PERFORMANCE OF THE CEREBRAL PALSY SOCIETY OF KENYA (CPSK) IN REHABILITATION OF CHILDREN WITH CEREBRAL PALSY IN KENYA

BY

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DECLARATION

This thesis is my original work and has not been presented for a degree in any other university.

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DEDICATION

This work is specially dedicated to my beloved wife Esther Munyiva and my children Dorcas Mutanu, Ruth Katungwa, Powell Mwitiki and Enock Kituku for their prayers, patience and encouragement during the years of my study at Kenyatta University. It is also dedicated to my parents Japheth Kioko and Grace Nundu for their concern, love, prayers and words of encouragement in support of my education.
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ABREVIATIONS AND ACRONYMS

APDK - Association for Physically Disabled of Kenya
CBR - Community Based Rehabilitation
CP - Cerebral Palsy
CPSK - Cerebral Palsy Society of Kenya
IBR - Institutional Based Rehabilitation
IEP - Individualized Educational Programme
KIE - Kenya Institute of Education
MoE - Ministry Of Education
MOEST - Ministry of Education Science and Technology
NGO - Non – Governmental Organizations
PWDs - Persons with Disabilities
UCPREF - United Cerebral Palsy Research Educational Foundation
UN - United Nation
UNESCO - United Nations Educational, Scientific and Cultural Organization
UNISE - Uganda National Institute of Special Education
UNO - United Nations Organization
UPE - Universal Primary Education
WHO – World Health Organization
ABSTRACT

The researcher carried out an evaluative study of the Cerebral Palsy Society of Kenya (CPSK) with focus on its performance in rehabilitation of children with cerebral palsy (CP) in Kenya. The study was aimed at determining the rehabilitation services provided and the human and material resources available at CPSK, the achievements of the society and challenges faced. It also aimed at gathering views of the members on ways of enhancing rehabilitation services. The purpose of this study was to determine the reasons behind the failure of CPSK to extend rehabilitation services to other parts of Kenya outside Nairobi Province and raise recommendations for enhancing rehabilitation of children with CP. This study was based on the “Goal Setting and Task Performance Theory” of A. Locke and Gary P. Lathams (1968) on organizational behaviour. The researcher reviewed related literature on rehabilitation of persons with disabilities in Finland, Japan, Thailand, Nigeria, Ethiopia, Uganda and Kenya. Descriptive case design was used in the study. The study was done at the CPSK premises in Nairobi. The diagnostic approach used in this descriptive case design enabled the researcher to investigate in detail the performance of CPSK and the factors influencing the society’s rehabilitation programmes. The study targeted a population of 300 registered members of CPSK who are mainly parents/guardians of children with CP; 1 chairman of the society; 2 physiotherapist and 3 occupational therapists providing rehabilitation services in the society’s clinic in Nairobi. One hundred members of the society, the chairman, one physiotherapist and one occupational therapist were sampled to make a total 103 respondents. Data was collected using a researcher made questionnaire for the members of the society, an observation checklist, two researcher - made interview guides, one for the society’s chairman and another for both the physiotherapist and occupational therapist. Other data was be generated through analysis of the society’s constitution and members register. The questionnaire was piloted using ten members of the society while the interview guide for the paramedics was piloted using 1 physiotherapist and 1 occupational therapist. The data collected using the questionnaires was coded and edited manually. The codes were then fed into a computer and processed using the Statistical Package of Social Sciences (SPSS) programme to yield descriptive statistics such as frequencies and percentages. This processed data was then presented in frequency tables and histograms to give a clear visual presentation. Data yielded by interviews was analyzed using narrative description. Analyzed data was then summarized into themes and inferences were made. The results showed that some essential rehabilitation services were not provided by CPSK as the society lacks adequate human and material resources and funds for financing rehabilitation programmes. The study established that those challenges as well as lack of reliable data on number of children with CP in Kenya hampered the society’s provision and expansion of rehabilitation services to all parts of Kenya. Various recommendations were made to CPSK, the government of Kenya and researchers for enhancement of rehabilitation of children with CP.
CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Exceptional children may be put in various broad categories for purposes of studies and service provision. Among the broad groups is that which comprises of children with physical impairments. Physical impairments are further considered in three categories, which include: Musculo-skeletal impairments (orthopedic); Neurological impairments and chronic health impairments. Musculo-skeletal impairments are the physical impairments that affect the skeletal and muscular systems of the body (Bleck, 1987). These comprise conditions such as muscular dystrophy; contractures; spinal curvatures, such as scoliosis, kyphosis and lordosis; that usually cause poor posture and or limitations in mobility. Chronic health impairments result from health problems that are long-term in nature and adversely affect the stamina of the individual. These are conditions such as diabetes, asthma, epilepsy, sickle-cell anaemia, heart problems, and haemophilia (Graham, et al.2001). Neurological impairments refer to physical impairments that result from dysfunction or damage of the nervous system. These include conditions such as cerebral palsy, spina bifida, hydrocephalus and poliomyelitis (polio), (Ndurumo 2002, and Ardrie 2003).

Cerebral Palsy was noted to be the second most common neurological condition causing physical impairments after poliomyelitis in Kenya (Auka and Afedo, 1985 and Kennedy, 2001). Cerebral Palsy, according to Cruickshank (1980) and Ardrie
(2003) is not a single disease, but a multi-handicapping condition comprising a group of symptoms. The condition initially becomes evident in childhood and all agree that it is not contagious, cannot be cured and usually does not get progressively worse; neither is it fatal or inherited. Ndurumo (2002) and Saladin (2004) added that CP is characterised by paralysis, weakness, in-coordination or any other aberration of the motor control centre of the brain. They further postulated that the condition might include learning difficulties, psychological problems, sensory defects, and convulsive behaviour of organic origin. Santrock (2006) further noted that children with CP might also have shaking body movements and unclear speech.

Children with CP, due to their characteristic limitations require special treatment in order to achieve their potential, hence require effective rehabilitation (Ndurumo, 2002). Although significant studies have been done in Kenya on rehabilitation of persons with physical disabilities, there is no tangible study known to the researcher that has yet been done specifically on rehabilitation of children with CP in both educational and non-educational institutions in the country. Rehabilitation of children with CP in Kenya is still wanting. The children usually receive rehabilitation services in their homes, in health care facilities or at centres established by organizations for/of persons with disabilities such as Cerebral Palsy Society of Kenya (CPSK). Others are offered services in centres established in few schools. There are however, those who virtually receive no rehabilitation at all. In many of the institutions children with CP are provided with rehabilitation services jointly with others who have other types of disabilities. Children with CP however usually have extra demands in regard to their
individual needs that may not be adequately met in a regular or general setting. They essentially require special programmes in order to provide the extra requirements (Ndurumo, 2002 and Learner, 2006). This is in accordance with Article 23 of the Universal Declaration of Human Rights (1948) in UN, (1994). According to this article, member states of the United Nations Organization (U.N.O) should recognize the right of the disabled child to special care and shall encourage and ensure the extension, subject to available resources, to eligible child and those responsible for his or her care the assistance for which application is made and which is appropriate to the child’s condition and the circumstances of the parents or others caring for the child (UN, 1994).

The Salamanca Statement (1994) in UNESCO (1998) reaffirmed the right of children with special needs to education and rehabilitation as enshrined in the Universal Declaration of Human Rights of 1948. It urged all governments to design policies and budgetary priorities to improve their education systems to enable them include all children regardless of their individual differences, and to encourage and facilitate the participation of parents, communities and organizations of persons with disabilities in the planning and decision-making process in provision for Special Needs Education (SNE), (UNESCO, 1994).

In this regard parents and supporters of children with CP in Kenya took the responsibility of forming organizations or associations for support of such children. The
main association for children with CP in Kenya is the Cerebral Palsy Society of Kenya, which was established by parents of such children in 1994. The ultimate goal of the society was to ensure that all children with CP in Kenya were provided with appropriate and adequate rehabilitation services. Although membership has so far grown to 300 parents/guardians and well wishers, service provision is so far limited to Nairobi province. The researcher questions why the society has not expanded services to other parts of the country. This study was therefore called for to determine and investigate factors that might have led to the society’s failure to extend rehabilitation services to other parts of Kenya, and determine ways of enhancing the society’s rehabilitation services.

1.2 Statement of the Problem

The Disability Act (2003) provides for the rights and privileges of PWDs such as education, health and other rehabilitation services, and funding for PWDs in general. However, the Act does not state how these services should be provided to children with CP. Effective rehabilitation for these children should include; medical therapy, physiotherapy, occupational therapy, training in communication skills and, self-care skills, barrier free access, adaptive and assistive devices provision and educational intervention. The CPSK was established in order to provide all those services to all children with cerebral palsy every part of Kenya. The central problem of this study was that CPSK had performed poorly in this respect by failing to achieve that objective even after being operational for more than fifteen years. The factors leading to the society’s failure were not well conceptualised. This lack of knowledge regarding the
contributory factors would militate against the country’s aspiration to achieve millennium goals by the year 2015. This is due to the fact that most of the Kenyans with CP are likely to lag behind in accessing free education and health care. Their mortality rate is also likely to increase. Their families are likely to exhaust the meagre resources they have and end up becoming poorer.

1.2.1 Purpose of the Study

The purpose of the study was to investigate the reasons behind CPSK’s failure to extend rehabilitation services to all children with CP in all parts of Kenya. The findings of the study would be used as a benchmark for manipulation of the factors that influence the society’s performance in order to extend rehabilitation services to other parts of the country.

1.3 Research Objectives

This study sought to achieve the following objectives:

1. To establish the opinions of members of CPSK on the society’s performance in provision of rehabilitation services to children with CP and their families.

2. To determine the human and material resources available at CPSK.

3. To determine the achievements of CPSK since it was established.

4. To gather views of the paramedics attached to CPSK on the challenges facing the society’s rehabilitation programmes.
5. To gather views of members of CPSK on ways the society can enhance rehabilitation services and make recommendations for improvements.

1.4 Research Questions.

1. What are the opinions of members of CPSK on the society’s performance in provision of rehabilitation services to children with CP and their families?

2. What human and material resources are available at CPSK?

3. What has CPSK achieved since it was established?

4. What are the views of the paramedics attached to CPSK regarding the challenges facing the society’s rehabilitation programmes?

5. What are the views of members of CPSK’s about ways of enhancing the society’s rehabilitation services?

1.5 Significance of the Study

The findings are useful as they yielded data that would enable CPSK and other similar organisations to appraise their performance status in service delivery to PWDs and their families. The research findings may also be useful to the government and other stakeholders in reviewing their roles in the facilitation of rehabilitation programmes for/of PWDS. The study also identified areas for future research in the area of Cerebral Palsy.
1.6 Delimitations and Limitations

1.6.1 Delimitations

This study was delimited in terms of population to registered members of CPSK who happened to be the parents/guardians of children with CP served by the society, the five paramedics and the chairman who work for the society in Nairobi. Well-wishers who are members of the society were not included since they had no direct attachment to a particular child. Data collected was limited to rehabilitation activities planned and executed at the CPSK clinic in Nairobi. This is because CPSK had no branches elsewhere in the country.

