Exploring the Role of Occupational Therapy with Older Adults in Bangladesh

By
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Statement of authorship

Except where is made in the text of the thesis, this thesis contains no materials published elsewhere or extracted in whole or in part form a thesis presented by me for any other degree or diploma or seminar.

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The ethical issues of the study has been strictly considered and protected. In case of dissemination the finding of this project for future publication, research supervisor will highly concern and it will be duly acknowledged as undergraduate thesis.

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I would like to pay my respect and gratitude to Almighty and merciful Allah (SWT.) who has given me the power and ability to perform my study in a perfect manner and way. I also give my special thanks to my beloved parents who continuously encouraged me to complete my study.

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Finally, I would like to give a word of appreciation to all of the participants for their contribution to complete this study. I would like to state my grateful feelings towards my friends for their splendid assistance and helpfulness.

Dedication

Dedicated to all the previous mistakes I have made throughout my learning career.

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List of Abbreviations

BHPI: Bangladesh Health Professions Institution

BADL: Basic Activities of Daily Living

CBTI: Cognitive Behavior Therapy Intervention

CRP: Centre for the Rehabilitation of the Paralyzed

IRB: Institutional Review Board

IADL: Instrumental Activities Of Daily Living

OT: Occupational Therapy

WFOT: World Federation of Occupational Therapists

WHO: World Health Organization

Abstract

Background: Usually older adults have always been more or less neglected in our country. A number of them even forcefully live separately. Those who live with family, not all of them get the proper care from their family members. In this situation, to ensure their good-being, occupational therapy could be the best solution. Older adults suffer different types of health complicacy like arthritis, cancer, Alzheimer's, falls, substance abuse, depression, sleep problem etc. Occupational therapy can help them fight these diseases, overcome and of course rehabilitation.

Methods: This is a cross-sectional study survey collection quantitative data to be developed to be easily accessible to a large group of occupational therapists. Data was collected from 51 occupational therapists from Savar CRP, Mirpur CRP, and occupational therapists working elsewhere through online. Convenience and snowball method was used regarding this study.

Results: Among the 51 participators, all of them completed the survey though there was partial information missing. 47.1% of them were male and the rest were female. The lowest age was identified 25 and highest was 42. The participants mostly were from undergraduate degree in OT background. The majority of them are from Bangladesh whereas other 2 are from Vietnam and UK. Most of the participants are more or less trained to work with geriatric patients and experienced to do so.

Conclusions: This study aimed to explore the roles of OT with older adults and discovered a number of facts. To serve the profession, it is essential for occupational therapists to understand their roles first, identify the core problems in older adults, highlight the interventions, identify the challenges behind the barriers, prepare themselves by gathering knowledge, experience, proper training, and minimize those challenges to serve the best.

Finally, the roles that occupational therapists are playing with older adults have been explored.

Keywords: Occupational Therapy role, Older adults.

CHAPTER I: Introduction

1.1 Background

While occupational therapists play an integral role in multidisciplinary care for people with chronic conditions, there is little evidence documenting the occupational therapy role for geriatric people. This study aims to explore the roles of occupational therapy about current practice with older adult (Gearman et al, 2016).

Occupational therapy (OT) is accomplished treatment that helps individuals achieving freedom in all areas of their lives. An OT is a board-certified licensed professional who may practice in a wide variety of sceneries for the geriatric population. Treatment includes providing people with the skills necessary for independent and satisfying lives. Services typically include personalized treatment programs to improve the client's capability to perform day-to-day activities. Complete home and job-site assessments with adaptation endorsements. Performance skills assessments and treatment. Adaptive equipment recommendations and usage training guidance to family members and caregivers (Daley et al, 2006).

OT practitioners are skilled professionals whose education embraces the study of human growth and progress, with special importance on the social, emotional, and physiological effects of sickness and injury. The aging procedure often leads to a diversity of illnesses and injuries that can significantly affect the ability of the elderly to complete their day-to-day living activities. OTs hence play a vital role in the establishment of skilled health care services to the geriatric population (Cristian et al, 2006).

A wide variety of OT services can benefit the geriatric population, including the following conditions. Limitations due to a stroke or heart attack. Repetitive stress injuries and chronic back pain or other serious chronic conditions. Vision or cognitive problems that threaten their ability.

The OTs play a vital role as a member of an interdisciplinary team. This team typically includes a doctor, nurse, social worker, physical therapist, and speech therapist (Daley et al, 2006).

A person primarily passes five stages in his lifetime. The stages are infancy, childhood, adolescence, adulthood and old age. Old age starts at sixty and ends in death. Old age is one of the vulnerable conditions in a natural process of life. In this stage, people experience decreased physical strength and weakening health conditions with age related disease. All over the world, percentage of elderly are increasing where numbers of children are decreasing. The statistical data of Bangladesh represent the number of aged population has increased from 1.38 million to 7.59 million from the year of 1974 - 2012. Bangladesh is the seventh over populated (164.69 million) and most densely (1265) person live per square kilometers) country. Besides, the nuclear family is increasing in Bangladesh day by day and older people are left alone living distinctly from their families and becoming vulnerable. This situation demands more health and welfare services and more provision to the elderly support system (Barikdar et al, 2016).

In USA, one study showed that Occupational Therapy practitioners possess a unique and holistic role while working with older adults. By creating a collaborative partnership with the older adults who demonstrates cognitive dysfunction, the OT practitioners can bring the focus of rehabilitation to solving daily occupational performance problems where impaired cognition is a contributing factor. Occupational Therapists are well positioned to make appropriate recommendations or referrals for additional resources for older adults. Occupational Therapists can facilitate a safe transition to pre-illness levels of function, responsibilities, and roles or improve cognitive and functional capacity. The occupational therapist will generally spend more time in adapting or remediating functional impairment rather than trying to remediate the cognitive impairment itself. Occupational therapy practitioners are enablers of occupation. They focus to enhance meaningful occupational performance with everyday roles and routines, for clients across the lifespan. The occupational therapy practitioner to facilitate, restore, or modify the environment or activity/task to promote participation in daily occupations. Occupations are important or necessary activities or tasks, which the client wants or needs to engage in and may include basic activities of daily living (BADL) such as personal hygiene, bathing, dressing, or functional mobility; instrumental activities of daily living (IADL) such as driving and community mobility, financial management or home management; rest and sleep; work and job performance; play; leisure; and social participation. (Munoz et al, 2015).

