

# Provision of Rehabilitation Services to People with Physical Impairment in Bahir Dar Physical Rehabilitation Center, North West Ethiopia

Dires Addis<sup>1\*</sup>, Hayelom Abadi Mesele<sup>2</sup>

<sup>1</sup>Department of Sociology, College of Social Sciences and Humanities, Wollo University, Dessie, Ethiopia

<sup>2</sup>Department of Sociology, College of Social Sciences and Humanities, Wollo University, Dessie, Ethiopia.

## Abstract

The purpose of this study was to explore provisions of rehabilitation service in Bahir Dar Physical Rehabilitation Center. Types of rehabilitation service, main challenges and strategies used to solve the problems were the specific objectives of this study. Qualitative research approach and case study design were employed. Multiple data sources which include in-depth interview and key informant interview were used to generate the relevant data. This study employed purposive sampling methods in order to incorporate participants based on their knowledge, expressing ability, and voluntarism. Thematic types of data analysis was used to categorize and labeled ideas in to meaningful themes through the process of transcribing, translating, categorizing, thematizing and interpreting of data. This study found that provisions of basic necessities, transportation cost coverage, physiotherapy, artificial limb and leg replacement service,(prosthesis and orthotic service), provision of walking aid were provided for physically impaired people attended at BPRC. The main challenges of BPRC found to be financial constraints, scarcity of man power, shortage of training service, information gap, lack of locally owned workshops, shortage of technologies and absence of community based rehabilitation program. Besides, to reduce the effect of the aforementioned challenges, promoting partnership and collaboration, strengthening outreach program, conducting beneficiary assessment were identified. This study concluded that attention needs to be given for people with physical impairment and legal frameworks need to be implemented at grass root level to create disability friendly environment.

**Keywords:** Disability, people with physical impairment, Provision, rehabilitation services

## Introduction

World Health Organization estimated the numbers of people with impairment worldwide at around 650 million of them 80% of people with impairment were living in developing countries [1]. Approximately one in five of those living in absolute poverty are disabled [2]. United Nations on the other way estimates, there are 300 million physically impaired people worldwide. Of these 55 million (18%) are blind, 70 million (23%) are deaf, 20 million (7%) have epilepsy, 160 million (52) have some sort of mobility impairment [3].

Global Health Education Consortium listed the exhaustive types of physical impairment which includes blindness, hearing impairment, mobility problem and epilepsy (the result of chronic condition), cardiovascular disease, chronic respiratory conditions, injuries at work place, war and car accident, injuries from violence and landmines, birth defects and malnutrition [4]. Among others injuries from accident took the highest share followed by war. Seventy-eight million people worldwide (15.6 percent) of all physically impaired people have physical problem caused by accidents and trauma (including road accidents) and 500,000 children physically impaired by war [3]. A number of factors, such as living, working and travelling in less safe conditions, poorer access to quality emergency and post-emergency health care and rehabilitation services, and lack of access to health insurance schemes contribute to injuries being more prevalent among the more marginalized population of any country [2].

Globally only 3 percent of individuals with physical impairment receive actual rehabilitation service. One third of countries around the world did not allocate budget to provide such services. Due to this reason an estimated 105 million people lack wheelchair, crutch, mobility aid and assistive devices services who has the right to deserve it. Only 5-15 percent individuals were accessed with some form of assistive technologies which includes low cost quality

prosthetic and orthotic, wheelchair guidelines, local artisans, innovative referral and delivery mechanism [2].

In developing countries of the world, an estimated 0.5 percent of the physically impaired population needs prosthetics, Orthotic, assistive devices and related rehabilitation services. But it is widely acknowledged that the physical impairments rehabilitation services demanded for these peoples are not adequately met. The world health organization CBR guidelines point out that in many low income and middle income countries 10-15 percent of people required physical rehabilitation services in African. In these countries, production is low and often of limited quality, there is very few trained manpower and funding may be prohibitive [5]. As the above authors stated that there are an average two million people with physical impairment for every orthopedic and orthotic device production unit in Africa.

The 2007 census estimates that the prevalence of disability in Ethiopia is 1.09 percent. However, this result is widely believed to significantly underestimate the true figure. The census exclude homeless people and those families and disabled people hide themselves due to fear of social stigmas, ignorance and discrimination [6]. Although it is difficult to figure out the exact number of people with physical impairment in Ethiopia, it was found that 95 percent of all people with physical impairments are estimated to live in poverty [7]. Only few were depend on family support and the vast majority of peoples with impairment engaged in begging. As much as the legal frame work of Ethiopia concerned, Minister of Labor and Social Affair in collaboration with concerned bodies designed a comprehensive national action plan for physical rehabilitation strategy that contributes to the realization of the overall goal of providing accessible, efficient, and sustainable physical rehabilitation services thus ensures the full rehabilitation and inclusion of persons with physical impairment in the societies [8]. But the plan was not practically implemented and simply saved under the table. In this case, physical impairment becomes neglected from society and their family members.