1.6.2 Limitations

This study was limited in the following ways:

- In terms of context because the respondents were mainly from Nairobi province. Other social contexts were not represented since they had no registered membership with the society.
- There was a dearth of information on persons with CP in Kenya.
- Deriving information from majority of the respondents was initially very difficult due to mistrust as a result of their previous experiences with other researchers who did not meet the members’ expectations at the end of their studies. The researcher therefore essentially used two research assistants who won the trust of the respondents with less difficulty.
1.7 Assumptions of the Study

The basic assumptions of the study were:

i. CPSK had adequate and qualified personnel to rehabilitate children with CP.

ii. The society had adequate and appropriate material resources for rehabilitating children with CP in Nairobi.

iii. There were certain factors that have hindered the expansion of CPSK’s rehabilitation services beyond Nairobi province.
1.8 Theoretical Framework

The study was based on the Goal Setting and Task Performance Theory of Edwin A. Locke and Gary P. Latham’s (1968), which shows how the field of organisational behaviour should progress from a sound theoretical foundation to sophisticated research, and actual application of more effective management practices (Locke and Latham 1990). This theory lies at the centre of the performance based motivation programmes, which are effectively applied in human resource management in the form of management by objectives. According to Locke the values and value judgement are important cognitive determinants of behaviour. He defines values and value judgements as the things the individual acts upon to gain and, or keep. Further he says that emotions or desires are the way a person experiences these values, and that intentions/ goals, which act together with values, are also important determinants of behaviour. He postulates that people work hard to achieve goals so as to satisfy their emotions and desires. He emphasises that for goal setting theory to work, members of an organisation must show commitment to the goals, which they set. After the goals have been set, they then respond and perform accordingly. The result of these responses is consequences feedback or reinforcement. He concludes that, goal setting performs four important functions for attention on members of an organisation. They include; helping a worker to focus on
his/her particular task or objective, regulate or increasing his/her efforts, constantly remind them of their destination and the means to get there thus enhancing persistence on a task, and enabling the workers to become creative in charting out more strategies and action plans for achieving the agreed upon results.

Based on this argument this study fits within the confines of Goal Setting Theory of organisational behaviour. The theory may be used to explain the significance of evaluative studies of an organisation’s performance to determine its achievements, failures and challenges. The results of such studies would appropriately form a basis for improvement or enhancement of service delivery. In this study, the performance of CPSK in rehabilitation of children with CP was investigated. The results of the study would be consumed by the society to the effect that the members become more creative in charting out new strategies and action plans for dealing with any identified challenges adversely influencing their rehabilitation programmes for children with CP.
The ultimate goal of providing rehabilitation services to children with CP is to enhance their capacity to adapt in their natural environment. Meeting such a goal becomes a great challenge to the service providers, as it requires serious planning and harmonization of the rehabilitation activities. This can only be achieved by directing the key rehabilitation services to the child with CP and other stakeholders. Delivery of the key rehabilitation services is however dependent on the availability of appropriate human and material resources which are primary determinants of performance efficiency.

The conceptual framework therefore attempts to show the relationship between the independent and dependent variables in the proposed study and illustrates the outcomes of rehabilitation of persons with CP. The human and material resources available to the CPSK are presumed to be significant in regard to performance of the society’s rehabilitation activities. In line with the “Goal Setting Theory” of Locke and Latham’s (1968), well-trained personnel posses and use the right knowledge and skills for effective rehabilitation of children with CP. Effective performance on the other hand motivates the society’s members and service providers to become more committed to improving and expanding their services. With adequate and suitable resources, and effective management of the resources, rehabilitation of children with CP would be enhanced and organizations or individuals providing rehabilitation services as illustrated in figure 1.1 would achieve various rehabilitation outcomes.
1.10 Operational Definition of Terms

The following terms are defined as used in this study.

**Cerebral palsy:** This is a disorder of the brain, which occurs as a result of brain damage or lack of development in the part of brain controlling movement and posture in early life.

**Challenges:** In this study, the term refers to conditions that make it difficult or impossible to offer essential services and resources to exceptional children, hence barriers to attempts to realize their maximum potentials.

**Disability:** Here it is referring to a loss or reduction of functional ability of an individual due to impairment.

**Handicap:** This is a disadvantage or a restriction of activity, which has come out as a result of society’s attitude towards disability or due to the disability.

**Human resources:** In this study it refers to persons required to provide professional and/or any support services to persons with CP and their caretakers.

**Impairments:** This term is used in this study to refer to an anatomical loss of all or part of a body organ.

**Material resources:** These include physical facilities, equipment, machines, adaptive devices and money.

**Occupational therapy:** The art of helping a disabled person learn to do useful or enjoyable activities.
Physiotherapy (physical therapy): This is the art of improving posture, movement, strength, balance and control of the body by the use of physical exercises.

Professional qualification: Refers to certification acquired after training in a particular career.

Rehabilitation: Used here to mean developing of an individual’s ability or helping a person with a disability to manage better at home, in the community and in other social settings.

Rehabilitation activities: These are the specific activities performed during the provision of the rehabilitation services. These are such as speech training and teaching of activities of daily living (ADL) in provision of educational rehabilitation services.

Rehabilitation services: These refer to the general services that a rehabilitation programme for persons with disabilities is expected to provide. They are educational, medical, counselling, sensitisation and advocacy services.

Special education (Special Needs Education): Here, it is used to refer to a system of education where adapted and specialized curriculum, intervention process of teaching, special facilities and modified physical environment are provided to assist exceptional children to the level of their ability.

Therapy: This basically means treatment.
CHAPTER TWO
LITERATURE REVIEW

2.0 Introduction

This chapter presents a review of literature related to this research. The literature review was done under the following sub-headings; effects of cerebral palsy and associated impairments; salient features of an effective rehabilitation programme for children with cerebral palsy; rehabilitation programmes for persons with cerebral palsy in other parts of the world; rehabilitation programmes for persons with cerebral palsy in Africa, rehabilitation of persons with cerebral palsy in Kenya, and summary of literature review.

2.1 Effects of cerebral palsy and associated Impairments

Studies conducted by Kennedy (2001) in Port Reitz and Dagoretti Special Schools in Kenya in 1990 observed that CP was one of the major causes of physical disabilities. She noted that 13% of the 231 cases observed had CP accompanied by mobility problems (Kennedy, 1990). Mobility aside, Ndumomo (2002) and Ardrie (2003) also observed that motor functioning skills are particularly delayed in children with CP and that although normal children achieve head-up from prone at 1 – 3 months, cerebral palsied children do this when they are 12 months old. He also found that children with CP attain all subsequent milestones much later than normal children. Woolfsen (1990) found that special disabilities were prevalent in 90% of children with CP while Bleck (1987) had put it lower at 48.49%. These children were found to have problems with
muscles related to the control and production of speech and sound, they often had laboured speech and sometimes produced speech that was difficulty to comprehend (Mecham, 1996). Stanton (2002) observed that mental retardation existed in 70% of children with CP. Cruickshank (1980) cited several studies in which it was observed that, 30% of children with CP have borderline dull intelligence while 45% are in the mentally retarded range. Disabilities associated with cerebral palsy have a depressing effect on a child’s academic achievement for various reasons; however, children with CP could function well in an integrated school setting if some vital equipment and accommodation were provided (Ndurumo, 2002).

Cruickshank (1980) outlined the variables that affect the psychological development of children with physically disabilities as: The severity of the disability; the age of its onset; the degree of its visibility; the support and encouragement the child gets from his parents and others; the attitude of people toward the disabled and the child’s social status with the peers. Kennedy (2001) postulates that psychological consequences of the disability experienced by each individual are related to the significance of the disability for the person. Pless and RoghMann (1971) in Ndurumo (2002) reiterated that the more severe the physical disability, the greater that children with permanent disorders tend to have frequent psychological maladjustment compared to children whose impairment is transitory or short-term.
2.2 Salient Features of an Effective Rehabilitation Programme for Children with Cerebral Palsy

The process of rehabilitation of children with special needs/disabilities begins with assessment once the child has been identified. It is through assessment that the impairments and associated handicaps are confirmed. The prognosis of a child’s condition and possible intervention strategies are also confirmed at this stage. The assessment report is supposed to form the basis for any kind of rehabilitation programme that may follow.

The intervention strategies according to Ndurumo (2002), also include training in self-care skills. These skills include the ability to feed, bathe, groom and clothe oneself. Such skills are important in preparing a young child with physical handicaps to lead an independent life. Ndurumo (2002) also added that programme accessibility and buildings accessibility must go hand in hand for educational programmes are not truly accessible until the buildings and classrooms are accessible. He further said that, in order for children with severe disabilities to cope with the expectations of the classroom work, it is essential that the need for adaptive and assistive devices be taken into account for they assist the children to work.

Children with cerebral palsy should be appropriately assessed and placed in schools in order to be provided with effectively designed curricula, examination and teaching methods (Kennedy, 2001). Cornwall and Robertson (2004) noted that, supporting
learning requires attention to the development of the whole person and not just bits that do not work. It demands examination of the learning environment and planning for the skills the young persons need to learn in order to achieve and maintain their place in the society. They also noted that school age children have a variety of needs to the extent that whole school approaches, strategies and relationships were the most appropriate for all children regardless of their special education needs. They proposed the solution to those problems faced by children with physical disabilities as not the creation of a separate and individual plan to remedy the problems but more in the concerted whole school development where Individualized Educational Programmes (IEP’s) are imbedded, explicit and educational.

“The response of this particular set of diverse learning needs should be through shared responsibility, problem solving, strategy development and partnership with parents, supported by effective coordination and open flexible management, --- enabling appropriate training and staff development” (Cornwall and Robertson, 1999 p 67).

2.3 Rehabilitation Programmes for Persons with Cerebral Palsy in Other Parts of the World

Many countries of the world have gone through a long process of establishment and improvement of rehabilitation programmes for persons with physical disabilities. Studies conducted in some countries outside Africa, such as Finland Japan and Thailand show that rehabilitation programmes have been undergoing transformation process over the years.

In Finland for example, rehabilitation institutions were initially organised to create services for the severely disabled persons who raised concern of the rest of the
population. The physically disabled were among the first groups to be served. These services were typically selective since they were not incorporated in a governmental programme and there were no rules of eligibility. However the need for rehabilitation services became very acute, as a result of World War II. Earlier philanthropic activities were advanced to the level of governmental service. The rehabilitation organizations formed initiated new attitudes towards the disabled (Risto, 1989).

