PERCEPTION REGARDING OCCUPATIONAL THERAPY: VIEW OF PATIENTS WITH RHEUMATOID ARTHRITIS

By

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This thesis is submitted in total fulfillment of the requirements for the subject RESEARCH 2 & 3 and partial fulfillment of the requirements for degree:

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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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Abstract

Background: Perception is considered to be an important contributor in the relationship between physical and psychological factors in rheumatoid arthritis (RA). Occupational therapy (OT) aims at improving performance of daily living tasks, facilitating successful adjustments in lifestyle, and preventing losses of function. There is evidence that it can improve function in the short term in early rheumatoid arthritis, but the long-term effects are uncertain. This study examined the patient's perception of RA about occupational therapy intervention.

Objectives of the study: The objectives were to find out the understanding of the participant about occupational therapy; the common problem to perform activities of daily living before receiving occupational therapy; the present situation after receiving occupational therapy intervention; expectation of RA patients after receiving occupational therapy intervention.

Methodology: This retrospective study was conducted by using qualitative content analysis of qualitative method, with 9 RA patients (6 women and 3 men). Participants were selected by using convenience sampling. Data was collected using face to face interview with a semi-structured question.

Result and Discussion: Six major themes were identified that positively influenced perceptions. These included: (i) Clear understanding about RA but most of them had started to take OT above 5 years later; (ii) OT is a one kind of exercise and it helps to perform daily living activity; (iii) Try to complete the activity and most of time depends on others help; (iv) Some improvement occurs after taking OT but the main purpose to take it for keeping the condition same stage; (v) Unable to participate in some leisure due to physical limitation and some participants feel sad; (vi) Most of participants were satisfied; They were hoped for becoming cure same as before. Self-management significantly increased among patients after receiving occupational therapy intervention. Physical and psychological wellness was often affected by individual's adaptation to RA.

Conclusion: The themes identified can be influenced by Occupational Therapists in the management of the RA patient. Functional ability remains reasonably good for many patients within first five years who has taken OT services, so preventive benefits is also better and longer follow up is needed. After five years it is much difficult to remediate or compensate for engaging the patients in activities of daily living after receiving OT services. But this study shows that most of the participants come in late.

Key words: *Perception, Occupational therapy, Rheumatoid arthritis.*

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List of Acronyms

ADL: Activities of Daily Living
OT: Occupational Therapy
CRP: Centre for the Rehabilitation of Paralysed
RA: Rheumatoid arthritis
BHPI: Bangladesh Health Professions Institute
ACR: The American College of Rheumatology
QR: Qualitative Research
RCT: Radomised control trial

CHAPTER 1
INTRODUCTION

1.1. Introduction

Occupational therapy (OT) is a health care profession and works with patients who have functional limitations in the activities of daily living (ADLs). Occupational therapists help to rehabilitate these patients by obtaining their optimal level of functioning. They do this by improving their health and well-being and through maintaining or improving their abilities to perform their occupations (Steultjens *et al.* 2008). Rheumatoid arthritis (RA) is a chronic disease which produces a progressive erosive-destructive inflammation of joints, with a major impact on physical and psychological health. For patients with RA, the consequences are pain, deformity and functional limitation. OT helps to promote a better quality of life for RA patients, and achieve a satisfactory occupational performance that was seen in several studies (Dubouloz *et al.* 2008). OT practitioners treat individuals with arthritic conditions to find ways of continuing their work to increase or preserve mobility (Arthritis Research UK, 2011).

OT plays an important role to manage RA, but only if it is purposeful and therapeutic. It improves their ability to perform daily occupations (i.e. activities and valued life roles at work, in the home, at leisure and socially), facilitate successful adaptations to disruptions in lifestyle, prevent losses of function and improve or maintain psychological status (Hammond, 2008). OT services for RA patients may include comprehensive evaluations of the client's home and other environments, recommendations for adaptive equipment and training in its use, training in how to modify a task or activity to facilitate participation, and guidance and education for family members and caregivers. Training of skills, counseling, education about joint protection, prescription of assistive devices, and the delivery of splints for maximize performance abilities are the most essential interventions in OT (Steultjens *et al.* 2008).

1.2. Background

There are very few studies showing the functional outcome of OT interventions with RA patients. Functional limitations of their activities are not identified from any comprehensive studies by correcting of the disorders and continuing OT. Recent research which was conducted in two groups of people affected by RA, each group consisted of 60 patients. OT was provided only to Group 1 patients and the key findings of this group according to the client's perspective is that after continuing OT interventions their hand function meaningfully developed. The progress of hand functions in patients with RA led to improved capability to perform self-care activities such as taking food and drinking water, wearing the clothes on the upper and lower parts of the body and taking them off from body parts, washing clothes and other utensils, using the toilet, bathtub or a shower and wash them, helping to do personal hygiene, walking, and managing a wheelchair. In Group 2 patients increased also, but the increase was statistically insignificant (Rapoliene and Krisciunas, 2006).

In Ontario, a study showed that patients with RA achieved significant improvement in values, beliefs, feelings, and were able to engage in meaningful activities during a period of OT intervention. These interventions enabled patients to maintain their ability to do such things as carry on housework, engage in personal care, and perform manual activities like opening containers. For some patients the function of self-caring was generally perceived as positive. For other patients, there was negativity associated with self-caring. They felt lazy, limited, or dependent (Dubouloz *et al.* 2004).

OT treatment focuses on occupational performance modifications. A study in Canada with 10 participants affected by RA showed two different functional outcomes from two separate OT courses. The first course was a gradual steady development of symptoms over the years without remission. The second course was an acute development of symptoms with periods of remissions. In the second course of eight participants living with RA who had presented an acute onset and who progressed with intermittent remissions found more difficulties engaging in the modification of occupational performance (Dubouloz *et al.* 2008).

The role of the occupational therapist is to evaluate functional abilities, limitations, and activities within a meaningful and purposeful context (Kimmerle *et al.* 2003). OT is effective in the short-term in improving functional ability in people with moderate to severe established RA (Hammond, 2004). Therapists also aim at improving psychological adjustment to living with arthritis by enabling people to have a greater sense of control of their symptoms through using self-management methods and improving self-efficacy (Hammond and Young, 2004). But, there have been no studies in Bangladesh assessing the role of OTs specifically in improving the functional outcome for patients with RA.

1.2. Significance of the Study

To identify the patient's perception is very important because it will help in measuring the effectiveness of OT services. It is also beneficial for the OT services because through these services the strength and weakness of OT will be identified (Hair, Brush and Ortinau, 2003). This study finding will be helpful for OT professionals because the goal of the OT service is the provision of quality care to its patients/clients (Maslin, 1991). An occupational therapist can improve the daily performance and quality of life of a patient with RA by a combination of education, setting feasible goals, using adaptations in the physical environment and training in compensatory skills. This study will help to find out the common problems, expected positive or negative outcomes of OT interventions for Bangladeshi RA patients, and will also help to prioritize their work. This study will also help occupational therapists to provide appropriate advice to patients when they return to their community after receiving OT treatment.

The study findings will be helpful for upgrading OT services in Bangladesh and its contribution on professional development. As a result, it is essential to find out patient's perceptions about OT after receiving OT services.

1.3. Aim of the study

Aim of the study to know the perception of RA patients after receiving OT intervention

1.4. Objectives of the study

- To find out the understanding of the participants (RA patients) about OT
- To find out the common problem to perform ADLs before receiving OT
- To find out the present situation after receiving OT intervention
- To find out expectation of RA patients after receiving OT intervention

CHAPTER 2
LITERATURE REVIEW

2.1. Perception

Pawer and Sapre (2014) mentioned that *"Perception is a process by which individuals select, organize and interpret their impressions in order to give meaning to their environment. And People's behaviour is based on their perception of what reality is, not on reality itself"*.

2.2. Components of Perception

Johns and Saks (2011) responded that there are three components of perception:

1. The Perceiver: It refers to a person whose awareness is focused on the stimulus, and thus begins to perceive it. The perceptions of the perceiver are influenced by many factors. The three major factors include motivational state, emotional state, and experience. Among them 'experience' has important influenced on perception. Our current perception is affected by our past experiences and helped to develop our expectations.

2. The Target: It includes the object of perception. It is something or someone who is being perceived. The perceiver gathers the amount of information by the sensory organs which affect the interpretation and understanding about the target.

3. The Situation: The process of perception is affected by the environmental factors with adding information about the target, timing, and degree of stimulation.

2.3. Rheumatoid Arthritis (RA) and Etiology

Information available from their website (Centers for Disease Control and Prevention, 2014) that *"RA is a systemic inflammatory disease of the connective tissue that manifests as a chronic progressive erosive-destructive inflammation of joints, which damages synovial membrane of a joint, cartilage, and later other structural parts of joints as well as tissues surrounding them"*. The etiology of RA remains unknown and is likely multifactorial, including genetic factors and exposure to unknown environmental factors (Radomski and Laham, 2008). Other potential environmental risk factors include alcohol intake, coffee intake, vitamin D status, oral contraceptive use, and low socioeconomic status (Scott and Wolfe, 2010).

2.4. Incidence and prevalence of RA

Research evidence suggests that RA more common in the developing countries (Chopra and Nasser, 2008). People are affected by RA per 100 populations among male (0.0-0.20) and female (0.0-2.86) in Bangladesh (Carmona *et al.* 2010). In Bangladesh, another study shows that the prevalence of RA between male (18.20%) and female (81.80%) among 357 population (Hasan *et al.* 2009). The incidence of RA in developing countries is unknown (Tobon *et al.* 2009). RA is the most common chronic inflammatory arthritis and joint disease (estimated to affect 0.5-1% of the population worldwide). Women are affected 2-4 times more commonly than men and ratio 3:1 (Bari and Choy, 2013). The age of onset is between 30 and 55 years in RA. Prevalence rises with age and is highest in women older than 65 years, suggesting hormonal factors could have a pathogenic role. Incidence ranges from 5 to 50 per 100 000 adults in developed countries and increases with age. Prevalence of RA varies geographically (Scott and Wolfe, 2010).