In Ethiopia, there are rehabilitation services delivered by both governmental and nongovernmental organizations, which attempt to cater for the special needs of people with physical impairment. Some of the most common types of physical rehabilitations were providing assistive technologies like walking aid, wheelchair, prosthesis, Orthosis, clubfoot and cleft lip and palate surgery to the community despite the service provision faced problem related to accessibility, quality and sustainability.

Few studies have been conducted in Ethiopia focused on the impacts of psycho-social rehabilitation on

children with mental problem [9], existing barriers on the accessibility of primary health care services delivered to people with physically impairment [10]. In addition to this, another researcher uncover the social work intervention process and empowerment practices of rehabilitation institution, challenges and limitations of the institution in carried out social work interventions and empowerment schemes [11]. Further Yitbarek tried to explore challenges and opportunities of mental health rehabilitation center in its rehabilitation program [12]. However, he failed to investigate the problems and opportunities of physical rehabilitation centers. Therefore, to fill up the above gaps, the current studies tried to investigate the provision of rehabilitation services to people with physical impairment in Bahir Dar Physical rehabilitation center

## Research Methodology

### *Description of the Study Area*

The study was conducted in Bahir Dar physical rehabilitation center which is found in Bahir Dar city, Hidar 11 sub city in Amhara regional state. Bahir Dar physical rehabilitation center was opened in August 15/2005 with the aim of providing physical rehabilitation service for people with physical impairments. Bahir Dar physical rehabilitation center is giving health care and support rehabilitation services for physical impairments across the region. According to Amhara National Regional State Social and Labor Affairs Bureau, the numbers of people living with physical impairments in the region were 23,927. There are 13,569 physically impaired people in the region that needs health care and support from health center like Bahir Dar physical rehabilitation center. But the center has a maximum capacity of 30-50 people per a month and 360-600 people per year to provide service. The Report documents of the organization stated that 6,405 (3,582 Males and 2,823 Females) impaired people had got rehabilitation services in Bahir Dar physical rehabilitation center [13]. The number includes repetitive attendants for maintenance and consultation service. The center also provides services to families through family based rehabilitation mechanism to support physically impaired people. The source of the budget is received from USAIDs contribution and some support from Amhara Regional State Health Bureau.

The preliminary information taken from the rehabilitation center indicated that there are sixteen employees from whom three females are health expert/ physiotherapist, nine male and one female Prosthesis and Orthosis expert. Moreover, there is one female and male who have worked as financial accountant and counselor. The whole activity of the center is managed by one female project coordinator.

### **Study Population and Sampling**

The population of this study includes all physically impaired people (6405 individuals) attending Bahir Dar physical rehabilitation center. People with mobility impairment (paralyses), leprosy, handicapped, amputation, and club foot were part of this study. Purposive sampling is employed to include people with fluent speaker, better experience and knowledge of physical rehabilitation service to acquire the very essential information needed to construct this article. To this end those with communication difficulty and hearing impairment were not part of the interview process. Data saturation point determined the number of participants to 14 samples. Therefore, 8 (5 male and 3 female) service recipients and 3 staffs (one male and two female) were selected for in-depth interview. Moreover, 3 experts were selected for key informant interview.

### **Research Methods**

This study used qualitative research approach to describe the experiences, subjective meaning, and real situation of the issue under investigation and taking into account the views of participants. The rationality of choosing the qualitative research rests on the nature of research problem. According to [14], qualitative research design is very helpful for exploratory uninvestigated social problem to understand the meaning individuals and groups brings for their experience and social interaction. In a health or social care setting, qualitative research is particularly useful where the research question involves exploration or identification of concepts or views, exploration of “implementability” or the real-life context [15]. The goal of qualitative research is to look for meaning and stress is laid on the socially constructed nature of reality [14]. The issue of rehabilitation service provision is subjective which can be explained easily in qualitative terminologies than statistical procedures.

