphasia:

Enough time to implement communication strategies/resolve communication breakdowns

- Yes (1)
- No (2)

18. How helpful has this resource been in your clinical practice?

	Not at all helpful 1	2	3	4	Very helpful 5
Enough time to repair breakdowns or use strategies	○	○	○	○	○

19. Have you drawn on the resource/asset below to assist you in communicating better with clients with post-stroke aphasia:

Your own knowledge and skills of how to communicate with a person with post-stroke aphasia

- Yes (1)
- No (2)

20. How helpful has this resource been in your clinical practice?

	Not at all helpful 1	2	3	4	Very helpful 5
Your own knowledge and skills of how to communicate with a person with aphasia	○	○	○	○	○

21. Do you make use of any other resources/assets to assist you to communicate with clients with aphasia?

- Yes (1)
- No (2)

22. Please describe these resources/assets

_____

_____

23.Which assets/resources do you feel may help you in the future to communicate better with clients with post-stroke aphasia?
Tick all that apply.

- Training on aphasia and how to communicate with persons with aphasia (1)
- Regular input from a speech-language therapist (e.g., joint sessions) (2)
- Mentorship from a more experienced colleague (of my own profession) (3)
- More time during therapy to overcome communication barriers (4)
- Closer collaboration with the family of the person with aphasia (5)
- Access to visual support such as picture boards and information leaflets (6)
- Other (7)

_____

24. Have you ever received training or education on communication strategies to support clients with post-stroke aphasia?

- Yes (1)
- No (2)

25.What topics did the training cover?

Please tick all that apply.

- Information about aphasia and how it affects communication (1)
- Strategies for communication to support clients with aphasia (2)
- How to create accessible communication resources (e.g., for education/providing information) (3)
- Other (please describe): (4)

_____

26.Would you like to receive more training on communication strategies to support clients with post-stroke aphasia?

- Yes (1)
- No (2)

27. What topics would you like the training to cover?
Please tick all that apply.

- Information about aphasia and how it affects communication (1)
- Strategies for communication to support clients with aphasia (2)
- How to create accessible communication resources (e.g., for education/providing information) (3)
- Other (please describe): (4)

_____

ANNEXURE- 2 (A)

Questionnaire (Bangla)

প্রশ্ন১: সাধারণভাবে, পুনর্বাসনের সময় আপনার এবং স্ট্রোক পরবর্তী অ্যাফাসিয়ায় আক্রান্ত রোগীদের মধ্যে যোগাযোগ কতটা গুরুত্বপূর্ণ?

অনুগ্রহ করে ১ (মোটেও গুরুত্বপূর্ণ নয়) থেকে ৫ (খুব গুরুত্বপূর্ণ) এর মধ্যে নাম্বার দিন।

	একদমই গুরুত্বপূর্ণ নয় ১	২	৩	৪	খুবই গুরুত্বপূর্ণ ৫
যোগাযোগের গুরুত্ব	○	○	○	○	○

প্রশ্ন২: সাধারণভাবে, পুনর্বাসনের সময় আপনার এবং স্ট্রোক পরবর্তী অ্যাফাসিয়ায় আক্রান্ত রোগীদের মধ্যে যোগাযোগ কতটা কার্যকর?

অনুগ্রহ করে ১ (মোটেও কার্যকর নয়) থেকে ৫ (খুব কার্যকর) এর মধ্যে নাম্বার দিন।

	একেবারেই কার্যকর নয় ১	২	৩	৪	খুবই কার্যকর ৫
যোগাযোগের কার্যকারিতা	○	○	○	○	○

প্রশ্ন৩: স্ট্রোক পরবর্তী অ্যাফাসিয়ায় আক্রান্ত রোগীদের সাথে যোগাযোগে আপনি কতটা আত্মবিশ্বাসী বোধ করেন?

অনুগ্রহ করে ১ (মোটেও আত্মবিশ্বাসী নয়) থেকে ৫ (খুব আত্মবিশ্বাসী) এর মধ্যে নাম্বার দিন।

	একদমই আত্মবিশ্বাসী নয় ১	২	৩	৪	খুবই আত্মবিশ্বা ৫
যোগাযোগের উপর আত্মবিশ্বাস	○	○	○	○	○

প্রশ্ন৪: যা বলা হচ্ছে তা বোঝার সহায়তার জন্য পূর্নবাসন চলাকালীন সময়ে স্ট্রোক পরবর্তী অ্যাফাসিয়ায় আক্রান্ত রোগীর সাথে আপনি নিম্নের কোন যোগাযোগ কৌশল ব্যাবহার করেন?
অনুগ্রহ করে আপনি যেগুলো ব্যবহার করেন, সেগুলোতে টিক চিহ্ন দিন।