2.5. Pathophysiology

RA is an autoimmune disease. This means that certain cells of the immune system do not work properly and start attacking healthy tissues, the joints in RA. New research is giving us a better idea of what makes the immune system attack the body and create inflammation. In RA, the focus of the inflammation is in the synovium, the tissue that lines the joint. Immune cells release inflammation-causing chemicals. These chemicals can damage cartilage (the tissue that cushions between joints) and bone. Other things likely play a role in RA as well. For instance, genes that affect the immune system may make some people more prone to getting RA (Scott and Wolfe, 2010).

2.6. Sign and symptoms

It usually has a slow insidious onset, characterized by aches, pains, swelling, and stiffness (usually lasting more than 2 hours), malaise, and fatigue. Any joint may be involved, but usually there is a symmetrical pattern affecting the fingers, wrist, elbows, knees, ankles and cervical spine (Radomski and Laham, 2008). The symptoms of RA come and go; it depends on the degree of tissue inflammation (Atchison and Dirette, 2012).

2.7. Panel: The American College of Rheumatology (ACR) criteria for RA

A patient is said to have RA if he or she meets at least four criteria.

1. Morning stiffness lasting at least 1 h, present for at least 6 weeks
2. At least three joint areas simultaneously with soft-tissue swelling or fluid, for at least 6 weeks
3. At least one area swollen in a wrist, metacarpaophalangeal, or proximal interphalangeal joint, for at least 6 weeks
4. Simultaneous involvements of the same joint areas on both sides of the body, for at least 6 weeks
5. Subcutaneous nodules seen by a doctor
6. Positive rheumatoid factor
7. Radiographic changes on hand and wrist radiographs (erosions or unequivocal bony decalcification) (Klareskog and Catrina, 2009).

2.8. Classification of RA

The American College of Rheumatology has developed a system for classifying RA that is primarily based upon the X-ray appearance of the joints. This system helps medical professionals classify the severity of your RA with respect to cartilage, ligaments, and bone (Atchison and Dirette, 2012).

Stage I, Early

1) No damage seen on X-rays, although there may be signs of bone thinning

Stage II, Moderate

1) On X-ray, evidence of bone thinning around a joint with or without slight bone damage
2) Slight cartilage damage possible
3) Joint mobility may be limited; no joint deformities observed
4) Atrophy of adjacent muscle
5) Abnormalities of soft tissue around joint possible

Stage III, Severe

1) On X-ray, evidence of cartilage and bone damage and bone thinning around the joint
2) Joint deformity without permanent stiffening or fixation of the joint
3) Extensive muscle atrophy

4) Abnormalities of soft tissue around joint possible

Stage IV, Terminal

1) On X-ray, evidence of cartilage and bone damage and osteoporosis around joint

2) Joint deformity with permanent fixation of the joint

3) Extensive muscle atrophy

4) Abnormalities of soft tissue around joint possible

American College of Rheumatology (ACR) also classifies the functional status of people with RA as follows (Trombly and Radomski, 2002).

Class I: completely able to perform usual ADLs

Class II: able to perform usual self-care and work activities but limited in activities outside of work (such as playing sports, household chores)

Class III: able to perform usual self-care activities but limited in work and activities

Class IV: limited in ability to perform usual self-care, work, and other activities

2.9. Prognosis

The effects of RA differ significantly from person to person. Physical and functional outcomes are often difficult for the clinician to predict with accuracy. Onset of the disease is usually gradual or insidious, although it may be abrupt. Due to the cyclical nature of the RA process, an individual's ability to function can fluctuate according to the stage and severity of the disease. Approximately 20% of patients will improve spontaneous and may even achieve remission, especially in the first year of the disease. However chronic disease progression and functional deterioration occur in the majority of all cases. Long-term studies have determined that patients with RA have greater probability of restrictions in daily activities, restrictions in activity days, and 10 times the work disability rate as the general populations. A small percentage will develop recurrence as adults. Researchers have found that some patients experience spontaneous remission. Researcher have found that approximately two-thirds of those with RA do not seek medical treatment and are able to care for themselves through conservative measures e.g. rest, aspirin, rehabilitation therapy, etc. (Atchison and Dirette, 2012).

2.10. Relationship between Occupational Therapy and Rheumatoid Arthritis of the Hands

RA forces patients to become a problem solving expert. Even though patients are good at overcoming handicaps, they do even better when helped by an occupational therapist, the professional who specializes in teaching patients to manage difficult tasks and/ or to do these tasks in a less harmful, more efficient, and convenient way. Traditionally, occupational therapists focus on restoring function of the small joints and on restoring function of the hands. Evaluation always precedes treatment. However, instead of asking their clients what they cannot do, occupational therapist ask what they can do. Questions are asked about ADLs such as self-care (personal hygiene, dressing, cooking, eating, and cleaning), productivity, and leisure. In addition to a functional assessment, the occupational therapist will also evaluate pain, cosmetic appearance, the function and mechanics of joint actions and anatomy (Paget *et al.* 2002).

2.11. Perceptions of Rheumatoid Arthritis patients

The perceptions of people with RA may provide reasoning for the lower physical activity levels of RA patients when compared to the general population. Thus, understanding the perceptions of RA patients regarding exercise is salient to the role of the health professional. Qualitative analysis of focus group discussions revealed that active people with arthritis believed more strongly in the benefits of physical activity, reported significantly higher levels of encouragement from others, and had greater overall levels of self-efficacy when compared with the less active participants. Arthritis, fatigue, and discomfort were ranked by both groups as the top three barriers and these findings persisted after adjusting for occupational status. It is important to consider patient perceptions and potential barriers when promoting the maintenance of an exercise program. Perceptions indicating feelings of reduced pain have also been established (Cooney *et al.* 2011).

Patient's perceptions regarding treatment goals, specifically those of preventing disability, pain and psychological symptoms, can differ from those of clinicians (Ptaylor *et al.* 2010).

2.12. Occupational Therapy Role in Managing Rheumatoid Arthritis

OT aims for RA: First: Reduce pain and inflammation, Second: Optimizing joint alignment, Third: Minimize the underlying causes of joint instability, Fourth: Increase function (Ray, 2014).

Initial Therapy Session

Initial treatment session may aim to fabricate a resting splint for the patient to wear overnight and during the day as required. This would be suitable for the very painful and inflamed hand. Resting splints with straps in between the fingers will assist in maintaining good alignment (Ray, 2014).

Additional Therapy

There is no cure for RA (Pendleton and Schultz- Krohn, 2013). The goal of treatment is to lessen symptoms and poor function. According to the nature of problem, intervention plan will prepare by analysis of the client's performance abilities. The evaluation process will complete by the assessment of joint range of motion, muscle strength, pain and sensation, and activity endurance. An occupational therapist also evaluates a client's need for orthotics/splints, adaptive equipment, and home and work environmental modifications (Turner *et al.* 1996).

Intervention strategies may include, Occupational Therapist gives education to patients for maintaining adequate sleep, taking rest, and healthy eating. Client's ability to accomplish ADLs tasks is improved by using pain management technique with physical agent modalities (e.g., heat, cold) and coping skills. Edema and inflammation of RA patient is managed by using elevation technique, compression garments, exercise, and splinting in OT. Therapeutic activities and exercises is used for promoting gross and fine motor control of hand, range of motion, endurance, and strength, thereby improving functional abilities with daily tasks. Functional positions of the hand are managed by providing assistive devices, splinting. Occupational performance training in the use of joint protection and energy conservation techniques, including the use of adaptive and assistive devices and modified daily routines to ensure adequate rest and to avoid overuse. Ergonomic assessment and activity modification is used for lifestyle redesign in home, work, and school settings (Trombly and Radomski, 2002).

2.13. Understanding about OT

Information available from their website (World Federation of Occupational Therapists, 2012) that *"OT is a client-centered health profession concerned with promoting health and well-being through occupation. The primary goal of OT 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"*.

OT treatment continuum based on the occupational performance model. The treatment continuum identifies the concerns of OT practice within the context of occupational performance. There are four stages in the treatment continuum. Stage One: Adjunctive Methods, Stage two: Enabling Activities, Stage Three: Purposeful Activity, Stage Four: Occupational Performance and Occupational Roles (Pendleton and Schulz-krohn, 2013).

CHAPTER 3
METHODOLOGY

3.1. Study design

In this study qualitative research (QR) methodology had used. This retrospective study was based on the experience of improvement in ADLs as reported by participants. The Grounded Theory Approach had applied in this study.

Now the definition of grounded theory is given bellow: *"The grounded theory approach is a method for discovering theories, concepts, hypothesis, and propositions directly from data rather than from a priori assumptions, other research, or existing theoretical frameworks". "Qualitative study used to explore descriptive, naturally occurring, performance of the participants and people's experienced of living data"* (Balley, 1997). So this methodology was chosen to meet the study aim as an effective way to collect data.

3.2. Study area

Data had collected from the OT Outpatient Hand Therapy Unit at CRP (Savar and Mirpur). Moreover some data had collect from the community who was taking OT intervention at CRP.

3.3. Study population

The study was related with those people who were affected with RA and taken at least four OT sessions at hand therapy unit.

3.4. Sample size

Researcher had taken 9 participants (6 women and 3 men) based on data saturation from CRP (Savar and Mirpur). An appropriate sample size for a qualitative study is one that adequately answers the research question. In practice, the number of required subjects usually becomes obvious as the study progresses, as new categories, themes or explanations stop emerging from the data (Marshall, 1996).