Case study design is a qualitative research method which was employed for this study. According to Stake [16], this design involves the study of an issue explored through one or more cases within a bounded system. The principal benefit of case study is that it can expand our knowledge about the variations in human behavior. Although quantitative researchers are typically interested in the overall trends of actions, drawing sample-to-population inferences, and generalizing to other samples, the focus of the case-study design is on individuality and describing the holistic aspects of individual as comprehensively as possible. It facilitates exploration of a situation by using variety of sources. Case study design is also helpful in terms of providing actual and detail sources of data related with main research questions. Therefore, the provision of rehabilitation services in Bahir Dar physical rehabilitation center have been

employed multiple sources of information. Service recipients, staffs and experts of concerned organization were the primary sources of information. On the other hand, articles, thesis, books and magazines were the secondary sources of information for this study.

### **Methods of Data Collection**

This study was used primary sources of data collection instruments so as to generate firsthand information. These methods of data collection were key informant interview and in-depth interview. Professional staffs, coordinators/ manager and members of rehabilitation centers were informants and participants of this study.

### **In-depth Interview**

The in-depth interview method would be used to generate first person accounts of particular life experiences of people under study, which is supposed to enable for exploration of emerging substantive themes. According to Riche and Lewis [17] an in-depth interview allows the researcher to dig certain issues until the required information is obtained from participants of the research to reach at data saturation. So that three staff members and eight rehabilitated members of Bahir Dar rehabilitation center were asked for their rehabilitation service provision and service receiving experiences. The researchers were conducted face to face interview with participants by employing unstructured, open ended and probing questions. Participants chosen place of interview based on their concern.

### **Key informant Interview**

It is a type of interview with individuals who have especial knowledge, experts and talents about the issue under investigation. To this end, individuals who know more about the provision of rehabilitation service of Bahir Dar physical rehabilitation center were purposefully selected. So the key informants of this study were the representatives of Labor and social affairs bureau and project coordinator of the physical rehabilitation services. In case study research design, the sample size is recommended from three up to five key informants [18]. By using such technique three key informants were interviewed consists of coordinators of the physical rehabilitation centers and government organization bureau. These respondents were selected based on their experience with the issues under investigation so as to discover crucial information about the provision of rehabilitation services to people with physical impairments in Bahir Dar physical rehabilitation center. The information generated in this method includes the types of services provided, challenges and measures taken to address challenges.

### **Method of Data Analysis**

In qualitative research methods every moment of data collection is also a time of data analysis and interpretation [14]. Thematic data analysis was used to analyze the study results. Thematic analysis, a type of qualitative analysis whereby coders read line by-line and continually ask participants what the content means. Thematic analysis is a method for identifying (categorizing), analyzing, and reporting patterns (themes) within data. It minimally organizes and describes the data set in to rich detail [19]. In this study, the researchers organized the data separately and generated categories, themes and patterns to come to rich detail in line with the objective of the study.

To achieve this, all the recorded data and field notes through interviews and key informants interviews was first translated to English language. Second read all the transcription in order to grasp the general idea to develop coding of ideas in order to extract significant statement. Third develop categories along with the content of interview which is important to avoid repetition of ideas. Fourth the researcher developed themes and merges themes of similar ideas to come to the objectives of the study. A separate file folder was used to categorize ideas (significant statements). Finally, the research was finalized by writing the description of the text and interpretation of meanings and stores it.

### **Ethical Considerations**

Ethical issues are part of the research process. Ethics is one of the basic considerations in conducting any study. As Social Work researches require both understanding of research skills and sensitivity to ethical concerns in research and consider ethical issues before and while designing a study and collecting data. Kreuger and Neuman stated that Social Work researchers should follow proper ethical guideline even when the study participants are negligent or unaware of it [20]. In order to respect the ethical issues, as a Social Worker we established a proper rapport and secure informed consent from study participants. The informed consent was used to help the participants to understand the nature of the research which are volunteered and that they have the right to withdraw at any time. Moreover, to ensure the confidentiality issues, names of the participants were not disclosed in the final report of this study. Therefore, steps have been taken to ensure that they know exactly what they are agreeing to.

## **Result and Discussion**

### **Introduction**

This section discusses the major findings of the study inline with objectives of the study. The main themes of the study include the types of physical rehabilitation that are provided to physically impaired

individuals which includes food, bedroom and transportation service, physiotherapy, counseling and guidance; and the main challenges that affect the quality of service provision and coping mechanisms which are used to solve the problems were discussed in this part.