The 1960s and 1970s saw expansion of Finish rehabilitation. The supervision and management of rehabilitation services was shared to various Ministries responsible for corresponding general services. During the 1980’s an important new legislation completed the integration process by bringing special services into the field of social rehabilitation of the severely disabled. Risto (1989) for instance cites The Services and Assistance for Disabled Act (1987) as the law that gave the responsibility of production of services to the local municipalities. The law was intended to improve the conditions of a person with a disability so that he may live and act as a member of society equal with others, and to improve the potential of persons with disabilities for independent action and for influencing the planning and implementation of the services provided by the society.

Other than supervision and management, adaptation training is another important aspect of Finish Rehabilitation Programmes. It aims at supporting a person with a disability and the family in their social integration by a realization process to accept the social realities of the disability and to take all the social functioning capacity of the individual
fully in use. This service is mainly arranged by organizations of persons with disabilities in cooperation with social welfare and health authorities and with social insurance systems. There are three levels of economic support offered to PWDs in Finland. Persons with severe locomotor disabilities due to conditions such as cerebral palsy are entitled to the level of economic support (Risto, 1989).

In Finland the labour administration provides special services to disabled persons. These include medical examinations and rehabilitation evaluations, employment preparations at work evaluation clinics, trial periods of work and training, financial support for reorganizing work conditions and subsidized employment. Financial support is paid to the employer of the disabled person for reorganization of working conditions, such as machinery and the working environment to suit the disabled person. Under the National Pensions Act and National Sickness Act, every person who has lived in Finland for five years is eligible for rehabilitation insurance benefits, which are provided by the National Insurance Institution. Rehabilitation benefits comprise examinations, medical rehabilitation and vocational rehabilitation, which are all free of charge. Medical rehabilitation may consist of treatments, speech therapy, provision of prosthesis and appliances and psychotherapy to preserve working and learning capacity and adaptation training. In 1988 alone, rehabilitation was given to 32,000 persons (Risto, 1989).

Kanji; Yasunori; Ryu; Hideo; Tomoya; Hisao and Yoshiko. (1992) posited that rehabilitation in Japan is carried out under various laws. These laws state actual
provisions such as medicine, education, income, security, social welfare and housing and their related systems. The basic law for rehabilitation measures in Japan is the Fundamental Law for Countermeasures for the Mentally and Physically Handicapped Persons. This law states that rehabilitation services for the disabled have to be systematic and comprehensive. It has provisions as the establishment of national and local councils on measures for the physically disabled persons to make researches and discussions on adequate measures for these persons. Besides the law systems, rehabilitation measures at national level are carried out through cabinet ordinances, ministerial ordinances and various kinds of notices.

Kanji, et al. (1992) further explained that at the local government level, many local governments carry out various rehabilitation programmes on the basis of certain regulations and guidelines. Through the ‘Welfare Taxi’ system for example, part of the transport changes of disabled persons is subsidized. There is also provision of medical fee allowance for the severely disabled to cover part of their treatment costs. Medical rehabilitation services for the physically disabled are offered under the ‘Law for the Welfare of the Physically Disabled Persons’ Further, many facilities are offered under this law and the ‘Child Welfare Law’. Other services provided by the law include provision of various kinds of workshops for vocational rehabilitation of physically disabled persons. The government ministries in Japan carry out various kinds of rehabilitation measures with the Ministry of Health and Welfare taking the primary role in offering rehabilitation services to persons with physical disabilities. In conclusion,
Rehabilitation is supposed to be a comprehensive service including medical programmes, educational, vocational and social programmes (Kanji, et. al.1992).

In Thailand, Research projects on rehabilitation of PWDs have been rare. However there have been some researches emphasising specific aspects of CBR according to an article by Mole Tracey in Asia Pacific Disability Rehabilitation Journal (2005). The aspects in the studies included knowledge and understanding among parents, medical professionals and teachers of children in rehabilitation in districts of Nakornrachasrima province.

In one of the studies whose sample was located in 27 provinces in Thailand, 50 rehabilitation projects in the community were investigated. The aim of the study was to determine the actual current situation regarding CBR the study covered six issues including definition and clarification of rehabilitation services in the community, sectors of participation, budgets and sources of donations, kinds of rehabilitation services and activities, positive and negative aspects of CBR, and sustainability of projects.

Based on the review of the researches findings, rehabilitation of PWDs in Thailand has been segmental and superficially studied. There are many laws and policies providing for decentralization and promotion of human rights, and community participation for enhancing the quality of PWDs in Thailand. These include the Rehabilitation Act disabled persons –1991, National Development Plan, and the Plan for Enhancing
Quality of Life for Disabled Persons (2002-2006). The results of the studies also indicate attitudes of social workers towards PWDs and rehabilitation skills were appropriate. The results of the studies show internal donors despite the fact that contributions and participation of community were low provide 80% of funding of rehabilitation. The rehabilitation services provided in Thailand included educational, occupational training and medical aspects. The services are predominantly out-reach and are provided mainly by educators in the Ministry of Education in Thailand. The major limitations to enhancement of rehabilitation revealed by the studies in Thailand are inadequate service quality delivery, lack of knowledge and rehabilitation skills of CBR workers, and lack of funds.

2.4 Rehabilitation Programmes for Persons with Cerebral Palsy in Africa

A review of institutional service delivery provisions in Special Needs Education (SNE) and rehabilitation in Nigeria in 1998 showed that formidable obstacles had beset institutionalised model of rehabilitation hitherto in operation. The review was organized around the problems of inadequate facilities provision, inadequate funding of special needs services and enabling legislation to give direction and support in special needs provision. The study noted that inadequacy of facilities, funding, low government commitment and lack of proper policy and legislation on disabilities were the key hindrances to full implementation of programmes on special needs provision. The researcher suggested that alternative approaches should be considered to ensure the provision of appropriate services. He recommended Community Based Rehabilitation (CBR) as the new initiative to utilize service delivery for people with disabilities in
Nigeria as CBR would include public information, disability prevention, education, technology (medical aids, equipment, devices), social, psychological and vocational programme (Eleweke, 1998).

In another study by Tefarra (1997) in Ethiopia, the situation of PWDs and disability – related preventive and rehabilitation programmes were reviewed. He established that, despite the efforts made by the government and NGO’s as well as international organizations in endeavour to do prevention, treatment and rehabilitation, appropriate services were out of reach to the vast majority of PWD’s in Ethiopia. The study established that in Ethiopia reliable data pertaining to incidence, prevalence and situation of PWD’s was fragmentary and sometimes misleading. The available statistics did not give the actual situation in the country, as some disability groups were not included. Funding of services to persons with special needs and disabilities were also observed to be scarce. Other hindrances to service provision noted included lack of proper policies and legislation on special need services, attitudinal, architectural and other social barriers. In response to the malfaceted challenges, the researcher recommended that Ethiopia, like other African countries had to adopt the CBR approach as it would be an effective and cost efficient substitute for institution Based Rehabilitation. CBR was also conceived to be cheap and easy to implement (AMREF (K), 2001).

In Uganda rehabilitation of children with cerebral palsy is embraced in special needs education (Semakula, 2000). Education for children with disabilities has always been provided in segregated settings where children with similar disabilities are enrolled in
special schools. The children are trained in limited range of fields in self-care, reading, writing and vocational skills because those children with cerebral palsy cannot cope with a wide range of work provided in regular schools. Attempts to move away from segregated educational settings led to establishment of special units to cater for children with cerebral palsy in the regular schools (Ogwang, 1998). In recent years, Uganda has adopted inclusive education system that aims at adjusting the school system to meet the learning needs of children with disabilities. Uganda government has at policy level pledged its commitment to assume greater responsibility for providing special education in the Government White Paper of 1992 (UNESCO, 1998). Very few children with disabilities however, have the opportunity to acquire some form of education. Due to the size of the demand and limited resources available, the education and training needs of the majority of disabled persons cannot be met in special education schools and centres (UNESCO, 1988).

2.5. Rehabilitation of Persons with Cerebral Palsy in Kenya

Literature on the treatment of PWDs in African and other developing countries is scanty. However societal sensitivity as a result of the dissemination of information, the interaction between the disabled and the non-disabled has led to the understanding of the worth of the disabled. The change of attitude has resulted into establishment and expansion of programmes for children with physical disabilities since Kenya attained independence in 1963. Such rehabilitation centres include Dagoretti Children’s Centre in Nairobi and Joytown Special School for the Physically Handicapped in Thika, Masaku School for the Physically Disabled in Machakos, Joyland Special School in
Kisumu and Portreitz Special School in Mombasa, among others. There are several organisations for and of PWDs that complimented the efforts of the rehabilitation centres. They include the Association for the Physically Disabled of Kenya (APDK), CPSK, Kenya Programme for The Disabled Persons (KPDP), Kenya Paraplegic Organization, Nairobi Family Support Services (NFSS) and National Fund for the Disabled (NFDK), among others (Ndurumo, 2002).

In the studies conducted in Kenya by Auka and Afedo in 1986 and Kennedy in 1990, it was reported that cerebral palsy affected about one child in every 400 children born and 13 per cent of the 231 cases enrolled at Port Reitz and Dagoretti special schools. It is however impossible to reliably estimate the numbers affected by CP as of now for no research has been conducted in the country to determine the members of the entire population affected by this condition. The incidence is likely to be higher due to inadequacy of health services and specialized medical personnel for mothers and babies.

Auka and Afedo (1985) observed the slow rate of expansion of educational programmes for rehabilitation of children with physical disabilities. They noted that, although the number of children with physical disabilities had risen from 964 to 1,400 between 1981 and 1986, the number of programmes rose only from five to ten. They
attributed this slow establishment of special schools to the assumption that severely affected children were seen to need medical and custodial care while education of the physically handicapped was viewed as part of regular education because many of the mildly affected could be integrated in regular schools. Despite the slow establishment of special schools, small and large ‘homes’ have been built in the proximity of regular schools for those with motor difficulties (Ndurumo, 2002). Most of the homes have been established by religious organization such as the Catholic Church. The big homes, such as Dagoretti Children’s Home provide or organize for surgery, physiotherapy, and occupational therapy for children with motor difficulties.