আপনার ব্যবহৃত সমস্ত কৌশলগুলিতে টিক চিহ্ন দিন।

- ☐ সংক্ষিপ্ত ও সহজ বাক্য (১)
- ☐ কথোপকথনের সময় গুরুত্বপূর্ণ শব্দগুলি লিখা (২)
- ☐ ধীরে ধীরে কথা বলা (৩)
- ☐ ছবি বা আঁকা (৪)
- ☐ ক্লায়েন্ট বুঝতে পেরেছে কিনা তা যাচাই / নিশ্চিত করা (৫)
- ☐ যে বিষয়ে কথা বলা হচ্ছে তার দিকে ইঙ্গিত করা (৬)
- ☐ অঙ্গভঙ্গি ব্যবহার করা (কোনো শব্দ ছাড়া অর্থ প্রকাশের জন্য যেকোনো কিছু ব্যবহার করা, যেমন থাম্বস আপ, হাত হেলানো) (৭)
- ☐ প্রদর্শনী (উদাঃ, ক্লায়েন্টের কাছে একটি অনুশীলন প্রদর্শন করা) (৮)
- ☐ ছবি বা গ্রাফিক্স/ডায়াগ্রাম ব্যবহার (৯)
- ☐ লিখিত তথ্যের আকার পরিবর্তন (পাঠ্যের আকার বৃদ্ধি, মূল শব্দগুলির জন্য নীচে দাগ দেওয়া লিখাগুলো একটু মোটা করে দেওয়া) (১০)
- ☐ বার্তাটি সংক্ষিপ্ত ও স্পষ্ট রাখা (১১)
- ☐ পরিবেশ যেন শান্ত থাকে ও বিভ্রান্তি কম থাকে, তা নিশ্চিত করা (১২)
- ☐ পরিচিত কাউকে (যেমন: স্বামী/স্ত্রী) দিয়ে বার্তাটি রোগীকে বুঝিয়ে বলানো (১৩)
- ☐ অন্যান্য (অনুগ্রহ করে বর্ণনা করুন) (১৪)

_____

- ☐ ⊗আমি কোন যোগাযোগ কৌশল ব্যবহার করি না (১৫)

প্রশ্ন৫: আপনি কি স্ট্রোক-পরবর্তী অ্যাফাসিয়ায় আক্রান্ত রোগীদের কাছে নিজেকে প্রকাশ করার সহায়তার জন্য পুনর্বাসনের সময় নিম্নলিখিত কোনও যোগাযোগ কৌশল ব্যবহার করেন?

আপনার ব্যবহৃত সমস্ত কৌশলগুলিতে টিক চিহ্ন দিন।

- ☐ হ্যাঁ-না প্রশ্নের ব্যবহার (১)
- ☐ যোগাযোগ বোর্ড (২)
- ☐ ছবি বা পোস্টার (৩)
- ☐ বোধগম্যতা পরীক্ষা করার জন্য ক্লায়েন্ট যা বলছে তা সংক্ষিপ্ত আকারে তাকে শোনানো (৪)
- ☐ ক্লায়েন্টকে উত্তর দেওয়ার জন্য সময় দেওয়া (৫)
- ☐ ক্লায়েন্ট যা বলেছে তা প্রতিফলিত করার জন্য লেখা ব্যবহার করা (৬)
- ☐ ক্লায়েন্টকে নির্দিষ্ট সংখ্যক পছন্দের মধ্যে চয়ন করতে বলা (৭)
- ☐ ক্লায়েন্টের জন্য এ নির্দেশ করার জন্য পছন্দগুলি লিখে রাখা (৮)
- ☐ অঙ্গভঙ্গি উৎসাহিত করা ('আপনি কি আমাকে দেখাতে পারেন?') (৯)
- ☐ ক্লায়েন্টকে উৎসাহিত করুন বিষয়টির সাথে এবং এর সম্পর্কিত মূল শব্দগুলি পড়ুন যা আপনি কথোপকথনের আগে লিখেছিলেন (১০)
- ☐ ক্লায়েন্টকে অঙ্কন বা লেখা ব্যবহার করতে উৎসাহিত করুন (১১)
- ☐ সঙ্গী (স্বামী বা স্ত্রী) কে বলা যে রোগী যা বলার চেষ্টা করছে তা আমাকে বলুন (১২)
- ☐ অন্যান্য (অনুগ্রহ করে বর্ণনা করুন) (১৩)

- ☐ ⊗আমি কোন যোগাযোগ কৌশল ব্যবহার করি না (১৪)

প্রশ্ন৬: অ্যাফাসিয়া আক্রান্ত রোগীদের সাথে যোগাযোগের ক্ষেত্রে আপনার নিম্নলিখিত সমস্যা বা বাধাগুলির অভিজ্ঞতা কতটুকু আছে তা দয়া করে নাম্বার দিন

অনুগ্রহ করে ১ (কোনো সমস্যা বা বাধা নয়) থেকে ৫ (উল্লেখযোগ্য সমস্যা বা বাধা) এর মধ্যে নাম্বার দিন

	মোটেও সমস্যা বা বাধা নয় ১	২	৩		উল্লেখযোগ্য সমস্যা বা বাধা ৫	প্রযোজ্য নয়
আমি ক্লায়েন্টের যোগাযোগের শক্তি / প্রয়োজনীয়তার বিষয়ে অন্যান্য পেশাদারদের (যেমন, এসএলটি) কাছ থেকে সাহায্য পাই না।	O	O	O	O	O	O
ক্লায়েন্টের যোগাযোগের অসুবিধার তীব্রতা।	O	O	O	O	O	O
যোগাযোগ কৌশলগুলি প্রয়োগ করতে/যোগাযোগ বিচ্ছিন্নতা সমাধান করার জন্য আমার কাছে পর্যাপ্ত সময় নেই।	O	O	O	O	O	O
অ্যাফাসিয়ায় আক্রান্ত ক্লায়েন্টদের সমর্থন করার জন্য যোগাযোগের কৌশল সম্পর্কে আমার জ্ঞান আছে বলে আমি মনে করি না।	O	O	O	O	O	O
আমার কাছে উপযুক্ত সরঞ্জাম (যোগাযোগ বোর্ড/ছবি/সুবিধাজনক তথ্য) নেই।	O	O	O	O	O	O
ক্লায়েন্টের সাথে আমার যে পরিবেশে যোগাযোগ করা দরকার তা কোলাহলপূর্ণ এবং এটি মনোযোগ নষ্ট করে দেয়।	O	O	O	O	O	O

প্রশ্ন৭: আপনি কি স্ট্রোক পরবর্তী অ্যাফাসিয়ায় আক্রান্ত রোগীর সাথে যোগাযোগের ক্ষেত্রে অন্য কোনো সমস্যার সম্মুখীন হন?