### **Profiles of Study Participants**

This section presents profiles of study participants. Background of participants includes age, sex, villages, education, marital status, religion, length of stay in the center. As depicted from the table below, this study involves a total of ten people participated in in-depth interview: two from the staff of the center, eight from the members of the rehabilitation center. Three people from the office of bureau of labor and social affair office, local administration office and coordinator of the center were participated in key informant interview.

### **Types of Rehabilitation Services**

There are some institutional rehabilitation centers in Ethiopia which provides physical rehabilitation and orthopedic devices; some are government run and others are operated by NGOs or international agencies. The Rehabilitation Affairs Department of MoLSA is responsible for coordinating the rehabilitation services provided for people with physical disabilities. So that MoLSA oversees six orthopedic workshops in different parts of the country which helps to extend prosthetic and orthotic service [21]. Likewise Bahir-Dar physical rehabilitation center is one among the charity based organizations established to provide rehabilitation services to people with physical impairment. When asked the main types of rehabilitation services provided in Bahir Dar physical rehabilitation center, both staff members and beneficiaries told that basic necessities of life (food, shelter, transport service) and physical rehabilitation services specifically physiotherapy, providing assistive device, prosthetic services, orthopedics, sticks for visual impairment people, guidance and counseling. It was witnessed that the basic necessities were provided by considering the official letter written by the local authority which state the socio-economic status of service recipient. Nonetheless, other kind of service like physiotherapy, orthopedic maintenance and provisions of wheelchair and crutches which are used to rehabilitates physical bodies were provided by the respective institutions free of charge. The clients were not asked to pay for physiotherapeutic service provision. Such physical or medical rehabilitation is very costly to cover medication expense. As the manager of the center stated that individuals might pay about ten thousand and above for prosthetic and orthotic service if measured in terms of monetary value which makes difficult for poor people with such

physical limitation. Therefore, taking this into consideration the center provided physical rehabilitation service regardless of the income level of individuals.

The financial and material bases of most rehabilitation center found to be external donation from humanitarian association, non-governmental organization and civic societies.

**Table 1. Background information of study participants.**

No.	Pseudonyms	Sex	Age	Religion	Educational level	Marital status	Types of physical Impairment	Sources of income	Remark
1	Abebech	F	24	Orthodox Tewahido	-uneducated	Single	Polio	Handicraft activities	Rehabilitated member
2	Almaz	F	45	„	MA in Public management	Married	-	government Employment	Staff/coordinator
3	Belete	M	40	„	Diploma in Orthopedic	Married	-	government Employment	Staff
4	Gobeze	M	52	„	Grade 8 completed	Married	Clubfoot	Pension payment	Rehabilitated member
5	Tazebachew	M	22	„	Grade 12 completed	Single	Amputation	Family Support	Rehabilitated member
6	Edimealew	M	24	„	BA Degree	Single	Amputation	Family Support	Rehabilitated member
7	Fatuma	F	27	Muslim	Grade 10 completed	Single	Paralyzed	Family support	Rehabilitated member
8	Gebeyehu	M	30	Orthodox Tewahido	BA degree	Single	Clubfoot	Employed	Rehabilitated member
9	Kedir	M	23	Muslim	Grade 7 completed	Single	Amputation	Begging	Rehabilitated member
10	Zeritu	F	40	Orthodox Tewahido	Uneducated	Divorced	Amputation	Begging	Rehabilitated member
11	Yeshwork	F	30	Protestant	First degree	Married	-	Gov't employment	Staff
12	Yeraswork	M	37	Orthodox	First degree	Married	-	Government employee	Staff of labor and social affair
13	Demelash	M	48	Orthodox	First degree	Marrird	-	Gov't employee	Staff of labor and social affair
14	Eyerusalem	F	28	Orthodox	First degree	Marrird	-	Gov't employee	Staff of health bureau

International Committee of Red Cross (ICRC), Bahir Dar Health Bureau, and Cheshire Service Ethiopia were the basic sources of finance, material and capital incentives. But the majority of funding sources goes to international Committee of Red Cross which donates assistive device; prosthetic and orthotic material purchase. The primary aim of the International Committee of Red Cross is to help disabled people who are affected by the conflict or war to fully reintegrate into society. Hence most survivors of war in developing countries were assisted with technologies and assistive device [22]. To this end,

ensuring accessibility, quality and sustainability of service provision found to be the main goal of the rehabilitation institution as supplemented by such international committee of Red Cross association.