3.5. Sampling procedure

The patients were selected by using convenience sampling. In convenience sampling, patients were chosen which could be studied easily, cheaply, or quickly (Belley, 1997). Through this convenience sampling, the researcher can get easily available subject into his study until the desired sample size is reached (Depoy, 1998).

In this study the researcher also established inclusion and exclusion criteria which were helped the researcher to select suitable and appropriate patients for this study.

3.6. Inclusion criteria

- Patients had included between 21 and 75 years of age.
- Both male and female had attended in this study.
- Patients who had taken four OT sessions.
- Willing to share past experiences and feelings on personal change.

3.7. Exclusion criteria

- Patients who had trauma and other conditions in hand.
- Patients who were affected by juvenile RA.

3.8. Data collection

Data collection procedure: During the collection of data, researcher had taken permission from the Head of the department of OT and participants had selected according to inclusion and exclusion criteria. Sequentially, informed the participants about the interview date and time about their interest to attend the interview session. Before taking interview researcher took consent by undersigned or finger print and made a good rapport build up with the participant. The interviews were conducted in Bangla for consideration of participants understanding. Literature also suggested that face to face interview was more effective, allowing the participants to interact directly and had more freedom to explain their feeling, satisfaction, experiences, and make a good relation with the participant. During that time, all things were observed and made a comment about the patient’s nonverbal language (Bailey, 1997). Each interview had lasted approximately 25 minutes.

Tools of data collection

- Face to face interview with open ended questions by using self-developed questionnaire.
- A tape recorder: To record the conversation and discussion of the patient and the interviewer.
- Pen and paper: To collect field notes.
- Observation: During interview patients used facial expression and body language to express their opinions. So, Observation helps to researcher to understand the patient's opinion.

Data analysis process

Researcher had used qualitative content analysis for data analysis. Hammell, Dyck and carpenter (2000) described that data analysis as reading notes and transcripts of interviews, identifying themes and then incorporating those themes into the next stage of data collection. Qualitative data analysis is the process of systematically organizing the field notes, interview transcripts, and other accumulated materials until understand them in such a way as to address the research questions and can present that understanding to others (Bailey, 1997).

During content analysis researcher had organized the questionnaire answer and other associated materials. Then, the researcher wrote the answer of the participants according to questions. The investigator read those answers in several times and tried to find out the codes from those answers according to category. After that, those codes were summarized under the keywords (Depoy and Gitlin, 1998). Then the researcher organized the codes in the table where participants had shown in a row and code presented in column.

The researcher transcribed the interview data from audio recorder by own self. Then researcher owns self-justified the data to ensure the appropriateness of data. In second stage data were coded into broad categories from question.

In the final stage of data analysis, researcher detected the major and minor codes from the table of categories according to participant response. At that time the researcher detected the important and most priorities codes that were made the themes of the

study which reflects the findings. Finally, the researcher discussed the general themes under each category through interpretation of findings from data.

3.9. Field test

Before collecting final data, a field test was conducted with one participant. Carrying out field test was a preparation of starting final data collection. It helped to make a plan that how the data collection procedure could be carried out, sorting out the difficulties during questioning, making a basic plan of questioning and if there were needed any modification of the questionnaire. The collected data by the field test was firstly transcribed from the audio tape recording. Then the transcription copy was translated into English. The field test helped the researcher to make the plan on how the ways could be for collecting data, how a question could be asked on different ways and what could be the probing question to find out the participant's actual response on the event.

3.10. Ethical consideration

- Researcher had taken consent from the Hand Therapy unit both Savar and Mirpur CRP and BHPI.
- Informed consent was collected from the participants.
- Researcher was ensuring that the confidentiality is maintained about the participants.
- All participants were informed about the aim of the study.
- The participant had allowed leaving from the study in any time.

CHAPTER 4
RESULT AND DISCUSSION

In this section of the study all the findings will be discussed and objective of the study will be explored in accordance to participant's response and opinions against every specific questions. Baily (1997) suggest that "The result and discussion are presented together in this section because this is a common practice on qualitative studies for reporting". The findings and discussion have been presented together with necessary literature support. All interviews and transcripts are read several times to discover the code and to ensure the precise themes. In this discussion, it would be easy to understand the participant's comment which used as codes, because the interview findings are described under each theme. The tick had given on participant's speech about that issue. Indicator "P" had used for participant's and number (1-9) for each participants. Interview findings are described with coding under most off the table. In this study all the answers divided into some general themes and brief descriptions about all themes have discussed and elaborative description with implications about those themes are given below-

Theme 1: Participants had clear understanding about RA but most of them had started to take OT above 5 years later.

Theme 2: OT is a one kind of exercise and it helps to perform daily living activity.

Theme 3: Participants try to complete the activity and most of time depends on others help.

Theme 4: Some improvement occurs after taking OT but the main purpose to take it for keeping the condition same stage

Theme 5: Unable to participate in some leisure due to physical limitation and some participants feel sad.

Theme 6: Most of participants were satisfied; They were hoped for becoming cure same as before, able to work everyday activity completely and continued hand exercise but no demand for environmental modification.

Summary of data analysis

Objectives	Question no	Categories	Theme
To find out the understanding of the participant about OT.	Question: 5 Number: 01,02,03,04, 05	Category 01: Participant's familiarity about disease condition and Conscious level to start OT treatment. Category 02: knowledge about OT and why OT service is important for a RA patient. Category 03: Type of OT treatment which has received	**Theme 1:** participants had clear understanding about RA but most of them had started to take OT above 5 years later. **Theme 2:**OT is a one kind of exercise and it helps to perform daily living activity.
To find out the common problem to perform ADLs before receiving OT.	Question: 2 Number: 06,07	Category 04: Difficulties to accomplish ADLs (self-care, productivity, and leisure) and difficulties managing skills	**Theme 3:** Participants try to complete the activity but felt difficulty and most of time depends on others help.
To find out the present situation after receiving OT intervention.	Question: 3 Number: 08,09,10	Category 05: Significant improvement to participate in self-care, productive and leisure activities	**Theme 4:** Some improvement occurs after taking OT but the main purpose to take it for keeping the condition same stage **Theme 5:** Unable to participate in some leisure due to physical limitation and some participants feel sad.
To find out expectation of RA patients after receiving OT intervention.	Question: 4 Number: 11,12,13,14	Category 06: Expectation and satisfaction from OT service Category 7: Type of therapy which has practiced in home and Opinion of participants if occupational therapist works more	**Theme 6:** Most of participants were satisfied; hope had for becoming cure same as before, able to work everyday activity completely and continued hand exercise but no demand for environmental modification.

Table 1: Summary of data analysis

Theme 1: participants had clear understanding about RA but they had started to take OT above 5 years later.

Category 1: Participant's familiarity about disease condition and Conscious level to start OT treatment and time of bearing this problem

Coding	P1	P2	P3	P4	P5	P6	P7	P8	P9	Total
Rheumatic fever	✓									1
Partial understanding about RA						✓				1
Clear understanding about RA		✓		✓	✓				✓	4
Idea about one symptoms of RA							✓	✓		2
Do not remember the name but know			✓							1

Table-2: Participant's familiarity about disease condition

One of the participants mentioned, *"Yes, I cannot hold anything by my hand, pick anything up also. I guess; it is rheumatic fever".*

Another one of the participants said, *"Yes, what I will say? I am told by the doctor to take treatment, to take therapy, to take medicine. I am taking it. The name of my disease is RA. My joints are getting stiffed. I am facing problems in my movements".*

Another one of participants added, *"Yes, I know. The name of disease; swelling had seen, I felt pain, sometimes I feel unbearable pain, and sometimes I felt bad, increase tension. At first I know the name of disease is rheumatic fever. Then I come to know that it is rheumatoid, isn't it? I don't know so much".*

OT services also focused on the measurement of a favorable outcome, such as knowledge about disease management, compliance, self-efficacy, grip strength, and range of motion. So the knowledge about disease is necessary for the participants if he or she wants to manage the disease (Steultjens *et al.* 2002).

Coding	P1	P2	P3	P4	P5	P6	P7	P8	P9	Total
Start OT to see problem among 5 months			✓				✓			2
Start OT to see problem among 5 years	✓				✓				✓	3
Start OT to see problem above 5 years		✓		✓		✓		✓		4

Table-3: Conscious level to start OT treatment

Coding	P1	P2	P3	P4	P5	P6	P7	P8	P9	Total
Bearing this problem from1-3 years			✓				✓			2
Bearing this problem from 3 -12 years	✓							✓	✓	3
Bearing this problem above 12 -45 years		✓		✓	✓	✓				4

Table-4: Duration of bearing this problem

One of the participants mentioned, *"I am taking OT seven years later. Before starting OT I have taken therapy in the house"*.

Rapoliene and Krisciunas (2006) found that for the welfare of RA affected people, the rehabilitation has to be started as soon as it is determined that the patients have problems with the function of joints.

Another one of the participants said, *"At first, I went to the doctor after fifteen days. Doctor told to go through an operation. Then I went to CRP after seven days"*.

Upon completion of a thorough evaluation by a physician, early diagnosis can assist with developing a treatment approach to diminish joint pain, impede the disease process, and decrease joint deformities. Early classification of the disease facilitates earlier intervention and possibly a "retarding of the disease process" (Atchison and Dirette, 2012).

Another one of participants added, *"About thirty five years later. I didn't know about it at all. Once I heard about CRP from one patient in Mirpur but I didn't know the exact address. If I knew that, I would take therapy before at least twenty years"*.