- হ্যাঁ
- না

প্রশ্ন৮: অনুগ্রহ করে এই সমস্যা বা বাধাগুলো বর্ণনা করুন:

_____

_____

প্রশ্ন৯: স্ট্রোক পরবর্তী আফ্যাসিয়া আক্রান্ত রোগীর সাথে আরও ভাল যোগাযোগে আপনাকে সহায়তা করার জন্য আপনি কি নীচের উপকরণটি ব্যবহার করেছেন?

স্পিচ ল্যাঙ্গুয়েজ থেরাপিস্টের কাছ থেকে সহায়তা (উদাঃ, যৌথ সেশন, যোগাযোগ কৌশলগুলিতে দক্ষতা ভাগ করে নেওয়া)

o হ্যাঁ (১)
o না (২)

প্রশ্ন১০: আপনার চিকিৎসা অনুশীলনে এই উপকরণটি কতটা সহায়ক হয়েছে?

	একদমই সহায়ক নয় ১	২	৩	৪	খুবই সহায়ক ৫
একজন স্পিচ এন্ড ল্যাঙ্গুয়েজ থেরাপিস্টের সহায়তা	○	○	○	○	○

প্রশ্ন১১: স্ট্রোক পরবর্তী আফ্যাসিয়া আক্রান্ত রোগীর সাথে আরও ভাল যোগাযোগে আপনাকে সহায়তা করার জন্য আপনি কি নীচের উপকরণটি ব্যবহার করেছেন?

আমার চেয়ে বেশি অভিজ্ঞ সহকর্মীদের (আমার নিজের পেশার) কাছ থেকে পরামর্শ নেওয়া

o হ্যাঁ (১)
o না (২)

প্রশ্ন১২: আপনার চিকিৎসা অনুশীলনে এই উপকরণটি কতটা সহায়ক হয়েছে?

	মোটেও সহায়ক নয় ১	২	৩	৪	খুবই সহায়ক ৫
মেন্টরিং	○	○	○	○	○

প্রশ্ন১৩: স্ট্রোক পরবর্তী আফ্যাসিয়া আক্রান্ত রোগীর সাথে আরও ভাল যোগাযোগে আপনাকে সহায়তা করার জন্য আপনি কি নীচের উপকরণটি ব্যবহার করেছেন?

রোগীর পরিবারের সম্পৃক্ততা

○ হ্যাঁ (১)

○ না (২)

প্রশ্ন১৪: আপনার চিকিৎসা অনুশীলনে এই উপকরণটি কতটা সহায়ক হয়েছে?

	মোটেও সহায়ক নয়				খুবই সহায়ক
	১	২	৩	৪	৫
রোগির পরিবারের সম্পৃক্তা	○	○	○	○	○

প্রশ্ন১৫: স্ট্রোক পরবর্তী আফ্যাসিয়া আক্রান্ত রোগীর সাথে আরও ভাল যোগাযোগে আপনাকে সহায়তা করার জন্য আপনি কি নীচের উপকরণটি ব্যবহার করেছেন?

দৃশ্যমান সহায়ক উপকরণের সহজলভ্যতা যেমন তথ্য লিফলেট, পিকচার বোর্ড ইত্যাদি

o হ্যাঁ (১)

o না (২)

প্রশ্ন১৬: আপনার চিকিৎসা অনুশীলনে এই উপকরণটি কতটা সহায়ক হয়েছে?

	মোটেও সহায়ক নয় ১	২	৩	৪	খুবই সহায়ক ৫
দৃশ্যমান সহায়ক উপকরণ	○	○	○	○	○

প্রশ্ন১৭: স্ট্রোক পরবর্তী আফ্যাসিয়া আক্রান্ত রোগীদের সাথে আরও ভাল যোগাযোগে আপনাকে সহায়তা করার জন্য আপনি কি নীচের সম্পদটি ব্যবহার করেছেন?

যোগাযোগ কৌশল বাস্তবায়ন / যোগাযোগ বিচ্ছিন্নতা সমাধানের জন্য পর্যাপ্ত সময়

o হ্যাঁ (১)

o না (২)

প্রশ্ন১৮: আপনার চিকিৎসা অনুশীলনে এই উপকরণটি কতটা সহায়ক হয়েছে?

	মোটেও সহায়ক নয় ১	২	৩	৪	খুবই সহায়ক ৫
ত্রুটিগুলো ঠিক করার বা কৌশলগুলো ব্যবহারের জন্য যথেষ্ট সময়	○	○	○	○	○

প্রশ্ন১৯: স্ট্রোক পরবর্তী আফ্যাসিয়া আক্রান্ত রোগীদের সাথে আরও ভাল যোগাযোগে আপনাকে সহায়তা করার জন্য আপনি কি নীচের উপকরণটি ব্যবহার করেছেন?

