

**EXPERIENCE OF PERSON WITH SPINAL CORD INJURY (SCI)
ABOUT THEIR DISCHARGE PROCESS THROUGH GOOD
START PROJECT (GSP) OF CRP, SAVAR, DHAKA**

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Statement of Authorship

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

No other person's work has been used without due acknowledgement in the main text of the thesis.

This thesis has not been submitted for the award of any other degree or diploma in any other tertiary institution.

The ethical issue of the study has been strictly considered and protected. In case of dissemination of the findings of this project for future publication, it will be duly acknowledged as undergraduate thesis.

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Dedicated to

My Beloved Family

&

Teachers

(The persons who are teaching me how to remember some of what I hear, much of what I read, more of what I see and almost all of what I experience and understand fully)

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List of Acronym

ADL	Activities of Daily Living
ASIA	American Spinal Injury Association
BHPI	Bangladesh Health Professions Institute
CRP	Centre for the Rehabilitation of the Paralysed
CBR	Community Based Rehabilitation
GSP	Good Start Project
IDT	Inter-Disciplinary Team
MDT	Multi-Disciplinary Team
NGO	Non Government Organization
OT	Occupational Therapy
ROM	Range of Motion
SCI	Spinal Cord Injury
SCL	Spinal Cord Lesion
QCA	Qualitative Content Analysis
UE	Upper Extremity
UK	United Kingdom
USA	United States of America

Abstract

The study aimed to find out the experience of person with Spinal Cord Injury (SCI) regarding their discharge process through Good Start Project (GSP). The objectives were to know the understanding of the service user about their overall discharge process through GSP, the service user's experience about safe departure from hospital and arrival at their residence through GSP, gathering the service user's opinion about home environment modification as part of GSP and to know if there is/are any suggestion/'s by the user's regarding their discharge process through GSP. This study has been done by using Qualitative Content Analysis (QCA) approach of Qualitative method and it has been conducted in the community where the participants dwell in. A semi structured questionnaire has been used for the data collection and 5 participants were interviewed by it. The findings of the study showed that, the participants are knowledgeable about their discharge process through GSP; they expressed their feelings regarding health maintenance along with the transport service for the safe arrival at residence and also mentioned that, the accessible home environment increased their occupational performance level. They also added some recommendations to include those on the community aspect of practice of GSP for the betterment of the service. As GSP is a new initiative in the SCI rehabilitation sector of Bangladesh and this is the first study in this sector, so the service provider and the other rehabilitation professionals may find it useful to their practice and also for future implication.

Keywords: Spinal Cord Injury, Discharge Process, Community Reintegration, Good Start Project, Home Modification, Accessibility.

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Chapter 1

1.1. Introduction

Spinal Cord Injury (SCI) is a global health problem. The annual incidence rate of SCI worldwide has been reported to be between 11.5 and 57.5 cases per million populations (Ditunno 2006: 567). The proper rehabilitation helps the affected people to achieve their fullest independence in functioning, mobility and psychosocial adjustment. In Bangladesh, a Non Government Organization (NGO) named Centre for the Rehabilitation of the Paralysed (CRP) provides specialized care for rehabilitation of person with SCI (Hoque 1999: 858) and it is working for SCI people for last 30 years (Islam et al. 2011: 783). In order to ensure the proper rehabilitation and community reintegration of the affected individual, CRP is working with both the Multi-Disciplinary Team (MDT) and Inter-Disciplinary Team (IDT) approach to promote the most possible independence to their community after getting discharge from the hospital setting (Hoque 1999: 858). As every patient is unique, so the ultimate goal of rehabilitation varies from patient to patient. There have been done a good number of studies about the SCI setting of CRP both in the academic institute and Research and Evaluation Department of CRP. Those study results both have the strengths and weaknesses of the rehabilitation process of CRP which is the current practice going on here. So considering some of the issues from previous, CRP recently started a project naming “Good Start” as a part of rehabilitation process and the project is being run by the clinical occupational therapy department of CRP. The project works for some selected patient to promote their reintegration into their community by proper health maintenance during their long journey to home by providing transport facilities from the organization and ensuring their necessary home modification with the presence of an occupational therapist. This is a very new concept in Bangladesh and still there has not been conducted any study in this innovative setting. This study result shows the experience of the discharged patients regarding their discharge process through GSP. This is important to know because successful reintegration depends separately on the each component of rehabilitation process. As community reintegration is a basic component of rehabilitation of SCI and GSP is working on it, so the service user’s view is also important to make the project activities more strong in future according to the findings.

1.2. Background of the study

SCI is a life threatening condition which creates so many dysfunctions in an individual's life. It is a common problem of health sector all over the world but the incidence varies from country to country. As mentioned by DeVivo (2012), after analyzing the epidemiological studies through the world, it has been found that the incidence and prevalence of traumatic SCI in United States of America (USA) is more than any other countries in the world. SCI is also a major public health problem in Bangladesh. CRP is currently providing the management of Spinal Cord Lesion (SCL) in Bangladesh. An epidemiological study of 1994-1995 of CRP showed that there is both the tetraplegic and paraplegic patient gets admitted in CRP. Among them 60% were paraplegic and 40% were tetraplegic and the male: female ratio was 7.5:1.5 (Hoque 1999: 858). The last annual report of CRP showed that, from 2010-2011 there got admitted 395 patient with SCI of whom 87% were male and 13% were female (Annual Report of Center for the Rehabilitation of the Paralysed, 2010-2011). Some countries like Australia (Mitchell and Unsworth, as cited in Atwal 2008: 52), Europe (Mountain and Pighills, as cited in Atwal 2008: 52), North America (Neufeld and Lysack, as cited in Atwal 2008: 52) uses some policy of discharge planning for older adults which is developed by National Health Service of Department of Health (Atwal 2008: 52). But still there is not anything like this in the field of SCI rather management of SCI focuses on the community reintegration of injured people after their discharge to home. Community reintegration means resuming the previous social life roles after the discharge. (Forchheimer 2004: 103). Here the prognosis of the injury, individual's characteristics and physical environment influences the community reintegration of an individual (Benavente 2003: 1065). The occurrence of SCI mostly makes the people dependent on using wheel chair and it is the most used assistive device of person with SCI and the affected individual uses it to increase independency in function (Chaves 2004: 1854). The picture is also almost same in Bangladesh. We have the rural and urban area and our territory is naturally not smooth to move on. But proper inclusion of person with SCI in community depends on accessible environment. So CRP thought to solve it by an alternative way from their general practice and started "Good Start Project" to influence the successful reintegration to their patient. The project had been started from March 2012. Though it was about to ended up on February 2013, but still it is going on. This project aims to

promote reintegration of people with SCI ensuring health maintenance during the client's journey to home, facilitating accessibility in their home and integration in their community. After getting the discharge from hospital while returning home, people with SCI fail to ensure proper weight shifting and catheterization. Most of the patients fail to make suitable modifications to their home and face challenges in societal integration. Initially ramp is the most prioritized section for modification and then gradually commode chair modification, burner, bed height, switch board, shower chair, door width and threshold come under modification according to the patient's need. The patient is selected under this project through some policy and procedures. The practical experiences of the researcher's can also be noted here. During the time of continuing Community Based Rehabilitation (CBR) Placement and visit to the home of SCI people in their community, apparently a common observation was that, they could not complete the necessary home modification which is a great obstacle to their independence in community. But the activities of GSP are really different from the general practice of CRP. From the general practice of CRP, patients are not getting the opportunities which Good Start delivers to the patients. This difference made the researcher interested to conduct the study in this setting to know the distinguished view of service users by getting this special facility from the service provider.

1.3. Significance of the study

SCI is somewhat a distressing condition to make the people losing their mobility power in maximum case and make dependent on assistive device, but it depends on the extent and severity of injury. So the treatment varies from patient to patient to reintegrate them into their community. As the patients have to reintegrate into their community, they need a safe discharge from hospital and accessible environment to cope with it (Whiteneck 2004: 85). GSP of CRP is to facilitate an accessible home environment of patient with proper health maintenance through their journey to home after getting discharge from the hospital.

The service user from the project will be benefitted into several ways like preventing any secondary complication through the journey hours and increasing physical independence to their home and community within an accessible environment. This study findings show a detail of the already discharged patient's experience about their

discharge process through this project. As it is a new concept in Bangladesh and yet there is no study on it, so the study result helps the service provider to know about their service as how the patient viewed this process and their reflection regarding their discharge process. Last of all, the incorporation of the findings of the study is also helpful to make the future plan by rethinking the activities according to the service user's suggestion/'s to make it more effective. Besides this, as CRP is planning to establish GSP in their general practice, so the study findings is a great assistance to establish a proper discharge plan from the rehabilitation centre. Thus, these are furthermore helpful in delivering service to the SCI people by Rehabilitation professionals of CRP.

1.4. Aim & Objectives of the study

Aim: The study aimed to find out the experience of person with SCI regarding their discharge process through Good Start Project (GSP).

Objectives

- To know the understanding of the service user about overall discharge process through GSP.
- To know the service user's experience about their safe departure from hospital and arrival at their residence through GSP.
- To gather the service user's opinion about home environment modification as part of GSP.
- To know if there is/are any suggestion/'s by the user's regarding their discharge process through GSP.

Chapter 2: Literature Review

SCI has a strong effect on life; in fact it is a life changing injury. It leads to a vast change in an individual's lifestyle. The person with SCI most of the times experience limitations in mobility and this affects their participation in Activities of Daily Living (ADL) (Chaves et al. 2004: 1854). Moreover, as the individual has physical limitations, it leads him stressed about life. This stressing condition is created because of the difficulty in life adjustment. SCI mostly happens at youth and middle age which create great problems in the life of the affected individual's previous social and occupational life roles (Babamohammadi 2011: 832). All of these problems create tremendous challenges in not only adapting with physical aspects but also with the living situation, relationships and adjustments (Charlifue 2004: 91). So in case of these, rehabilitation can promote full inclusion and participation of people with disabilities in the physical and psychosocial environment (Scelza et al. 2007: S71). Rehabilitation of person with SCI focuses on successful community reintegration by overcoming surrounding environmental barriers created by the disability (Forchheimer 2004: 103) and it has been said that access to the environment is important in expecting satisfaction with life for persons with SCI (Richards et al 1999: 1501).

2.1. Spinal Cord

The Spinal Cord is the major reflex center and conduction pathway between the body and the brain. This is cylindrical in shape and slightly flattened in anterior and posterior areas ('Back' 2006). The Spinal Cord extends from the medulla oblongata to above the foramen magnum to the level of L1 (Lumber 1) or L2 (Lumber 2) vertebrae. Somers (1992: 6) claimed that, the location of the Spinal Cord is within the vertebral foramen which is also called the vertebral canal. The vertebral bodies protect the Spinal Cord anteriorly and vertebral arches protect it laterally and posteriorly. Spinal Cord is a communicating link between the spinal nerves and the brain. So ultimately, the spinal cord is the major conduit through which motor and sensory information travels between the brain and the body (Kirshblum 2011: 535). The receptor of the body receives the sensory stimuli from environment which sends

signal to the brain and then the brain sends its messages to the spinal nerves through spinal cord which causes movements of the body.