In an Australian study, they received 1004 responses, half were female (50.9%) and one-fifth (20.1%) aged 65 or over amongst. A chi-squared test for independence found a significant association between gender and knowledge about occupational therapy. Females had a better understanding of the profession responding to the question with good knowledge (14.7%) compared to males from whom (6.9) responded to the question with good knowledge. Of the male respondents (43.2%) reported they did not have knowledge about the profession. Though maximum number of people really don't have the greatest ideas about the role of OT, still some of them have got their thoughts all good. One participant stated- "I think it is a form of physical assistance and exercise training. It would be helpful to older people to keep them physically fitter and in better condition as their bodies age. (Participant: 576)" The occupational therapy association in Australia also conducted a series of awareness program (BTL based) to aware mass people about the significance of occupational therapy. (Rahja et al, 2019)

Another Australian study felt that to explore the roles of occupational therapy with older adult, further research was needed to provide evidence supporting the role and practice of occupational therapy with geriatric patients. Collaborating work with multidisciplinary teams was needed to develop long-term routine treatment pathways that include occupational therapy interventions. They also felt structured needs assessment and care planning, self-management programs, and rehabilitation services that are holistic are recommended to meet the unmet needs of geriatric patients, by multi-disciplinary teams of health professionals. (Buckland et al, 2017)

Another study held in USA, represented four intervention areas within the scope of occupational therapy: cognitive behavioral therapy for insomnia, physical activity, multicomponent interventions, and other interventions strategies. Among these, CBTI targets insomnia, one of the most common sleep problems by modifying dysfunctional perceptions of sleep and unsuitable sleep behaviors. Stimulus control and sleep restriction/compression are core components of CBTI. Eleven studies examined the relationship between physical activity and sleep. Wide range of physical activities, such as resistance training and dancing were prescribed. Multicomponent interventions used multiple sleep intervention strategies to target the various factors impacting sleep; five RCTs and two systematic reviews were included. Three articles

that did not fit the other categories were placed in a miscellaneous group. These articles examined bright light therapy and strategies to enhance the sleep environment. This scoping review identified four sleep intervention areas that improved sleep- all of which fall within occupational therapy's scope of practice. Across these categories, there was a consistent emphasis on modifying existing habits and routines to support sleep quality, participating in physical activity, and initiating engagement in activities that comply with sleep restriction/compression. (Leland et al, 2014)

A different study in Hamburg, Germany showed inspiring results that occupational therapists can work together to meet the challenges that Europe is now facing in terms of the huge increase in number of older adults. Occupational therapists are well suited to contribute knowledge, since the values, beliefs, and ideas related to how occupations contribute to people's health and wellbeing, could be the ideas that Europe applies to meet the needs of the older adults. Research will be a key factor for occupational therapy in Europe in the future. Occupational therapy will become acknowledged as an important part of the European welfare system, especially in the provision of support for older people, they added (Borell et al, 2008)

1.2 Justification of the study

Since, In Bangladesh, there is no research about 'exploring the roles of Occupational Therapy with older adults" but this seems to be very important as there are studies available about this topic in other countries. In Bangladesh, a bigger number of mass people still don't have any compact idea about the role of Occupational Therapy, A lot of them don't even know what Occupational Therapy is. So I thought this topic should come up so that even mass people get to know about Occupational Therapy and its roles and help themselves.

As the aim of this research is to explore the roles of occupational therapy with older adult, I consider this to be very significant. Here in Bangladesh, a bigger number of mass people still don't have any compact idea about the role of Occupational Therapy. A lot of them don't even know what Occupational Therapy is. Moreover, in Bangladesh, there is still no research available on this topic so I thought it needs to be done as soon as possible. As a result, it will help the people to find out what occupational therapy and its role is. It will also be helping the professionals because when people will know about the roles of Occupational Therapy they will go to the

CRP as well as other institutes for therapy. By collecting data, the researcher will get benefited when he/she does further research upon this

1.3 Operational Definition

Occupational Therapy

Occupational therapy is a client-cent red health profession concerned with promoting health and well-being through occupation. The primary goal of occupational therapy is to enable people to participate in the activities of everyday life. Occupational therapists achieve this outcome by working with people and communities to enhance their ability to engage in the occupations they want to, need to, or are expected to do, or by modifying the occupation or the environment to better support their occupational engagement. (WFOT 2012)

Older adult

Older people are defined by the United Nations as a person who is over 60 years of age. Old age is the last one among the five stages in the life processes of an individual and it is an age group or generation comprising a segment of the oldest member of a population.

As of 2019, over 13 million people living in Bangladesh are aged over 60 which is 8% of the country's total population. The proportion of older people is expected to double to 21.9% in 2050 with 36 million people aged over 60. This means that for every five Bangladeshis, one will be a senior citizen added (Borell et al, 2008).

CHAPTER II: Literature Review

In USA, one study was completed titled “The Role of Occupational Therapy in Older Adults with Cognitive Impairments and an Oncology Diagnosis”. This research didn’t use any participants surprisingly. They rather used a number of different studies to reach the conclusion. Both cross-sectional and longitudinal studies have found that accordingly 17% to 75% and 15% to 25% of women treated for breast cancer experienced cognitive deficits in the domains of memory, attention, information from 6 months to 20 years after exposure to chemotherapy that resulted them to experience problems in basic activities of daily living such as personal hygiene, bathing, dressing, or functional mobility, instrumental activities of daily living such as home management, play, leisure, and social participation. By identifying these problems they have reached into the results. Occupational Therapy practitioners possess a unique and holistic role while working with older adults. By creating a collaborative partnership with the older adults who demonstrates cognitive dysfunction, the OT practitioners can bring the focus of rehabilitation to solving daily occupational performance problems where impaired cognition is a contributing factor. Occupational Therapists are well positioned to make appropriate recommendations or referrals for additional resources for older adults. Occupational Therapists can facilitate a safe transition to pre-illness levels of function, responsibilities, and roles or improve cognitive and functional capacity. The occupational therapist will generally spend more time in adapting or remediating functional impairment rather than trying to remediate the cognitive impairment itself. Occupational therapy practitioners are enablers of occupation. They focus to enhance meaningful occupational performance with everyday roles and routines, for clients across the lifespan. The occupational therapy practitioner to facilitate, restore, or modify the environment or activity/task to promote participation in daily occupations. Occupations are important or necessary activities or tasks, which the client wants or needs to engage in and may include basic activities of daily living (BADL) such as personal hygiene, bathing, dressing, or functional mobility; instrumental activities of daily living (IADL) such as driving and community mobility, financial management or home management; rest and sleep; work and job performance; play; leisure; and social participation. The Cognitive

Orientation to daily Occupational Performance approach and the Multi context approach are 2 examples of compensatory approaches that can improve occupational performance through strategy use. (Munoz et al, 2015) In another Australian study, they performed a cross-sectional cohort study a company specializing in online survey programming to registered participants of the general public. The survey was approved by Flinders University Social and Behavioral Research Ethics Committee. All the participants were asked to write a free text response to one question: "What is your understanding of occupational therapy, and do you believe it has a role in supporting older people?" Data were analyzed using both quantitative and qualitative methods. Statistical Package for the Social Sciences version 22 (IBM Corporation, 2013) was used to summarize socio-demographic data. They received 1004 responses, half were female (50.9%) and one-fifth (20.1%) aged 65 or over amongst. A chi-squared test for independence found a significant association between gender and knowledge about occupational therapy. Females had a better understanding of the profession responding to the question with good knowledge (14.7%) compared to males from whom (6.9) responded to the question with good knowledge. Of the male respondents (43.2%) reported they did not have knowledge about the profession. Though maximum number of people really don't have the greatest ideas about the role of OT, still some of them have got their thoughts all good. One participant stated- "I think it is a form of physical assistance and exercise training. It would be helpful to older people to keep them physically fitter and in better condition as their bodies age. (Participant: 576)" The occupational therapy association in Australia also conducted a series of awareness program (BTL based) to aware mass people about the significance of occupational therapy. Rahja et al, 2019)