স্ট্রোক-পরবর্তী অ্যাফাসিয়ায় আক্রান্ত রোগীদের সাথে কীভাবে যোগাযোগ করবেন সে সম্পর্কে আপনার নিজের জ্ঞান এবং দক্ষতা

o হ্যাঁ (১)

o না (২)

প্রশ্ন২০: আপনার চিকিৎসা অনুশীলনে এই উপকরণটি কতটা সহায়ক হয়েছে?

	মোটেও সহায়ক নয় ১	২	৩	৪	খুবই সহায়ক ৫
অ্যাফাসিয়া আক্রান্ত ব্যক্তির সাথে কীভাবে যোগাযোগ করবেন সে সম্পর্কে আপনার নিজের জ্ঞান এবং দক্ষতা	○	○	○	○	○

প্রশ্ন২১: স্ট্রোক পরবর্তী আফ্যাসিয়া আক্রান্ত রোগীদের সাথে আরও ভাল যোগাযোগে আপনাকে সহায়তা করার জন্য আপনি কি অন্যকোনো উপকরন ব্যবহার করেছেন?

○ হ্যাঁ (১)

○ না (২)

প্রশ্ন২২: অনুগ্রহ করে উপকরণগুলি বর্ণনা করুন

_____

_____

প্রশ্ন২৩: স্ট্রোক পরবর্তী অ্যাফাসিয়ায় আক্রান্ত রোগীদের সাথে আরো ভালো করে যোগাযোগ করতে ভবিষ্যতে কোন উপকরণগুলি আপনাকে সহায়তা করতে পারবে?

প্রযোজ্য সবগুলিতে টিক দিন,

□অ্যাফাসিয়া সম্পর্কিত প্রশিক্ষণ এবং অ্যাফাসিয়া আক্রান্ত ব্যক্তিদের সাথে কীভাবে যোগাযোগ করা যায় (১)
□ স্পিচ-ল্যাঙ্গুয়েজ থেরাপিস্টের নিয়মিত সহায়তা (উদাঃ যৌথ সেশন) (২)
□ আরও অভিজ্ঞ সহকর্মীর কাছ থেকে পরামর্শ নেয়া (আমার নিজের পেশার) (৩)
□ যোগাযোগের বাধা কাটিয়ে উঠতে থেরাপির জন্য আতিরিক্ত সময় (৪)
□ অ্যাফাসিয়া আক্রান্ত ব্যক্তির পরিবারের সাথে ঘনিষ্ঠ সহযোগিতা (৫)
□ চিত্র বোর্ড এবং তথ্য লিফলেটগুলির মতো দৃশ্যমান সহায়ক উপকরণ (৬)
□ অন্যান্য (৭)

_____

প্রশ্ন২৪: আপনি কি কখনও স্ট্রোক পরবর্তী আফ্যাসিয়া আক্রান্ত রোগীদের সাহায্য করার জন্য যোগাযোগ কৌশলগুলির উপর প্রশিক্ষণ বা শিক্ষা পেয়েছেন?

o হ্যাঁ (১)

o না (২)

প্রশ্ন২৫: প্রশিক্ষণে কোন বিষয়গুলি আলোচিত হয়েছিল?

অনুগ্রহ করে প্রযোজ্য সবগুলিতে টিক দিন

☐ অ্যাফাসিয়া সম্পর্কে তথ্য এবং এটি কীভাবে যোগাযোগকে প্রভাবিত করে (১)

☐ অ্যাফাসিয়া আক্রান্ত রোগীকে সমর্থন করার জন্য যোগাযোগের কৌশল (২)

☐ কিভাবে সহজগম্য যোগাযোগ উপকরন তৈরি করা যায় (উদাঃ, শিক্ষা / তথ্য সরবরাহের জন্য) (৩)

☐ অন্যান্য (অনুগ্রহ করে বর্ণনা করুন) (৪)

_____

প্রশ্ন২৬: আপনি কি স্ট্রোক পরবর্তী আফ্যাসিয়া আক্রান্ত রোগীদের সমর্থন করার জন্য যোগাযোগ কৌশলগুলির উপর আরও প্রশিক্ষণ পেতে চান?

o হ্যাঁ (১)

o না (২)

প্রশ্ন২৭: আপনি কোন বিষয়গুলি প্রশিক্ষণে চান?

অনুগ্রহ করে প্রযোজ্য সবগুলিতে টিক দিন

☐ অ্যাফাসিয়া সম্পর্কে তথ্য এবং এটি কীভাবে যোগাযোগকে প্রভাবিত করে (১)

☐ অ্যাফাসিয়া আক্রান্ত রোগীদের সমর্থন করার জন্য যোগাযোগের কৌশল (২)