2.2. Spinal Cord Injury (SCI)

The injury in spinal cord affects conduction of sensory and motor signals across the site(s) of lesion(s), as well as the autonomic nervous system (Kirshblum 2011: 536). Harvey (2008: 3) claimed that, the term “Spinal Cord Injury” is used to refer to neurological damage of the spinal cord following trauma. Besides this, there is also said that, SCI might be caused by any direct or indirect injury to the Spinal Cord and damage to the surroundings bones, tissues or blood vessels. If the Spinal Cord is pulled, pressed sideways or compressed, the direct injury can be caused. The most common cause of SCI is trauma but it might be caused by any pathological process like tumor (Somers: 1). Next most common cause of SCI is fall, followed by acts of violence (primarily gunshot wounds). The proportion of injuries that are due to sports has decreased over time while the proportion of injuries due to falls has increased (National Spinal Cord Injury Statistical Center 2012). Universally males are more likely affected than females. This is most frequently occurs at young adult (18-24y) and the next peak age is 55 to 74 (Burt 2004: 26). The cause, prevalence or the other factors of spinal injury varies from country to country depending on the country’s social and economic factors but there are some similarities also.

2.3. Types of injuries

SCI is classified according to the level of neurological injury (Tetraplegia and Paraplegia) and as complete and incomplete (Somers: 22). The term “Tetraplegia” refers to impairment or loss of motor and/ or sensory function in the cervical segments of the spinal cord due to damage of neural elements within the spinal canal. Tetraplegia results in impairment of function in the arm as well as typically in the trunk, legs and pelvic organs i.e. including the four extremities. It does not include brachial plexus lesions or injury to peripheral nerves outside the neural canal (Kirshblum et al 2011: 536). Besides this, as discussed by Adler (2006), decreased vital capacity is a problem among people who have sustained cervical and high thoracic lesion. They face difficulty in chest expansion due to weakness or paralysis

of diaphragm. As a result this reduces vital capacity which affects endurance level for activity.

The term “Paraplegia” refers to impairment or loss of motor and/or sensory function in the thoracic, lumbar or sacral (but not cervical) segment of the spinal cord, secondary damage of neural elements within the spinal canal. With paraplegia, arm functioning is spared, but, depending on the level of injury, the trunk, legs and pelvic organs may be involved. The term is used in referring to cauda equina and conus medullaris injuries, but not to lumbosacral plexus lesions or injury to peripheral nerves outside the neural canal (Krishblum et al 2011: 536).

According to the Asian Spinal Injury Association (ASIA), the spinal injuries are classified in general terms of being neurologically “complete” or “incomplete” based upon the sacral sparing definition. “Sacral Sparing” refers to the presence of sensory or motor function in the most caudal sacral segments as determined by the examination (i.e. preservation of light touch or pin prick sensation at the S₄₋₅ dermatome, Deep Anal Pressure or voluntary anal sphincter contraction). A complete injury is defined as the absence of sacral sparing (i.e. sensory and motor function in the lowest sacral segments, S₄₋₅), whereas an incomplete injury is defined as the presence of sacral sparing (i.e. some preservation of sensory and/or motor function at S₄₋₅) (Krishblum et al 2011: 537).

2.4. Complications of Spinal Cord Injury

In addition to the paralysis, a variety of complications can result from SCI. The person with SCI might have the complications like skin breakdown or pressure sore, bowel and bladder complexities, respiratory complications, and autonomic dysreflexia (Somers: 29-31). As discussed by Adler (2006), there are some other complications like, deep vein thrombosis, decreased vital capacity, osteoporosis, postural hypotension, spasticity and heterotropic ossification. From the practical observation at CRP, it has been seen that the most common complication is pressure sore followed by urinary tract infection, bowel & bladder problem, fever, autonomic dysreflexia, diarrhea, abdominal distension, psychosocial distress etc. One of the common complications of tetraplegic patient is respiratory distress or chest complication. These can be developed at any time after the injury, i.e. while the patient is in the rehabilitation center and sometimes the complications develop while the patient is in

home after discharge or etc. Patient education plays a great role in preventing these complications. Continuous treatment and care can minimize these complications depending on the extent of its injury.

2.5. Prognosis of Spinal Cord Injury

As discussed by Adler (2006), the prognosis for significant recovery of neuromuscular function after SCI depends on whether the lesion is complete or incomplete. If there is no sensation or return of motor function below the level of lesion within 24 to 48 hours after the injury, motor function is less likely to return. Most neurological recovery occurs within the first two months after injury although recovery may continue for up to 1 year and occasionally after this. However, patients with complete lesions often regain one neurological level in the months after injury, i.e. an individual presenting with C5 tetraplegia at the time of injury may present with C6 tetraplegia 3 months later. Motor recovery following an incomplete lesion is common.

It is difficult to predict patient's ability to walk at the time of injury but the best estimates indicate that very few patients with ASIA A (complete) lesions at the time of injury ultimately ambulate with or without assistance, 30-45% of patients with ASIA B (Sensory incomplete) lesion ambulate for at least short distances and most patients with ASIA C (Motor incomplete but more than half of the key muscles below the neurological level has muscle grade less than 3 in oxford manual muscle strength test) and D (Motor incomplete but more than half of the key muscles below the neurological level has muscle grade greater than 3 in oxford manual muscle strength test) lesions become community ambulators (Harvey 2008: 12).

2.6. Rehabilitation of Spinal Cord Injury (SCI)

The paralysis of muscle after SCI leads to the disruption in mobility, productivity, ADL, psychological and psychosocial problems. These impairments might be permanent or can greatly hamper the individual's life. The individual with SCI faces enormous challenges in their living situation. Only the early rehabilitation can facilitate them to cope with these problems. In the rehabilitation of a person with SCI, the MDT approach plays a great role. Here, the MDT professionals are Physician,

Physiotherapist, Occupational Therapist, Nurse, Psychologist, Community technicians etc.

Person with SCI faces a major problem in physical independence, mobility, social integration, economic self-sufficiency and so on. So the patients require an integral and specialized management provided by the MDT (Benavente 2003: 1065). MDT works for the affected individual to achieve their highest independency as an individual and productive member. Living with SCI is really a complex process and rehabilitation is the process to minimize these difficulties. The rehabilitation of SCI is not just a physical endeavor; it is a process of identifying the needs of individual's life (Hammell 2007: 271). According to the individual's need, the goal of rehabilitation varies from person to person. But the common goal of rehabilitation is to make the affected person independent to their fullest in their community.

2.7. Role of Occupational Therapy in Spinal Cord Injury Rehabilitation

As discussed by Adler (2006), occupational therapy intervention begins from when the client gets admission and continues long after discharge on an outpatient follow-up basis. Depending on whether the patient is in acute in-patient rehabilitation, outpatient or home setting, the occupational therapist continually evaluates the client's functional progress and the appropriateness of intervention and equipment.

Discharge planning begins during the initial evaluation. Therefore, the individual's social and vocational histories, as well as personal contexts such as past and expected living situations, are necessary parts for planning an intervention program that meets the client's ongoing needs.

In provision of occupational therapy to SCI patient, three things are considered mainly. These are: occupational and psychosocial status, physical status and functional status. The intervention method also varies with these three areas. Here's given the intervention methods of occupational therapy:

Occupational Therapy Intervention Methods

As discussed by Adler (2006) and ('Occupational Therapy' 2010), occupational therapy intervention methods vary from the phases of rehabilitation. Below there is given a brief description of the intervention methods:

Acute phase

During the acute or immobilized phase of the rehabilitation program, the client may be in traction or wearing a stabilization device such as halo brace. Total body positioning and hand splinting needs should be initiated at this time. Selection of appropriate splint style and accurate fabrication and fit of the splint by the occupational therapist enhance the client's acceptance and optimal functional gain. Active and active assisted Range of Motion (ROM) of all joints should be performed within strength, ability and tolerance levels. Muscle-education techniques for wrists and elbows should be employed when indicated. The client is encouraged to engage in self-care activities such as feeding, hygiene and writing activities if possible or by using simple devices such as universal cuff or writing splint. Even, when the client is immobilized at bed, home modifications and caregiver training should be initiated to allow sufficient time to prepare for discharge. It is seen that, in CRP the occupational therapy intervention follow these too. Here, in acute phase the occupational therapists focus on positioning, splinting, individual hand therapy, hand therapy in group, psychological support, pain management, introducing leisure activities, and carer education.

Active phase

A high priority at this time is determining a method of relieving sitting pressure for the purpose of preventing from pressure sore on the bony prominences. Passive ROM exercise and by involving the client in activities to promote Active ROM should be continued. Progressive resistive exercise and resistive activities can be applied to innervated and partially innervated muscles. As muscle power and endurance improve, increasing the amount of time in wheelchair activities will help the patient participate in activities and occupation throughout the day. During the active phase, the ADL program may be expanded to include independent feeding with devices, oral facial hygiene, upper-body training, bowel-bladder care, Upper Extremity (UE) dressing and transfers using sliding board. CRP also follows these to provide their treatment in active phase. In active phase, occupational therapy treatment of CRP provides functional bed mobility, transferring, wheelchair mobility, introducing functional activities, splinting, hand therapy, and participation in art & song classes. The occupational therapist continues to provide psychological support by allowing and encouraging the client to express frustration, anger, fears, and concerns.

Generally the discharge location is selected in active phase that means this is the last phase of inpatient rehabilitation. When the discharge location is determined and the individual can tolerate leaving the hospital for few hours, a home evaluation is performed. The therapist, client and family members can then view and attempt activities in the home in anticipation of return to a safe and accessible environment. After discharging the client from inpatient rehabilitation, the outpatient based service is followed in which clients are offered valuable evaluation and exploration of the vocational potential of persons. But at this instance, CRP practices in a different way. Before the discharge, there are two phases CRP follows to ensure the proper community reintegration; these are rehabilitation and community reintegration phase. A brief summary of rehabilitation and community reintegration is given below:

Rehabilitation

This is a very important stage for person with SCI. Occupational therapy interventions include retraining ADLs, advanced transferring, functional mobility, wheelchair assessment & advanced wheelchair skills training, prescribing assistive devices & modification, vocational assessment, education, and addressing spirituality.