In Australia, a cross-sectional study was completed using the online survey collecting quantitative and qualitative data survey aimed to explore the views of Australian occupational therapists about current practice and what constitutes best practice for cancer survivors. A survey method was used to collect exploratory data from a large sample. The survey was distributed to all occupational therapists who were members of occupational therapy Australia in 2013. Survey questions were developed by reviewing international and Australian literature on the role of occupational therapy and occupational therapy programs. The survey consisted of 31 questions. Survey data were downloaded from SurveyMonkey into SPSS 23. 204 out of (88.6%) 230

occupational therapists fully completed surveys were used for analysis. Eleven respondents (5.4%) reported having experienced a personal diagnosis of cancer, although 30 people (14.7%) did not answer the question. A much larger percentage reported having acted in a caring role for someone with cancer, while 62.3% reported having a close family member with a cancer diagnosis. The remaining 47 participants (23.0%) had experienced none of these. Three quarters of participants considered occupational therapists to have routine involvement in cancer survivorship care, which was more than physiotherapy 69.6%, psychology 64.7%, and speech pathology 52.0%. Twenty other professions and services involved in cancer survivorship care were identified by participants in free responses including dieticians 9.3%, alternative health practitioners 3.4%, music therapists 1.9%, and exercise physiologists 1.4%. Respondents indicated that the following issues were commonly addressed by occupational therapists during cancer survivorship care: equipment needs, fatigue and energy conservation, pressure area prevention and management, lifestyle adjustment etc. The long term implications of survivorship, such as getting back to work, psychosocial needs or managing the after effects of treatment, were not identified as priority interventions for people with cancer. (Buckland et al, 2017)

Another study held in USA, titled- "what is occupational therapy's role in addressing sleep problems among older adults' used systematic summary method included Meta-analyses. The search resulted in an initial sample of 994 articles and in reviewing the titles and abstracts, 70 studies met the initial criteria. After reviewing in full, 36 were excluded. The final sample of 34 articles represented four intervention areas within the scope of occupational therapy: cognitive behavioral therapy for insomnia, physical activity, multicomponent interventions, and other interventions strategies. Among these, CBTI targets insomnia, one of the most common sleep problems by modifying dysfunctional perceptions of sleep and unsuitable sleep behaviors. Stimulus control and sleep restriction/compression are core components of CBTI. Eleven studies examined the relationship between physical activity and sleep. Wide range of physical activities, such as resistance training and dancing was prescribed. Multicomponent interventions used multiple sleep intervention strategies to target the various factors impacting sleep; five RCTs and two systematic reviews were included. Three articles that did not fit the other categories were placed in a miscellaneous group. These articles examined bright light therapy and strategies to enhance the sleep environment.

This scoping review identified four sleep intervention areas that improved sleep- all of which fall within occupational therapy's scope of practice. Across these categories, there was a consistent emphasis on modifying existing habits and routines to support sleep quality, participating in physical activity, and initiating engagement in activities that comply with sleep restriction/compression. (Leland et al, 2014)

A different study in Hamburg, named- "Occupational Therapy for Older Adults: Investments for progress" was completed in 2008 by German Association of Occupational Therapists. It was a qualitative study where the researchers took a number of studies and ended up with the results by analyzing them. The study mainly focused on the role of occupational therapists that what should they do and how to do so. They showed inspiring results that occupational therapists can work together to meet the challenges that Europe is now facing in terms of the huge increase in number of older adults. Occupational therapists are well suited to contribute knowledge, since the values, beliefs, and ideas related to how occupations contribute to people's health and wellbeing, could be the ideas that Europe applies to meet the needs of the older adults. Occupational therapists can be experts on design and usability issues. In relation to technology, occupational therapists should move from being consumers and prescribers to become designers and developers, participating in the design and development of new technology and services. Research will be a key factor for occupational therapy in Europe in the future. Occupational therapy will become acknowledged as an important part of the European welfare system, especially in the provision of support for older people, they added. In order to develop new and much needed theory and programs for the ageing society, occupational therapists need to do much more research. This research should emerge from our unique occupational perspective, in contrast to a medical or social perspective that limits our vision and constrains our thoughts. This occupational perspective focuses on the development of knowledge about how occupations relate to health and wellbeing. (Borell et al, 2008)

In the first study, we noticed a very clear Occupational Therapy role. They found that Occupational therapists can facilitate a safe transition to pre-illness levels of function, responsibilities, and roles or improve cognitive impairment itself. In the Australian cross-sectional study, the respondents indicated that the following issues were commonly addressed by occupational therapists during cancer survivorship care: equipment needs, fatigue, and energy conservation, pressure area prevention and

management, lifestyle adjustment etc. In another USA study, they mentioned four intervention areas within the scope of Occupational Therapy: cognitive behavioral therapy for insomnia, physical activity, multicomponent interventions, and other interventions strategies as the significant roles of Occupational Therapists. In the Hamburg one, they stated that Occupational Therapists are well suited to contribute knowledge, since the values, beliefs, and ideas related to how occupations contribute to people's health and wellbeing. Actually all these studies almost agree to the roles of Occupational Therapists as this should be.

Although I found all the studies very useful and relevant, there were still some minor limitations like not mentioning the methods they used, findings were not very vibrant. In two studies, the information was a little difficult to find. Another two seemed to be a little unorganized. The biggest gap is, in Bangladesh, there is no research about the role of OT with older adults. That's why I decided to make a study about this. This will help people to know about the role of OT with older adults.

CHAPTER III: Methodology

3.1 Research Question: What is the role of occupational therapy with older adult in Bangladesh?

Aim: This study aims to explore perception about the role of occupational therapy with older adult in Bangladesh.

Objective of the study:

- To determine the way of implementing occupational therapy role for older people
- To explore the perceived barriers in implementing occupational therapy practice with older people
- To identify strategies in implementing best practice for older people

3.2 Study design

This was a cross-sectional study survey collecting quantitative data to be developed to be easily accessible to a large group of occupational therapists. The cross-sectional design is the best suited method for the presenting a situation over a short period of time. The survey aims to explore the roles of occupational therapy with older adults and the barriers they perceive in implanting best practice. A survey method had been chosen because it is considered as effective, relatively inexpensive and ethical way to collect data from a sample.

3.3 Study setting and period

The study was conducted by Occupational Therapists who are working with older adults. The period of the study was from 14th April 2021 to February 2022.

3.4 Study participant

Study population

The researcher collected data from those Occupational Therapists who were working with older adults in Savar CRP, Mirpur CRP, and Ganakbari CRP.

Sampling Method

The researcher was using convenience and snowball sampling method regarding this study. The researcher used this sample because she conveniences occupational therapist to collect the data.