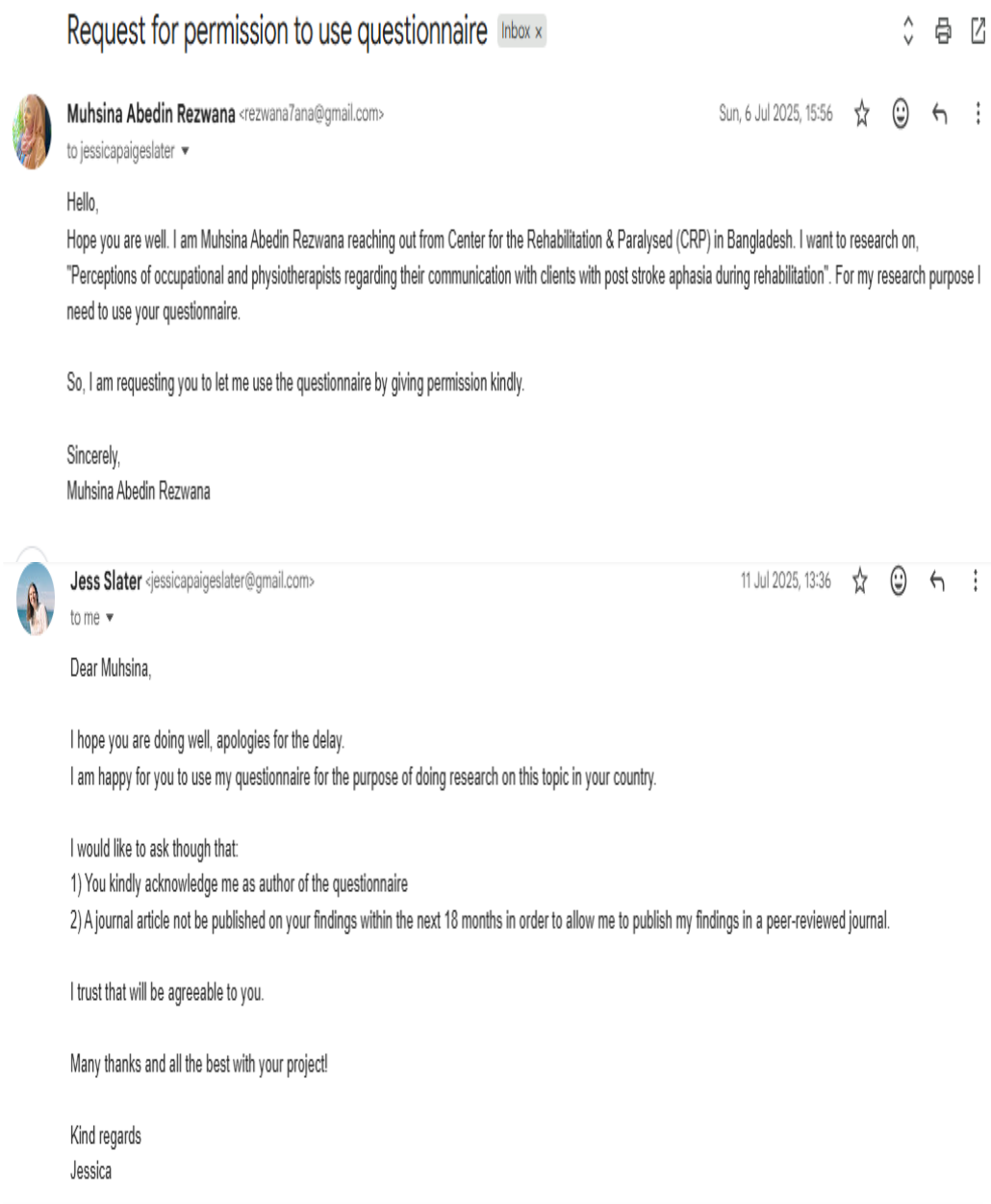
☐ কিভাবে সহজগম্য যোগাযোগ উপকরণ তৈরি করা যায় (উদাঃ, শিক্ষা / তথ্য সরবরাহের জন্য) (৩)

☐ অন্যান্য (অনুগ্রহ করে বর্ণনা করুন) (৪)

_____

ANNEXURE- 3

Permission from author for using questionaries



Request for permission to use questionnaire Inbox x

Muhsina Abedin Rezwana <rezwana7ana@gmail.com> Sun, 6 Jul 2025, 15:56

to jessicapaigeslater

Hello,

Hope you are well. I am Muhsina Abedin Rezwana reaching out from Center for the Rehabilitation & Paralysed (CRP) in Bangladesh. I want to research on, "Perceptions of occupational and physiotherapists regarding their communication with clients with post stroke aphasia during rehabilitation". For my research purpose I need to use your questionnaire.

So, I am requesting you to let me use the questionnaire by giving permission kindly.

Sincerely,
Muhsina Abedin Rezwana

Jess Slater <jessicapaigeslater@gmail.com> 11 Jul 2025, 13:36

to me

Dear Muhsina,

I hope you are doing well, apologies for the delay.
I am happy for you to use my questionnaire for the purpose of doing research on this topic in your country.

I would like to ask though that:
1) You kindly acknowledge me as author of the questionnaire
2) A journal article not be published on your findings within the next 18 months in order to allow me to publish my findings in a peer-reviewed journal.

I trust that will be agreeable to you.

Many thanks and all the best with your project!

Kind regards
Jessica

ANNEXURE- 4(A)

IRB permission letter

বাংলাদেশ হেলথ্ প্রফেশন্স ইনস্টিটিউট (বিএইচপিআই)
Bangladesh Health Professions Institute (BHPI)
(The Academic Institute of CRP)

BANGLADESH HEALTH PROFESSIONS INSTITUTE

Ref: CRP-BHPI/IRB/09/2025/1169 Date: 15.09.2025

To
Muhsina Abedin Rezwana
4th Year B.Sc. in Speech & Language Therapy
Session: 2020-21, DU Reg. No.: 14318, Student ID: 132000300
BHPI, CRP, Savar, Dhaka-1343, Bangladesh

Subject: Approval of the thesis proposal "Perceptions of Occupational and Physiotherapists regarding their communication with clients with post-Stroke Aphasia during rehabilitation"- by the ethics committee.

Dear Muhsina Abedin Rezwana,
Congratulations.
The Institutional Review Board (IRB) of BHPI has reviewed and discussed your application to conduct the above-mentioned dissertation, with yourself, as the principal investigator and Md. Mizanur Rahman, Assistant Professor of BHPI as thesis supervisor. The Following documents have been reviewed and approved:

Sr. No.	Name of the Documents
1	Dissertation proposal
2	Questionnaire (English & Bangla version)
3	Information sheet & consent form.