Vocational rehabilitation services emerged in Kenya in 1968 with the establishment of the National Rehabilitation Committee by the Sessional Paper Number 5 of Kenya Parliament (Nduruno, 2000). This paper gave the committee a mandate to advise government on policy for the disabled, ensure that appropriate weight is given to the prevention of disablement through education campaigns and other measures for the prevention of disablement in all its forms, coordinate the work of government and other rehabilitation geared voluntary organizations and set procedures and rules for the establishment of new institutions for the disabled. Between 1984 and 1988 many children were identified and diagnosed as having CP, however, appropriate rehabilitation programmes for children with CP continued to remain very few. Consequently provision of essential rehabilitation facilities/services that these children require is inadequate or lacking (CPSK, 2005).
Various charitable organizations having been sensitised about the needs of these children were formed in order to cater for rehabilitation of these children. Such organizations included the Association for the Physically Disabled of Kenya (APDK) created in 1958, Kenya Society for the Deaf Children (KSDC) created in 1957, and Kenya Society for the Blind (KSB) created in 1956, Kenya Union for the Blind (KUB) created in 1959, Kenya Society for the Mentally Handicapped (KSMH) in 1971, African Braille Centre (ABC) in 1987 and Kenya paraplegic Organization (KPO) in 2004, among others. However, there was none of the organizations that were specifically meant to cater for rehabilitation of children with CP until in 1994 when CPSK was established by their parents/guardians who became the registered members (Kennedy, 1990). All the organisations for and of persons with disabilities together form an umbrella organization called United Disabled People of Kenya (UDPK), which was registered in 1989. The main aim of the organisations in regard to special needs/disabilities is to provide services which include; disability prevention, health care and provision of appliances, educational support, counselling, mobile outreach rehabilitation services, making referrals, creating awareness, socio-economic empowerment, advocacy and lobbying, capacity building, and research and dissemination of information. (MOEST, 2003).

Data on the number of children and the states of rehabilitation services in the programmes was however lacking or scanty. It became imperative to conduct studies to avail the data as was recommended by The National Committee on Educational Objectives and Policies (Gachathi Report -1976) (MOEST, 2003). One most significant
step taken by the government was to establish a task force commissioned to appraise SNE in Kenya. The Task Force collected substantial data on the status of SNE in the country and submitted comprehensive findings in November 2003.

The findings of the Task Force on SNE appraisal in Kenya (2003) indicated that 44% of the entire population (30 million) were aged 0-15 years. Based on the World Health Organization (WHO) estimates this amounted to 1.3 million children with disabilities (MOEST, 2003). The Task Force noted that National census conducted in the country earlier had not given statistics of every category of disabilities and. It is imperative that a national census for children with SNE and disabilities by categories is done in order to facilitate effective planning and intervention. In regard to rehabilitation, the Task Force revealed that children with SNE and disabilities were only 0.8-1.9 million (10-15%) of the 7.5 million children in primary schools. Some of the children with SNE and disabilities who were not in school were in Non-Formal Educational Programmes run by individuals, faith-led organizations and some local NGOs. There is no set educational curriculum in these programmes and the number of children in the programmes has not been established. This highlights the need to identify children with SNE and disabilities who are not in school and get them placed in appropriate programmes and the need to establish the states of non-formal educational programmes in the country (MOEST, 2003).

The Task Force (2003) further established that the National Fund for the Disabled has not met the mandate for which it was established. The amount of money distributed by
the fund is too small to create any impact. Furthermore it is distributed to individuals and organizations without the other stakeholders. The Task Force observed that, despite the fact that the cost of educating a child with SNE in a day school or unit is Kenya shillings (K.sh) 17,000 per year and K.sh.32, 000 per year in a boarding school, the government allocates only K.Sh.1020 to every child with SNE in a regular school and K.Sh.3020 to one in a special school or unit. These allocations do not however cover those children with SNE who are integrated in regular schools or those in rehabilitation centres/schools (MOEST, 2003). The funds should be used to cater for the entire needs of persons with SNE and disabilities including early intervention, provision of resources to educational programmes, support to parents, awareness creation and sensitisation, health care education, training, income generating and employment. An established system is therefore essential for coordinating, monitoring and auditing all funds that go to institutions dealing with SNE (MOEST, 2003).

Another key finding of the Task Force was that there was lack of essential human and materials required for rehabilitation in the rehabilitation centres. These include:

- Special Needs Education teacher
- Educational Assessment and Resource Centre staff
- Trained counsellor
- Physiotherapist
- Occupational therapist
- Speech therapist
- Nurse/Physician
- Psychologist
- Itinerant/Peripatetic teacher
- Vocational equipment and materials
- Personal Effects

The Task Force observed that there was urgent need for provision of these resources to facilitate effective rehabilitation of children with SNE and disabilities (MOEST, 2003). Whether the resources were available at CPSK, and their quantity and state needed to be investigated.

2.6 Summary of Literature Review

The literature review revealed that CP is not a single disease but a multihandicapping condition comprising a group of symptoms. It initially becomes evident in childhood, cannot be cured and usually does not get progressively worse; neither is it fatal or inherited. It is characterised by paralysis, weakness, in coordination or any other aberration of the motor control centre of the brain. The literature review also revealed that in most cases CP negatively impacts on a child’s motor functioning, intellectual functioning, academic achievement and psychological development. The review showed that an effective rehabilitation involves medical therapy, physiotherapy, occupational therapy, training in communication skills and self care skills, creating barrier free access to buildings and services, provision of adaptive and assistive devices and educational intervention. The literature review revealed that the governments in
other countries such as Finland, Japan, Thailand, Nigeria, Ethiopia and Uganda are involved in the rehabilitation programmes for persons with disabilities through various ministries, local municipalities and through the introduction of laws and legislations on disability. Most of these countries have organisations for and of persons with various types of disabilities. Rehabilitation programmes for PWDs in Thailand and all African countries whose literature was reviewed are faced with challenges, which include, lack of funds, lack of rehabilitation personnel and materials, and lack of reliable data on the number of children with SNE and disabilities in their respective categories.

In Kenya little information has been documented concerning rehabilitation of persons with cerebral palsy. Sessional Paper No. 5 of 1968 of Kenya Parliament would have become the best foundation for provision of rehabilitation to such persons. Notably, the Sessional paper mandated the National Rehabilitation Committee to advice the government on policy for persons with disabilities, creation of awareness to the public through educational campaigns, co-ordination of the work of government and other rehabilitation geared voluntary organizations, and the setting of procedures and rules for establishment of new institutions for persons with disabilities (Ndurumo, 2000). The initiative of this committee has caused the establishment of many of the existing institutions for and of PWDs in Kenya.

Few studies have so far been conducted to establish the rehabilitation services provided by educational institutions; however the status of service provision by non-governmental institutions and voluntary organizations has not received considerable
attention in the studies. There is no study for example, that has been done to establish the past and current status of rehabilitation by the CPSK, which is the only society for rehabilitation of children with CP in this country. It is essential that educational and non-educational rehabilitation institutions are put on the spot light through regular studies to gauge their performance levels and the challenges they face in order to come up with ways of improving services delivery to PWDs. To partially meet this purpose, the researcher conducted a study on the CPSK to establish the services it provides, the human and material resources available and the status of the society’s performance in rehabilitation of children with CP in Kenya.
CHAPTER THREE
METHODOLOGY

3.0 Introduction
This chapter outlines the methods and procedures used to collect, analyse and present data required in the study performance of CPSK in rehabilitation of children with cerebral palsy in Kenya. The chapter gives details about the research design, location of the study, study population, sampling techniques and sample size, the research instruments, piloting of the instruments, procedures used for analysing and presenting data and the logistical and ethical considerations enlisted.

3.1 Research Design
The researcher adopted a descriptive case design to investigate the performance of the CPSK in rehabilitating children with CP in Kenya. This design principally focuses on individual instances rather than a wide spectrum and enables studying of things in detail. Case study offers to the researcher a chance to get into sufficient detail and unravel complexities of a given situation (Denscombe, 2003
and Orondho, 2005). This design was therefore suitable for the study because it enabled the researcher to establish and investigate in detail the services offered by CPSK, the human and material resources available at CPSK, and the factors that hinder the provision and expansion of rehabilitation services by the society to all parts of Kenya.

3.1.1 Variables
The independent variables included those factors, which influence the activities of CPSK in the process of providing rehabilitation services to children with CP and their families in Nairobi province. They comprised the human and material resources required for effective rehabilitation of persons with CP. The dependent variable comprised the rehabilitation services provided by CPSK.

3.2 Location of the Study
The study was carried out in CPSK’s premises located in Old Donholm estate which is about 6 kilometres south east of Nairobi’s city centre. The clinic and offices occupy a 4–bedroom mansion ate on a quarter - acre piece of land. An overseas sponsor –Ascribe Kenya, rents the premises for the society. This is where all rehabilitation activities of the organization are planned and managed since the society has no branches. Parents or guardians of children with CP become registered as members after paying a registration fee of K.sh. 500. Rehabilitation services are provided for free. Once every month, the society holds meetings for members. Being on the site gave the researcher an opportunity to understand the
actual setting without relying on the prior conceptualisation of the phenomenon under investigation as recommended by Semakula, (2000).

3.3 Target population

The target population of the study comprised 300 registered members of CPSK and 5 others who included 2 physiotherapists, 3 occupational therapists working in the cerebral palsy clinic, and the chairman of the society.

3.4 Sampling Techniques and Sample Size

3.4.1 Sampling Techniques.

The researcher used systematic sampling techniques to obtain the required sample from the 300 CPSK members. This was achieved by first listing the names of all members of the society in alphabetical order. He then determined a sampling constant (3) by dividing the population (300) by the sample size (100). The researcher then picked every third name in the list until he got 100 respondents for sample size. The chairman and the 2 paramedics of the society were selected purposively as key players in the study.

3.4.2 Sample Size

The total sample size comprised 103 subjects both males and females. 100 CPSK members, 1 CPSK chairman and 2 paramedics who included 1 physiotherapist and 1 occupational therapist constituted this. This represented approximately 30
percent of the registered members. The sample was very ideal because it enabled the researcher to gather sufficient details. This, according to Cohen (2001), enhances reliability and is an important criteria for judging the merit of a case study as he purported that, it is the extent to which the details are sufficient and appropriate for a teacher working in a similar situation that matters most. This is because he/she can relate his/her decision-making to that described in the case study.

3.5 Research Instruments

Three research instruments were used in the study. They included researcher made questionnaires for the CPSK members, an interview guide for CPSK chairman and another for the two paramedics working in the clinic. The researcher also studied and analyzed some printed media and documents of the society.