Community reintegration

Following discharge from the hospital setting patients spend a further two weeks in the half way hostel. The halfway hostel is an environment which prepares the patient for community integration and further develops the skills to live in the community with SCI. The halfway hostel is located on the CRP Campus and is designed to replicate the home environment on discharge. The aim of the program is to facilitate independence and coping skills in a person with SCI in preparation for successful reintegration into the community. The occupational therapist coordinates the activities in the program, which include: home exercise/therapy, home and workplace modification classes, personal ADL (showering, dressing, eating, toileting) practice, modification and equipment prescription, domestic ADL (gardening, farming etc.) practice, community ADL (shopping, transport etc.) practice and education on the prevention of complications (pressure sores, urinary tract infection, joint stiffness).

Evidence says, successful community reintegration can be defined as being part of the mainstream of family and community life, fulfilling normal roles and responsibilities

and being an active and contributing member of one's social groups and society as a whole (Diskers, as cited in Kennedy 2006: 95). Reintegration extends beyond the person; it promotes his/her fullest inclusion and participation within the physical and psychosocial environments (Sekaran 2010: 628). So community reintegration promotes the affected person's performance or participation in community by either the process of functional restoration or environmental modification.

The extensiveness of modification depends highly on patient's wish, family intention and necessary resources. But accessible environment promotes the community reintegration and the goal of rehabilitation and focuses of community reintegration are closely related to each other. Besides this, discharge to community, rather than to an extended care unit, is considered a positive outcome of SCI Rehabilitation. So depending on all of these and to step forward CRP started a project naming Good Start for SCI patient regarding their safe discharge from the hospital and for proper community reintegration.

2.8. Good Start Project (GSP)

It was confirmed that, GSP has been pioneered by the clinical occupational therapy department of CRP. It has been started from March 2012 and still it's going on with the funding of a donor from Friends of CRP from United Kingdom (UK). This is a new concept of the organization to increase the adaptability of injured person in community. GSP is aiming to promote reintegration of people with SCI ensuring health maintenance during their journey to home, facilitating accessibility in their home and integration in their community. In their long (average 8 hours) journey, people with SCI fail to ensure proper weight shifting and catheterization while traveling by public transport. Most of the patients fail to make suitable modifications to their home and face challenges in social integration. Before 1½ months of discharge the patients are selected according to the patient selection criteria of the project. During the discharge day the patient is provided ambulance to their journey to home and an occupational therapist goes with him/her to find out their modification need of home and according to that the occupational therapist supervise during the time of home modification. Generally these modification areas are: Initially ramp (in front of house, toilet and kitchen) is the most prioritized section and then gradually introduce commode, chair modification, burner, bed height, switch board, shower

board, door width and threshold. After assessing the patient's home, with the presence of the occupational therapist the necessary home modification is done according to patient's needs. Thus the modification is complete which a basic component of rehabilitation process is. (Please see Appendix 5 for details about GSP)

2.9. Occupational Therapy Role in Good Start Project (GSP)

It is already stated GSP is as a part of rehabilitation to increase the adaptability of person with SCI in community. Occupational therapist does this activity into two phases; one is educating client about health maintenance and another is home modification in the actual home environment where the client dwells in. Following, there is given a short description of occupational therapy role in the activities GSP:

Educating client

Person with SCI needs rehabilitation which is the process of helping a person with disability to perform competently in his or her social roles and daily activities. Rehabilitation of SCI is accomplished under rehabilitation frame of reference. As discussed by Seidel (2003), rehabilitation frame of reference emphasizes on teaching different techniques to the injured person for their life roles. Education is provided when the client has inadequate and incomplete learning which results in lack of knowledge or lack of skill and this insufficiency of knowledge sometimes leads deficits in performance areas (Hagedorn 1992: 47).

At GSP, occupational therapists have to provide a summation of instructions for proper health maintenance during the journey hours, i.e. the methods of weight shifting to prevent pressure sore and different suggestions for proper catheterization. If the client fails to do these smoothly, there is a chance of developing complications which is a great threat for rehabilitation process. Education for health maintenance is provided to resist secondary complications and also to maintain the prospective of intact abilities of the client. It does not only involve the client but also the client's family or caregivers, because, the proper learning and skill facilitates better occupational performances in their own environment.

Home modification

Current models of occupational therapy practice support maintaining occupational performance by providing environmental modifications. Assisting individuals with

functional limitations to live their lives successfully in their homes by providing environmental modifications is an important aspect of the continuum of rehabilitation services (Stark 2003). The accessibility in home or home modification makes the person better functioning in their performance areas. The concept of the accessible environment indicates a barrier free environment. A barrier free environment for SCI person can be constructed by general modification of the physical environment according to the patient's need.

In case of home modification, GSP covers the areas of ramp (in front of house, toilet and kitchen), commode, chair modification, burner, bed height, switch board, shower board, door width and threshold. Occupational therapist follows a standard measurement for each of these areas based on ergonomic consideration (Pheasant 1996: 105-112) and according to Americans acts with disabilities. (Please see Appendix 1 for an overview of the standard measurement)

Chapter 3: Methodology

3.1. Study Design

Qualitative Content Analysis (QCA) approach of Qualitative method was used to conduct the study where the participants shared their views, feelings, opinions and experience on a particular event. It is said that, QCA facilitates to create a contextual meaning of text from the actual words through the development of emergent theme (Bryman, as cited in Priest et al 36). Creswell defined in a definition that, in qualitative study the researcher builds a complex, holistic picture, analyses words, report detailed views of informants and conducts the study in a natural setting (Creswell, as cited in Ohman 2005: 274). The study aimed to find out the experience of person with SCI regarding their discharge process through GSP and this service is provided to them as a part of their rehabilitation process. As mentioned by Ohman (2005) that, there have been increasing the number of qualitative methods in rehabilitation research because qualitative approaches help to derive new concept, theory and alternative of traditional treatment model. Moreover, it explores about human's practical life phenomenon. In this study researcher found this approach appropriate because each of the participants had an own point of view on their experience as a service receiver, they expressed a detailed view on that particular event and they had their own thoughts, attitudes and motivation regarding the rehabilitation process. On the other hand, this study was conducted on the natural setting of the participants. Researcher wanted to show the participant's experience not the researcher's view and on this regard, there have been said that, qualitative research tells about ordinary people's understanding and explanation of their own reality, not the researcher's preconceived views and perceptions of others' reality (Ohman 2005: 274). This approach of qualitative method helped to show the participants actual response of their practical experience which lastly formed the theme of the study by the interpretation and judgment of the collected data.

3.2. Participant selection procedure

Enrolling the subjects is a main concern of accomplishing a research study. On the basis of this, researcher used non-probability sampling method to select the

participant of this study. This study is based on a project which serves the client on a particular procedure developed by the project members. As all the service users of the project were discharged through a singular process, so it can be said that they all have some similar characteristics based on the selection criteria of GSP. So, among the already discharged client, the researcher selected the study participant by convenience sampling method. It is the most common type of non-probability sampling to complete the study within the fixed time period. In convenience sampling method the convenient subjects to the researcher are selected as participant of the study (Thompson et al. 1995: 224). 5 participants were selected from different community setting to complete the study. As the project started from March and the data collection period of the study was in September and October, so the selected participants were those who used the service at least up to July. This was done because; it usually takes time to be experienced with anything.

3.3. Study setting

The data were collected in the home of the participants as qualitative research is meant to be conducted in their natural setting (Creswell, as cited in Ohman 2005: 274). The researcher had also a practical observation on the own environment of the client which helped to cover the section of observational note listed in the questionnaire. The general observation helped to state that the participants were from both the rural and semi rural area of the country. They were using their modified areas and some were planning to reconstruct that to make it better. Moreover, interview in their community helped them to interact with the researcher comfortably. Otherwise, the necessary data cannot be obtained if the participant cannot provide the exact information of what and how they feel about the event.

3.4. Informed consent

The researcher had used an information sheet and consent form to take the participant's consent for participating in the study. Researcher let the participant knew details of the study by the information sheet which included the aim, objectives, way of collecting data from the participant and the ethical considerations of the study. There was also a witness on the every session of data collection with each of the participant. The participant or the witness was asked to read the information sheet, but

in case of the participant/witness, who was not educated, researcher read that out to them. There had also been used the consent form containing the consent of the participant that he is participating in the study and giving permission to the researcher to start the data collection session. (Please see Appendix 2 for the Information sheet and Consent form)

3.5. Ethical considerations

Ethics is a moral issue. It tells about the rights. Proper ethical consideration tells about the transparency of any work which is mandatory to avoid conflicts. So to keep the accountability and transparency of the work, the researcher needed to maintain all the ethical considerations from the first phase of the study. First of all, the researcher had to take the permission of conducting the study from the supervisor and the course coordinator of Department of Occupational Therapy, Bangladesh Health Professions Institute (BHPI) which is the academic institute of CRP. Then, it comes about the data collection procedure. The approved proposal of the study was sent to the project coordinator and project in-charge of GSP to provide the necessary information about their service user regarding data collection. The participants were selected after getting the permission of data collection. The selected participants were informed a detail of the study by the information sheet and gave their permission of participating in the study by the consent form. Confidentialities were maintained at each step during the study was being conducted. The audio tape, identities of participants and other information were not revealed at anywhere except the information needed in the study. Participants were also informed and assured that the study was not harmful to them at any chance. (Please see Appendix 3 for the Permission letters)

3.6. Materials of data collection

A semi structure questionnaire was mainly used to collect the data (Please see Appendix 2 for the questionnaire). All other materials were: audio tape recorder, pen, paper, pencil, information sheet and consent form. Audio tape recorder was used to record the interview. It is a fundamental data-recording strategy in naturalistic inquiry that is primarily used when conducting face-to-face interviews. It is especially important to conduct the open ended interview. In open ended interview, participants

provide long detailed answer which is difficult to write verbatim by the researcher (Depoy and Gitlin 1998: 227). Other materials had been used as support when needed.

3.7. Field test

Before the start of collecting final data, a field test was conducted with 1 participant. Carrying out field test is a preparation of starting final data collection. It helped to make a plan that how the data collection procedure can be carried out, sorting out the difficulties during questioning, making a basic plan of questioning and if there is 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 can be for collecting data, how a question can be asked on different ways and what can be the probing question to find out the participant's actual response on the event.

3.8. Data collection procedure

A face-to-face interview by semi-structured questionnaire was used to collect the data from participant. Interviewing is one of the techniques used to gather data in qualitative research. It is said that, in ethnographic research, interviews are always conducted in face-to-face manner. It is easy for both of the interviewer and the participant to interact easily and comfortably during interview time. Additionally, the interviewer has a chance to read the non verbal cue of the interviewee (Bailey 1991: 98).

First of all, the researcher selected the participant from the record book of GSP. Contacting with the selected participant over phone and provided them a little brief about the study was the second step. Then, the researcher visited their home for the interview on the appointed date and time.