The purpose of the study is to investigate the perceptions of Occupational therapists and Physiotherapists regarding their communication with clients with post-Stroke Aphasia during rehabilitation. The study involves answering an adopted standardized questionnaire to explore the perceptions of Occupational and Physiotherapists that may take ten to fifteen minutes and have no likelihood of any harm to the participants and have possibility of identifying communication-related challenges, proposing effective solutions, and improving the quality of life for clients with post-stroke aphasia. The members of the Ethics committee have approved the study to be conducted in the presented form at the meeting held at 08:30 AM on May 21, 2025 (49th IRB meeting) at BHPI.

The institutional Ethics committee expects to be informed about the progress of the study, any changes occurring in the course of the study, any revision in the protocol and patient information or informed consent and ask to be provided a copy of the final report. This Ethics committee is working accordance to Nuremberg Code 1947, World Medical Association Declaration of Helsinki, 1964 - 2013 and other applicable regulation.

Best regards,

Muhammad Millat Hossain
Associate Professor, Project and Course Coordinator, MRS
Member Secretary, Institutional Review Board (IRB)
BHPI, CRP, Savar, Dhaka-1343, Bangladesh

সিআরপি-চাপাইন, সাভার, ঢাকা-১৩৪৩, বাংলাদেশ। ফোন: +৮৮ ০২ ২২৪৪৪৫৪৬৪-৫, +৮৮ ০২ ২২৪৪৪১৪০৪, মোবাইল: +৮৮ ০১৭৩০ ০৫৯৬৪৭
CRP-Chapain, Savar, Dhaka-1343, Bangladesh. Tel: +88 02 224445464-5, +88 02 224441404, Mobile: +88 01730059647
E-mail : principal-bhpi@crp-bangladesh.org, Web: bhpi.edu.bd

ANNEXURE- 4(B)

Permission letter to conduct the research project

Date: 28.07.2025

To

The Head

Department of Speech & Language Therapy

Bangladesh Health Professions Institute (BHPI)

CRP, Savar, Dhaka-1343, Bangladesh

Subject: **Prayer for Seeking Permission to conduct the Research Project.**

Sir,

With due respect, I state that I am a 4th year student of B.Sc. in Speech & Language Therapy Department, Session: 2020-21 at Bangladesh Health Professions Institute (BHPI), the academic institute of Centre for the Rehabilitation of the Paralysed (CRP). I am sincerely seeking your permission to conduct my research project as the partial fulfillment of the requirement for the degree of B.Sc. in Speech and Language Therapy. The title of research project is "**Perceptions of Occupational and Physiotherapists regarding their communication with clients with post-Stroke Aphasia during rehabilitation**". The purpose of the study is to investigate the perceptions of occupational therapists and physiotherapists on their communication during rehabilitation with clients with post-stroke aphasia.

Now I am seeking your kindness to approve me to conduct the research project and I would like to ensure that anything of my research project will not be harmful to the participants.

So, I therefore pray and hope that you would be kind enough to grant me the permission to conduct the research project.

Your obediently

Muhsina Abedin Rezwana

Muhsina Abedin Rezwana

4th year student of B.Sc. in Speech & Language Therapy Department

Bangladesh Health Professions Institute (BHPI)

CRP, Savar, Dhaka

Head of the Department	Comment
Md. Sazzad Hossain Assistant Professor & Head Department of Speech and Language Therapy Bangladesh Health Professions Institute (BHPI) CRP, Savar, Dhaka	Permission has been granted. 28/7/25

Md. Sazzad Hossain
Professor & Hea
Speech and Languag
Professions Institute

ANNEXURE- 5(A)

Permission letter to conduct data collection

Date: 28.07.2025

To

The Head

Department of Speech & Language Therapy

Bangladesh Health Professions Institute (BHPI)

CRP, Savar, Dhaka-1343, Bangladesh

Subject: **Prayer for Seeking Permission to conduct the Data Collection.**

Sir,

With due respect, I state that I am a 4th year student of B.Sc. in Speech & Language Therapy Department, Session: 2020-21 at Bangladesh Health Professions Institute (BHPI), the academic institute of Centre for the Rehabilitation of the Paralysed (CRP). I am sincerely seeking your permission to conduct my data collection as the partial fulfillment of the requirement for the degree of B.Sc. in Speech and Language Therapy. The title of research project is "**Perceptions of Occupational and Physiotherapists regarding their communication with clients with post-Stroke Aphasia during rehabilitation**". The purpose of the study is to investigate the perceptions of occupational therapists and physiotherapists on their communication during rehabilitation with clients with post-stroke aphasia.

Now I am seeking your kindness to approve me to conduct the data collection and I would like to ensure that anything of my research project will not be harmful to the participants.

So, I therefore pray and hope that you would be kind enough to grant me the permission to conduct the data collection.

Your obediently

Muhsina Abedin Rezwana

Muhsina Abedin Rezwana

4th year student of B.Sc. in Speech & Language Therapy Department

Bangladesh Health Professions Institute (BHPI)

CRP, Savar, Dhaka

Head of the Department	Comment
Md. Sazzad Hossain Assistant Professor & Head Department of Speech and Language Therapy Bangladesh Health Professions Institute (BHPI) CRP, Savar, Dhaka	Permission has been granted. 28.7.25

Md Sazzad Hossain
Assi Professor & Head
Department of Speech and Language Therapy
Bangladesh Health Professions Institute (BHPI) CRP

ANNEXURE- 5(B)

Permission letter to conduct data collection

07th October, 2025

To

The Head

Department of Occupational Therapy

Centre for the Rehabilitation of the Paralysed (CRP)

Savar, Dhaka-1343

Subject: Prayer for seeking permission to conduct data collection.