3.5.1 Questionnaires

According to Moser and Kalton (1985), the use of a questionnaire in measuring public opinion either from the school personnel or from community members is one of the most appropriate methods. The advantage of using questionnaires is to enable the researcher to gather information in a shorter period of time and at reasonable low cost (Mwangi, Kerre, Wabuge,and Mugo, 1999).
Questionnaire for CPSK members

A researcher – made questionnaire was used for collection of data from the members of the CPSK. The questionnaire (appendix A) was administered to the sampled CPSK’s members. The questionnaire was divided into five sections A, B, C, D and E based on the themes presented by the research questions. The items focused on the bio-data of respondents, services provided by CPSK, human and material resources available at CPSK, the society’s rehabilitation outcomes, and opinions of members on ways of enhancing CPSK’s service provision respectively. The items of the questionnaire were structured (close ended) and unstructured (open-ended). The structured questions measured the objective responses while the unstructured questions measured the subjective responses. The questionnaire comprised 10 structured items and 1 unstructured item. Five of the structured items were based on the five point Likert scale. They aimed to discover respondents’ strengths of feelings/opinions on various aspects of CPSK’s rehabilitation services.

3.5.2 Interview Guides

An interview helps a researcher to understand and learn educational problems and practices and each individual’s view (Cohen, Manion and Miorrison' 2001). An interview can produce an in-depth data not possible with the questionnaire, and the reason for a particular response can be determined. An interview guide is very appropriate in a case study as it enables the researcher to obtain first hand
knowledge of the social world by observing people, listening to them and looking at documents they produce. In this study, simple structured interview guides were respectively used for the CPSK chairman and the two paramedics attached to the society.

i. Interview Guide for CPSK’ Chairman

This guide comprised of 9 open–ended questions, which sought information regarding administration matters of the society. The interview guide was also aimed at collecting in-depth information about the services provided by CPSK; the resources available for rehabilitation; achievements and challenges of the society; and the chairman’s views on ways of enhancing the society’s rehabilitation activities.

ii. Interview Guide for CPSK’s Paramedics

This consisted of 6 open-ended items, which required descriptive responses from 1 physiotherapist and 1 occupational therapist. The two were selected because they are directly involved in practical rehabilitation of the children with CP in the society’s clinic. They also work very closely with the parents/guardians of the children.

3.5.3 Observation checklist
This instrument was used for recording of material resources/equipment observed by the researcher and used in the CP clinic of CPSK. The checklist had a list of items that are basically required in an ideal CP clinic for children. The researcher indicated the availability and quantity of every item in the checklist.

3.5.4 Document/content analysis

The researcher analysed CPSK’s constitution document and membership registers of the CPSK in order to establish the society’s objectives and membership respectively. Schedules of rehabilitation activities were also analysed and rehabilitation activities provided by the society determined. Another reason for analysing documents was in order to establish the quantity, and state of the material resources available at CPSK and the personal profiles of the society’s personnel.

3.6 Pilot study

Ten CPSK members were chosen randomly from the identified population for the purpose of piloting the questionnaire. This was achieved by first listing the names of the 300 members in alphabetical order and then determining a sampling constant (30) by dividing the population (300) with the sample size for piloting (10). Based on the sampling constant, every 30th subsequent name in the list was selected and the person was used in the pilot study One of the 2 physiotherapists and 1 of the 3 occupational therapists working for the society were respectively selected using simple random technique and were interviewed during the pilot
study to determine the quality of the interview guide for paramedics. The objectives of the pilot study in line with recommendations of Willersma, (1995) were; to establish the clarity, meaning and comprehensibility of each item in the instruments, to validate the instruments by cross checking their validity and reliability and to gain basic administrative experience in conducting the research in preparation for the actual study.

3.6.1 Validity

Validity, according to Denscombe (2003), can be checked in a study by ensuring that the instances selected for investigation have been chosen on explicit and reasonable grounds as far as the aims of the research are concerned, and that findings can be triangulated with alternative sources as a way of bolstering confidence in the validity. The researcher therefore administered questionnaires with the same questions to the 10 members of CPSK and used one interview guide on two sampled paramedics who were separately subjected to a pilot study to establish clarity and relevance of the items. The researcher then compared their responses. This helped him to detect any research bias or respondent effect provoked by the items and in removing ambiguity, hence ensuring the validity of the items. The clarifications were then fed into the final instruments.

3.6.2 Reliability

Reliability is the degree to which a particular measuring procedure gives similar results over a number of repeated trials (Cohen, 2001). The test-retest technique of evaluating reliability of the questionnaire and the interview guide for the
paramedics was employed. The questionnaire was given to the 10 sampled members twice in a range of two weeks to test whether similar responses would emerge. The two scores of each respondent were analyzed to check for consistency of responses. Likewise the interview guide for the paramedics was piloted with 2 paramedics twice in an interval of two weeks. The two paramedics were not used in the actual study. The two sets of responses were then analyzed to check for consistency.

3.7 Data Collection Procedure

The researcher obtained permission from the Ministry of Education for conducting the study before embarking on data collection. The researcher then visited the CPSK’s offices to obtain permission from the CPSK chairman to carry out the study on the society.

On the first material day, the researcher started by explaining the purpose of the study to all the respondents who had been assembled in a room. This happened to be a day when the society usually holds their members’ monthly meeting. He then distributed the questionnaires and allowed the respondents one hour to fill them. By the end of one hour only 15 questionnaires had adequately been completed. The respondents requested to fill the other questionnaires at their homes and later return them through the chairman of the society. The researcher engaged a research assistant who helped in collecting data from the members. On completion the researcher collected the questionnaires from the chairman and thanked all the participants in the study for their
support. In total 75 questionnaires were returned to the researcher. Only 72 of the returned questionnaires were duly completed and were suitable for analysis. The interviews for the chairman and the paramedics were conducted on two separate days agreed upon with the researcher. Each interview took about 15 minutes. During the day of interview with the paramedics, observations of the material resources/equipment in the CP clinic were made and data was recorded in an observation checklist. The researcher also conducted document analysis of the CPSK’s constitution document for one day. In total, data collection lasted for five days spread over two weeks.

3.8 Data Analysis Procedure.

Questionnaires from the respondents were checked for completeness. All the 72 questionnaires that were duly completed were included in the analysis. Items from the qualified questionnaires were edited and coded manually. The codes were then made amendable to quantitative analysis. The codes were then keyed into the computer and processed using the Statistical Package for Social Sciences (SPSS) programme. The use of the SPSS yielded descriptive statistics such as data frequencies and percentages. The data was then presented in frequency tables and histograms to give a clear visual presentation. Data collected by use of an observation checklist was presented in a table. The data collected from the interviews and document analysis was analysed using narrative descriptions. The analyzed data was then summarized into themes which include background information of respondents to the questionnaire, services provided by CPSK, human and material resources available at CPSK, CPSK’s achievements CPSK’s
challenges, and ways of enhancing CPSK’s rehabilitation services. The themes were used to answer the research questions formulated to guide the study.

CHAPTER FOUR
DATA PRESENTATION AND ANALYSIS
4.0 Introduction

In this chapter, the researcher has presented the findings of the study from the data analyzed on the basis of the research questions under the following themes:

Background information of respondents to the questionnaire, services provided by CPSK, human and material resources available at CPSK, CPSK’s achievements, CPSK’s challenges, and ways of enhancing CPSK’s rehabilitation services. The purpose of the study was to investigate the reasons behind CPSK’s failure to extend rehabilitation services to all children with CP in all parts of Kenya. Out of 100 questionnaires given to the sampled members of CPSK only 72 (72%) of the 75 returned were duly completed and analyzed. The CPSK’s chairman, 1 physiotherapist and 1 occupational therapist were interviewed. The researcher also observed resources in the CP clinic. Responses from close-ended questions were presented in tables and graphs while those from open-ended questions were presented in descriptive terms. Data from observations made was presented in a table.

4.1 Background information of the respondents to the questionnaire.

4.1.1 Sex distribution
Table 4.1 **Respondents distribution by sex.**

<table>
<thead>
<tr>
<th>Sex</th>
<th>Frequent N=72</th>
<th>Percentage of the Respondents (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>30</td>
<td>41.67%</td>
</tr>
<tr>
<td>Female</td>
<td>42</td>
<td>58.33%</td>
</tr>
<tr>
<td>Total (N)</td>
<td>72</td>
<td>100%</td>
</tr>
</tbody>
</table>

The distribution of males and females in table 4.1 shows that majority of the respondents who participated in the study were females 42 (58.3%) while 30 (41.7%) were males.

### 4.1.2 Professional qualifications of respondents (N=72)
Figure 4.1 Professional Qualifications of Respondents

The study found out that the majority of the respondents were professionally trained as shown in figure 4.1. They comprised 25 (34.72%) with Diploma, 24 (33.33) with certificate and 15 (20.83%) with university degree. Only 8 (11.11%) were below certificate level in professional training.

4.2 Services provided by CPSK

4.2.1 Performance of CPSK in providing of services.

The first research question intended to seek opinions of CPSK’s members on the society’s performance in provision of rehabilitation services to children with CP and their families. The respondents were required to indicate their views on the performance as very good, good, not sure, poor and very poor.
For easier presentation of responses to the above question, the responses given “not sure” by less than 25% of the respondents have been discarded, while those rated “very good” and “good” have been merged to “good”. Those responses rated “poor” and very poor” have been merged to “poor”. Figure 4.2 below shows how members of CPSK responded to the items on performance of the society in service provision.

Figure 4.2 Opinions of CPSK’s members on Performance of CPSK in Provision of Rehabilitation Services
The findings of the study indicated that CPSK provides good services in areas that include: Physiotherapy, occupational therapy, creation of public awareness, provision of mobility aids/appliances, referring children to other professionals, providing outreach rehabilitation services, and fighting for rights of the disabled. This is shown in figure 4.2 above where the sum total of the respondents who rated very good and good for each of the respective services is well over 50% of all the respondents. Findings also indicate that provision of speech therapy is very insignificant as only 7 (9.7%) of the society’s members indicated it is provided. While 35 (48.6%) do not believe speech therapy is provided, the rest, 30 (41.7%) felt this service is poorly provided. Provision of educational and health care services are fairly provided as findings indicated that more or less 50% of the respondents agree the provision of the two services is either very good or good as shown in figure 4.2.