The interview session was based on the questionnaire. The interviewee was asked according to the questions listed on the questionnaire with some probing question when it was seemed to be incomplete statement and to keep the interviewee in track during his response. The interview session was in Bengali and the session was recorded by audio tape recorder. The mean time of the interview was 10~15 minute.

3.9. Data analysis

The researcher selected QCA method to analyze the data. It facilitates the formation of core data through a systematic method of reduction and analysis. By systematic reduction and analysis of data, the theme of the study was created. QCA follows three steps (coding, categorizing and generating theme) to show the result of the study. In a short line, it is said that, texts are coded into established categories to support the generation of ideas (Bryman, as cited in Priest et al. 36).

The first step of analysis was transcription of data from the audio tape. The transcription was done verbatim and it was written in Bengali. There was some general information on the questionnaire which was also filled up by the researcher and was used for generating the main theme. Each of the transcript were translated into English by 3 different individuals, one is the researcher and another two were such people who were not present in the study setting and don't know about the aim or objectives of the research question. After completing the transcription, researcher verified those to check the consistency of each of the participants' transcripts individually.

Initially the questions of the questionnaire were categorized into different meaning units. Under each of those categories, the interviewed data were coded by line by line analysis of the sentences and phrases. Then, according to the meaning and insights, the categorized data were formed together to make final category. Then the interpretation of those data by progression and reduction process was ended into forming a theme. (Please see Appendix 4 for the tables of Data analysis)

3.10. Rigor of the study

Trustworthiness or maintaining rigorous manner in qualitative study is an important thing to ensure the accuracy of the process. The concept of trustworthiness deals whether the process of the study is apparently bias free or there is the fabrication of the researcher in the final interpretation (Depoy 1998: 228).

The researcher maintained the rigor of the study. The total study was supervised by an experienced supervisor, there was no biasness in selection of the participants, the data were collected and recorded with awareness, there were no leading question during data collection and there was no presupposition of the researcher. The transcription was done verbatim and the translated copies were checked by the researcher to check

the consistency of meaning. The result of the study was not influenced by the researcher and the final result or the theme of the study is neutral.

Summary of Data Analysis

Aim of the Study	Objectives of the Study	Categories	Theme
To find out the experience of person with spinal cord injury regarding their discharge process through Good Start Project (GSP)	1) To know the understanding of the service user about overall discharge process through GSP.	1) Understanding of the client about the process	The service users of GSP are knowledgeable about their discharge process from the rehabilitation center.
	2) To know the service user's experience about their safe departure from hospital and arrival at their residence through GSP.	1) Experience about transport service 2) Experience about health maintenance	Service user's feelings regarding health maintenance along with transport service for the safe arrival at residence.
	3) To gather the service user's opinion about home environment modification as part of GSP.	1) Experience of home modification service	The accessible home environment increases the level of occupational performance.

	<p>4) To know if there is/are any suggestion/'s by the user's regarding their discharge process through GSP.</p>	<p>1) Recommendation for the project</p>	<p>Recommendations to include the community aspect of the client in GSP.</p>
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Chapter 4: Result and Discussion

The analysis and discussion is about to identify published papers and determining the relevance with the acquired data. The study yielded five categories which describes the experience of person with SCI regarding their discharge process from CRP through GSP. These are: understanding about the discharge process, experience of transport service, health maintenance and home modification separately and overall recommendation to improve the service more. Under these categories there have been emerged four themes which are as follows:

Summary of theme that emerged from data

Theme 1

The service users of GSP are knowledgeable (well-informed) about their discharge process from the rehabilitation center.

Theme 2

Service user's feelings regarding health maintenance along with transport service for the safe arrival at residence.

Theme 3

The accessible home environment increases the level of occupational performance.

Theme 4

Recommendations to include the community aspect of the client in GSP

Below there is given the description of the theme according to its category and coding:

Theme 1: The service users of GSP are knowledgeable about their discharge process from the rehabilitation center

Discharge of admitted patients from in-patient rehabilitation is an important component of rehabilitation of people with SCI. In CRP, the occupational therapy practitioner focuses on the successful community reintegration of person with SCI following their discharge to community. Along with this view, there have been initiated the practice of GSP by clinical occupational therapy department, which is totally a new concept in the rehabilitation process of this organization. Though GSP

mainly works in three stages: transport service, health maintenance and home modification after discharge from the rehabilitation center, initially it starts its activities before the discharge of the client.

More than 50% of the participant said that, GSP includes providing the transport service to them, visiting client's home during discharge by the occupational therapy professional and accomplishing home modification at their own living environment. Less than 50% of them told that, it also works in the need analysis of the client before discharge and continue the contact with them even after their discharge at home.

One of the participants mentioned the process of GSP that,

“Let me start it from CRP, where we discussed about the height of my house, how to move or if I need a ramp”

Here the practitioners were asking about the home modification need of the client in detail. It was necessary, as the therapists did not visited the client's home ever, so it was not that easy to make the plan for him. Besides this, the home might have different structural aspects which are difficult to sort out if the modification needs are not known. Accessible environment increases the safety and decreases the risk of fall in the living areas of the client. To minimize the environmental risk of falling and secondary injury, planning of sorting out the modification needs are important. It is said that, planning an effective home modification requires a thorough knowledge of the needs of the people who live in the home (Heywood, as cited it Weeks et al. 2010: 397). In addition to this, finding out the exact environmental modification need is important to examine in detail because home environment is a complex process (Weeks et al. 2010: 397).

One of the other participants stated about GSP that

“Concept as in- it is good. They provided transport from the project, came to my home bringing me with, built the ramp and all these are good.”

GSP is a new inventiveness in Bangladesh which works on client's discharge from in-patient rehabilitation. Some other countries of the world might practice such activities in different and structured way but it is unique in our practice. As mentioned by Harris et al. (2008) that, pre-discharge occupational therapy home assessment visit is a common practice to assist with discharge planning. A number of studies showed that, some countries of the world practice occupational therapy pre-discharge home assessment visit with older adult and in palliative care. But these are not straightly related with GSP and there is limited knowledge exists about how the practitioners work for people with SCI regarding their discharge planning. It varies from culture and geographical location from the corners of the world. But, the common thing of discharge planning aims to avoid readmissions and promote active life without debilitating disease (Avlund et al. 2002: 1103).

One of the participant added that, the project extends up to the follow up visit and he mentioned that

“They brought me home by ambulance which was good for me. Now they visit me and keep in touch.”

After the hospitalization and rehabilitation, individuals with SCI face problems in uneven terrains and inaccessible homes and communities (Burns 2012: 5). So in the follow up visit, the practitioners try to solve the environmental problems as the client can get from place to place. GSP also followed it. There was an incomplete modification and the client need the reconstruction in the already built modifications. So, the follow up visit was performed to facilitate the client's proper community reintegration.

Theme 2: Service user's feelings regarding health maintenance along with transport service for the safe arrival at residence

Health maintenance along with the transport service is a remarkable service of GSP through the client's journey to home. According to the project's view point, the therapist must visit with client to ensure the proper maintenance of health to facilitate the safe discharge from rehabilitation setting. On this aspect, the participants

mentioned mainly two areas which are: transport service and health maintenance. Besides this, the health maintenance consists of pressure care and bowel and bladder management. The brief is given below:

Transport Service

All of the participants said that, the transport service is helpful for safe arrival at their journey to home. Moreover, they did not have to be harassed for renting car from public service. A number of people also added that the money they had to spend was affordable and was easy to manage. The experience from the transport service accumulated some other thoughts like education by the therapist during journey, no need of family member to receive them during discharge and presence of the therapist for need determination of home modification at the discharged setting of the client was also notable.

One of the participants stated that

“I’d say that it was very good for me. I did not like others service although they were charging more; but CRP didn’t charge more than necessary. It was a better transport for me. No one from my family was needed to be there with me through the journey and they brought me home directly from CRP.”

Another one stated that

“I took the ambulance from CRP. I don’t know if I could get an ambulance from outside of CRP. May be I could get another transport, but it would be very difficult for me. According to the occupational therapist, their purposes were to come to my house, to get ideas about my needs and help me. If I would come by using transport other than providing by CRP, these purposes were not fulfilled.”

Discharge planning of patient from rehabilitation center is important because at this instance, the client has to face a great transition concerning environmental change. So, he or she might face different types of problem. This starts from just after the hospital discharge. Bangladesh is a land of large area and it is not much easy to move from one place to another. The general people have to face lots of annoyance during

transportation because still now our public transport is not so developed. To minimize these and to facilitate the client's journey to home, GSP provide the transport service to their client. So, it can be noted that, transport service provision is a main part of their discharge planning. Besides this, evidence says that discharge planning should commence at the point of admission to provide a continuous, timely and effective service (Krebs and McBride, as cited in Welch 2005: 159). Here the client are being gone through a definite process from after their admission in rehabilitation setting and during the discharge period, GSP is following a particular discharge planning which aims to provide an effective service to the client.

Health Maintenance

Health maintenance is a very significant area of SCI care. Secondary complications happen only when the proper health maintenance is failed. So to maintain the fitness of health in case of SCI, proper education is must which is also a component of the discharge planning of GSP. During the long journey to home, client often fails to care it properly. So to resolve this problem; the client is continuously supervised by the therapist during the journey to home.

All of the participants mentioned that they got the education of preventing pressure sore during journey hours. More than 50% of them added about catheterization as for their bladder problem (incontinence). One of the participants was telling about the education on bowel management too. The education on health maintenance helped them to be skillful in preventing the secondary complications of SCI. It also helped in a way that, some of them learnt the new issues, some could have discussed with their therapist to solve their problem etc. Most importantly, the client learnt the alternative ways of solving their different health problem.

Regarding the pressure care education, one of the participants affirmed that

“Lift’ is definitely good. I didn’t know that lifting is important while traveling. He (the therapist) told me to lift at a little period after getting inside the vehicle. I need to lift after a little period of time when I travel, exactly as when I am on my wheel chair. Then I lifted myself inside the vehicle just as he showed me. It was beneficial.”

The other one pointed out the experience in such a way that

“If lift is not performed in every 20 minutes for 20 seconds, it may cause pressure sore. It can cause serious harm in patient with SCI if it becomes larger. Once, I had a small sore; I suffered a lot with it. That’s why now I am very careful about this. I ask my mother to look after for sores.”

Experience regarding pressure care education was also expressed in different way that

“When patients like us go to the hospital, they don’t understand these things; these things don’t even come to their mind. The therapists know what is good for these patients and treat them in such way. It prevents many problems. They teach the patients what to do and how to. If I was not taught about these things, I wonder now, what would I do?”