Dear Sir,

With due respect I state that I am a 4th year student of B.Sc. in Speech & Language Therapy Department, session: 2020-2021 at Bangladesh Health Professions Institute (BHPI), the academic institute of Centre for the Rehabilitation of the Paralysed (CRP). The title of research project is "Perceptions of Occupational and Physiotherapists regarding their communication with clients with post-Stroke Aphasia during rehabilitation". The main objective of this study is to investigate the perceptions of Occupational and Physiotherapists regarding their communication with clients with post-Stroke Aphasia while giving therapy during rehabilitation. I would like to collect data from 8th October to 20th December, 2025 period of time. Now I'm seeking your kindness to approve me to start the data collection from the Occupational Therapy Department for the study project and I would like to assure that anything of my study project will not harmful for the participants.

So, I therefore pray and hope that you would be kind enough to grant me the permission to data collection.

Yours obediently

Muhsina Abedin Rezwana

4th year B.Sc in Speech & Language Therapy

Bangladesh Health Professions Institute (BHPI)

CRP, Savar, Dhaka

Head of the Department	Comment & Signature
Md. Tauhidul Islam Consultant OT & Head Occupational Therapy Department CRP, Savar, Dhaka-1343	Approved 1560 07/10/2025 MD. TAUHIDUL ISLAM Consultant-OT & Head Occupational Therapy Dept. CRP, Savar, Dhaka-1343

Forwarded for kind consideration

7/10/2025

Md. Sazzad Hossain
Asst. Professor & Head
Department of Speech and Language Therapy
Bangladesh Health Professions Institute, BHPI, CRP

ANNEXURE- 5(C)

Permission letter to conduct data collection

07th October, 2025

To

The Head

Department of Physiotherapy

Centre for the Rehabilitation of the Paralysed (CRP)

Savar, Dhaka-1343

Subject: Prayer for seeking permission to conduct data collection.

Dear Sir,

With due respect I state that I am a 4th year student of B.Sc. in Speech & Language Therapy Department, session: 2020-2021 at Bangladesh Health Professions Institute (BHPI), the academic institute of Centre for the Rehabilitation of the Paralysed (CRP). The title of research project is "Perceptions of Occupational and Physiotherapists regarding their communication with clients with post-Stroke Aphasia during rehabilitation". The main objective of this study is to investigate the perceptions of Occupational and Physiotherapists regarding their communication with clients with post-Stroke Aphasia while giving therapy during rehabilitation. I would like to collect data from 8th October to 20th December, 2025 period of time. Now I'm seeking your kindness to approve me to start the data collection from the Physiotherapy Department for the study project and I would like to assure that anything of my study project will not harmful for the participants.

So, I therefore pray and hope that you would be kind enough to grant me the permission to data collection.

Yours obediently

Muhsina Abedin Rezwana

4th year B.Sc in Speech & Language Therapy

Bangladesh Health Professions Institute (BHPI)

CRP, Savar, Dhaka

Head of the Department	Comment & Signature
Professor Dr. Mohammad Anwar Hossain Senior Consultant & Head Department of Physiotherapy CRP, Savar, Dhaka-1343	

Forwarded for kind consideration

7/10/2025

Md Sazzad Hossain
Professor & Head
Department of Speech and Language Therapy
Bangladesh Health Professions Institute (BHPI), CRP

Approved
6/10/25

Prof. Dr. Mohammad Anwar Hossain, PhD
Professor Physiotherapy, Department BHPI
Senior Consultant & Head
Physiotherapy Department
CRP, Savar, Dhaka-1343

ANNEXURE- 5(D)

Permission letter to conduct data collection

09th October, 2025

To

In-Charge

Department of Physiotherapy

Centre for the Rehabilitation of the Paralysed (CRP)

Mirpur-14, Dhaka-1206

Subject: Prayer for seeking permission to conduct data collection.

Dear Ma'am,

With due respect I state that I am a 4th year student of B.Sc. in Speech & Language Therapy Department, session: 2020-2021 at Bangladesh Health Professions Institute (BHPI), the academic institute of Centre for the Rehabilitation of the Paralysed (CRP). The title of research project is "Perceptions of Occupational and Physiotherapists regarding their communication with clients with post-Stroke Aphasia during rehabilitation". The main objective of this study is to investigate the perceptions of Occupational and Physiotherapists regarding their communication with clients with post-Stroke Aphasia while giving therapy during rehabilitation. I would like to collect data from 8th October to 20th December, 2025 period of time. Now I'm seeking your kindness to approve me to start the data collection from the Physiotherapy Department for the study project and I would like to assure that anything of my study project will not harmful for the participants.

So, I therefore pray and hope that you would be kind enough to grant me the permission to data collection.

Yours obediently

Muhsina Abedin Rezwana

Muhsina Abedin Rezwana

4th year B.Sc in Speech & Language Therapy

Bangladesh Health Professions Institute (BHPI)

CRP, Savar, Dhaka

Head of the Department	Comment & Signature
Nusrat Jahan Sonia Consultant & In-charge Physiotherapy Department Mirpur-14, Dhaka-1206 Rumi Akter Consultant & In-charge Stroke Rehabilitation unit CRP Mirpur.	A.J. (1256) 11.10.25 14.10.25 & SRU

Attn: In-Charge - PT Dept & SRU

Please allow the student to collect data from your department. Thank you.