McDonald *et al.* (2012) suggest that the impact of early RA has an extreme effect on daily activities. The experience is multifaceted, involving uncertainty, disruptions to daily activities, necessity to do things differently, and changes to occupational identity. Occupational identity is threatened or altered when its activities are disrupted. This begins at the onset of RA and has significant consequences for the patients" function. The current research highlights the need for a holistic approach to caring for people from the very earliest stages of RA.

Theme 2: OT is a one kind of exercise and it helps to perform daily living activity.

Category 02: knowledge about OT and why OT service is important for a RA patient?

Coding	P1	P2	P3	P4	P5	P6	P7	P8	P9	Total
Partial understanding about OT	✓									1
No, I do not know about therapy		✓								1
Clear understanding about OT			✓		✓					2
One kind of exercise				✓		✓	✓		✓	4
Only treat hand of patients								✓		1

Table-5: knowledge about OT

The participants had asked for their understanding about OT after receiving OT services at Savar and Mirpur CRP in Bangladesh. Most of the participants said that OT was a one kind of exercise and it helped to perform daily living activities. Among them two participants had cleared idea about OT after taking OT service. Few participants said that after stopping therapy it creates disability or problem.

One of the participants mentioned, *"Yes, good, I think it is very helpful, when they provide wax bath to me. I have tried to do something alone e.g. applying boiled water over my hand. I thing, it is various exercise, various therapy, applying boiled or cold water on my body without applying any medicine. I think it will help me in ADLs. It will help to alert any disability or different parts of the body".*

Another one of the participants said, *"My every joint of my body had deformed. As a result, my functional ability was decreasing day by day. In order to increase my functional ability I am taking OT".*

Another one of participants added, *"Yes, I guess. It was done by wax bath. It was given over my hand and then the pain release. Sometimes I could hold something, work a bit, I could do something, then the pain increase again, and then I could not do anything. I think. It helps in ADLs. If I take this treatment, I could do something better. Isn't it?"*

Pendleton and Schultz- Krohn (2013) state that OT focuses more on developing practical solutions to help us and carry out the basic ADLs so that we can maintain a high quality of life.

Information available from their website (CRP- Bangladesh, 2010) that *"OT is providing health care professional services to people whose ability to function in daily life has been disrupted. To attain independence in everyday life we need to use purposeful activity, therapeutic exercise, special equipment, skills training and environmental modifications for maximizing the person's ability".*

OT is concerned with facilitating people in performing their ADLs overcoming barriers by maintaining or improving abilities, or compensating who has decreased ability in the performance of occupations. So, patient's knowledge about OT helps to overcome his/her barriers in ADLs for going to success (Steultjens *et al.* 2002).

Coding	P1	P2	P3	P4	P5	P6	P7	P8	P9	Total
It helps to perform daily living activity	✓		✓		✓		✓			4
After stopping therapy it creates disability or problem		✓							✓	2
Exercise helps to move or open joint and prevent joint from fix				✓						1
After taking suggestion the disease will be cured						✓				1
It will not be cured, after taking therapy it will remain same as before								✓		1

Table-6: OT service is important for a RA patient

One of the participants mentioned, *"Yes, at middle I had stopped to take OT, in this time, problem was seen in my elbow. For this, I think, it is important. If any RA patient have hand problem, I think she/he should take it".*

Another two of the participants said, *"Yes, for the reason of RA, joint may be swelling. Faces many problems to do the daily living activity; If take therapy this joint will move. Pain makes disability. If he/she takes therapy, disability may remove. For this reason it is essential".*

Another one of participants added, *"Yes, I come here because I think it is necessary. Though doctor had said that it cannot be cured fully, I came here for preventing this condition; it does not increase again and live alive until death. Now I am satisfied on Allah for my present condition. If it increases I cannot get up from bed and then nobody takes care of me. Doctor's also said that I will try to work your condition for preventing further deformity, you will not cure again. But if I come here regularly it will not increase and they will try to prevent it".*

It has been mentioned (Gonzalez and Molnar, 2012) that effective OT programs are essential for older adults. Implementation helps to manage the impact of arthritis in their lives. Physical and psychosocial challenges associated with aging. The presence of arthritis may hinder older adults from achieving their optimum level of activity performance and participation. RA is a degenerative condition of the musculoskeletal system. This system includes symptoms such as joint stiffness, pain, and inflammation. Patients with this condition may experience a range of symptoms, comorbidities, or associated psychosocial issues that may impede their level of function in daily activities of interest and their life fulfillment. OT interventions that address these impairments through direct intervention or compensation may be of benefit. So it is important who is affected by RA.

Category 3: Type of OT treatment

Coding	P1	P2	P3	P4	P5	P6	P7	P8	P9	Total
Paraffin wax bath therapy	✓		✓			✓	✓	✓	✓	6
Contrast bath			✓	✓	✓			✓		4
I have got splint		✓			✓	✓				3
Do not need splint	✓		✓	✓			✓	✓	✓	
work to decrease pain		✓								1
Continue therapy in room		✓	✓							2
Advice (to move joint, walking, wear splint, to keep think in one place, do not raise heavy thing, to take rest in between work, forbid to hold things tightly or heavy work, to extent fingers) in home		✓	✓			✓	✓		✓	5
Exercise (hand exercise, to take finger from one place to another place, Gaping, punching clip, counting finger, move clockwise and anticlockwise), table top activities by using wood		✓	✓		✓		✓	✓	✓	6
Energy conservation, joint protection and work simplification technique			✓		✓			✓	✓	4
Hot pack			✓							1
Showing catalog for home environment modification				✓						1
Maintain adequate sleeping and use spoon for eating				✓		✓				2

Table-7: Type of OT treatment

One of the participants said, *"Only wax bath was given me and no other therapy was given"*.

Another one of the participants said, *"I have gotten splint. Work has done for reducing pain. Others work will not do. Exercise is providing here and I am taking OT here also. Some advices have provided me for doing repeated movement in home. Therapist had said, "Your joint will be open if you will do regular movement"*.

Another one of participants added, *"Yes, I have got splint. Therapist had provided wax bath, exercise, try to raise and put down hand, also told that for bending lower back and gave advice for walking in the morning about ten minutes. I will do everything and try to do more work. When I feel tried, in this time, I had taken rest between works about two hours. They had forbidden holding anything tightly. They had advised me to keep all important things in one place, for walking in the morning about twenty minutes, doing exercise thirty minutes after two hours later in whole day, wear splint two hours later in day, wear splint whole night in night and had forbidden to touch water. They have told me to move the joint but I cannot move it properly. They had taught my son to extend the fingers by placing hand support"*.

Training of skills, counseling, education about joint protection, prescription of assistive devices, and the provision of splints are the most important interventions in OT. Occupational therapists chose most often three interventions for RA patients. Such as advice/instruction in the use of assistive devices, training in self-care activities, and training in productivity activities (Steultjens *et al.* 2002).

Theme 3: Participants try to complete the activity but felt difficulty in some activities (e.g. sewing, cutting, writing longtime etc.) and most of time depends on others help.

Category 04: Difficulties to accomplish ADLs (self-care, productivity, and leisure) and difficulties managing skills.

Coding	P1	P2	P3	P4	P5	P6	P7	P8	P9	Total
Problem was present	✓	✓		✓	✓	✓		✓	✓	7
Do not use utensils (heavy weight) by holding hand and some participants felt difficulty	✓		✓	✓	✓	✓	✓	✓	✓	8
Problem in bathing, brushing teeth, clean body parts, wearing dress, eating food, clean clothes, combing, buttoning	✓			✓		✓				3
Partial problem in buttoning, brushing, wearing cloth, eating, collect water from tap, clean body parts, squeezing cloth					✓	✓	✓	✓	✓	5
Unable to do washing, raise hand, combing, bathing, wearing dress, do not take objects from floor, squeezing cloth					✓	✓		✓		3
Do not problem in bathing, brushing, collect water from tap	✓			✓			✓	✓	✓	5
Able to do brushing, take things from above, eating		✓				✓		✓	✓	4
Unable to sit by bending waist				✓		✓				2
Eating by using spoon	✓			✓		✓				3
Only problem in collecting water , bathing and buttoning		✓	✓							2
Need help of others	✓	✓		✓	✓	✓		✓		6
I work by using both hands due to problem in left hand such as carrying heavy load, bathing, buttoning, wearing and washing cloth			✓							1

Table-8: Problem in self-care

Coding	P1	P2	P3	P4	P5	P6	P7	P8	P9	Total
Able to write and alternate page		✓			✓	✓				3
Partial problem in writing and alternate page and do not continue long time				✓		✓	✓	✓	✓	5
Do not need to writing and alternate page but I can write few								✓		1
Able to operate computer					✓					1
Do not able to cooking	✓					✓				2
Partial problem in cooking, do not move things into pot					✓			✓	✓	3
Do not hold or raise heavy things in cooking time					✓			✓	✓	3
Problem in sewing and cutting			✓		✓	✓			✓	4
Need help of others			✓		✓			✓		3

Table-9: Problem in productivity

Coding	P1	P2	P3	P4	P5	P6	P7	P8	P9	Total
Most of the time feel sad	✓								✓	2
Like to gossiping		✓					✓		✓	3
Like to reading		✓			✓	✓				3
Feel pain to read							✓			1
Like to gardening			✓							1
Like to traveling		✓		✓						2
Do not like to see television				✓						1
Able to use remote of television and speak by using phone		✓			✓	✓	✓	✓		5
Speak in phone by using compensatory technique		✓				✓				2
No leisure								✓		1
Problem was present in leisure but problem in gardening			✓							1

Table-10: Problem in leisure

Coding	P1	P2	P3	P4	P5	P6	P7	P8	P9	Total
Need to help of others for doing activity	✓	✓				✓		✓	✓	5
Taking rest in between work and give more time to complete the work				✓	✓		✓			3
Problem was but try to adapt with the work alone and maintain patience									✓	1
Continue therapy and walking more					✓	✓				2
Try to complete the work alone but felt difficult			✓	✓		✓	✓			4
Use spoon for eating	✓									1
Use power for washing	✓									1
Unable to do some activity such as mixture food	✓									1
Have done main work and stop some work			✓						✓	2
Divide the work								✓		1

Table-11: Problem solving skills or difficulties managing skills

From above table, it is seen that, most of the participants reported that they could not hold heavy utensils and some other objects by hand due to pain and joint deformities before taking OT after attacking by RA. As a result they had faced difficulty to perform self-care, productive and leisure activity. Among them most of the participants had problem in bathing, brushing teeth, clean body parts, wearing dress, eating food, clean clothes, combing, buttoning and was partial problem in buttoning, brushing, wearing cloth, eating, collect water from tap, clean body parts, squeezing cloth.