4.3 Human and material resources available at CPSK

The second research question of the study was intended to determine the human and material resources available at CPSK for rehabilitation of children with Cerebral Palsy in Nairobi Province. A checklist was used during the interview with the society’s chairman on which the availability/unavailability of human resources was indicated in terms of quantity. The availability of material resources was determined through observation by the researcher where an observation checklist was used. The findings about human and material resources are presented in table 4.2 and table 4.3 respectively.
4.3.1 Human Resources at CPSK

Table 4.2 Human Resources – Chairman’s responses on availability of human resource

<table>
<thead>
<tr>
<th>No</th>
<th>Human Resource</th>
<th>No. Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Physiotherapist</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>Occupational Therapist</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>Speech Therapist</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>Special Education Teacher</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>Social worker</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>Surgeon</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>Nurse</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>Psychiatrist</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>Psychologist</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>Counselor</td>
<td>0</td>
</tr>
<tr>
<td>11</td>
<td>Technicians</td>
<td>0</td>
</tr>
<tr>
<td>12</td>
<td>Others (Specified)</td>
<td>2</td>
</tr>
</tbody>
</table>

The study established that CPSK has 2 physiotherapists and 3 occupational therapists that attend to children with CP at the society’s clinic. The chairman also said the society has 1 vice chairman and 1 secretary. The vice-chairman and the secretary, work as volunteers by virtue of being members of the society.
### 4.3.2 Material Resources at CPSK

Table 4.3 *Material resources for rehabilitation identified at CPSK*

<table>
<thead>
<tr>
<th>Material observed</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working benches</td>
<td>4</td>
</tr>
<tr>
<td>Floor mats</td>
<td>5</td>
</tr>
<tr>
<td>Parallel bars</td>
<td>1</td>
</tr>
<tr>
<td>Postural mirror</td>
<td>2</td>
</tr>
<tr>
<td>Exercise balls (physio balls)</td>
<td>3</td>
</tr>
<tr>
<td>Wall bars</td>
<td>0</td>
</tr>
<tr>
<td>Walkers</td>
<td>5</td>
</tr>
<tr>
<td>Sitting aids</td>
<td>5</td>
</tr>
<tr>
<td>Standing aids</td>
<td>5</td>
</tr>
<tr>
<td>Rollers</td>
<td>4</td>
</tr>
<tr>
<td>Wedge seats</td>
<td>3</td>
</tr>
<tr>
<td>Fine motor training kit (toys)</td>
<td>1</td>
</tr>
<tr>
<td>Vestibulator</td>
<td>2</td>
</tr>
<tr>
<td>Speech training equipment</td>
<td>0</td>
</tr>
<tr>
<td>Swing board</td>
<td>1</td>
</tr>
<tr>
<td>Flexi-disc</td>
<td>1</td>
</tr>
<tr>
<td>Feeder seat</td>
<td>1</td>
</tr>
<tr>
<td>Roller swing</td>
<td>1</td>
</tr>
</tbody>
</table>

The researcher observed that CPSK has the basic physiotherapy and occupational therapy materials/equipment in the clinic as shown in table 4.3 above. However, wall bars and speech training equipment are lacking though essential.
4.3.3 Opinions of CPSK’s members regarding available human and material resources.

The items addressing this theme in the questionnaire intended to capture the feelings of members concerning the adequacy and suitability of the existing human and material resources. The respondents were required to indicate their feelings on a five point likert scale on whether the resources were suitable or not by ticking appropriately. The views were illustrated in Figures 4.3, 4.4 and 4.5 and Table 4.4.

Figure 4.3: Views regarding available staff in terms of adequacy
As illustrated in figure 4.3, the study found out that the staffs/specialists performing rehabilitation at CPSK were inadequate in terms of numbers as indicated by 48 (66.7%) of those who participated in the study. Only 24 (33.3%) said the staffs were adequate.

![Adequacy of knowledge and skills for rehabilitating children with CP](image)

**Figure 4.4. Adequacy of knowledge and skills for rehabilitating children with CP.**

The study observed that 66 (91.6%) of the respondents considered the available staff adequately knowledgeable and skilled for provision of rehabilitation services as shown in figure 4.4.
The study further established that while 33 (45.8%) of the members viewed the equipment/materials for rehabilitation as adequate, an equal number, 33 (45.88%) felt they were inadequate as illustrated in figure 4.5. The chairman of the society and the two paramedics who were interviewed had similar views and were in agreement that human and material resources were not adequate however appropriate.

Table 4.4 Members opinions regarding suitability of available rehabilitation

<table>
<thead>
<tr>
<th>No</th>
<th>Resources</th>
<th>Suitable</th>
<th>Not suitable</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Equipment and material resources</td>
<td>54 (75%)</td>
<td>18 (25%)</td>
<td>72 (100%)</td>
</tr>
</tbody>
</table>
The study found out that the majority of the respondents 54(75%) considered the equipment and material suitable for rehabilitation of children with CP as compared to only 18 (25%) who felt the resources were not suitable.

4.4 CPSK’s achievements.

The third research question sought to determine the achievements of CPSK in rehabilitation. The items set for this theme were intended to find out CPSK’s members evaluation of the society’s achievements. The respondents were expected to give their opinions by indicating their level of agreement or disagreement to statements about some presumed rehabilitation achievements. The findings have been presented on a five point likert scale in figure 4.6 below. For ease of presentation of the findings the responses rated ‘strongly agree’ and ‘agree’ have been merged to ‘agree’. Those rated ‘unsure’ have been discarded. Those responses rated ‘disagree’ and ‘strongly disagree’ have been merged to ‘disagree’.
4.4.1 Evaluation of CPSK’s achievements by members.
Figure 4.6: Views of members regarding CPSK’s achievements

From the data in figure 4.6 above, the main achievements of CPSK according to 60 (83.3%) of the society’s members is providing mobility and assistive aids to children of members. Counseling children with CP and their families was also mentioned by 48 (66.7%) of the members as another achievement. Other 42 (58.4%) members however felt that CPSK has not made significant achievements in providing drugs therapy to children with CP who require medical rehabilitation. 41 (56.9%) of the respondents indicated that the society had not established income generating projects. Many
respondents disagreed with the view that corrective surgical services were provided by CPSK as indicated by 48 (66.6%). The findings also show that provision of education rehabilitation to children with CP is negligible as only 12 (16.7%) of the respondents agreed it was provided. Further, respondents indicated that little has been achieved by CPSK in provision of vocational training, training children on self help skills and establishing income-generating projects as is evident in the table above. The study also established that CPSK has made remarkable achievement in raising funds and other resources from membership fees of its members, voluntary individuals, non-governmental organizations and cooperate bodies. Interviews with the society’s chairman further disclosed that the society has achieved more by way of:

a) Creating awareness about cerebral palsy among a good number of Kenyans especially in Nairobi Province.

b) Providing therapy and rehabilitation services to persons afflicted by Cerebral Palsy in Nairobi.

c) Promoting the education of afflicted children by sponsoring their education in selected special schools and paying their school fees.

d) Empowering parents and caregivers with knowledge and skills for rehabilitating children with CP through training, seminars and workshops.

e) Providing free counseling services to parents traumatized by the conditions of their afflicted children.

f) Registering over 300 members since its establishment in 1994.

4.5 Challenges faced by CPSK
The fourth research question aimed at determining the challenges faced by CPSK in the opinions of the physiotherapists and occupational therapists of the society. The study found out from interviews with the paramedics and from CPSK’s documents, that the society faces certain challenges such as lack of relevant knowledge, skills, awareness among its members and lack of resources required for effective rehabilitation of children with CP, lack of reliable research findings showing number of children with CP who require rehabilitation, inadequate health care and specialized medical personnel for mothers and their babies, lack of an all round rehabilitation centre housing a medical unit, educational unit and home for the abandoned children with CP, and lack of reliable means of transport and facilities to enable conducting of mobile clinics in the residential areas of Nairobi and other parts of Kenya.

Table 4.5 Challenges faced by CPSK as reported by physiotherapists and occupational therapists (N=3).
<table>
<thead>
<tr>
<th>No.</th>
<th>Type of Challenge</th>
<th>Frequency (N=3)</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Inadequacy of government support</td>
<td>3</td>
<td>100</td>
</tr>
<tr>
<td>2</td>
<td>Lack of laws and policies</td>
<td>3</td>
<td>100</td>
</tr>
<tr>
<td>3</td>
<td>Inadequacy of human and material resources</td>
<td>3</td>
<td>100</td>
</tr>
<tr>
<td>4</td>
<td>Lack of data on population of children with CP.</td>
<td>3</td>
<td>100</td>
</tr>
<tr>
<td>5</td>
<td>Negative attitudes of parents towards children with CP</td>
<td>2</td>
<td>66.7</td>
</tr>
<tr>
<td>6</td>
<td>Poverty among members of CPSK</td>
<td>2</td>
<td>66.7</td>
</tr>
<tr>
<td>7</td>
<td>Irregular attendance of clinic by members of CPSK</td>
<td>2</td>
<td>66.7</td>
</tr>
<tr>
<td>8</td>
<td>Lack of knowledge and skills for rehabilitation</td>
<td>1</td>
<td>33.3</td>
</tr>
</tbody>
</table>
Poverty among many parents of the children with CP was also mentioned during interviews as major challenge. Poor parents were said to be providing less support to the rehabilitation programmes and their children who have CP.

Another challenge cited was negative attitude of some parents towards children with CP. Such parents were said to be unrealistic in their expectations about rehabilitation outcomes and tend to act inappropriately.

Other major challenges mentioned by the respondents included inadequacy of government support, irregular attendance of the clinic by children with CP, and an overwhelming number of clients who become difficult to handle.

4.6 Ways of enhancing CPSK’s rehabilitation

The fifth research question focused on gathering suggestions and recommendations of CPSK’s members regarding ways of enhancing rehabilitation services by the society. The findings showed that most of the proposals/recommendations revolved around six areas including human and material resources, health services, educational services, sourcing of funds, creation of awareness and extension of rehabilitation services. The key suggestions and recommendations are presented in Table 4.6.
Table 4.6 **Suggestions/recommendations of members on ways of enhancing CPSK’s rehabilitation (N=72)**

<table>
<thead>
<tr>
<th>No</th>
<th>Suggestions/recommendations</th>
<th>No.of recommences</th>
<th>Percentage of recommences</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Conducting a survey on number of persons with CP and disabilities.</td>
<td>68</td>
<td>90.7%</td>
</tr>
<tr>
<td>2</td>
<td>School placement of children with CP.</td>
<td>61</td>
<td>81.3%</td>
</tr>
<tr>
<td>3</td>
<td>Establishing more CP clinics in Kenya.</td>
<td>59</td>
<td>78.7%</td>
</tr>
<tr>
<td>4</td>
<td>Increased provision of funds to CPSK.</td>
<td>56</td>
<td>74.7%</td>
</tr>
<tr>
<td>5</td>
<td>Providing free/subsidized medical services to children with CP.</td>
<td>49</td>
<td>65.3%</td>
</tr>
</tbody>
</table>

The need for conducting a national survey to determine the number of persons with CP and other disabilities was the key recommendation by 68 (90.7%) of the respondents. It was also suggested by 61 (81.3%) of respondents that children with CP needed to be absorbed in the school system and that special schools for such children needed to be established. Other 59 (78.7%) of the respondents believed that opening other rehabilitation clinics in other parts of Kenya could enhance rehabilitation services. 56
(74.7%) of the respondents recommended that more funds should be provided to the society in order to finance rehabilitation programmes more effectively. 49 (65.3%) recommended that CPSK should start providing free or subsidized medical services that include drugs and corrective surgery to the children. Qualitative data yielded by open-ended questions and responses of the three interviewees revealed that all respondents had the opinion that human resources necessarily have to be increased if rehabilitation effectiveness is to be achieved. They proposed employment of more physiotherapists, occupational therapists as well as other professionals such as speech therapists, special education teachers and psychologists among others.
CHAPTER FIVE

SUMMARY, DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This chapter comprises of a summary of the study findings, which are presented on the basis of the research objectives. After the summary are discussions and conclusions of the study. The researcher has further suggested some recommendations on how rehabilitation services of CPSK would be enhanced. The final section of this chapter features recommendation of areas the researcher feels need further research.