Sample size

This study sample size is n=51 occupational therapist who fulfilled the inclusion criteria of this study. Findings the appropriate number of people and types of people to take part in study called sampling (Hicks, 2000).

Inclusion Criteria

- Occupational Therapists who have been/have experienced working with geriatric patients.

Exclusion Criteria

- Occupational Therapists who is not working/never worked with geriatric patients.
- Those who are not interested to participate.

Participant recruitment

The survey was distributed to those occupational therapists who have been working/have worked with older adults and are interested to participate by providing data. Potential participants will be informed that involvement in the study was confidential, anonymous, and voluntary. 40-50 participants were selected to participate in the research.

3.5 Ethical consideration

- The researcher took permission from IRB (institutional review board).
- The researcher made a consent form for taking permission from people.
- All people were informed about the study.
- The researcher maintained the confidentiality when he or she collected the data.
- Ensured all people about that they don’t get any financial support from the study.

- In this research, people didn't face any risk when they give information, researcher ensured that.
- The researcher maintained equal relationship when he or she talked with the people.
- The researcher was concerned about the effect of biasness as the sample usually selected by inclusion and exclusion criteria.

3.6 Data collection

A self-developed survey questionnaire was used to collect data which was designed from different articles containing various questions for occupational therapists working with geriatric patients. The first half prioritized on socio-demographic information and second half aimed to barriers to best practice, opinions about the best time for occupational therapy, therapeutic gap, training needs for occupational therapists etc. with older adults.

Data collection tools

Eight Data Collection Tools for collecting data as well as some other materials were also used. Tools or materials that were used for data collection are Mobile tape-recorder, Paper, Pen, Clip board.

3.7 Data management and analysis

The data was analyzed into SPSS 23. The data was cleaned by identifying missing variables, and any incorrect entries, such as including comments, related to another questions.

The data analysis mainly involved the transcript of the interviews, identifying themes and then incorporating those themes into the next stage of data collection. Same questions were asked to the participants by preparing a semi structured question. The question was analyzed to data analysis. It was done by content analysis.

3.8 Quality control and Quality assurance

All data collection was accurately done with the concern of respective supervisor and followed all instructions. Before using the test, ensured that the using methods which have been validated as fit for the purpose. Before starting the data collection, field test was conducted with four participants. Before the time of final data collection, it was necessary to conduct a field test to help the researcher for purifying the data collection 23 plan and also justify the reliability and validity of the questioner fit the participants. From the field test the researcher was aware about which part of the question participant found difficulty or they did not understand properly. By doing this researcher got chance to rearrange the questionnaires to make it more understandable and clearer for the participants.

CHAPTER IV: Results

Table 4.1: Socio-demographic characteristics of the participants

Variables	Category	Frequency (n)	Percentage %
Sex	Male	24	47.1
	Female	27	52.9
Age	25-30	35	68.6
	31-35	10	19.6
	36-40	6	11.7
Occupational Therapy Qualification	Assistant degree in OT	5	9.8
	Diploma degree in OT	2	3.9
	Undergraduate degree in OT	26	51
	Masters in OT	12	23.5
	Masters in other discipline	8	15.7
Country of practice	Bangladesh	49	96.1
	Vietnam	1	2
	UK	1	2
Professional role	Educator	2	3.9
	Manager	9	17.6
	Practitioner	40	78.4
	Researcher	2	3.9
Working experience as OT	1-6	33	64.7
	7-12	11	21.6
	13-21	5	9.8
	0	2	3.9

Working experience as OT with geriatric	1-4	20	39.2
	7-12	7	13.7
	0	2	3.9
Employment sector	Non-government organization	26	51
	Rehabilitation center	26	51
	Hospital/inpatient service	2	3.9
	Research/education/universities	3	5.9
Working location	Capital city	40	78.4
	Divisional city	7	13.7
	Rural	2	3.9
	Urban	2	3.9
Primary area of practice	A-Acute care	3	5.9
	PA Administration/management	3	5.9
	PA-Aged care	1	2
	Community	1	2
	Mental Health	2	3.9
	Ergonomics	4	7.8
	Outpatients	17	33.3
	Pediatrics	7	13.7
	Private practice	1	2
	Rehabilitation	13	25.5
	Academic	3	5.9
	N/A	1	2

A total of 51 occupational therapists were eligible for the study and all of them completed the surveys though 23 of them missed a single question. (n= 24, 47.1%) of them were male and rest (n= 27, 52.9%) were female. The lowest age was identified

25 and highest was 42. A maximum of (n=35, 68.6%) were from the age range of 25-30. (n=26, 51%) of them participators have undergraduate degree in OT, (n=12 , 23.5%) of them have Master's Degree in OT, and others are from masters in other discipline, some have assistant degree in OT, and a couple of them are from Diploma background also. The lion's share of them participants is from Bangladesh whilst two joined from abroad. (n= 40, 78.4%) of them have been working as OT practitioner, a significant number have been serving as manager, and there are educators and researchers as well. We have got a good number of participants have an experience of 1-6 years, some have 7-12 years' experience, a few are very experienced and only a couple of them with experience less than a year. (39.2%) of the participants are moderately experienced of working with geriatric patients. Several of them have an experience of 5-15 years of working with geriatric and (78.4%) have experience less than a year. The participants are found to be working in NGO and rehabilitation centers mostly whereas a few of them are in hospital/inpatient service, research/education sector, and in commercial service as well. A supreme of (n= 40, 78.4%) are working in capital city whilst others are from Divisional cities, Rural areas Urban areas respectively. Every participant is working full time. (33.3%) work in outpatients as their primary area of practice, (n=13, 25.5%) in rehabilitation, and there are others in pediatrics, ergonomics and almost everywhere correspondingly.

(n=11, 21.6%) of them have very well specific relevant training to work with geriatric patients whilst (n= 10, 19.6) said their training is sufficient according to their role. (n= 18, 35.3%) of them have insufficient training for the job, they said and (n= 8, 15.7%) of them don't have any training at all. (n= 50, 98%) of them have experience of webinar, (n= 22, 43.1%) had undergrad level training. (n= 6, 11.8%) have attended educational course, (n= 4, 7.8%) have mentoring experiences, (n= 1, 2%) has had masters level course. 9 among 51 have achieved certificates from senior citizens as well.

(n= 6, 11.8%) of them are serving only geriatric patients. Another (n= 6, 11.8%) mostly work with geriatric people. a maximum number of (n= 32, 62.7%) sometimes work with older adults and (n= 4, 7.8%) of them don't work with senior citizens as OT.

(n= 40, 78.4%) of them have been working as OT practitioner, (n= 9, 17.6%) have

been serving as manager, (n= 2, 3.9%) are educators and researchers as well.

The participants were asked to mention how much time they spend with different age groups of people. With children, they mostly spend time with (n= 33, 64.7%). (n= 7, 13.7%) never work with children. With adult (19-64+) they work most too (n= 43, 84.4%). (n= 40, 78.4%) of them work with senior citizen 64+. They were also asked to mention how much they work with different professionals and only 28 out of 51 replied this section. Among 28, 20 of them more or less work with doctor. With nurses 19 of them work. 22 work with physiotherapists as well. They also work with social worker, prosthetics, and psychologists very often.