Some of them were unable to do washing, raise hand, combing, bathing, wearing dress, do not take objects from floor, squeezing cloth, did not fist hand. Two participants were unable to bend waist. Majority had also partial problem in writing, cooking, and sewing activity. Two female participants were unable to cooking. They were a private tutor. In this study most of the female participants were housewives. In male, two participants were businessman and another was student. Among them seven participants were married and two was unmarried. Most of them watch television in leisure and use mobile phone to speak others. Two participants felt sad most of the time. If they want, they cannot engage all leisure activity due physical limitation. They try to complete the work alone but felt difficult and need to help of others for doing activity.

One of the participants said, *"Yes, that time it was problem. I could not do anything. I could not perform washing cloth, combing, clean body parts properly, brushing teeth, eating. Somebody had done it for me. On the other hand, what do I do? I could not do anything. I could not put rice into my mouth by hand. When I felt hungry, I ate rice with difficulty without using spoon. Sometimes I used spoon for eating rice. I could not do cooking activity. I felt distress in my mind"*.

Another one of participants mentioned, *"I could not hold anything by hand about fifteen days then I went to the CRP. But there were little problems in left hand. I had faced problem when come to hold anything by both hand, to carry heavy weight. I had used unaffected hand during bathing time. I had felt pain when perform buttoning. I had faced little problem to wear dress, to wash dress. Though I had used washing machine for washing cloth but I could not squeeze the dress. I had faced problem to do sewing in machine. Another person had done the extra work before cooking then I had completed the cooking. I had no problem during entertainment. I had used one hand during gardening for doing work, but normally the work will complete by using both hand"*.

One of participants added, *"Now winter season is coming and all work is going to hard. It shows no benefit for me whether I take any therapy or not during this time. My condition was deteriorating day by day. I can use utensils by holding but I am facing problem to use things. I took help from others for cutting or holding vegetable such as pumpkin"*.

Another one of participants added, *"I could not move vegetables or other things into pot during cooking. I could not raise cooking utensils and faced other difficulty also. When pain present in my body, in this time I sat down alone without movement. The story does not come in mind in this time. So everything was difficult to me. I felt boring in this time"*.

RA can affect all aspects of one's life, like social relationships, family life, and psychological well-being in addition to physical symptoms. In addition to these stressors, pain, restriction of activities and physical handicaps are associated with changes in psychological aspect. RA is related with significant psychiatric morbidity. The main psychiatric disorders reported in RA cases are anxiety, depression, or both (Rezaei *et al.* 2014).

Comparison can be seen between patients with RA and healthy persons and there is a reduction in physical capacities. Symptoms such as pain, fatigue, stiffness, and decreased muscle strength cause difficulties with daily activities such as grooming and dressing, cooking a meal, cleaning, shopping, work, and leisure activities. The physical, personal, familial, social, and vocational consequences of RA are extensive (Steultjens *et al.* 2002).

Patients with established RA have reported disruptions in leisure occupations and daily activities. Also social life, paid and unpaid work, ADLs, sense of identity, and occupational balance can be disrupted because of this. Occupation, as defined in the OT literature, is broadly viewed as including all of the things that people do, from self-care to caregiving, participating in employment, unpaid work, and hobbies (McDonald *et al.* 2012).

Difficulties managing skills of participants

One of the participants said, *"I used to eat rice by using spoon. I unable to mix the rice at one plate, if anyone helped me then I can able to eat. I could not able to clean and wash my dress. I used to try to clean my dresses by taking some water into the bucket and mixing some washing powder into that. I wasn't able to squeeze my dress .after washing. I used to brush my teeth by myself. Other persons of my family help me to put up my dress"*.

Another one of participants mentioned, *"Yes I did work. I faced some difficulty but used to do every work by myself. Without any other peoples help I used to do my works, but I felt problem in my hand. Which works I thought so hard for me, I avoided those works. I only used to do those works, which I need to do survival"*.

One of participants added, *"I used to do every work by myself even I found it so difficult. At the time of toileting I couldn't call anybody for help, used to do by myself though it was so tough. It took nearly half an hour to complete my toileting where as it could be done in five minutes if I was not affected"*.

In one of the very few studies to examine time use among individuals with RA, Yelin and colleagues used time diaries to estimate the allocation of time to various activities of daily life and found that individuals with RA spent far more time on personal care and hygiene, household chores, shopping and errands than did controls (Katz and Morris, 2007).

Another one of participants added, *"I have to manage. Keep patience. After completing bath I cannot squeeze my cloths keep this as wet it was. I took peoples help to these if anyone has free time otherwise it remains undone. My cloths remain wet for two or three days in a row after taking bath every time, repeatedly this happens to me back to back sometimes"*.

Another one of participants added, *"When I need to do any work; I started to complete it forcefully by myself though it was difficult for me. After doing movements of hand I felt pain but not always. At the time of doing a work I used to give pause in between"*.

McDonald *et al.* (2012) found that usually many disruptions can be founded in life of people with RA and they are finding new and alternative ways of performing activities, asking for assistance, limiting or taking more time to complete activities, using assistive devices, altering their environment, and setting priorities. An exploration of meaning within everyday activities showed that women wanted to be seen as ordinary, but also wanted their limitations to be accepted.

Theme 4: Some improvement occurs after taking OT but the main purpose to take it for keeping the condition same stage

Category 05: Significant improvement to participate in self-care, productive and leisure activities

Coding	P1	P2	P3	P4	P5	P6	P7	P8	P9	Total
Some improvement has come	✓			✓	✓		✓			4
No improvement has come		✓				✓		✓	✓	4
Full improvement has come and use utensils easily			✓							1
Pain has decreased		✓					✓		✓	3
Pain has increased, it hampers self-care activity						✓		✓		2
The main purpose to take it for keeping the condition same stage		✓								1
Pain is the main cause for hampering activity if not pain I can do work	✓								✓	2
Complete work at a time									✓	1
Pain increase when continue exercising									✓	1

Table-12: Improvement to participate in self-care activities after taking OT treatment

Participant had responded differently about their improvement in self-care activities after taking OT intervention. Half of the participant said that they had got some improvement in self-care activities. Another half of participant said that they do not get improvement in self-care. Only one participant had got improvement in self-care.

One of the participants said, *"Yes. Here some change has occurred. Such as washing clothes, like this here after finishing a work, I wished to do another work. For example, cleaning the room, cleaning own body. If the hand function remains normal then there is strength to do more works. When pain becomes less, then I think myself completely normal. Joint pain is main and a significant problem"*.

Another one of participants mentioned, *"No, which problem I faced from first those are still exist. Now pain reduces than before. The objective of taking OT is that to maintain the level of condition reducing rather than increasing. At present I eat using spoon and no help needed to mix up other items (food) such as vegetables, pulses etc. with rice.*

Participant 3rd said, *"Yes, Now I can do a work completely by myself which I had faced difficulty to do after my illness. Now I can easily hold any object and used it. At present I can do a work normally like before by the grace of Allah"*

In the high quality RCT, has a significant positive effect of comprehensive OT on functional ability (Steultjens *et al.* 2002).

Participant 4th said, *"Yes, some improvement I noticed. I was healthy and fit at once. That time I held every object and walked without stick. I also could squeeze cloths not fully. For less strength of my body I could partly do a work not fully. Some strength is coming back. I could do some works without difficulty in this time. I could clean my body partly because I could not move my hand fully. I could do brushing, dressing and eating with spoon by myself".*

OT interventions require that the recipient of services redesign his or her life in a variety of ways, from wearing a hand splint to use of assistive devices or changing the routine patters of daily living. Change of typical routine is not easy, and it has been estimated that at least 50% of patients with RA are non –compliant with therapy, irrespective of the nature of the intervention (Trombly and Radomski, 2002)

Participant 7th said, *"Yes, some changes occurred. I can do my general activities which needed in daily life with some improvements. Now there are no significant difficulties, problems are reduced and I can manage. Now pain does not exit every time. I do not need to give pause when doing a work; I can finish properly at one attempt".*

Participant 8th said, *"No, there is no improvement. My condition is as like before. I felt more difficulty than it was before. I could not were borka. I could not reach my hand on head. I noticed no improvement after taking therapy".*

The presence of depression has been repeatedly linked to poor health, increased higher levels of pain, impaired mood and functional disability in RA patients. Researcher observed that RA patients feel boring when they do not get improvement after taking therapy due to come in late (Rezaei *et al.* 2014).

It was found in study that a six week intense OT program including client-centered occupation based activities such as self-care, homemaking, leisure management, and accommodations delivered within the home setting resulted in significant improvements in function for adults with RA as compared to a control group not receiving such interventions (Gonzalez and Molnar, 2012).

Through after discussion we can understand that participants were knowledgeable about their improvement in self-care activities. As a result, all of the participants had understanding about better outcome instead of the following problem in self-care activities.