As discussed by Adler (2006), Pressure sore is a very common complication of SCI. So it is seen that, the participants are well known about the preventive measure of the complications. Though these educations are provided during the total discharge process, the difference is here that GSP provides it during transportation. Health maintenance during journey is a little different from general. Because, in case of this, the client cannot be steady as comparing to the general time and he need to maintain the rules while on the time of continuous journey, like: lifting for pressure care must be maintained but on lying position, the client needs to change the side continuously after a certain period of time.

Bowel and bladder management is also one of the most common complications followed by pressure sore. The client had to be concerned about these very much because it was a long way to home where he had to be on journey.

Bladder incontinence is a common problem and one of the participants mentioned that

“My mother was with me; and the therapist who came with me was repeatedly instructing me to change catheter on time. I needed to change it 2 times; as it could

cause urinary problem if is not catheterized on time. I was afraid about defecation; but there was no urge.”

One more participant stated on learning on different skill of using catheter that

“We have to come a long way while coming home and we had a long conversation. The person who brought me, described about many things such as pressure sore, drinking water, risk factors, catheter, how to use catheter, the process of toileting after reaching home; all these he told and then showed me the process of toileting after coming home”

One of the participants added that

“He told me about urination; if urge for urination is felt, I need to hold it for as long as I can; then gradually increase the holding time, such as, from 20 minutes to 30 minutes, then to 1 hour.”

Here it is also seen that the clients are well known and skillful at different ways of preventing complication which can be said a positive outcome of patient education.

All of these aforementioned components of health maintenance are part of patient education through GSP. It is widely recognized that patient education is a key part of SCI rehabilitation which aims to prepare the patient a successful return to their community with the necessary skills for maintaining optimal health and well-being (Brillhart and Stewart, as cited in May et al. 2006: 1041). As a part of this the practitioners of GSP focus on making the client skillful to meet their daily life challenges and impart knowledge on the preventive care. GSP continues preventive education till the client’s discharge at home. Supporting on this, evidence says that, recent research emphasizes that patient education about health and healthy living for people with SCI should not end after the initial rehabilitation phase (Cott, as cited in Manns 2007: 412). Besides this, the effect of education is also important to know to find out how the client used it. So, with providing the education, it is also necessary to know the importance of the specific strategy for a particular group, as success of the treatment session will depend on the level of understanding of an individual (Turner 1996: 251).

Theme 3: The accessible home environment increases the level of occupational performance

The sudden onset of SCI is tragic and most of the time causes residual disability and dependency on assistive device. So, environmental accessibility is a basic thing for them in getting place to place and this is one of the important aspects of GSP. According to the project's point of view, the therapist must travel with the client to identify the home modification need and also to supervise the worker during home modification by following the prescribed format of standard design consideration.

All of the participants of this study needed to cut the threshold of the door and installation of ramp in front of the living room. Less than 50% of them needed some other modifications like: installation of ramp besides tube well, establishing parallel bar and toilet chair modification. These modifications improved their independency in moving, decreased dependency on family members, improved independency at ADLs like bathing, toileting and reducing the boringness of life.

One of the participants stated that

“I’m a wheelchair user and can’t move through all. Building this ramp, cutting the stage, is very useful for me; I can now move easily here and there by using this ramp.”

Another one added that

“After making this ramp, I can go inside and come outside of my house whenever I wish. If it wasn’t there, I wouldn’t be able to this as I am doing now; I would need others help. Now that I have it, I don’t need anybody to help me to go inside the house or to come out of the house; I can do it all by my own.”

Another one of the participants stated about the threshold that

“The threshold at the door was about 10’’ high. As it is not there now, I can move my wheelchair easily. And the stage in front of the house was 15’’ long; building this ramp, cutting the stage, made my movement easier. I can now move all by myself.”

Regarding the other modifications, one of the participants mentioned that

“They built a chair for toileting; they also built a walking place by using bamboo, where I try to walk wearing a brace. I can walk a little, not much.”

The aforementioned statements show that the most common modified areas were ramp and removing threshold. The others are toilet chair and parallel bar. So it can be said that, those were the most common barrier of environmental accessibility for which it was not easy for them to move on. It can be said that, lack of home and community accessibility is the most common barrier for using mobility aid (Scovil 2012: 234). Once the patient is discharged from the rehabilitation center, s/he has to back their community in their life roles. But as they become dependent on assistive device, so the proper community reintegration is faced with difficulty. These reduce the life satisfactions also. Evidence says, access to the environment is important in predicting satisfaction with life for persons with SCI (Richards et al. 1999: 1501). So to improve the life satisfaction GSP works for environmental accessibility and it is apparently related with the successful community reintegration. The Occupational Therapist’s role in the home modification of GSP is to collaborate with the construction as they can ensure the proper installation of every modified area. Thus they work to make the environment accessible for the affected person. The accessibility of environment facilitates the client’s community participation which also influences the well being of the client as community dwellers. It increases the independency of client in the aspects of daily living activities. It is also said that unsuccessful community reintegration leads to develop secondary complications and causing secondary injury (Scovil 2012: 232). The abovementioned data tells that the clients are being beneficial on such a way that they can roam around, get from place to place and above all, their self independency is increased just as to have the accessible home environment.

Theme 4: Recommendations to include the community aspect of the client in GSP

Recommendation is provided as suggestion for the betterment of anything. Indeed, it is sometimes necessary for upgrading any work. During conducting this study, the participants also provided some suggestions to include those in the service of GSP. Overall, from the study findings, it is seen that, the service users focused on having good experience regarding the service. But besides this, on the recommendation section, the recommendations they provide to develop the project were: extending the home modification program up to road, building brick ramp, helping the service users in employment and keeping regular contact with them by follow up visit.

Of all the 5 participants, less than 50% of them stated about extending the home modification areas from indoors of the house to the outside of it. Rest of them mentioned the stated other recommendations.

One of the participants stated that

“Some patients can’t get out of the house without the help of others; they need two or three persons to help. Ramp is used to get out of the house; but from there, someone may need to go to the road; besides some patients can’t go that far by their own, need others to help. So, I think, there should be a solution to this limitation.”

A major consequence of SCI is the reduction of physical independence and social participation due to be dependent on wheel chair. So access to the environment is obviously a very important factor to overcome it. The inaccessibility of the physical environment obliges the wheel chair user to be dependent on others while moving from place to place. Here, the participants told about to extend the modified areas of the project up to the outdoor of the home as they can get to the road and participate in work or in social activities. Such type of activities will help them to achieve independence in moving though being a wheel chair user. On a study it has been said that, one of the top 5 environmental barrier is natural environment. That means, inaccessibility is a great obstacle of natural environment which make the individual dependent on others. As a result, it creates frustration in them and they become

dissatisfied with life and it has also been said that, life satisfaction is strongly related to community participation (Whiteneck et al. 2004: 1802). So to improve the life satisfaction, the participation of the individual in community must be increased and accessible environment in a concerning issue behind it.

Another participant stated that

“They (the service providers) come to patients house, see the structures and decide the needs of patient, like they did for me; if they look after about what is good for the patient, what would be his living, how would he live until death, it would be better.”

In the general practice of CRP, vocational training is provided to the patients as they can be employed though having the physical disability. Except any exceptional case, all of the patients of CRP have to receive it. Here, the participant specially noted that, it would be great help for them if the service provider extend their service up to the managing the work for the client. It has also been said that, staying beside with them is a great mental strength for them and it encourages them to achieve their dream. On a study of USA, it has been showed that, the employment rate of SCI is relatively low comparing to the physically fit persons. The number of the SCI affected person return to previous work is very few (Ottomanelli et al. 2012: 740). So, it can be said that, unemployment of SCI affected people is not only a national problem; it's a global problem too. As there is any problem, there is a solution too. So to solve this problem, this recommendation can be considered to create hope among them.

Regarding the follow up visit, one of the participants stated that

“The service they provided was very good. I can't imagine anything better than this. I just want them to keep in regular touch; I'd be happy if I get them when I need.”

The participant added in the detailed discussion that, he is hoping for the regular follow up visit from the rehabilitation centre. This might helps them in solving their further problem in community. Follow up visit to the client after their discharge to home is a core practice of occupational therapy. In fact, it is stated in the Adler (2006) that, follow up is an important component of occupational therapy treatment

objectives. Follow up focuses on solving health and environmental problems of the community dweller patient. Besides this, it is also done to educate the client and his or her family regarding the benefits and consequences of maintaining healthy and responsible lifestyle habits in relation to long-term function and aging process.

Chapter 5

5.1. Limitation

GSP has a distinctive aspect of OT practice in Bangladesh and also in global basis. So, apparently, from the online database (Pubmed, Google scholar, Google web page, Hinari and OT Seeker) and manual search (Books and library resources), there had not been found any study straightly related to GSP. The most closely related studies were used to support the evidence. Besides this, there were no other studies regarding this in the practice area, so the study result could not be compared with the other study. Besides this, during participant selection, the researcher could not select any female participant, because, up to the data collection period of the researcher there was no female service user discharged through GSP.

5.2. Recommendation

Recommendation for the service provider

Occupational therapist can establish GSP as a particular and in general discharge process of CRP and can ascertain this as a new dimension of practice in place. Besides this, the occupational therapists can educate the service user more about the service as they can identify the difference between the regular practice of CRP and GSP during their hospital discharge. The occupational therapist can concentrate on this from the rehabilitation period of the client as the client can understand specifically about each of the components of GSP.

Recommendation for further research

As GSP is absolutely a new practice in Bangladesh, so there are so many aspects of conducting research study in this setting. Some ideas might be:

- The effect of home modification as a part of GSP including the entire service user to generalize the result.
- Conducting comparative study between the service user of GSP and the participants from the long-established practice of CRP regarding the discharge process.

- A follow up study of comparing the earlier modification status of the client's own environment with the later when the study will be conducted. The photo and video analysis can be performed to measure the difference between the former and later state of modified home environment.
- The experience of the service user can be found out by including a large number of participants.

5.3. Conclusion

SCI affects both an individual and his family physically, psychologically, socially and economically. However, a proper rehabilitation service facilitates them to cope and overcome with these as much as possible. It also helps them to have a successful community reintegration which is very much important for a person with SCI.

This study encompasses all about the experience of the service user regarding their hospital discharge process through GSP. It reflects the client's view concerning the service of GSP. The findings from this study suggest that GSP works on the areas of home modification need analysis of clients while in hospital stay, transport, health maintenance and home modification service during discharge from hospital. Moreover, the findings show that, how the service user are accepting it, what are their feelings regarding the different areas of the service, the way they are being skillful and all about of their assistance which they are getting from the service. Overall, the results of this study reinforce the importance of the safe discharge from hospital along with increasing the mobility power of the affected person in community although having a residual disability.

As GSP is completely a new practice in CRP and still there is no other studies in this field, so the study findings might help the service provider group to make the future plan. Additionally, the practice of GSP can be called the advance practice in rehabilitation service of CRP. Though this study had been conducted with small participants, but it shows that this service allowed an improved survival of those people following SCI.