Table 4.2: Possible intervention for senior citizen

Variables	Never	Occasionally	Often	Very Often	N/A
	7	12	10	10	12
Fall Prevention	13.7	23.5	19.6	19.6	23.5
Community	12	18	8	3	10
Based Older	23.5	35.5	15.7	5.9	19.6
Adult	5	16	10	10	10
Fall Prevention	9.8	31.4	19.6	19.6	19.6
Geriatric	6	17	14	4	10
Mental Health	11.8	33.3	27.5	7.8	19.6
Sleep	8	15	12	3	13
Quality	15.7	29.4	23.5	5.9	25.5
Improve					
Spiritual Care	6	17	11	7	10
	11.8	33.3	21.6	13.7	19.6
Cognitive	6	11	16	8	10
Perceptual Care	11.8	21.6	31.4	15.7	19.6
Walking Aids	4	12	18	7	10
	7.8	23.5	35.3	13.7	19.6
Assistive	3	13	20	10	5
Technology	5.9	25.5	39.2	19.6	9.8
	5	11	18	9	8
	9.8	21.6	35.5	17.6	15.7

The participants were asked to mention, with senior citizen, how often they spend working with different interventions and the most significant interventions found are Assistive technology(n=43, 84.3%), walking aids(n=37, 72.5%), wheeled & seated mobility(n= 38, 74.7%), and adult fall prevention(n=36, 70.6%). Then come other interventions like spiritual care(n=35, 68.6%), geriatric mental health (n=35, 68.6%) and cognitive perceptual trainers (n= , 35, 38.7%) respectively.

Table 4.3: Possible barriers

Domain	Yes	No
Lack of experience	34 66.7	17 33.3
Lack of interdisciplinary communication	25 49	26 51
Lack of ability to containing professional education	29 56.9	22 43.1
Limited referral	38 72.5	13 25.5
Lack of ability to inadequate education in OT for student	28 54.9	23 45.1
Limited self-advocacy	26 51	25 49

The participants also mentioned about the possible barriers that they have been facing like (n = 34, 66.7 %) of agreed upon 'lack of experience'. (n = 25, 49%) stated upon 'lack of interdisciplinary communication'. (n= 29, 56.9%) said yes to lack of ability to containing professional education. (n= 38, 72.5%) for limited referral, (n= 28, 54.9%) lack of ability to inadequate education in OT for students. (n= 26, 51%) agreed upon limited self-advocacy.

Table 4.4: Availability of need

Domain	Yes	No
Lack of available materials	38 74.5	13 25.5
Lack of available training for OT	40 78.4	11 21.6
Lack of responsibility for providing care in geriatric	36 70.6	15 29.4
Lack of opportunity to Ensure safe, appropriate & continuous service	33 64.7	18 35.3
Lack of referral mechanism to identify people need	36 70.6	15 29.4
Lack of time &staff capacity to meet need	40 78.4	11 21.6

Lack of wheeled & seated mobility device provision	25 49	26 51

The occupational therapists also gave their valuable opinion on availability of needed infrastructure for providing care of geriatrics. (n= 38, 74.5%) said yes to lack of available materials or supply conducting assessment care of intervention. (n= 40, 78.4%) agreed upon lack of available training for OT. (n= 36, 70.6%) think lack of clarify about responsibility for providing care for geriatrics. (n= 33, 64.7%) for lack of opportunity for follow up to ensure safe, appropriate, and continuous service. (n= 36, 70.6%) said yes to lack of screening any referral mechanism to identify people in need or geriatric service. (n= 40, 78.4%) said yes to lack of time and staff capacity to meet need. (n= 25, 49%) of participants made responsible the lack of wheeled and seated mobility device provision.

This study engaged 51 participants. The questionnaire was sent to all of them at the same time but it was unfortunate that the response didn't arrive in time. Only 26 of them provided 100% information. On the other hand the rest 25 provided more or less partial information and a number of information was missing too. That decreased the validity of this study.

CHAPTER V: Discussion

The aim of this study was to explore the role of Occupational Therapy with geriatric patients. Occupational therapists are well positioned to make appropriate recommendations or referrals for additional resources for older clients. Occupational therapists can facilitate a safe transition to pre-illness levels of function, responsibilities, and roles or improve cognitive and functional capacity thus 51 occupational therapists took participation in the survey. This study identifies the roles of occupational therapy and provides information about the socio-demographic details of occupational therapists, their activities and experience with geriatric patients, barriers and limitation they usually face, how they overcome, their opinion towards the better result in daily activities.

Socio-demographic details of occupational therapist:

51 occupational therapists took part in this study and most of them were female (52.9%). The age range of between 25 to 42 in which majority (68.6%) were from 25-30. Most of the respondents had undergraduate degree in OT, and others were from master's degree in OT, assistant degree in OT, and diploma background also. 49 respondents of 51 are from Bangladesh and two are from Vietnam and UK. (78.4%) of the respondents has been working as OT practitioner, a noteworthy number have been serving as manager, and there are educators and researchers as well. Most of the participants are working in NGO and rehabilitation center whilst a few of them are in hospital/inpatient service, research/education sector, and in commercial service as well. A majority of (78.4%) are working in capital city whilst others are from Divisional cities, rural areas, and urban areas respectively. Every participant is working full time. (33.3%) work in outpatients as their primary area of practice, (25.5%) in rehabilitation, and there are others in pediatrics, ergonomics and almost everywhere correspondingly. (11.8%) of them are serving only geriatric patients. Another (11.8%) mostly work with geriatric people. a maximum number of (62.7%) sometimes work with older adults and (7.8%) of them don't work with senior citizens as OT. (78.4%) of them have been working as OT practitioner, (17.6%) have been serving as manager, (3.9%) are educators and researchers as well. Not all the respondents are dedicatedly working with older adult. Some of them (11.8) are

working their full with only geriatric patients. Another (11.8%) have their most working with geriatric people. (62.7%) of them are sometimes working with older adult, and there are the rest (7.8%) who are not working with them. Almost half of the participants are well-trained to work with geriatric patients whereas the rest are not properly trained, or not trained at all, they mentioned. The respondents have had different types of training like some had been trained at their undergrad level, some from their master's level courses, some also attended webinar also. With senior citizen 64+, (15.7%) respondents never worked. (13.7%) work occasionally. A good number of (33.3%) often work with 64+ older adult. Another 31.4% work with them very often. It is a good sign too that the occupational therapists have been working with almost all kinds of professionals like doctors, nurses, physiotherapists, social workers, prosthetics, psychologists etc.

The respondents were asked to provide information about how much they work with different interventions like fall prevention, geriatric mental health, spiritual care, walking aids, wheeled and seated mobility etc. in several categories. From their reply, we came to know that they mostly work with adult fall prevention, walking aids, assistive technology, wheeled and seated mobility. They also work with other interventions like sleep quality improvement, spiritual care, community based, geriatric mental health and cognitive perceptual trainers individually. From the participant's response it is clear that all the respondents work on all the interventions more or less.