In Ethiopia, the ICRC continued its support for seven physical rehabilitation centres in Arba Minch, Asela, Bahir Dar, Dessie, Dire Dawa, Mekele and Menagesha, managed by regional governments through their offices of labour and social affairs (Asela, Arba Minch, Bahir Dar and Dessie), by local NGOs with the financial participation of BoLSA (Mekele) or independently by an NGO (Dire Dawa and Menagesha). In conjunction with the Ministry of Labour and Social Affairs, the Ministry of Health, the Ministry of Education and Medical Faculty of Addis Ababa University, also continued to conduct a multiyear course in prosthetics and orthotics at the National Rehabilitation Centre of the Black Lion Hospital [23]. Previously the Emergency Demobilization and Reintegration Project (EDRP) included a component for the strengthening of regional prosthetic and orthotic centers and the establishment of a National Rehabilitation Centre in the grounds of the Addis Ababa University Medical Faculty at Tikur Anbesse Hospital, with funding provided by a World Bank loan. The project supported the capacity building at six prosthetic/orthotic centres (Addis Ababa, Mekele, Harar, Arbaminch, Dessie and Assela) to expand and strengthen the provision of physical rehabilitation and supported three workshops (Jigjiga, Awassa and Dire Dawa) with machinery and raw materials [21]. However, all such effort is not continued to support this day following the exile of most NGO from Ethiopian land.

As witnessed from various literatures reviewed in Ethiopia, such kind of service also provided in other parts of the country, Ethiopia. For example studies conducted in Menagesha Physical Rehabilitation Center indicated that children with polio, clubfoot, amputee, CP and spina bifida had got physical (medical), educational, and social and vocational rehabilitation services [9]. Unlike Bahir- Dar rehabilitation center which provide physical rehabilitation services to all kind of physical impairment problem, Menagesha Rehabilitation Center fixes criteria to select beneficiaries for psycho social rehabilitation service. The centre uses the following criteria to select and admit physically impaired children. Children's age should be between five and fifteen, who have no communicable disease, who have guarantee either family, organizations or who has house plan and their impairment must be polio, clubfoot, amputee, CP and spina bifida.

The service provision system in this case is not inclusive that certain segments of individuals like children who lack care giver were not allowed to attain

such service. This study is contradictory with the study conducted by World Health Organization though it is too comprehensive and incorporates different countries from different corner. The report of World Health Organization indicated that peoples of low and middle income countries including Ethiopia were intervened with some sort of service focus in physiotherapy, assistive devices and medical interventions [24]. Similarly, this study also found that people with physical disability were provided service without considering their income except such criteria to provide meal, transport, and bedroom service. It was told that the main aim of the rehabilitation center is providing physical rehabilitation rather than comprehensive institutional care and support for long period of time. However, the maximum number of day that an individual allowed staying in the center for only fourteen days and a minimum of one day.

#### ***Challenges of Provision of Rehabilitation Services in the Center***

Physical therapy provision is insufficient for the needs of most countries, due to lack of skilled practitioners and non-standardized nature of service provisions [25], lack of accessible places to be physically active (e.g., sidewalks, parks, fitness centers, green spaces) [26], policy practice gap [27], inaccessibility of funding sources, financial viability problem[23], inadequate and unresponsive services [28] and community based rehabilitation strategies is not grown as expected [29]. These were the most challenges of institutional based service delivery system. Moreover, institutional based services have limited success in promoting independence and social relationships where community services do exist, people with physical impairments have lacked choice and control over when they receive support in their homes [28].

There are different problems that challenges/constraints which affect the services provision in the rehabilitation center. The loss of any ability results in a sudden restriction in function, sensation and appearance. This can even lead to high levels of frustration due to unmet needs of the client. Most limb amputees have historically been poorly served by rehabilitation service providers in many ways. The volume of services lacked expertise and reliable technology. Most patients have either had no access to a solution or have experience a poor outcome. However, there has been an emergence of improved services and accessibility to international products that can help in rehabilitating person with disability. They can then provide accurate counseling to their patient when faced with difficult situations [30]. Among different problems identified by [31], and Kianoush [32], lack of fund, lack of adequate human resources, individual problems of providers and lack of

communication ability, inadequate and unresponsive services, poor services coordination, poor knowledge of rehabilitation and problems of transportation are the major constraints that physical rehabilitation centers of Ethiopia's faced.

A qualitative study done by Walji [33] in Cambodia also stated that barriers of institutional care centers were, finances consists of transport costs, unofficial user fees and the costs of a career to accompany the person with disabilities. The researcher further stated that quality of care, particularly health professionals' knowledge and skills related to disability as well as their discriminatory attitudes based on the patient's ability, People with disabilities, having poor knowledge of where to seek appropriate services and of their rights and entitlements.