— Mamshad 12.10.25

ANNEXURE- 5(E)

Permission letter to conduct data collection

বাংলাদেশ হেল্‌থ প্রফেশন্স ইনষ্টিটিউট (বিএইচপিআই)

BANGLADESH HEALTH PROFESSIONS INSTITUTE (BHPI)

(The Academic Institute of CRP)

CRP-Chapain, Savar, Dhaka, Tel: 02224445464 , 02224441404, Website: www.bhpi.edu.bd

Date: 21.10.2025

To

Director

Academy of Physiotherapy

House # 06, Road # 02, Block # A,

Mirpur-11, Dhaka-1216

Subject: *Regarding Data collection for dissertation.*

Greetings from Bangladesh Health Professions Institute (BHPI). I would like to inform you that, BHPI, the Academic Institute of CRP is running B. Sc in Speech and Language Therapy Course, under Faculty of Medicine, University of Dhaka.

According to the content of 4th year of University course curriculum, the students have to do Research and Course work in different topics to develop their skills. Considering the situation, your institute will be the most appropriate place to collect data.

4th year students of BHPI Muhsina Abedin Rezwana would like to collect data in your organization from 22.10.2025 to 30.11.2025. Her title: "Perceptions of Occupational and Physiotherapist regarding their communication with clients with post-stroke Aphasia during rehabilitation".

We shall remain grateful to you if you could kindly allow us in conducting the placement.

With regards

Md. Sazzad Hossain
Asst. Prof. & Head
Dept. of Speech & Language Therapy

BANGLADESH HEALTH PROFESSIONS INSTITUTE (BHPI) Date:..... CRP, SAVAR, DHAKA

Allowed to collect data with maintaining of proper Ethical consent.

22/10/2025

Assoc. Prof. S.M. Muslola Kamal
MD(Rehab), MPH, BPT (CRP, BHPI, DU)
Post Graduate in Stroke Rehabilitation
Disability Management Specialist
Academy of Physiotherapy
Section-10, Mirpur, Dhaka-1216

ANNEXURE- 5(F)

Permission letter to conduct data collection

বাংলাদেশ হেল্‌থ প্রফেশন্স ইনষ্টিটিউট (বিএইচপিআই)

BANGLADESH HEALTH PROFESSIONS INSTITUTE (BHPI)

(The Academic Institute of CRP)

CRP-Chapain, Savar, Dhaka, Tel: 02224445464 , 02224441404, Website: www.bhpi.edu.bd

Date: 21.10.2025

To

Director

Gonoshosthaya Samaj Vittik Medical College Hospita

Mirzanagar, Ashulia, Savar, Dhaka-1344.

Subject: *Regarding Data collection for dissertation.*

Greetings from Bangladesh Health Professions Institute (BHPI). I would like to inform you that, BHPI, the Academic Institute of CRP is running B. Sc in Speech and Language Therapy Course, under Faculty of Medicine, University of Dhaka.

According to the content of 4th year of University course curriculum, the students have to do Research and Course work in different topics to develop their skills. Considering the situation, your institute will be the most appropriate place to collect data.

4th year students of BHPI Muhsina Abedin Rezwana would like to collect data in your organization from 22.10.2025 to 30.11.2025. Her title: "Perceptions of Occupational and Physiotherapist regarding their communication with clients with post-stroke Aphasia during rehabilitation".

We shall remain grateful to you if you could kindly allow us in conducting the placement.

With regards

Md. Sazzad Hossain
Asst. Prof. & Head
Dept. of Speech & Language Therapy

ANNEXURE- 5(F)

Permission letter to conduct data collection

বাংলাদেশ হেল্‌থ প্রফেশন্স ইনষ্টিটিউট (বিএইচপিআই)
BANGLADESH HEALTH PROFESSIONS INSTITUTE (BHPI)
(The Academic Institute of CRP)
CRP-Chapain, Savar, Dhaka, Tel: 02224445464 , 02224441404, Website: www.bhpi.edu.bd

Date: 21.10.2025

To
Director
Prottasha Health Care LTD
Nazim Nagar, Singair Road
Hemayetpur, Savar, Dhaka-1346.

Subject: *Regarding Data collection for dissertation.*

Greetings from Bangladesh Health Professions Institute (BHPI). I would like to inform you that, BHPI, the Academic Institute of CRP is running B. Sc in Speech and Language Therapy Course, under Faculty of Medicine, University of Dhaka.

According to the content of 4th year of University course curriculum, the students have to do Research and Course work in different topics to develop their skills. Considering the situation, your institute will be the most appropriate place to collect data.

4th year students of BHPI Muhsina Abedin Rezwana would like to collect data in your organization from 22.10.2025 to 30.11.2025. Her title: "Perceptions of Occupational and Physiotherapist regarding their communication with clients with post-stroke Aphasia during rehabilitation".

We shall remain grateful to you if you could kindly allow us in conducting the placement.

With regards

Md. Sazzad Hossain
Asst. Prof. & Head
Dept. of Speech & Language Therapy

BANGLADESH HEALTH PROFESSIONS INSTITUTE (BHPI) * CRP, SAVAR, DHAKA * Date:.....

Prottasha Health Care Ltd. Hemayetpur, Savar, Dhaka

04.11.25