(Kloubec and colleagues 2012) Regarding specific fall-related outcomes, found a significant improvement for older adult in balance confidence, a reduction in fall rate, and enriched gait speed.

Szanton and colleagues 2011, found improved occupational performance through a reduction in ADL and IADL impairments, improved QOL, and increased falls self-efficacy.

(Di Monaco et al. 2008) identified that positive effects were found on outcomes, such as reductions in fall risk, number or rate of falls, injurious falls, and fear of falling or improvements in balance confidence, balance and mobility skills, awareness of fall reduction strategies, and use of measures to reduce fall risk.

Szanton et al. 2011, suggested that energy conservation strategies, safe assistive device use, home modification recommendations, assistive devices, self-efficacy are

some of the interventions that found to be highly effective for occupational therapists to treat geriatric people.

(Thuli G Mthembu et al. 2016) found that spiritual care could be useful for occupational therapists to have insight into and be sensitive to, older adult's spiritual needs. Furthermore, the results of this study suggested that spiritual care could be used by other healthcare professionals as part of continuous professional development.

There are several barriers that the participants often experience. They also mentioned about those possible barriers that they have been facing like 66.7 % of them agreed upon lack of experience whilst we previously came to know that not all of them are properly trained. 49% stated upon ‘lack of interdisciplinary communication. 72.5% pointed ‘limited referral’. 56.9% said yes to lack of ability to containing professional education. 54.9% lacked of ability to inadequate education in OT for students. 51% agreed upon limited self-advocacy. So, one thing for sure that almost every participant faces at least one barrier/limitation that they identified. Hench this limitation is recoverable.

(Netta Van’t Leven 2012) found that the barriers that confronted occupational therapists were lack of knowledge about occupational therapy and its reimbursement and lack of available trained OTs. Lack of referral was another significant barrier that challenged OT’s with geriatric patients, found in this study.

The occupational therapists also mentioned on availability of needed infrastructure for providing care of geriatrics. (74.5%) said yes to lack of available materials or supply conducting assessment care of intervention. (78.4%) agreed upon lack of available training for OT. (70.6%) think lack of clarify about responsibility for providing care for geriatrics. (64.7%) voted for lack of opportunity for follow up to ensure safe, appropriate, and continuous service. (70.6%) said yes to lack of screening any referral mechanism to identify people in need or geriatric service. (78.4%) said yes to lack of time and staff capacity to meet need. (49%) of participants made responsible the lack of wheeled and seated mobility device provision.

(Annie McCluskey 2003) found several needed infrastructures that can be considered as significant barriers for occupational therapists including lack of available materials, lack of wheeled and seated mobility device provision, lack of available and suitable training for occupational therapists.

CHAPTER VI: Conclusion

6.1 Strength & Limitation

This topic was indeed very relevant to my study which I have considered as a strength for me. All my participants were very skilled and experienced which had added extra values to my study. I certainly got superb co-operation and support from my supervisor and the participants both.

Regarding this study, there were some limitations and barriers to consider the result of the study as below: Limited research articles. Another major limitation was time. A number of respondents took too long to submit their opinion that might have hampered the quality of this study. As the response rate was low, the findings were used with caution and regarded as preliminary. A low response rate might have been indicative of a lack of interest in this topic.

6.2 Practice Implementation

Not only the interpreting the findings of this study may help occupational therapists for further information but also the result statistics may benefit OT practitioners to get a clearer idea about geriatrics. In Bangladesh, there is still no research available on this topic so it will disseminate knowledge. The researcher herself will get benefited when she does further research upon this.

Recommendation

- Occupational therapists need to perform much more research.
- Occupational therapists should implement a broader role and holistic treatment techniques for their clients.
- Occupational therapists also need to gather knowledge and experience as well as train themselves properly to outrun the barriers.
- The investigator also recommends that occupational therapists care to study this research in depth. The investigator also recommends that occupational therapists care to study this research in depth.

6.3 Conclusion

This study aimed to explore the roles of OT with older adults and discovered a number of facts. To serve the profession, it is essential for occupational therapists to understand their roles first, identify the core problems among older adults, highlight the interventions, identify the challenges behind the barriers, prepare themselves by gathering knowledge, experience, proper training, and minimize those challenges to serve the best.

Understanding the roles properly and gathering relevant knowledge will not only be helping the occupational therapists to serve best but also create awareness among mass people about the role occupational therapy offers which will address misconception among common people and thus lead to a healthy ageing.

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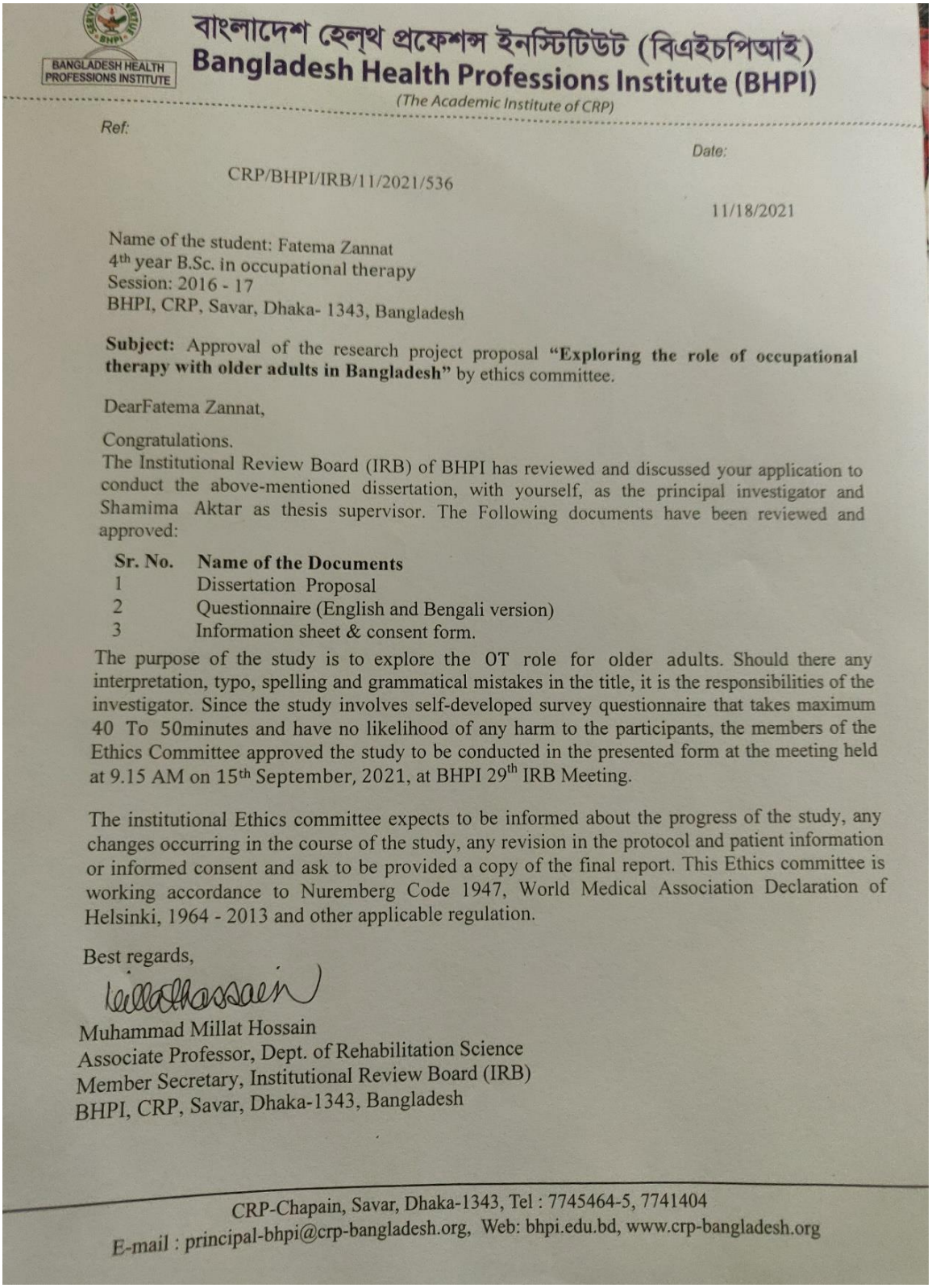
APPENDICES A: Clearance form