Coding	P1	P2	P3	P4	P5	P6	P7	P8	P9	Total
Some improvement present	✓			✓			✓		✓	4
No improvement has come		✓			✓	✓		✓		4
Full improvement has come and use utensils easily		✓								1
Able to perform cutting, cooking activity and hold anything tightly by taking rest between work	✓								✓	2
Able to do type in computer		✓								1
Keep things in one place		✓		✓					✓	3
Able to write long time and prayer but felt difficulty				✓			✓		✓	3
The main purpose to take it for keeping the condition same stage					✓					1

Table-13: Significant improvement to participate in productivity

After taking OT service, about half of participants had some improvement, half of participant was not any improvement in productive activities. Only two participants were able to perform cutting, cooking activity and hold anything tightly by taking rest between works among female. Three participants were able to write long time and prayer but felt difficulty.

One of the participants said, *"Yes, I had changed. But when I brought any big fish I could not cut it. When pain reduces I can cut fish or vegetable. I cannot hold tightly any things. But after taking therapy I can cook rice. I could not raise half kilogram weight things if pain remains".*

In a study conducted with 45 Norwegian women with RA, the women reported a decrease in non-vocational occupations, including leisure and household occupations (Prodinger *et al.* 2014)

Another one of participants mentioned, *"I have no changed. I can type on computer but slowly. I can arrange things".*

Participants 3rd said, *"No remarkable problem in my occupational activities. I can do my official work by right hand. My right hand was not being affected due to take OT immediately".*

Literature found the data; OT highly increases independency of the patients. It also helps them to develop working skills in rehabilitation (Rapoliene and Krisciunas, 2006).

Another one of participants added, "Now I can cook. But I need to rest between works again and again. I can do writing activities long time but I feel pain. I can decorate things.

Health, function, and participation through various intervention approaches are promoted by the OT. Exercises whether conditioning, strengthening, or home-based therapy, have been used with moderate effects for improving strength. It also improves hand function, decreasing pain, and raising self-efficacy measures and improving physical function. Furthermore, intervention methods that support engagement in meaningful roles and occupational activities are an integral aspect of

OT and have been shown to generate positive outcomes in quality of life, health factors, and occupational function (Gonzalez and Molnar, 2012).

Occupational activities may involve many tasks like purchasing groceries, banking, self-care, or attending a special event. It is postulated that through the therapeutic process of facilitating meaningful occupational participation, individuals may be able to perform valued roles, develop a positive sense of self-efficacy, and achieve improved quality of life.

Theme 5: Unable to participate in some leisure due to physical limitation and some participants feel sad.

Coding	P1	P2	P3	P4	P5	P6	P7	P8	P9	Total
Feel better in walking and gossiping	✓									1
No improvement has come		✓				✓				2
Of course, full improvement has come and participate all leisure activity			✓							1
Some improvement has come				✓			✓		✓	3
Traveling has limited due to problem in leg					✓					1
Tension comes from family and feel bad						✓				1
Everything can do better and feel good							✓			1
Feel better after taking therapy and pass my time by watching television								✓		1

Table-14: Significant improvement to participate in leisure

One of the participants said, *"I feel better while walking and traveling because I could not go one place to another place before receiving OT. Now I feel better gossiping with man"*.

Another one of participants mentioned, *"Yes, of course, I will pass my leisure time by watching television, gossiping with friends, reading newspaper regularly, read important books. When I have done job, I have travelled eight countries"*.

Another one of participants added, *"Yes some change has occurred. I could move anywhere, could speak"*.

Participant 6th said, *"Pain is increasing day by day. I am eating pain killer. As a result pain is reducing slowly. My condition is same as before. I feel bad in my mind. When pain comes in my body, then I feel bad. When I cannot sit, I do not feel good in this time. Heavy, I used to feel tension due to family problem"*.

Participant 7th said, *"Yes, I have a television in home. After finishing class, I was lying in bed. I do not see bad scene. I saw some drama"*.

The main focus of occupational therapists helps to people with RA to be able to continue to actively participate in work and recreational activity. And it gives special attention to maintain good function of the hands and arms (Cleveland Clinic, 2014).

Theme 6: Most of participants was satisfied, hope have for becoming cure same as before, able to work everyday activity completely and continue hand exercise but no demand for environmental modification.

Category 06: Expectation and satisfaction from OT services

Coding	P1	P2	P3	P4	P5	P6	P7	P8	P9	Total
Much hope in my mind	✓									1
My body will be well one day	✓							✓		2
Condition or joint deformity will not increase and not deteriorate in future		✓			✓					2
Of course, hope have for becoming cure same as before, able to work everyday activity completely			✓	✓		✓	✓			4
To become well, healthy completely if I continue therapy but it has said that it will not be cured									✓	1

Table-15: Expectation from OT services

Different responses were found and different expectations were stated by those participants about OT at the time of taking OT first. Among them about half of participant stated that they will be curing same as before. But two of participants said that I am taking OT for the purpose of Condition or joint deformity will not increase and not deteriorate in future.

One of the participants said, *"Of course. Everyone has hope. I had gone OT department for curing. I could do work same as before, could complete general ADLs, I have gone OT department by taking this expectation. I will cure completely"*.

Another one of participants mentioned, *"I was much hope. If I practice things (e.g. OT treatment), I will be cure not fully but some and can move one place to another place. As a result I felt peace in my mind"*.

Another one of participants added, *"Doctor said me; my condition will not be increased if I try to work for this and work until death. I am expecting only that it will not be bad later. I know it will not be cure"*.

The aim of OT for RA is to control the underlying inflammatory disease. Attainment of this goal will alleviate pain; restore patients' quality of life. Moreover it preserves their independence and ability to perform ADLs (Davis and Matteson, 2012).

More aggressive management of RA early after diagnosis and throughout the course of the disease has resulted in improvement in patient functioning and quality of life, reduction in comorbid conditions, and enhanced survival.

Coding	P1	P2	P3	P4	P5	P6	P7	P8	P9	Total
Not satisfied, only wax bath has given me	✓									1
Medium satisfied					✓		✓			2
Satisfied		✓		✓				✓	✓	4
Yes, of course, I am satisfied			✓			✓				2
Taking OT for preventing further deformity and staying same as before		✓			✓					2

Table-16: Satisfaction with OT service

In this study, one third portion of the samples was satisfied after receiving OT services. Two participants stated that they are taking OT for preventing further deformity and staying same as before. Among them one of the participants was highly satisfied.

One of the participants said, *"Yes I am satisfied. Doctor said to me that it will not be increased, if you continue therapy. So it has same now. For this I am pleased. Now I am staying same by taking same feature".*

Another one of participants mentioned, *"Yes, I am satisfied. I was unable to do anything without others help. Moreover I could not wear dress, or washing dress, buttoning. After taking therapy which finger was in bent position, that now is good. It was a hope".*

Another one of participants added, *"Yes, of course. I had problem in before, which problem I faced. I was unable to use hand finger or thumb. Now I can use it normally. So I have great faith in this, which is activating my hand function. Isn't it? So now I am capable to remove my problem by therapy, without any medicine".*

Participants 1st said, *"No, only wax bath is given to me. No other treatment is given to me. So I didn't know anything about this".*

One of the participants said, *"I can able to do my activities, I am satisfied very much. I will please, if I can do my activities".*

The outcome of OT intervention depends on occupational engagement and life satisfaction, as well as the client-centered and context-driven characteristics of interventions. Preparatory or enabling intervention includes some techniques that prepare the client for occupational performance. This technique includes strengthening, conditioning exercises, and the use of physical agent modalities. Occupation-based intervention entails a client-centered approach in which the therapist and the client collaborate in the selection. It is guided by the performance of activities that are considered meaningful and match the client's goals and interests within their natural context (Gonzalez and Molnar, 2012).

Category 7: Type of therapy which has practiced in home and opinion of participants if occupational therapist works more.

Coding	P1	P2	P3	P4	P5	P6	P7	P8	P9	Total
It has said to do therapy in home	✓	✓	✓		✓	✓	✓	✓	✓	8
It has not said to do therapy in home				✓						1
Advice to practice different types of therapy							✓		✓	2
Try to move all joint alone		✓	✓		✓			✓		4
Hand exercise for increasing strength and walking more	✓				✓	✓			✓	4
Try to do own activity alone		✓				✓				2
Advice has given for wearing splint		✓								1
Advice has given for taking contrast bath, hot pack and practice exercise		✓	✓		✓			✓	✓	5

Table-17: Type of therapy which has practiced in home

Advice has given for taking contrast bath, hot pack and practice exercise for most of the participants. It was seen that most of the participant follow therapist advice and therapist had told for doing therapy in home. Only one participant did not follow therapist advice. As a result this condition was not suitable for that. Now he could not move most of the joint.

One of the participants said, *"Yes, therapist had told to do exercise thirty minutes about two hours later among twenty four hours every day. Therapist had told to do my work according to endurance capacity. Then try to do perform slowly for doing more work".*

Another one of participants mentioned, *"Yes therapist has told to move every joint, finger, elbow, shoulder joint and also had said to wear splint. Therapist had said for perform buttoning activity alone. Which work I cannot do, therapist had told to do this work".*

Another one of participants added, *"No, therapist did not tell to do something. If therapist will say to me to come here, I went long ego. I did not go eight years later. I met with therapist in this time considering difficulty"*.

Occupational therapists can help the patient analyze their daily activities, rethink the way they do things, position their bodies & achieve the right balance between rest & activity (Caceres, 2015).

Coding	P1	P2	P3	P4	P5	P6	P7	P8	P9	Total
It will better if therapy time will increase				✓	✓			✓	✓	4
Therapy time is sufficient		✓	✓							2
Therapy time is not sufficient							✓			1
Therapist know about therapy time which will better						✓				1
If provide splint it will be better, because wax bath has provided me only	✓									1
Follow therapist suggestion			✓			✓				2

Table-18: Opinion of participants if occupational therapist works more

Any participants did not demand for environmental modification. About half of participants had said that it will better if therapy time will increase.