Similarly, this study found that Bahir Dar physical rehabilitation center faced different problems like reliance on imported materials, like crunch, wheelchair and fund, shortage of trained man power in orthopedic professional, inaccessibility of services, shortage of long term and short term training to fill skill gap, inaccessibility of information, lack of workshop/ work place and others. Different from the identified problems by [31, 32, 33] Bahir Dar Physical rehabilitation center also faced another series problems like shortage of skilled human resources, lack of locally produced materials to ensure sustainability, shortage of short term and long term training service and shortage of dormitory for customers, problems of outreach services, lack of community based rehabilitation and organizational structural gap to provide appropriate services.

Stigma and discrimination, poverty, absence of systems to manage violence inside the center, problem of communication between the management and workers and scarcity of social work and psychology professionals), were found to be the major problems of rehabilitation center [12]. These problems also observed in Bahir-Dar rehabilitation center to some degree like communication gap, lack of expertise though his focus is only social workers but no problem of stigma and discrimination identified in this study. Another study found out that there are barriers related to the physical environment, inaccessibility of transportation and health information. The author also identified knowledge gap and attitudinal problem of health care providers as a main barriers and poverty as a facilitating factor behind such barriers [10]. Some of the above mentioned barriers also found to be the major challenges in BPRC but the problems of knowledge and the attitude of workers in BPRC were not observed. In this case, there are some contradictions. The major emphasis lied on health and related barriers where as the current studies indicate the holistic barriers which disturb physical rehabilitation service. To this end, the

main social, psychological and economical crisis found to be the main obstacles to address the challenges faced by rehabilitative member.

### ***Strategies Used to Solve Problems of Rehabilitation Center***

Various strategies have been found to be effective in mobilizing communities for the implementation of institutional rehabilitation program. Environmental changes, such as the provision of technological devices (e.g. mobility aids and hearing aids) or adaptations to buildings can also improve participation among people with impairments, thus alleviating disability [34].

Community based rehabilitation service developed as a remedy for the failure of institutional based rehabilitation. Community Based Rehabilitation (CBR) has developed in response to the need for governments and other non-governmental agencies to use their limited resources to provide better coverage[25]. Community Based Rehabilitation (CBR) is a way of giving the rehabilitation process and responsibility back to the individual, family and community. This idea implies that the goal of CBR is that for rehabilitation to be perceived as part of community development where by the community seeks to improve it [35].

Rehabilitation workers those who were participated in in-depth interview of the current study pinpointed networking with local institutions as a best intervention strategy to attain their program strategies. As related to their service provisions to people with physical disabilities, four organizations were identified as sources of support for Bahir-Dar rehabilitation center. These organizations includes: Bureau of labor and Social Affairs, Felege hiwot hospital orthopedic department, International committee of Red Cross, Cheshire service Ethiopia. These organizations are providing service like training and coordination (BoLSA), surgery correction and medical assistance (FelegHiot hospital), provisions of walking aid service (ICRC and CSE). Similarly, this research discovered that establishing community based rehabilitation is the main strategy that the center is in the process to extend its service to peoples who live in their own communities through outreach and community based rehabilitation program.

The program for medical rehabilitation for PWDs is aimed at furnishing devices to support missed or damaged organs and provide necessary health care and its strategies include strengthening and expansion of medical rehabilitation services, making available strong referral hospitals which is all ineffective in rehabilitation service providing center [9]. But it was found that the referral linkages to hospital and other service providing organization in the case of Bahir Dar rehabilitation center are found to be effective.

Although similar studies highlight the major

strategies used to assist people with physical disabilities and mental health problems [12, 9], this study come up with different findings relating to referrals and linkages created between institutional rehabilitation and donor organization. The main strategies identified in this study include collaboration and partnership, strengthening community based approach, strengthening outreach program and implementing beneficiary assessment which were all different from the above studies.

## Conclusions and Recommendation

### Conclusion

The results of this study show that the main rehabilitation service provided by Bahir Dar physical rehabilitation center includes meal, bed and transportation cost service, physiotherapy, prosthetic and orthotic maintenance service and distribution of assistive technologies to guide physical mobility, counseling and guidance both at individual and group level as well as making referrals for patients beyond their professional capacity and or when clients faced double burden of physical and psychological challenges.