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

BANGLADESH HEALTH PROFESSIONS INSTITUTE

Ref:

Date:

CRP/BHPI/IRB/11/2021/536

11/18/2021

Name of the student: Fatema Zannat
4th year B.Sc. in occupational therapy
Session: 2016 - 17
BHPI, CRP, Savar, Dhaka- 1343, Bangladesh

Subject: Approval of the research project proposal **"Exploring the role of occupational therapy with older adults in Bangladesh"** by ethics committee.

DearFatema Zannat,

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 Shamima Aktar as thesis supervisor. The Following documents have been reviewed and approved:

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

The purpose of the study is to explore the OT role for older adults. Should there any interpretation, typo, spelling and grammatical mistakes in the title, it is the responsibilities of the investigator. Since the study involves self-developed survey questionnaire that takes maximum 40 To 50minutes and have no likelihood of any harm to the participants, the members of the Ethics Committee approved the study to be conducted in the presented form at the meeting held at 9.15 AM on 15th September, 2021, at BHPI 29th IRB Meeting.

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, Dept. of Rehabilitation Science
Member Secretary, Institutional Review Board (IRB)
BHPI, CRP, Savar, Dhaka-1343, Bangladesh

CRP-Chapain, Savar, Dhaka-1343, Tel : 7745464-5, 7741404
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APPENDICES B: Information sheet

Bangladesh Health Professions Institute (BHPI)
Department of Occupational Therapy
CRP- Chapain, Savar, Dhaka-1343.

Information sheet

Title: Exploring the role of occupational therapy with older adults in Bangladesh.

Researcher: Fatema Zannat, B.SC in Occupational Therapy (4th year), Session 2016-2017, Bangladesh Health Professions Institute (BHPI), CRP- Savar, Dhaka- 1343

Supervisor: Shamima Akter, Assistant Professor, Department of occupational therapy, Bangladesh Heath Professions Institute.

Place: The researcher will gather data from Occupational therapist who works with the older adult in different organization.

Introduction

I am Fatema Zannat studying under the medicine faculty of Dhaka University in Bangladesh health professions institute as a student of honors (2016-2017) 4th year in the department of occupational therapy. To complete B.SC in occupational therapy from BHPI conduct a research project is mandatory. This research project will be done under the supervision of Shamima Akter, assistant professor of occupational therapy department. By this information sheet investigator presented detailed information about the study purpose, data collection process, ethical issues. If you are interested to participate in this study, then clear information about the study help you to easily make decision. If this consent form contains some words that you do not understand, please ask me to stop. I will take time to explain. Information about the study participants will keep confidential and the aim of the study will be informed to the participants. If you cannot understand any part of the investigation, Investigator will help you to understand.

Background and Purpose of the study

As we all know, older adults are a consecration for a nation though in an over populated country like Bangladesh, they are often being mistreated. People repeatedly

overlook to show them older adults their due care. In our society, a good number of older adults living independently, getting sick, and sleeping alone don't even have someone to talk to. On the other hand, comes another group, who live with their dearest one, shockingly many of them feel lonely too. Accordingly, they experience different mental disorder like depression, sleeping disorder, social phobia, 'end of life issue' etc. An occupational therapist can treat them geriatrics and bring them out of this despondent life. But sadly, in our country, the "role of OT with geriatrics" is not yet very popular, so the patients, who need specialized therapy, are getting treated by ordinary nurses. This gives Occupational therapists the opportunity to prompt their diversified roles, and responsibilities and this is very much significant for another reason that there is no such investigation done here in Bangladesh yet in this context.

Research related information

The information about research will be discussed with you throughout the information paper before taking your signature on consent form. After that participants will be asked to complete a self-developed questionnaire which may need forty to fifty minutes to fill out. In this questionnaire, there will be questions on socio-demographic factors (for example: Age, sex, experience, work location, employment sector etc.) Particularly, in this research, we have selected those occupational therapists who have been working with the geriatrics.

The data collection period will be fifteen to twenty days followed by the date of approval. During that time, the investigator will visit you to conduct face-to-face interview or contact via e-mail/video conference. If you do not want the questions, you may skip them and move on to the next question. The information recorded is confidential, your name is not being included on the forms, only a number will identify you, and no one else except Shamima Akter, Supervisor of the study will have access to this survey.

Voluntary Participation

Your participation and choice will not have any effect on your job or on any work-related evaluation or reports. You can change your mind at any time of the data collection process even throughout the study period. Even you have the right to refuse your participation if we both agree.

Right to Refuse or Withdraw

You will be given an opportunity at the end of the interview to review your remarks, and you will have the chances to modify or remove portions of those.

Risks and benefits

You are being asked to share a few personal and confidential information, so you may feel uncomfortable while talking about some of the topics. You do not need to answer any question or take part in the discussion/interview/survey if you don't wish to do so, and that is okay too. You do not have to give us any reason for not responding to any question, or for rejecting to take part in the interview. On the other hand, you may not have any direct benefit by participating in this research, but your valuable participation is likely to help us finding out more about existing situation of the inter professional collaborative practice in this context.

Confidentiality

Your information will not be shared to anyone outside of the research team. All the information that we are collecting from this research project will be kept private. Any information about you, will have a number on it instead of your name. Only the researchers will have the access to know what your number is and we will be locking that information up with a lock and key. It will not be shared with or given to anyone except Shamima Akter, study supervisor.

S**haring the Results**

Nothing that you tell us, will be shared with anybody outside the research team, and nothing will be attributed to you by name. The knowledge that we get from this research will be shared with you before it is made widely available to the public. Each participant will receive a summary of the results.

Wage

No wage or financial advantage will be provided to the participant during/for this research purpose.