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List of Appendix

Appendix 1

Below is provided the standard measurements of the modification areas with photograph:

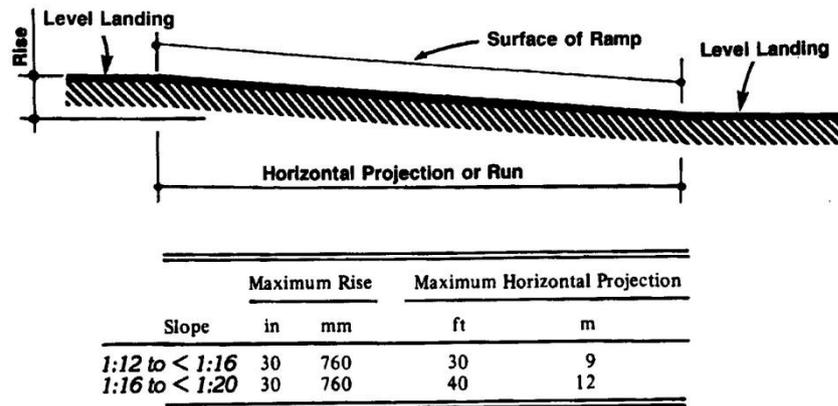


Fig: Standard Design of a Ramp

Ramp: Ramp is provided for the people with disabilities where stairs prevent them in entering building or moving from place to place. The ramp has some component, like: slope, width, handrails, landings, surface, ground indicators and coverings. While making the ramp there is followed a standard design consideration for each of these components:

The slope would be 1:15 for outdoors and 1:12 for indoors. It says that, in case of making the ramp slope length, stair height will be multiplied by 15 for outdoor and 12 for indoor. The width of the ramp will be 1200 mm. The handrails must be provided continuously on both sides and the height of it is 900 mm. The handrails will be continued onto the top and bottom landings for 300 mm before finishing. The landings (minimum 1200 mm*1500 mm long) will be provided at every change of direction and at the top and bottom of the ramp. There are some other components which are above the issues of measurement. The surface must be non-slipped and well-drained. Ground indicators are given at each of the landings for people difficulty with vision. The exposed edge will contain a curb ramp and the outdoor ramp must have the coverings.

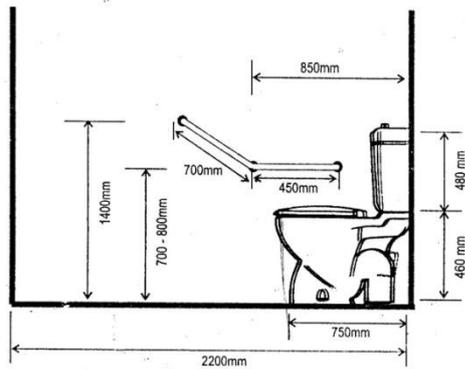


Fig: Standard Design of a Toilet (Side view)

Toilet: Ensuring accessibility in toilet is a very important part of home environment modification, because this is notably a significant functional performance area. Some of the very important aspects of toilet modifications are: doorway, threshold, room dimensions, toilet pan, wash hand basin, toilet paper/water, grab rail, drainage and floor surface.

The doorway of the toilet is considered to be outdoor opening or sliding with a clear width of 900 mm and no step at threshold. The room dimension is minimum of 2100mm*1500mm (length*width) is recommended with a clear turning area of 1500 mm in diameter that is free from obstruction. The pan height is commended as 450-500 mm and at least one side of the toilet pan wall must have a fixed grab rail of 700 mm height projecting 100 mm over the front edge of the toilet pan. The toilet paper or water must be kept at easy reach of the person. The toilet must have adequate drainage as if the floor surface can be non-slippery.

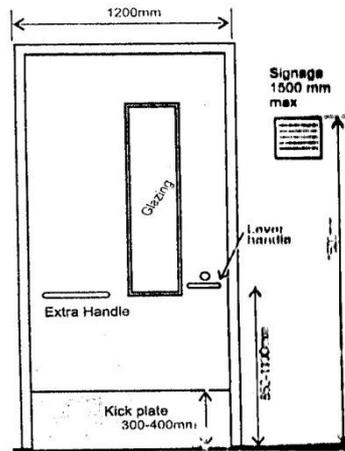


Fig: Standard Design of a Door

Door width and threshold: The accessibility in door width and threshold is needed to ensure the safe and independent path through the entrance and exit point. The door will must have a clear opening width of 900 mm. No step at threshold is encouraged but if there is, it must be less than 20 mm. It will have a clear space of approximately 450 mm from the opening side of the door to the nearest wall/ obstruction. As the threshold is discouraged, so no doormat is provided too. But if there is the doormat, it must be fixed with the surface. There are three types of doors; glass doors, sliding door and hinge door. The hinge door is more accessible because it can either be fully closed or fully opened as much as possible against the wall.

Chair: The seat height, backrest, seat tilt and armrest of the chair must maintain the ergonomic design consideration to make an adjustable sitting position. According to this, the seat height range is suggested to be 380-535 mm. The backrest is recommended at 500 mm. The chair with tilted seat usually used at office work, so it is not that needed for the community dwellers with SCI. But the arm rest is provided to keep the arms in supported position. Though it is standard, but in practice it might be little generous or be less than this. Because, the size and shape of human body sometimes varies with geographical location.

Bed Height: It is remarkable in ergonomics that, there is less study regarding the standard ergonomic design for bed height. It varies from culture to culture. But the similar practice at everywhere is reaching to the destination easy. The bed height will be such that the client can be transferred easily and without any obstacle.

Switch Board: Most of the time there is provided adjustable bed switch. But if it is not possible, then the switch board is moved and brought to the reach of the user. It is moved as the user can be able to come up with it.

Shower Board: The shower board is used during bathing. This is a modified board with a hole as the water can pass by. The shower board is moveable. During the time of bathing, the cushion is replaced by the shower board. At that time the backrest is also removed from the wheel chair. Thus, after the shower, the board is replaced again with the cushion.

Appendix 2

2.1. Appendix Contents in Bangla

Appendix 2.1.1.: প্রশ্নপত্র

অংশগ্রহণকারীর নাম্বার:

বয়স:

লিঙ্গ:

লেভেল অফ ইঞ্জিনিয়ারিং:

চলাচলে সহায়ক উপকরণ:

পক্ষাঘাতের ধরন:

হাসপাতাল থেকে ছাড়ের তারিখ:

পর্যবেক্ষণ মন্তব্য:

১. **ক)** আপনি এই পুনর্বাসন কেন্দ্র থেকে যে প্রক্রিয়ায় ছাড় পেয়েছেন সে প্রক্রিয়া সম্পর্কে আপনি জানেন কি?
হ্যাঁ/ না
খ) (যদি জেনে থাকেন) আপনি এই পুনর্বাসন কেন্দ্র থেকে যে প্রক্রিয়ায় ছাড় পেয়েছেন সে প্রক্রিয়া সম্পর্কে আপনার ধারণা বর্ণনা করুন।
২. আপনি পুনর্বাসন কেন্দ্র থেকে বাড়িতে যাওয়ার ক্ষেত্রে পরিবহণ সুবিধা পাওয়া সম্পর্কে আপনার অভিজ্ঞতা বর্ণনা করুন।
৩. **ক)** আপনি কি পুনর্বাসন কেন্দ্র থেকে বাড়িতে যাওয়ার পথে পরিবহণ সুবিধার পাশাপাশি কোন রকম স্বাস্থ্য সেবা পেয়েছেন?
খ) (যদি পেয়ে থাকেন) কি কি সেবা পেয়েছেন?
গ) পুনর্বাসন কেন্দ্র থেকে বাড়িতে যাওয়ার পথে পরিবহণ সুবিধার পাশাপাশি এই সেবা সম্পর্কে আপনার অভিজ্ঞতা বর্ণনা করুন।
৪. **ক)** আপনার দৈনন্দিন কাজ-কর্মের সুবিধার্থে বাড়িতে কি কি গঠনগত পরিবর্তন করা হয়েছে তা বর্ণনা করুন।
খ) আপনার দৈনন্দিন কাজ-কর্মের সুবিধার্থে বাড়িতে এই গঠনগত পরিবর্তন সম্পর্কে আপনার মতামত ব্যক্ত করুন।
৫. এই পুনর্বাসন কেন্দ্র থেকে ছাড় পাওয়া থেকে শুরু করে বাড়িতে গঠনগত পরিবর্তনে সহায়তা প্রদান করা পর্যন্ত এই প্রক্রিয়াটিকে আরো সফল করার জন্য, আপনার যদি কোন মতামত থাকে তা বলুন।

Appendix 2.1.2.: তথ্য পত্র

আমি আরিফা জাহান ইমা, বাংলাদেশ হেলথ প্রফেশন্স ইনস্টিটিউটের (সিআরপির শিক্ষা প্রতিষ্ঠান) অকুপেশনাল থেরাপী বিভাগ এ ৪র্থ বর্ষে অধ্যয়নরত। আমার প্রাতিষ্ঠানিক কার্যের অংশ হিসেবে চলন্ত শিক্ষাবর্ষে আমাকে একটি গবেষণামূলক কাজ করতে হবে যার শিরোনাম “সিআরপিতে চলমান গুড স্টার্ট প্রজেক্টের আওতাধীন মেরুদন্ডে আঘাতপ্রাপ্ত ব্যক্তির হাসপাতাল থেকে ছাড় প্রক্রিয়া সম্পর্কে অভিজ্ঞতা”। এই গবেষণার উদ্দেশ্য হলো মেরুদন্ডে আঘাতপ্রাপ্ত ব্যক্তির হাসপাতাল থেকে ছাড় প্রক্রিয়া সম্পর্কে অভিজ্ঞতা বের করে আনা।

এই গবেষণায় আপনার অংশগ্রহন সম্পূর্ণরূপে স্বৈচ্ছায়। আপনি যেকোন সময় গবেষণায় আপনার অংশগ্রহন করা থেকে বিরত থাকতে পারবেন। আপনার কাছ থেকে প্রাপ্ত তথ্য টেপ রেকর্ডারের মাধ্যমে রেকর্ড করা হবে। এই গবেষণায় অংশগ্রহনে গবেষক আপনাকে কোনভাবে আর্থিক সাহায্য প্রদানে অপারগ। এই অংশগ্রহন কখনোই আপনার জন্য ক্ষতির কারণ হয়ে দাঁড়াবেনা কিন্তু এটার মাধ্যমে সেবা প্রদানকারী সদস্যগণ, তাঁদের প্রদানকৃত সেবা সম্পর্কে আপনার অভিজ্ঞতা এবং পরামর্শের কথা জানতে পারবেন। প্রাপ্ত তথ্য সমূহ পরবর্তীতে সেবার মানোন্নয়নে সাহায্য করব, যা ভবিষ্যতে রোগীদের ক্ষেত্রেও সহায়ক হবে।