Bahir Dar physical rehabilitation center provides the aforementioned physical rehabilitation services to ensure the goal of improving physical rehabilitation accessibility, quality, social inclusion and psychological wellbeing of people with different physical limitation or impairments as well as to ensure sustainability of service. So that the misery living conditions of the impaired people are minimized; economically they become independent and increased their participation in the community affairs. Therefore, these indicate that rehabilitation services played a great role in provision of rehabilitation services to people with physical impairments.

The rehabilitation center has faced many challenges/ constraints in provision of rehabilitation services, include, lack of adequate human resources, financial constraints, technological constraints, infrastructural inaccessibility, lack of motivation and responsiveness of concerned stakeholders, lack of training and refreshment to introduce the new way of treatment with modern technology.

The main strategies devised to reduce the problem of the center were creating partnership and collaboration with government and non-governmental organization working for similar aim, conducting beneficiary assessment which enables to provide timely feedback for observed and unobserved social problems, strengthening outreach programs to reach people with physical impairment hide themselves in the roof of their relatives, church yards and street corner of different geographical settings.

As a concluding remarks attention needs to be given for people with physical impairment. The legal

frameworks need to be implemented at grass root level to create disability friendly environment. It needs the collaborative effort of humanitarian agencies, government and non-governmental organizations to make disability sensitization and resource mobilization to mainstream disability.

### Recommendation

The supply of health care services for people with physical impairment should be seen in a wider and integrated perspective. From the client's perspective, one single service is typically insufficient, a chain or continuum of services that includes both health care and others related services in collaboration with other sectors is required to meet the comprehensive needs of the impaired. Any strategy must recognize the roles and interaction of various sectors and types of services that make up an effective intervention strategy.

Prevention of impairments living conditions is a general societal concern and responsibility of all sectors. Prevention includes: Provision of primary health care services, prenatal and postnatal care, provision of nutrition education, immunization campaigns, measures to control endemic diseases, safety regulations, prevention of accidents (traffic safety, occupational safety), and environmental health.

Assistive devices have to be adequately provided to ensure the mobility of people with physical impairment. Assistive devices are used to compensate or complement functional limitations. The range of sophistication stretches from homemade crutches and walking aids to high technology devices.

Short term and long term training service should be integrated with educational institutions to produce skilled man power easily introduced with modern technologies and the new treatment system.

Institution based rehabilitation system is costly to address people with physical and other psycho social challenges. To solve the challenges associated with financial constraints, introducing community based rehabilitation system is an alternative means of reaching the people with functional limitations.

### Conflict of Interest

The authors declare that they have no competing interests.

### Acknowledgements

The authors would like to thanks Bahir Dar University, college of social science and humanities. We would also provide our great gratitude to all of respondents and informants, data collectors, supervisors and all other individuals involved in any process of this study.