One of the participants said, *"No, no need more. Now I have felt well. I obey doctor's advice. As a result I will follow the doctor. Now I am following doctor. Therapy time was sufficient"*.

Another one of participants mentioned, *"I have taken only paraffin wax bath. It may better if splint give me"*.

Another one of participants added, *"If therapist to do more I felt better. Therapy has given all body, hip up to head, joints of all body. I feel well if more therapy will provide. Therapist does not provide therapy about fifteen minutes. If hand therapy will give more it will be better"*.

OT services may include comprehensive evaluations of the client's home. It also includes other environments (e.g., workplace, school), recommendations for adaptive equipment and training in its use, and guidance and education for family members and caregivers. OT practitioners have a holistic perspective, in which the focus is given on adapting the environment to fit the person. The person is an integral part of the therapy team (American OT Association, 2015).

CHAPTER 5
LIMITATION AND RECOMMENDATION

Limitation

There are some limitations to conducting the research study. Time and resources were limited which have a great deal of impact on the study. If adequate times and resources were available, then knowledge on this area could be extended. In this study participants were only taken from to Savar and Mirpur CRP where all facilities and support were available. Participant should be taken from different places or as many places as possible for any future study. The interview schedule and interviewing skills were not in depth to get deeper information from the participants, as it was first attempt for the research. Due to the small sample it was difficult to generalize the study. The entire interview was conducted in Bangla and then it was translated in English. So during translation there might be possibility to loss the original theme of the information. The interview was not conducted in naturalistic setting among most of the participants. Most of the participant's information was collected from OT department. So it might hamper to get the real picture of the situation. The limitation of this study was that relevant literature was not accessible for conducting study. So researcher had to take support from the secondary resources. The RA patient was not available in CRP who had received four OT sessions. There is no few published literature in Bangladesh "perception regarding OT" about RA patients. By considering these limitations the researcher had conducted this study.

Recommendation

Written home advice in Bangla about OT intervention is essential after providing OT intervention for RA patients. It is also essential to know the patients about OT after each session. As a result the patients will realise the purpose of occupational therapy services and come to take therapy. Occupational therapists take to initiative for home environment modification of RA patients if the patients agree with therapist. Clear understanding of patients about RA, its prognosis, and complications is important for preventing further deformity. It may be helpful for patients for removing unexpected hope, remove sadness after realizing the reality. Explain the benefit of each OT intervention that will help to participate in ADLs, continuing therapy. Majority of patients were dependent on others due to stop activity or exercise. As a result positive reinforcement can play an important role for RA patients. If RA patients continue OT, the present condition will not deteriorate in future.

Occupational Therapists work with patient in ADLs. So OT needs to give attention on ADLs and help to make independent as much as possible by providing assistive devices, modification of activity, or other OT intervention during the rehabilitation period. Further research should be conducted with large number of participants. It will help to generalize the result easily.

The current study also recommended that health professionals might contribute to minimise vulnerable situation from depression and other factors by providing proper education, promoting social participation, providing education about healthy eating. So we can say our treatment approach reflects several gaps remaining in our understanding of the best practices for the management of rheumatoid arthritis.

Early diagnosis and start to take OT soon better prognosis. So doctor can refer the RA patients urgently from outdoor unit.

CHAPTER 6
CONCLUSION

OT is a growing health care profession in Bangladesh. No research was done previously in Bangladesh regarding the topic of perception of RA patient's about OT. RA affects all aspects of life both the patient and their family physically, psychologically, socially and economically. So, people with RA feces difficulty to adjust their life after RA. They face various problems in their daily life activities due to RA. It creates secondary problems such as- depression, anxiety etc. These kind of secondary problems affect the outcome of the treatment program as well as total OT treatment intervention. From the result of this study, it was found that OT improved ADLs in early RA. Functional ability remains reasonably good for many in the first five years, so preventive benefits is also better and longer follow up is needed. After five years it is much difficult to remediate or compensate for engaging the patients in ADLs after receiving OT service. But this study shows that most of the participants come to take OT in late.

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Table 19: Demographic details of patients interviewed

Patient name	Age (yrs)	Gender	Education	Marital status	Work Status	Disease duration about (years)	Time to start OT after affecting RA about
Saleha	35	Female	Class Eight	Married	Housewife	10-12	3 years
Sayem	27	Male	Graduate	Single	Student	22	7 years
Rehana Begum	59	Female	Double M.A	Married	Service holder	2	15 days
Nur-e Jaman	67	Male	S.S.C	Married	Unemployed	45	35 years
Zaheda Alam	67	Female	MBBS	Married	Doctor and Housewife	35	4-5 years
Rehena Parvin	34	Female	S.S.C	Single	Teacher and Housewife	26	26 years
Bishnu Podo Roy	58	Male	S.S.C	Married	Shopkeeper and Businessman	1.5	3 months
Rehana	35	Female	Class Five	Married	Housewife	12	4 months
Afroza	45	Female	Housewife	Married	Housewife	8	4 years

Appendix 1

Permission letter for conducting study

Permission letter from BHPI ethical committee

Date: 30.08.14
The Head of the Department
Department of Occupational Therapy,
BHPI, CRP, Savar, Dhaka
Subject: **An application for seeking permission to conduct the research project.**
Sir,
I beg most respectfully to state that I am seeking permission to conduct the research project as a part of my 4th year course module. The area of my research is Hand Therapy Unit. My research title is "Perception regarding Occupational Therapy: View of Patients with Rheumatoid Arthritis". The aim of the study is to know the perception of rheumatoid arthritis patients after receiving occupational therapy intervention. Now I am seeking for your kind approval to start my research project & I would like to assure that anything of my project will not harmful for the participants.

So, I therefore, pray & hope that you would be kind enough to grant me the permission for conducting the research & will help me to conduct a successful study as a part of my course.

I remain
Yours most obedient
Md. Shahriar Jahan
Md. Shahriar Jahan
4th year B.Sc. in Occupational Therapy

Attachment: Proposal of research

Signature	Comments
Supervisor: [signature] 30/08/2014 **Sk.Moniruzzaman** Senior Clinical Occupational Therapist & in-charge Occupational Therapy Paediatric Services. Center for the Rehabilitation of the Paralyzed (CRP) Savar, Dhaka-1343.	He is allowed to conduct this study. Best of Luck. [signature] 30/08/2014
Head of the Department: [signature] **Nazmun Nahar** Head of the Department & Assistant professor Department of Occupational Therapy BHPI, CRP, Savar, Dhaka.	It may allow him to conduct this study as per supervisor's permission. [signature] 31.08.14

Appendix 2

Permission letter for data collection

বাংলাদেশ হেল্‌থ প্রফেশন্স ইনষ্টিটিউট (বিএইচপিআই)

BANGLADESH HEALTH PROFESSIONS INSTITUTE (BHPI)

(The Academic Institute of CRP)

CRP-Chapain, Savar, Dhaka, Tel: 7745464-5, 7741404 , Fax: 7745069

BHPI-Mirpur Campus, Plot-A/5, Block-A, Section-14, Mirpur, Dhaka-1206. Tel: 8020178,8053662-3, Fax: 8053661

তারিখ ঃ ১৯.১০.২০১৪

প্রতি
বিভাগীয় প্রধান
অকুপেশনাল থেরাপি বিভাগ
সিআরপি, সাভার, ঢাকা।

বিষয় ঃ রিসার্চ প্রজেক্ট (dissertation) প্রসঙ্গে।

জনাব,

বিএইচপিআই'র ৪র্থ বর্ষ বিএসসি ইন অকুপেশনাল থেরাপি কোর্সের ছাত্র মোঃ শাহরিয়ার জাহানকে তার রিসার্চ সংক্রান্ত কাজের জন্য আগামী ২১.১০.২০১৪ তারিখ থেকে ২১.১২.২০১৪ তারিখ পর্যন্ত সময়ে আপনার নিকট প্রেরন করা হলো।

তাই তাকে সার্বিক সহযোগীতা প্রদানের জন্য অনুরোধ করছি।

ধন্যবাদান্তে

নাজমুন নাহার
সহকারী অধ্যাপক ও বিভাগীয় প্রধান
অকুপেশনাল থেরাপি বিভাগ
বিএইচপিআই।

Attn. Mr. Sumantar Roy. Please support him for his study. 2.12.14

07/12/14

Appendix 3

Information Sheet and consent Form

Informed consent

During the interview the researcher will gain written consent from each participant with signature on a written consent form of the participants who is interested in taking part in the study. The researcher will clarify the role of the participants in the study and ensure that it will not cause any harm to them.

Future Occupational Therapy practice will be benefited from the study. Any obtained data will remain confidential. The researcher will explain to the participants how the interview data will be used in the study and that their identity will be kept confidential in the study.

The researcher will also explain the benefits of the study and that the participant has a right to decline answering any questions during the interview and the right to withdraw from the study at any time.

Consent Form

This research is part of Occupational Therapy course and the name of the researcher is **Md. Shahriar Jahan**. He is a student of Bangladesh Health Profession Institute (BHPI) in B.Sc. in Occupational Therapy in 4th year. The study was entitled as "Perception regarding Occupational Therapy: View of Patients with Rheumatoid Arthritis" and the aim of study is to know the perception of rheumatoid arthritis patients after receiving occupational therapy intervention.

In this study I am ………………………………………………………………… a participant and I have been clearly informed about the purpose and aim of the study. I will have the right to refuse in taking part any time at any stage of the study. For that reason I will not be bound to answer to anybody. This study has no connection with me and there will be no impact on me and my patient regarding treatment at present and in future.