আপনার কাছ থেকে প্রাপ্ত তথ্যসমূহের সর্বোচ্চ গোপনীয়তা রক্ষা করা হবে। গবেষণা ব্যতীত এগুলো অন্যথায় প্রকাশিত করা হবেনা এবং গবেষণার কোথাও অংশগ্রহনকারীর নাম প্রকাশ করা হবেনা।

গবেষণা সম্পর্কিত যেকোন ধরনের প্রশ্নের জন্য নিম্নোলিখিত ব্যক্তির সাথে যোগাযোগ করার জন্য অনুরোধ করা যাচ্ছে:

আরিফা জাহান ইমা,

৪র্থ বর্ষ,

অকুপেশনাল থেরাপী বিভাগ,

বাংলাদেশ হেলথ প্রফেশন্স ইনস্টিটিউট (সিআরপির একীভূত শিক্ষা প্রতিষ্ঠান),

পঞ্চাশাতগ্রন্থদের পূর্নর্বাসন কেন্দ্র (সিআরপি)

চাপাইন, সাভার, ঢাকা- ১৩৪৩

Appendix 2.1.3.: সম্মতি পত্র

যাদের দ্বারা এটি পূরণীয়:

ক. অংশগ্রহণকারী অথবা সাক্ষ্যদানকারী; যদি অংশগ্রহণকারী অথবা সাক্ষ্যদানকারী অক্ষরজ্ঞান সম্পন্ন না হন, তবে গবেষক কর্তৃক অংশগ্রহণকারীর নিকট বিশ্লেষণ করার পর গবেষক কর্তৃক পূরণ করা হবে।

১. আপনি কি তথ্য পত্রটি পড়তে অথবা শুনতে পেয়েছেন? হ্যাঁ/ না
২. গবেষণা সম্পর্কিত কোন প্রশ্ন করার সুযোগ কি আপনি পেয়েছেন? হ্যাঁ/ না
৩. আপনার প্রশ্নের সন্তোষজনক উত্তর কি আপনি পেয়েছেন? হ্যাঁ/ না
৪. গবেষণা সম্পর্কিত প্রয়োজনীয় তথ্য আপনি পেয়েছেন বলে মনে করেন কি? হ্যাঁ/ না
৫. তথ্য পত্রটি আপনার কাছে কে বর্ণনা করেছিলেন?

৬. আপনি কি বুঝতে পেরেছেন যে, কোন কারণ দর্শানো ব্যতীত যেকোন সময় আপনি আপনার অংশগ্রহণ তুলে নিতে পারেন? হ্যাঁ/ না

৭. গবেষক কে আপনার তথ্যগুলো রেকর্ড করার অনুমতি দিচ্ছেন কি? হ্যাঁ/ না
৮. সিদ্ধান্ত নেয়ার ক্ষেত্রে যথেষ্ট সময় পেয়েছেন বলে মনে করেন কি? হ্যাঁ/ না
৯. আপনি এই গবেষণা অংশগ্রহণের সম্মতি প্রদান করছেন কি? হ্যাঁ/ না

অংশগ্রহণকারীর স্বাক্ষর: তারিখ:

অংশগ্রহণকারীর পুরো নাম:

খ. গবেষক:

আমি উপরোক্ত অংশগ্রহণকারীকে গবেষণা সম্পর্কিত যাবতীয় তথ্য যথাযথভাবে বিশ্লেষণ করেছি এবং তিনি গবেষণায় অংশগ্রহণে সম্মতি জানিয়েছেন।

গবেষকের স্বাক্ষর: তারিখ:

গবেষকের পুরো নাম:

2.2. List of Appendix (Appendix Contents in English)

Appendix 2.2.1.: Questionnaire

Participant no:

Age:

Mobility Aid:

Level of Injury:

Diagnosis:

Gender:

Date of discharge:

Observational note:

- 1)
 - i. Do you know the discharge process by which you had been discharged from this rehabilitation center? Yes/ No
 - ii. (If so) please explain the discharge process by which you had been discharged from this rehabilitation center.
- 2) Please explain your experience about the transport facility to your journey to home after the discharge from the rehabilitation centre.
- 3)
 - i. Have you got the health maintenance facility along with the transport facility to your journey to home after the discharge from the rehabilitation centre?
 - ii. (If so) please notify that what were those?
 - iii. Please explain your experience about getting health maintenance facility along with the transport facility to your journey to home after the discharge from the rehabilitation centre.
- 4)
 - i. What were the modifications you have got at your home to facilitate your Activities of Daily Living (ADL)?
 - ii. Please explain your opinion about your home modification facility to facilitate your Activities of Daily Living (ADL).
- 5) Please provide if you have any suggestion/'s to make this process more successful.

Appendix 2.2.2.: Information Sheet

I am Arifa Jahan Ema, 4th year, Department of Occupational Therapy, Bangladesh Health Professions Institute (BHPI), the academic institute of Centre for the Rehabilitation of the Paralysed (CRP). As a part of my academic issues, I have to conduct a dissertation in this academic year. So I would like to invite you to participate in my study titled “The experience of person with Spinal Cord Injury (SCI) about their discharge process as a part of Good Start Project of CRP, Savar, Dhaka”. The aim of the study is to find out the experience of person with spinal cord injury regarding their discharge process through Good Start Project.

Your participation in the study is voluntary. You can withdraw your participation in anytime. The data which will be gathered from you will be recorded by the audio tape recorder. There is not the facility to get any pay by this participation. The study will never be any harm to you but it will help the service user to know your experience and recommendations about the discharge process, which is very important for the service provider to plan for their future activities. It will also be helpful for the forthcoming service users.

Confidentiality of all records will be highly maintained. The gathered information from you will not be disclosed anywhere except this study and the study will certainly never reveal the name of participants.

If you have any query regarding the study, please feel free to ask to the contact information stated below:

Arifa Jahan Ema

4th year

Department of Occupational Therapy

Bangladesh Health Professions Institute (BHPI),

Centre for the Rehabilitation of the Paralysed (CRP),

Chaplain, Savar, Dhaka-1343

Appendix 2.2.3.: Consent Form

To be completed by the:

A. Participant or Witness (literate), if participant is illiterate it will be filled up by the Researcher after providing the explanation to the participant or witness:

1. Have you read/heard the information sheet? Yes/No
2. Have you had an opportunity to discuss this study and ask any question? Yes/No
3. Have you had satisfactory answers to all your questions? Yes/No
4. Have you received enough information about the study? Yes/No
5. Who did explain the study to you?

6. Do you understand that you are free to withdraw from the study at any time without explaining any reason? Yes/No

7. Do you give your permission to the researcher to have access to your records? Yes/No

8. Have you got sufficient time to come to your decision? Yes/No

9. Do you agree to take part in this study? Yes/No

Participant's signature _____ Date _____

Name (BLOCK LETTER) _____

B. Researcher

I have explained the study to the above participant precisely and after getting the explanation, the participant showed the willingness to take part in the study.

Investigator's signature _____ Date _____

Name (BLOCK LETTER) _____

Appendix 3: Permission letter

Appendix 3.1.: Study approval letter

Date: August 13, 2012
 To
 The Course Coordinator
 Department of Occupational Therapy
 Bangladesh Health Profession's Institute (BHPI)
 Centre for the Rehabilitation of the Paralysed (CRP)
 Chapain, Savar, Dhaka-1343
 Subject: Prayer for the approval of Undergraduate Academic Research Project

Sir

With due respect, I beg most respectfully to state that, I am a student of 4th year, Department of Occupational Therapy, BHPI, the academic institute of CRP. As a partial fulfillment of my Bachelor of Science Degree in Occupational Therapy Course, under the medicine faculty of University of Dhaka, I will have to conduct a research project in this academic year which is a part of my academic curriculum. I have already chosen Spinal Cord Injury Unit of CRP to conduct my study and the study is titled as "Experience of person with Spinal Cord Injury (SCI) about their discharge process through Good Start Project (GSP) of CRP, Savar, Dhaka". I can make sure that the study will never be harm for the participants. The details proposal of my study is attached with the application.

I therefore, pray and hope that, you would be kind enough to grant my appeal by giving me the permission to conduct the study and oblige thereby.

Sincerely Yours



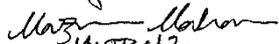
13.08.2012

Arifa Jahan Ema

4th Year, Roll: 14, Session: 2008-2009, Department of Occupational Therapy.

BHPI, CRP, Chapain, Savar, Dhaka- 1343

Attachment: Proposal of the Research Project

Name	Comments and Signature
Mohammad Mosayed Ullah Assistant Professor and Course Coordinator Department of Occupational Therapy BHPI, CRP, Chapain, Savar, Dhaka- 1343	<i>This project can be approved. Data collection is required to done with due permission.</i> 
Nazmun Nahar (Supervisor) Assistant Professor Department of Occupational Therapy BHPI, CRP, Chapain, Savar, Dhaka-1343	<i>It may allow her to conduct this study. Best of luck</i> <i>Nazmun Nahar</i> 14.08.12 

Appendix 3.2.: Permission letter of data collection

Date: October 16, 2012.

To
Acting Head
Department of Occupational Therapy
Centre for the Rehabilitation of the Paralysed (CRP).
Chapain, Savar, Dhaka-1343.

Subject: Prayer for the permission of collecting data for the Undergraduate Academic Research Project.

Through: The In-charge of Good Start Project (GSP)

Sir,

I have the honor to state that, I am a student of 4th year, Department of Occupational Therapy, Bangladesh Health Professions Institute (BHPI), the academic institute of CRP. As a partial fulfillment of my Bachelor of Science Degree in Occupational Therapy Course, under the medicine faculty of University of Dhaka, I will have to conduct a research project in this academic year. I have already chosen Spinal Cord Injury Unit of CRP to conduct my study and the study is titled as "Experience of person with Spinal Cord Injury (SCI) about their discharge process through Good Start Project (GSP) of CRP, Savar, Dhaka". For this I need some necessary information of patients which I will have to collect from the documents of Good Start Project. I can make sure that the study will never be harm for the participants. All the data will be collected by maintaining the ethical considerations.

I therefore, pray and hope that, you would be kind enough to grant my appeal by providing the necessary data's from project documents and giving me the permission of collecting data related to my study and oblige thereby.

Sincerely Yours,

 16.10.2012

Arifa Jahan Ema

4th Year, Roll: 14, Session: 2008-2009

Department of Occupational Therapy

Bangladesh Health Professions Institute (BHPI)

Centre for the Rehabilitation of the Paralysed (CRP)

Chapain, Savar, Dhaka- 1343.