5.1 Summary of research findings

The purpose of the study was to investigate the reasons behind CPSK’s failure to extend rehabilitation services to all children with CP in all parts of Kenya by determining the rehabilitation services provided by the society as well as its achievements and the challenges faced. It was also to capture the views of the respondents on ways of enhancing rehabilitation services of the society. In this section, the findings have been presented in line with the objectives of the study.

The first objective of the study was to establish the opinions of CPSK’s members on the performance of CPSK in provision of rehabilitation services to children with CP in Kenya. The findings of the study showed that the provision of certain services was viewed as good to very good. Such services included occupational therapy by 65
(90.2%) of the respondents, physiotherapy by 60 (83.3%) of the respondents, out-reach rehabilitation services and creation of awareness were both ranked good or very good by 59 (81.9%) of the respondents and provision of mobility aids/devices by 54 (75%) of the respondents. The findings also indicated that the provision of speech therapy was rated very poor, as the society does not have a speech therapist. Other rehabilitation services such as provision of educational and health care were rated fairly good as reflected in figure 4.2.

The second research objective sought to determine the human and material resources available at CPSK. The study found out that certain essential human resources were available while there were other very important human resources that the CPSK lacked. Those human resources found to be available at the clinic included 2 physiotherapists and 3 occupational therapists. Other professionals could only be made available by way of referring the afflicted children to them away from the clinic. The study also established that CPSK doesn’t have any Special Needs Education teacher in their clinic nor do they seek his/her services. In regard to material resources the study established that the clinic had only physiotherapy and occupational therapy equipment. On enquiry to capture the opinions of members of CPSK about the adequacy of the available human and material resources, the study found out that majority of the respondents felt that the human resource was inadequate even though they considered the available ones well qualified for the specialist’s services they provided.
The third objective of the study sought to determine the achievements of CPSK. The study established that CPSK had recorded certain achievements in accordance with their targeted outcomes. This was in provision of physiotherapy and occupational therapy to over 300 children with CP in Nairobi province, mobility and assistive devices to the needy children, and counseling services to parents and families of afflicted children. The CPSK had also achieved a lot in creation of awareness about persons with CP among members of the public in Nairobi province and countrywide through various campaigning strategies. CPSK also has been sponsoring the education of some children with CP in Nairobi Province.

Another objective of the study was to gather views of paramedics attached to CPSK on challenges facing the rehabilitation programmes. Lack of proper policies and legislation on special needs services, and lack of statistics pertaining to incidence and prevalence of CP was a barrier because the existing data were fragmentary and the actual number of children with CP in Kenya is unavailable and thus it becomes difficult to ensure that every deserving child is rehabilitated. Human and material resources required for rehabilitation were also lacking or inadequate.

The last objective of the study sought to gather views of members of CPSK on ways the society can enhance rehabilitation services and make recommendations for improvement. Views gathered from the paramedics who included physiotherapists and occupational therapists indicated that, the main challenges included lack of relevant
knowledge and skills regarding handling of children with CP among parents and families, lack of human, material and financial resources for support of rehabilitation programmes, lack of reliable research findings on the number of children afflicted by CP in Nairobi and country wide, and lack of an all-round rehabilitation centre housing a medical unit, educational unit and home for the abandoned. The study gathered views from members, about what they thought would help enhance CPSK’s rehabilitation services. The suggestions were that: the society should look for funds which would be used to pay for all specialists’ services and purchasing of more land and for constructing a bigger and more accessible rehabilitation centre. Members also suggested that CPSK should establish other well-equipped rehabilitation clinics in various parts of Nairobi province and at least one clinic in each province of Kenya. It was also suggested that parents and other stakeholders be further informed and trained on supporting children with CP. The members also suggested CPSK needs to initiate a national survey to determine the current population of children/parents with CP in order to facilitate planning for their rehabilitation.

5.2 DISCUSSION

Based on the research findings a conclusion can be drawn covering 6 issues. 1) Rehabilitation of children with CP in Kenya 2) rehabilitation services provided by CPSK in Kenya, 3) human and material resources availability, 4) achievements of CPSK, 5) challenges faced by CPSK 6) ways of enhancing rehabilitation services provided by CPSK.
Very few studies have been conducted in Kenya on provision of services to persons with special needs and disabilities. The studies mainly targeted learning institutions with exclusion of non-educational rehabilitation facilities. Auka and Afedo (1985) and Kennedy (1990) for example examined the provisions to persons with physical disabilities in educational settings. Ndurumo (2002) argues that the rehabilitation of children with CP cannot be limited to only learning institutions because other than educational intervention, it essentially includes medical therapy, physiotherapy, occupational therapy, communication / speech therapy, and training on self-care skills, which are also provided by non-educational organizations for and of PWDs such as APDK and CPSK. Data on the status of rehabilitation services and the number of children with CP in all the rehabilitation facilities is too scanty for effective planning of intervention measures for children with CP. According MOEST, (2003) the population of children with CP in the country has not yet been established even by the National Census of 1999. The lack of such crucial data might be a major contributing factor to the failure of certain rehabilitation organizations in achieving of set objectives. This finding supports Lockey and Latham’s Theory of Goal setting and Task Performance (1968), which argues that application of more effective management practice, is preceded by sophisticated research.

The study established that CPSK primarily provides physiotherapy and occupational therapy to children with CP. Other key services provided by the society according to the findings of the study include provision of outreach rehabilitation services and
creation of public awareness. There are many essential services such as speech therapy and health care, which the society has not been able to offer adequately due to lack or inadequacy of human and material resources. CPSK is in charge of its rehabilitation programmes unlike in Finland where the responsibilities were shared to various government ministries as noted by Risto, (1989). His findings indicate that there are various types of rehabilitation services essentially required for successful rehabilitation of persons with CP. He said that medical and vocational rehabilitation was required. Medical rehabilitation consists of drug treatment, speech therapy, and provision of prosthesis/appliances, psychotherapy, and adaptation training. The researcher however discovered that CPSK does not adequately provide medical and vocational rehabilitation to children with CP. This was mainly attributed to inadequacy of human and material resources. Expecting to expand rehabilitation services to all parts of the country at this time is unrealistic based on the findings that CPSK is not yet able to provide the existing 300 members with all essential rehabilitation services?

Another finding of the study at CPSK was that human and material resources were inadequate. This situation contrasts that in Finland where Risto, (1989) discovered that rehabilitation was more successful due to the government’s support through various sectors that provide personnel and materials or funds to facilitate rehabilitation of all persons with disabilities. Inadequacy of human and material resources at CPSK is a big hindrance to rehabilitation of children with CP similar to the situation in Uganda it is a hindrance to rehabilitation of children with disabilities (UNESCO, 1988). The success
of rehabilitation was directly proportional to the available human and material resources in the studies conducted in Finland and Uganda. The success of CPSK and other organizations for and of PWDs in Kenya will therefore directly depend on expansion of both human and material resources required for rehabilitation.

The study attempted to establish the achievements of CPSK while putting into cognisance the goals and objectives of CPSK. The society aims at ensuring that all children with CP in Kenya are provided with appropriate and adequate services. The services include medical therapy, physiotherapy, occupational therapy, training in communication skills and self-care skills, providing barrier free/ accessible environment, educational intervention and providing supportive adaptive devices to enhance mobility and functional abilities. On the basis of these objectives the researcher evaluated CPSK’s achievements. The findings showed that the society has so far achieved the following:

- Registering at least 300 children with CP for rehabilitation.
- Providing physiotherapy and occupational therapy.
- Creating public awareness about children with C.P
- Providing mobility and assistive aids to some of the needy children.
- Guiding and counseling children with C.P and their families

The achievements are however so few compared to the situation in Finland and Japan where a lot has been achieved in rehabilitation of persons with disabilities due to adequacy and appropriateness of human and material resources. (Risto, 1989; Kanji, et. al. 1992). Kanji et al (1992) alluded that in Japan, the basic law for rehabilitation
measures states that rehabilitation services for the disabled should be systematic and comprehensive. He established that besides the law systems, rehabilitation measures at national level were carried out through cabinet ordinances, ministerial ordinances and various kinds of notices. At local government level, many local governments in Japan carry out various rehabilitation programmes on the basis of certain regulations and guidelines.

The study established that CPSK like other organizations for and of persons with disabilities in developing countries of Africa faces serious challenges (CPSK, 2005). The status of rehabilitation by CPSK compares with the findings of studies of Tefarra (1997) and UNESCO, (1988) in Ethiopia and Nigeria respectively. Tefarra (1997) argues that the status of rehabilitation of children with disabilities is very poor in developing countries. In his studies in Ethiopia he found that provision of rehabilitation services to these children was hindered by lack of proper policies and legislation on special needs services, attitudinal, architectural and social barriers. He also explained that lack of statistics pertaining to incidence and prevalence was a barrier because the existing data were fragmentary and sometimes misleading. This concurs with the findings of this study, which indicate that statistics on the actual number of children with CP is unavailable and thus it becomes difficult to ensure that every deserving child is rehabilitated. Institutionalized model of rehabilitation is more often than not beset by various challenges, which usually hinder performance. Findings of other studies conducted in Uganda by UNESCO (1988) and in Nigeria by Elekewe,
(1998) revealed other challenges as inadequacy of human and material resources; inadequacy of support from the governments; poverty among parents of children with disabilities; inadequacy of health care; and negative attitudes of parents towards their children who have CP were major obstacles in rehabilitation of children with disabilities. The researcher noted that the countries performing poorly had similar challenges as realized in the studies in Uganda, Nigeria and Kenya.

The key recommendations given by the respondents in the study for enhancing of rehabilitation of children with CP included employing more paramedics to work for CPSK; encouraging the government to increase support in form of funds; free or subsidized medical and educational services; conducting a survey to established the incidence and prevalence CP in Kenya; and formulating of laws and policies to regulate provision of rehabilitation services in the country.