I am also informed that, all the information collected from the interview that is used in the study would be kept safety and maintained confidentiality. My name and address will not be published anywhere. Only the researcher and supervisor will be eligible to access in the information for his publication of the research result. Your name and address will not published anywhere of this study. I can consult with the researcher and the research supervisor about the research process or get answer of any question regarding the research project. I have been informed about the above-mentioned information and I am willing to participate in the study with giving consent.

Signature/Finger print of the Participant: Date:

Signature of the Researcher: Date:

Signature/Finger print of the witness: Date:

Appendix 4

সম্মতিপত্র

এই গবেষণাটি অকুপেশনাল থেরাপির একটি অংশ এবং গবেষনাকারীর নাম মোঃ শাহ্‌রিয়ার জাহান । সে বাংলাদেশ হেলথ প্রফেশন্স ইন্সটিটিউট এর বি.এস. সি ইন অকুপেশনাল থেরাপির ৪র্থ বর্ষের ছাত্র। এই গবেষণাটির শিরনাম অকুপেশনাল থেরাপি সম্পের্কে রিউমাটয়েড আর্থ্রাইটিস রোগীর উপলব্ধি।

এই গবেষণাতে আমি একজন অংশগ্রহনকারি এবং আমি পরিষ্কার ভাবে এই গবেষণার উদ্দেশ্য সম্পর্কে অবগত। আমার যে কোন সময় এই গবেষণা থেকে নিজেকে সরিয়ে আনার অধিকার রয়েছে। এজন্য আমি প্রশ্নের উত্তর প্রদান করার জন্য কারো কাছে দায়বদ্ধ না। এই গবেষণাটির সাথে আমার কোন সম্পৃক্ততা নেই।

আমি আর অবগত আছি যে, এই কথোপকথন থেকে নেওয়া সমস্ত তথ্যাবলি নিরাপদে এবং গোপন রাখা হবে। আমার নাম ও ঠিকানা কোথাও প্রকাশ করা হবে না। শুধুমাত্র গবেশনাকারী এবং তার সমন্বয়কারী এই তথ্যাবলী দেখার ক্ষমতা রাখে।

আমি এই গবেষণাকারীর এবং তার গবেষণার সমন্বয়কারীর সাথে এই গবেষণার পদ্ধতি সম্পর্কে অথবা যে কোন প্রশ্নের উত্তর জানার জন্য কথা বলতে পারব।

আমি উপরোক্ত তথ্যগুলো ভালোভাবে জেনে নিজ ইচ্চায় এই গবেষণায় অংশগ্রহণ করছি।

অংশগ্রহণকারীর স্বাক্ষর / টিপসই তারিখঃ

গবেষনাকারীর স্বাক্ষর তারিখঃ

সাক্ষ্যপ্রদানকারীর স্বাক্ষর / টিপসই তারিখঃ

Appendix 5

Demographic information

1. Participant number:
2. Patient's name:…………………….
3. Address:

Vill: …………………..Post: ………………P.S: …………….. Dist.:…………

4. Age:…………
5. Sex:…………..
6. Marital status:………………..
7. Educational level:……………
8. Occupation:………………….. Others:………………….

Appendix 6

জনসংখ্যাতাত্ত্বিক তথ্য

১) অংশগ্রহণকারীর নম্বরঃ

২) রোগীর নামঃ..

৩) ঠিকানাঃ
গ্রামঃ..............................ডাকঘরঃ...........................থানা.......................জেলা.........................

৪) বয়সঃ.................

৫) লিঙ্গঃ............

৬) বৈবাহিক অবস্থাঃ............

৭) আপনার শিক্ষাগত যোগ্যতাঃ............

৮) পেশাঃ........................ অন্যান্যঃ

Appendix 7

Research Questions

01. Are you familiar with your disease condition? Yes/No. If yes, would you please explain in details?
02. Do you know about occupational therapy? Yes/No. If yes, would you please explain in details?
03. How much time are you bearing this problem and when have you started taking occupational therapy after the problem has occurred?
04. Do you think occupational therapy service is important for a rheumatoid arthritis patient? Yes/No. If yes, would you please explain in details?
05. What type of occupational therapy treatment did you get?
06. Do you face any kind of difficulties to accomplish your activities of daily living before receiving occupational therapy service? Yes/No. If yes, would you please explain your difficulties in details?
07. How did you manage your difficulties? Would you please explain your difficulties in details?
08. Have you got significant improvement to participate in your self-care activities after receiving occupational therapy service? Yes/No. If yes, would you please explain your opinion about this improvement in details?
09. Have you got significant improvement to participate in your productive activities after receiving occupational therapy service? Yes/No. If yes, would you please explain in details?
10. Have you got significant improvement to participate in your leisure activities after receiving occupational therapy service? Yes/No. If yes, would you please explain in details?
11. What is your expectation from occupational therapy service when you came for the first time? Would you please explain in details?
12. Are you satisfied with occupational therapy service? Would you please explain in details?
13. Have you told to do any therapy in home? Yes/No. If yes, would you please explain in details?
14. Are you thinking you will get more benefit if occupational therapist works more?

Appendix 8

গবেষণার প্রশ্নাবলী

১) আপনি কি আপনার রোগ সম্পর্কে অবগত? হ্যাঁ/ না, যদি হ্যাঁ হয় দয়া করে বিস্তারিত বলবেন কি?

২) আপনি কি অকুপেশনাল থেরাপি সম্পর্কে জানেন? হ্যাঁ/ না ,যদি হ্যাঁ হয় দয়া করে বিস্তারিত বলবেন কি?

৩) আপনার হাতের সমস্যা শুরু হওয়ার কতাদিন পর অকুপেশনাল থেরাপি নিচ্ছেন এবং কত দিন ধরে আপনার এই সমস্যা বহন করেছন?

৪) অকুপেশনাল থেরাপি সেবা কি রিউমাটয়েড আর্থ্রাইটিস রোগীদের জন্য গুরুত্বপূর্ণ বলে আপনি মনে করেন? হ্যাঁ/ না, যদি হ্যাঁ হয় দয়া করে বিস্তারিত বলবেন কি?

৫) আপনি কি ধরনের অকুপেশনাল থেরাপি পেয়েছেন?

৬) অকুপেশনাল থেরাপি নেয়ার পূর্বে আপনি আপনার দৈনন্দিন জীবেনর কাজকর্ম সম্পন্ন করতে কোন সমস্যার সম্মখীন হয়েছেন কি? হ্যাঁ/ না, যদি হ্যাঁ হয় দয়া করে প্রধান প্রধান সমস্যাগুলো বলবেন কি?

৭) আপনি আপনার দৈনন্দিন জীবেনর সমস্যাগুলোকে কিভাবে মোকাবেলা করতেন? দয়া করে বিস্তারিত বলবেন কি?

৮) অকুপেশনাল থেরাপি নেওয়ার পর আপনার দৈনন্দিন জীবনের কাজকর্ম সম্পন্ন করতে কোন উল্লেখযোগ্য পরিবর্তন হয়েছে কি? হ্যাঁ/ না, যদি হ্যাঁ হয় দয়া করে বিস্তারিত বলবেন কি?

৯) অকুপেশনাল থেরাপি সেবা নেওয়ার পর আপনার পেশাগত জীবনের কাজকর্ম সম্পন্ন করতে কোন উল্লেখযোগ্য পরিবর্তন হয়েছে কি? হ্যাঁ/ না, যদি হ্যাঁ হয় দয়া করে বিস্তারিত বলবেন কি?

১০) অকুপেশনাল থেরাপি সেবা নেওয়ার পর আপনার অবসরমূলক অথবা বিনোদনমূলক কাজকর্ম সম্পন্ন করতে কোন উল্লেখযোগ্য পরিবর্তণ হয়েছে কি? হ্যাঁ/ না, যদি হ্যাঁ হয় দয়া করে বিস্তারিত বলবেন কি?

১১) আপনি যখন প্রথম অকুপেশনাল থেরাপি সেবা নিতে আসেন তখন অকুপেশনাল থেরাপি সেবা থেকে আপনার কি আশা ছিল? অনুগ্রহ করে যদি বর্ণনা করতেন।

১২) অকুপেশনাল থেরাপি সেবা নিয়ে কি আপনি সন্তুষ্ট? হ্যাঁ/ না, হ্যাঁ, দয়া করে বিস্তারিত বলবেন কি? না, দয়া করে বিস্তারিত বলবেন কি?

১৩) বাড়িতে কি আপনাকে কোন ধরনের থেরাপি করতে বলা হয়েছে? হ্যাঁ/ না, যদি হ্যাঁ হয় দয়া করে বিস্তারিত বলবেন কি?

১৪) আপনি কি মনে করেন অকুপেশনাল থেরাপিস্ট আরও কিছু করলে আপনি বেশি উপকৃত হতে পারতেন ?

Appendix 9

Reference of lecture

Date: 30.08.14

Sumanta Ray
Clinical Occupational Therapist
Hand Therapy Unit
Dept. of occupational Therapy

Subject: An application for seeking permission to use reference.

Sir,

I want to use this reference for my thesis which is given below-
Ray, S. (2014) *Hand therapy clinical protocols: Common diagnosis, definitions and treatment plans for plastics conditions of the hand in Bangladesh* [Lecture to B.Sc. in OT 4th year], AR4: OT for orthopaedic conditions-Rheumatoid arthritis. Centre for the Rehabilitation of the Paralysed. 24 February, 2015

So I therefore pray & hope that you would be kind enough to grant me the permission for conducting the research & will help me to conduct a successful study.

I remain
Yours most obedient
Md. Shahriar Jahan
Md. ShahriarJahan
4th year B.Sc in Occupational Therapy

Please Forward ~~to~~ him to the responsible person for his referral process.