Funding

The funding that will be needed for this study will be collected from investigator's own source. This study will be conducted in a small range and no external source will be available for this study.

Who to Contact

If you have any questions, you can ask them now or later. If you wish to ask questions later, you may contact any of the following: Fatema Zannat, 4th year student, Department of Occupational Therapy, e-mail: fatemazannatlucky20@gmail.com, Cell phone- 01869123553.This proposal has been reviewed and approved by Institutional Review Board (IRB), Bangladesh Health Professions Institute (BHPI), CRP-Savar, Dhaka-1343, which is a committee whose task it is to make sure that research participants are protected from any harm. If you wish to find about more about the IRB, contact Bangladesh Health Professions Institute (BHPI), CRP- Savar, Dhaka-1343. You can ask me any more questions about any part of the research study, if you wish to. Do you have any questions?

Consent Form

Statement by Participants

I have been invited to participate in research about **exploring the roles of Occupational Therapy with older adult in Bangladesh.**

I have read the foregoing information, or it has been read to me. I have had the opportunity to ask questions about it and any questions I have asked, answered to my satisfaction. I give my consent voluntarily to be a participant in this study.

Name of Participant _____

Signature of Participant _____

Date _____

Statement by the researcher taking consent

I have accurately read out the information sheet to the potential participant, and to the best to my knowledge, I made sure that the participant understands that the followings will be done:

1. All information will be used for research
2. The information will be completely confidential.
3. The identity of the participant will not reveal

I confirm that the participant was given an opportunity to ask questions about the study, and all the questions asked by the participant, have been answered correctly and to the best to my knowledge. I confirm that the individual has not been forced into giving consent, and the consent has been given freely and voluntarily.

A copy of this ICF has been provided to the participant.

Name of Researcher taking the consent_____

Signature of Researcher taking the consent_____

Date _____

APPENDICES C: Questionnaire

Are you an occupational therapist?	
	Yes
	No
Gender	
	Male
	Female
Please mention your age:	
Occupational therapy qualification	
	Assistant degree in occupational therapy
	Diploma in occupational therapy
	Undergraduate degree in occupational therapy
	Master's degree in occupational therapy
	Master's degree in other discipline
How would you describe your professional role (select all that apply)	
	Educator/Academic
	Manager/director
	Practitioner
	Researcher
	Retired
	Not working
	Other (please specify)
Country of practice	
Experience working as an Occupational therapist	
Experience working as an occupational therapist with geriatric population	
Practice setting where you are working now (select all that are applicable)	
	Non-government organizations
	Rehabilitation centers
	Community services
	Government ministries
	Individual homes & home care services
	Inpatient services/hospitals
	Commercial/private practice

	Nursing and residential care homes
	Prisons/correctional facilities
	Public health sector
	Schools and education providers
	Universities/education/research
	Workplaces
	Non-applicable/others
Working location	
	Capital city
	Divisional center
	Rural
Employment status	
	Full-time
	Part-time
	Not currently working
Primary area of practice	
	Acute care
	Administration/ Management
	Aged care
	Community
	Mental health
	OH&S/Occupational rehabilitation/ergonomics
	Oncology
	Outpatients
	Paediatrics
	Palliative care
	Private practice
	Rehabilitation
	Research/ academic
	Not currently in an occupational therapy role other
In your work as an occupational therapist, do you consider that:	
	All of your work with people is involved with geriatric care
	Most of your work with people is involved with geriatric care
	Some of your work with people is involved with geriatric care
	None of your work with people is involved with geriatric care
	Non-applicable

In your work with geriatric people, how often is your time spent working with people of the following age group

	Children	
		Never
		Occasionally
		Often
		Very often
		Non-applicable

	Adult (ages 19-64 years)	
		Never
		Occasionally
		Often
		Very often
		Non-applicable
	Seniors/ Senior citizens (ages 64+ years)	
		Never
		Occasionally
		Often
		Very often
		Non-applicable
	Frequency of working with senior citizens	
		Everyday
		Frequently
		Sometimes
		Rarely
		Never
Please describe your level of training specific to your work with senior citizens		
	More than you currently use in practice	
	A sufficient amount of your role	
	An insufficient amount of your role	
	No training but specific training is not necessary	
	Non applicable	
Please describe the type of training you received specific to work with senior citizens		
	Training as a part of undergrad occupational therapy program	
	Masters level course specific to geriatric	
	Others in-person continuing educational course	
	Online webinar or e-learning module	
	Mentoring/ Supervised practice	
	Other (please specify)	
	None of above	
Have you obtained certificate for your role with senior citizens		
	Yes	
	No	
In your current work with senior citizens, how often do you work with the following professionals		
	Doctor	

		Never
		Occasionally
		Often
		Very often
		Non applicable
	Nurse	
		Never
		Occasionally
		Often
		Very often
		Non applicable
	Physiotherapists	
		Never
		Occasionally
		Often
		Very often
		Non applicable
	Social worker	
		Never
		Occasionally
		Often
		Very often
		Non applicable
	Prosthetics	
		Never
		Occasionally
		Often
		Very often
		Non applicable
	Psychologist	
		Never
		Occasionally
		Often
		Very often
		Non applicable
In you work with senior citizens, how often you spend working with the following intervention:		
	Fall prevention Intervention	
		Never
		Occasionally
		Often
		Very often
		Non applicable
	Community – based older	
		Never
		Occasionally

		Often
		Very often
		Non applicable
	Adult fall prevention	
		Never
		Occasionally
		Often
		Very often
		Non applicable
	Geriatric mental health	
		Never
		Occasionally
		Often
		Very often
		Non applicable
	Sleep quality improve	
		Never
		Occasionally
		Often
		Very often
		Non applicable
	Spiritual care	
		Never
		Occasionally
		Often
		Very often
		Non applicable
	Cognitive perceptual trainers	
		Never
		Occasionally
		Often
		Very often
		Non applicable
	Walking aids	
		Never
		Occasionally
		Often
		Very often
		Non applicable
	Assistive technology	
		Never
		Occasionally

		Often
		Very often
		Non applicable
	Wheeled and seated mobility device provision	
		Never
		Occasionally
		Often
		Very often
		Non applicable
Possible barriers		
	Lack of experience	
		Yes
		No
	Lack of interdisciplinary communication	
		Yes
		No
	Lack of ability to containing professional education	
		Yes
		No
	Limited referral	Yes
		No
	Lack of ability to inadequate education in occupational therapy preparation for student	
		Yes
		No
	Limited self-advocacy	Yes

		No

Availability of needed infrastructure for providing care of geriatric	
Lack of available materials or supply conducting assessment care of intervention	
	Yes
	No
Lack of available and suitable training for Occupational Therapist	
	Yes
	No
Lack of clarify about responsibility for providing care for geriatric	
	Yes
	No
Lack of opportunity for follow up to ensure safe, appropriate, and continuous service	
	Yes
	No
Lack of screening any referral mechanisms to identify people in need or geriatric service	
	Yes
	No
Lack of time and staff capacity to meet need	
	Yes
	No
Lack of wheeled and seated mobility device provision	
	Yes
	No