## References

- [1] WHO, (2014). "Review of disability issues and rehabilitation services in 29 African countries:World Health Organisation (2010). *Community-based rehabilitation: CBR guidelines*". Geneva:World HealthOrganisation. Available: <http://www.who.int/disabilities/cbr/guidelines/en/index.html>. [Accessed on 13Aug2012].
- [2] Handicap International, (2014). "Access to service for persons with disabilities in challenging environments", Supplemented to seminar held in Amman, Jordan.
- [3] UN, (2015). "The Rights of the disability person", Human Rights fact Sheet, NO.10 Article, 23.Geneva.
- [4] Global Health Education Consortium (2007). "Disability and Rehabilitation in Developingcountries:" Texas women University, Dallas, Texas.
- [5] Patrice.R and Isabelle.R,(2013). "Physical and rehabilitation: Technical resourcesdivision", New York: Oxford University Press Inc.
- [6] African Children Policy Forum (2011). "Children with disabilities in Ethiopia: The hidden reality". Addis Ababa: The African Child Policy Forum.
- [7] International Labor Organization, (2013). "Basic principle of vocational rehabilitation of the Disabled": Third Revised Edition, Geneva: International Labor office.
- [8] Minister of Labor and Social Affairs (2015). "National program of Action for Rehabilitation of person with Disabilities:" Addis Ababa, Ethiopia.
- [9] Yeshimebet Alemu, (2014). "Impact of Rehabilitation Centre on the psycho-social Condition ofChildren with Physical Impairment". A case study on Cheshire, Menagesha rehabilitationcentre for the children impairment, Unpublished M.A. thesis. Addis Ababa University:Addis Ababa
- [10] Kemal Sied (2011). "Assessment of Barriers of Accessing Primary Health Care Services for Persons with Hearing, Visual and Physical Impairments:" The case study on Gulele SubCity, Unpublished M.A thesis, Addis Ababa University, Addis Ababa.
- [11] Edom Hailu, (2016). "Social Work Intervention and Rehabilitation Centre for People with Disability. The case study an institution in Addis Ababa city under Labor and Social Affairs Bureau for people with Disability," Unpublished M.As thesis. Addis AbabaUniversity. Addis Ababa.
- [12] Yitbarek Hizekeal, (2015). "Exploring Challenges and Opportunities of Geferssa Mental Health Rehabilitation Center (GMHRC) in its Rehabilitation Program in Oromia" Regional State: Addis Ababa, Ethiopia.
- [13] Amhara "National Regional State Social and labor Affair Bureau", (2016). Annual statistical Data.
- [14] Creswell, J.W., (2007). "Qualitative inquiry & research design: Choosing among fiveapproaches". (2<sup>nd</sup> edition)London: Sage publication, Inc.
- [15] Hancock, R.D & Algozzine, B. (2006). "Doing cases study research: A practical guide for Beginning researchers. Columbia University, New York: Teachers College Press.
- [16] Stake, R. E. (2002). "The art of case study research: Thousand Oaks, CA: Sage. Tanzania."
- [17] Riche,J. and Lewis,J, (2003). "Qualitative research practices. London: Sage".
- [18] Yin, R. (2010). "Qualitative research from start to finish: New York: The Guilford".
- [19] Braun, V. and Clarke, V. (2006). "Using thematic analysis in psychology: Qualitative research in psychology", 3 (2). pp. 77-101. ISSN 1478-0887.
- [20] Kreuger & Neuman (2003). "Social work research methods: Pearson education Inc".
- [21] Ministry of Labor and Social Affairs (2008). "Status and Victim Assistance in Ethiopia: Report presented by Assefa Ashengo Ministry of Labour and Social Affairs Federal Democratic Republic of Ethiopia to the Standing Committee on Victim Assistance."
- [22] International committee of Red Cross, (2014). "Practical project guidelines for physicalrehabilitation Centers": Standard Working Procedures and Protocols for the Management of Physical Rehabilitation Centers, Geneva, Switzerland.
- [23] International Committee of Red Cross (2013). "Physical Rehabilitation Program: Annual report," Geneva, Switzerland.
- [24] World Health Organisation (2010). "Community-based rehabilitation: CBR guidelines". Geneva:World HealthOrganisation. Available: <http://www.who.int/disabilities/cbr/guidelines/en/index.html>. [Accessed on 13Aug2012].
- [25] Bury.T, (2005). "Primary health care and community based rehabilitation: implications for physical therapy", journal of Asian pacific rehabilitation, vol.16, no. 2,
- [26] Abertawe,D. (2013). "Rehabilitation Services for people with a Physical impairment", city and county of Swansea.
- [27] Malle and Abebe (2017). "Policy Practice Gap in Paarrticipation of Students with Disabilities inEthiopian Formral Educational program", University of Jyvaskyla, Finland.
- [28] Neeru.G.Carla.C and Michel.D, (2011). "Health-related rehabilitation services": assessing the global supply of and for human resources in Cape Town.
- [29] World Health Organization,(2004). "CBR: A strategy for rehabilitation, equalization of opportunities", poverty reduction and social inclusion of people with disabilities.Geneva: WHO.
- [30] Nanjwan. J,Dasel.P and Jenet.P,(2014). "The rehabilitation process and persons with physical dysfunctions:" Journal of support and physical education.Vo.3, pp.19-23. University of Jos.
- [31] World Health Organisation (2011). "World report on disability and rehabilitation. Geneva: World Health Organisation": 1-325.
- [32] Kianoush Abdi,Mohammad Arab & Mohammad Kamali,(2016). "Challenges in providing rehabilitation services for physical with disability: qualitative study: Iran."
- [33] Walji.A.(2012). "Barriers to and Facilitators of Health Services for People with Disabilities inCambodia. CBM Australia:" Nossal Institute for Global Health: University of Melbourne.
- [34] Lemmi.V, Hannah, K.K. Blanchett, et al, (2016). "Community based rehabilitation for people with disabilities", international initiative for impact evaluation, London.
- [35] Forum for Sustainable Children Education, (2000). "Investigating the intervention of community-based rehabilitation program for children with physical disabilities in Adama town"
- [36] P.Dhivya Bharathy, P.Preethi, K.Karthick, S.Sangeetha" Hand Gesture Recognition for Physical Impairment Peoples" SSRG International Journal of Computer Science and Engineering (SSRG-IJCSE) – volume 4 Issue 10 – October 2017.