*Forwarded to Acting
Head for taking nec-
essary steps. 16/10/12*

*MD. IQBAL HOSSAIN
In-Charge Inpatients Unit
Occupational Therapy Dept. CRP*

*Recommend and
give permission for data collection.*

*Dr. NDD
16/10/12*

Appendix 4: Tables of Data Analysis

Appendix 4.1.: Coding

Question No 1

Coding	P1	P2	P3	P4	P5
Need analysis before discharge			✓		
Providing transport service		✓	✓	✓	
Visiting client's home during discharge	✓	✓	✓		✓
Home environment modification	✓	✓	✓	✓	✓
Continuing contact after home discharge			✓		

Question No 2

Coding	P1	P2	P3	P4	P5
Helpful for safe arrival	✓	✓	✓	✓	✓
No harassment for renting car		✓	✓	✓	✓
Affordable amount of money			✓		✓
No need of family member to receive during discharge			✓		
Need determination for environmental modification during discharge at home				✓	
Education by the therapist during journey					✓

Question No 3

Coding	P1	P2	P3	P4	P5
Lifting during journey	✓	✓	✓	✓	✓
Catheterization during journey	✓	✓			✓
Routine for toileting			✓		
Ways of toileting	✓				✓
Changes of position during journey			✓		
Complications	✓				
Skillful at ways of transportation during rickshaw & van journey	✓				
Skillful at different ways of preventing pressure sore	✓	✓		✓	✓

Skillful at proper way of catheterization	✓	✓	✓	✓	
Alternative ways for bowel bladder control			✓	✓	

Question No 4

Coding	P1	P2	P3	P4	P5
Installation of ramp in front of living room	✓	✓	✓	✓	✓
Installation of ramp in front of tube well		✓		✓	
Removing threshold from door	✓	✓	✓	✓	✓
Making parallel bar					✓
Toilet chair modification					✓
Easy passage by the entrance door as no obstacle there	✓	✓	✓	✓	✓
Improved independency in moving from place to place	✓	✓	✓	✓	✓
Decreased dependency on family members	✓	✓	✓	✓	✓
Independent at toileting				✓	✓
Improved independency at bathing		✓		✓	
Therapist's presence facilitates the home modification	✓			✓	
Roaming around reduces boringness of life	✓	✓	✓	✓	✓

Question No 5

Coding	P1	P2	P3	P4	P5
Extending the home modification program up to road	✓		✓		
Brick made ramp			✓		
Helping in employment				✓	
Keeping regular contact					✓
No recommendation at all		✓			

Appendix 4.2.: Categorizing

Category 1: Understanding of the Client about the Process

Coding	P1	P2	P3	P4	P5
Need analysis before discharge			✓		
Providing transport service		✓	✓	✓	
Visiting client's home during discharge	✓	✓	✓		✓
Home environment modification	✓	✓	✓	✓	✓
Continuing contact after home discharge			✓		

Category 2: Experience about Transport service

Coding	P1	P2	P3	P4	P5
Helpful for safe arrival	✓	✓	✓	✓	✓
No harassment for renting car		✓	✓	✓	✓
Affordable amount of money			✓		✓
No need of family member to receive during discharge			✓		
Need determination for environmental modification during discharge at home				✓	
Education by the therapist during journey					✓

Category 3: Experience about Health Maintenance

Coding	P1	P2	P3	P4	P5
Lifting during journey	✓	✓	✓	✓	✓
Catheterization during journey	✓	✓			✓
Routine for toileting			✓		
Ways of toileting	✓				✓
Changes of position during journey			✓		
Complications	✓				
Skillful at ways of transportation during rickshaw & van journey	✓				
Skillful at different ways of preventing pressure sore	✓	✓		✓	✓
Skillful at proper way of catheterization	✓	✓	✓	✓	

Alternative ways for bowel bladder control			✓	✓	
--	--	--	---	---	--

Category 4: Experience of Home modification service

Coding	P1	P2	P3	P4	P5
Installation of ramp in front of living room	✓	✓	✓	✓	✓
Installation of ramp in front of tube well		✓		✓	
Removing threshold from door	✓	✓	✓	✓	✓
Making parallel bar					✓
Toilet chair modification					✓
Easy passage by the entrance door as no obstacle there	✓	✓	✓	✓	✓
Improved independency in moving from place to place	✓	✓	✓	✓	✓
Decreased dependency on family members	✓	✓	✓	✓	✓
Independent at toileting				✓	✓
Improved independency at bathing		✓		✓	
Therapist's presence facilitates the home modification	✓			✓	
Roaming around reduces boringness of life	✓	✓	✓	✓	✓

Category 5: Recommendation

Coding	P1	P2	P3	P4	P5
Extending the home modification program up to road	✓		✓		
Brick made ramp			✓		
Helping in employment				✓	
Keeping regular contact					✓
No recommendation at all		✓			

Appendix 5: Details about Good Start Project

Good Start Project

Project Advisor:

Dr. Valerie A. Taylor
Founder & Coordinator, CRP

Project Approved by:


Shafiq ul Islam
Executive Director
CRP

Project Coordinator:


Mahfuzur Rahman
Head of Occupational Therapy Dept. CRP

Project In-charge:


14.03/12
Md. Iqbal Hossain
In-charge, Inpatient Unit (SCI)
CRP, Savar

Good Start Project Policy

Aim: Good start project is to promote reintegration of people with spinal cord injury (SCI) ensuring health maintenance during their journey home, facilitating accessibility in their home and integration in their community.

Background: CRP is only specialized SCI Rehabilitation centre in Bangladesh, a country of 164 million people. In their long (average 8 hours) return journey home, people with SCI fail to ensure proper weight shifting and catheterization while travelling by public transport. Most of the patients fail to make suitable modifications to their home and face challenges in social integration.

Patient selection criteria

- Patient living nearby Dhaka city around 100 km (Gazipur, Dhamrai, Manikgonj, Narshingdi, Munsigonj, Tangail, Vairab, Comilla, Mymensing) will chose under this project and in case of necessity project will extend anywhere in the country.
- All paraplegic and tetraplegic, w/c users and patient's willingness will get priority.
- Walking frame and crutch users will get less priority and chose in case of their needs.
- Patient will select 1 ½ months prior to discharge.
- In case of patients selection senior OT's will take decision after consultation with his/her SCI team.

Areas of Modification

- Initially ramp (in front of house, toilet, and kitchen) will get most priority and then gradually introduce commode chair modification, burner, bed height, switch board, shower chair, door width and threshold.

Policy related to Journey

- Inpatient In-charge (SCI) will coordinate to administration department for ambulance and other logistic supports. Chief of administration will responsible to provide ambulance and logistic support.
- Respective occupational therapist will get food allowance Tk 250 per day (including breakfast-30tk, lunch/dinner-100tk, and snacks-20), driver will get food allowance Tk 200 per day (breakfast - 20 tk, lunch /Dinner -80, snacks at afternoon-20tk).
- In-charge of this project will receive communication bill (such as before discharge contact to patient's family members, on discharge and after finishing the visit follow-up communication and other official purpose) 400 Tk. per month.
- In case of night hold he/she will get accommodation charge according to demands of specific region. Cost may include per night 700 tk.
- In case of vehicle maintenance respective driver will be the sole responsible person.
- Safe journey is our main aim, but in case of any accident or injury, CRP will bear full treatment cost and will provide injury compensation of respective staff according to the work law of Bangladesh Government.
- Journey will start initially twice a month and can be increased according to situation demand.

- Initially the journey will take place every 2nd and 4th week of each month.
- The convenient day will be Sunday and the journey will start from 8.15 am.
- It can be allowed two patients at a time if they are in the same living areas. In case of carer it can be allowed maximum two for each patient.
- During patient selection In-charge Occupational Therapy (SCI) will liaison with social welfare In-charge, Registrar medical care unit and In-charge Physiotherapy (SCI).
- Patient will provide at least 50% - 75% of vehicle and modification cost. In case of poor patient, he/she will get maximum support regarding vehicle and modification.
- In-charge Occupational Therapy (SCI) unit will be responsible for "Good Start Project" and submit an expenditure summary for approval after selection of patient.
- Advance will be drawn by the accompanying Occupational therapist who will adjust the advance against actual expenditure and deposit any unspent amount to account department on headed "Good Start Project". Payment of labor bill and input will be documented by a format under sign by patient or family members.
- After completing each patient visit Occupational Therapist will prepare a short report with digital photograph (before & after modification) and send it through e-mail to donor liaison officer for donor requirement and keep it to patient's original folder.
- Occupational therapist will maintain a register book for updating all documentation regarding the project.
- In case of night journey, therapist will get half day leave for better performance in the second half.
- Preparation to selected patient on modification will be started during staying at ward number 11.
- During home modification Occupational Therapist will provide ergonomics support such as prepare ramp or other modification according to specific measurement so that patient can do work or other activities more efficiently and comfortably.
- In case of financial matter with patient Occupational Therapist will liaison with In-charge social welfare unit.
- Patient will give vehicle rent/cost prior to discharge to main reception on headed to Good Start Project.
- In-charge Occupational Therapy (SCI) unit will co-ordinate the total program and make a final report to Executive Director, CRP.
- In case of any emergency situation Occupational therapy department can change the policy with prior approval of Executive Director, CRP.
- Short report format is enclosed with the policy.

- x -

Name of the Organization : Centre for the Rehabilitation of the Paralysed (CRP)

Project name: Good Start

Donor: Joyce Halliday (UK)

Total Project Period: 1 March 2012 - February 2013 (12 months)

(All amounts in BD Taka)

Sl #	Details Cost Head	Unit	Unit Rate	# of Units	Total
1	2	3	4	5	6
A.	Cash Inflows				
	Fund Received				498,800
	Less : Previous Expenses				3,514
	Fund Available for expenses				495,286
B.	Cash Outflows				
	Salary -Occupational Therapist (50 %)	Per month	9,000	12	108,000
	Transportation Cost	Per tour	5,000	50	250,000
	Labour Cost	Per Patient	450	50	22,500
	Inputs (Materials- cement, sand & bricks etc)	Per Patient	1,250	50	62,500
	Food Cost(OT)	Per tour	250	50	12,500
	Food Cost(Driver)	Per tour	200	50	10,000
	Lodging Cost	Per tour	700	15	10,500
	Communication Cost (Mobile)	Per month	400	12	4,800
	Stationery	Per month	400	12	4,800
	Incidentals	Per month	800	12	9,600
	Total outflows				495,200
C.	Fund Balance (A- B)				86

Prepared By

Iqbal
Md Iqbal Hossain
Incharge, Inpatient Unit(SCI)
Occupational Therapy Dept.
CRP, Savar

Approved By

Md Shafiq ul Islam
Executive Director
CRP