These opinions are in line with findings of studies in Finland and Japan where rehabilitation of persons with disabilities was successful. Risto, (1989) for example noted that in Finland persons with severe locomotor disabilities such as CP, were entitled to the level of economic support and that various mechanisms were already put in place by the government to ensure that they received medical, employment and financial support among others. Kanji, et al (1992) found out that in Japan, laws and policies at ministerial level regulated rehabilitation of persons with disabilities. At the local government level, such laws together with government ordinances specified the kind and quality of services and resources provided to all persons with disabilities. The
development of The National Special Needs Education Policy in 2009 is a major milestone in the field of rehabilitation of PWDs in Kenya. It is imperative that all stakeholders in SNE and disabilities read understand and implement the policy document in order to be able to provide appropriate services to children with SNE and disabilities including those with CP.

5.3 CONCLUSION

From the findings of the study, the following conclusions were made:

- The cerebral palsy society of Kenya (CPSK) has not been able to provide many of the essential rehabilitation services to its members’ children with CP mainly due to lack human and material resources. The society could therefore not extend rehabilitation activities to the other parts of Kenya.

- CPSK does not have adequate human and material resources for rehabilitation of children with CP in Nairobi Province and Kenya as a whole. The society also lacks adequate funds for financing of the rehabilitation programmes.

- The CPSK has made certain achievement in rehabilitation of children with CP. This success is however limited to Nairobi Province.

- CPSK is faced with major challenges that include lack of data on number of children with CP in Kenya, inadequacy of human and material resources and lack of government support in terms of funding, legislation and policies.

- Members of CPSK believe that rehabilitation services can be enhanced through conducting a survey to establish children with CP in Kenya, increasing essential
human and material resources, and formulation and implementation of government policies on SNE and disabilities.

5.4 RECOMMENDATIONS

Based on the findings of the study, the researcher came up with the following recommendations, some of which were given by the respondents.

1. CPSK should mobilize support of various professionals, firms, the government and well-wishers to provide all essential rehabilitation services.

2. The government should establish the human and material resources required for rehabilitation by CPSK and other rehabilitation organizations, and provide them.

3. CPSK should diversify rehabilitation services to children with CP by opening other clinics in Nairobi and other parts of the country.

4. Research should be carried out in the whole of Kenya to establish the prevalence/incidence of CP, services currently provided to them and their rehabilitation requirements.

5. The government should ensure that all existing legislation and government policies on SNE and disabilities are implemented.

Areas for further research

- Incidence and prevalence of children with CP in Kenya.
- Placement of persons with CP in the job market
• The psychosocial implications of CP in Kenya.

REFERENCES

AMREF (K) CBR. Bulletin Octo-Dec.2001


APPENDIX B

QUESTIONNAIRE FOR CPSK MEMBERS

Instructions

Kindly answer all questions by ticking (√) the appropriate response box or filling in the blank spaces provided. Do not indicate your name. Any information you give will be treated with total confidentiality and will be used for research purpose only.

Part A. Bio Data

1. Sex: Male □  Female □

2. Professional Qualifications:
   Certificate □
   Diploma □
   Graduate □

Other (Specify) ---------------------------------
Part B. Services Provided By CPSK

In a scale of 1-5 show how you would rate the performance CPSK in the provision of the various rehabilitation services shown in the table below.

Show your opinion by ticking (√) in the boxes provided where,

1=very good
2=good
3=not sure
4=poor
5=very poor

3. How would you rate the performance of the Cerebral Palsy Society of Kenya in providing the following services for children with cerebral palsy and their families?

<table>
<thead>
<tr>
<th>a. Physiotherapy</th>
<th>v. good</th>
<th>good not sure</th>
<th>poor</th>
<th>v. poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>b. Occupational therapy</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>c. Speech therapy</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>d. Creating public awareness about disabilities</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>e. Providing education services</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>f. Health care</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>g. Providing mobility aids/appliances</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>h. Referring children to other professionals</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>i. Providing outreach rehabilitation services</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>j. Forming parents/support group</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
Part C: Human and material resources available at CPSK

Show by marking in the provided boxes whether the indicated human and material resources are available where,

(✓)= Available  (x)=Not available

4. Human resources

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>Physiotherapist</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b.</td>
<td>Occupational therapist</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c.</td>
<td>Speech therapist</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d.</td>
<td>Special education teacher</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e.</td>
<td>Social worker</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f.</td>
<td>Surgeon</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g.</td>
<td>Nurse</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>h.</td>
<td>Psychiatrist</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i.</td>
<td>Psychologist</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>j.</td>
<td>Counsellor</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>k.</td>
<td>Technicians</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>l.</td>
<td>Others (specify)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

k. Training social workers
l. Fighting for the rights of the disabled
m. Participating in making laws on disabilities
5. Material resources
   
a. Physiotherapy and occupational therapy equipment

b. Speech therapy equipment

c. Equipment for producing mobility /adaptive aids

d. Others (specify)______________________________

Kindly show your feelings about the human and material resources at CPSK by ticking (√) the box that matches your answer.

6. What is your feeling about the number of staff/specialists working for CPSK?

   Very adequate

   Adequate

   Not decided

   Inadequate

   Very inadequate

7. In your opinion how are the staffs qualified to rehabilitate children with cerebral palsy?

   Very adequately

   Adequately

   Not decided
8. What do you feel about the number of equipment and materials used for rehabilitation in the CPSK clinic?

- Very adequate □
- Adequate □
- Not decided □
- Inadequate □
- Very inadequate □

9. Is the equipment and materials used in the clinic suitable for all the rehabilitation needs of the children with cerebral palsy?

- Yes □
- No □

Part D. Outcomes of CPSK’s rehabilitation programmes

Indicate your opinion by ticking (√) in the boxes provided where,

1 = Strongly Agree
2 = Agree
3 = Not Sure
4 = Disagree
5 = Strongly Disagree

10. The CPSK through its rehabilitation has achieved the following for children with cerebral palsy in Nairobi.

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Not Sure</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Provides education/schooling</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>b) Provides mobility and assistive aids</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>c) Counsels the children and families</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>d) Provides drugs to the sick children.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>e) Trains the children in self help life skills</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>f) Provides vocational training</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>g) Has established income generating projects</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>h) Provides surgery to correct disabilities</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Part E. Opinion On Ways Of Improving CPSK’s Service Provision

11. In your opinion what should be done in order to improve the rehabilitation services provided by CPSK?

____________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________

APPENDIX C

THE INTERVIEW GUIDE FOR CPSK CHAIRMAN

1. What rehabilitation services is the society currently providing?

2. What are the society’s objectives?
3. What are the society’s achievements so far?

4. Which of the targeted programmes has the society not yet initiated?

5. What are your sources of human and material resources for the society?

6. In your view, are the human and material resources adequate for the society?

7. What factors in your view have positively or negatively influenced CPSK’s rehabilitation programmes?

8. In your opinion how can rehabilitation of children with CP in Nairobi province be enhanced?

9. What would you recommend to be done in order to expand CPSK’s rehabilitation services beyond Nairobi province?

APPENDIX D

INTERVIEW GUIDES FOR THE PARAMEDICS

1. What services do you provide for persons with cerebral palsy at the CPSK’s rehabilitation clinic?
2. Comment on observed attendance patterns/rates of the clinic by the children with CP on appointment.

3. Comment on the status of the human and material resources availability at the clinic in terms of adequacy and appropriateness.

4. In your view what child or parental/guardian factors positively or negatively affect rehabilitation at the clinic?

5. What challenges do you experience in your rehabilitation work?

6. In your opinion how can the provision of rehabilitation services by CPSK be enhanced?

---

**APPENDIX E**

**OBSERVATION CHECKLIST OF MATERIAL RESOURCES AVAILABLE AT CPSK**

<table>
<thead>
<tr>
<th>No.</th>
<th>Materials to observe</th>
<th>Quantity available</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>No.</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Working bench</td>
</tr>
<tr>
<td>2</td>
<td>Floor mats</td>
</tr>
<tr>
<td>3</td>
<td>Parallel bars</td>
</tr>
<tr>
<td>4</td>
<td>Postural mirror</td>
</tr>
<tr>
<td>5</td>
<td>Exercise balls</td>
</tr>
<tr>
<td>6</td>
<td>Wall bars</td>
</tr>
<tr>
<td>7</td>
<td>Sitting aids</td>
</tr>
<tr>
<td>8</td>
<td>Standing aids</td>
</tr>
<tr>
<td>9</td>
<td>Rollers</td>
</tr>
<tr>
<td>10</td>
<td>Wedge seats</td>
</tr>
<tr>
<td>11</td>
<td>Hand grip exercisers</td>
</tr>
<tr>
<td>12</td>
<td>Fine motor training kit (toys)</td>
</tr>
<tr>
<td>13</td>
<td>Walkers</td>
</tr>
<tr>
<td>14</td>
<td>Vestibulators</td>
</tr>
<tr>
<td>15</td>
<td>Others (specify)</td>
</tr>
</tbody>
</table>

**APPENDIX F**

**CHECKLIST OF HUMAN RESOURCES AVAILABLE AT CPCK**

Members’ responses – Available human resource
<table>
<thead>
<tr>
<th>No</th>
<th>Human Resource</th>
<th>No. Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Physiotherapist</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Occupational Therapist</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Speech Therapist</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Special Education Teacher</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Social worker</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Surgeon</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Nurse</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Psychiatrist</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Psychologist</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Counselor</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Technicians</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Others (Specify)</td>
<td></td>
</tr>
</tbody>
</table>

**APPENDIX G**

**DOCUMENTS ANALYSIS GUIDE**

The researcher will look for data about the following:
1. CPSK’S membership
2. Objectives of CPSK
3. CPSK’s rehabilitation activities
4. Quantity, qualifications and appropriateness of human and material resources available at CPSK
5. Achievements of CPSK and challenges faced by the society

APPENDIX H

BUDGET

<table>
<thead>
<tr>
<th>The Budgetary Projections</th>
<th>Amount (KSH)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposal typing</td>
<td>5,000</td>
</tr>
<tr>
<td></td>
<td>Description</td>
</tr>
<tr>
<td>---</td>
<td>-----------------------------------------</td>
</tr>
<tr>
<td>2.</td>
<td>Photocopying services</td>
</tr>
<tr>
<td>3.</td>
<td>Piloting</td>
</tr>
<tr>
<td>4.</td>
<td>Travelling and accommodation</td>
</tr>
<tr>
<td>5.</td>
<td>Stationery</td>
</tr>
<tr>
<td>6.</td>
<td>Computer services</td>
</tr>
<tr>
<td>7.</td>
<td>Thesis typing and binding</td>
</tr>
<tr>
<td>8.</td>
<td>Contingencies</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
</tr>
</tbody>
</table>
## APPENDIX I

### RESEARCH WORK PLAN

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>May – July 2003</td>
<td>Problem selection</td>
</tr>
<tr>
<td>August 2003 – April 2004</td>
<td>Reviewing literature on the Problem</td>
</tr>
<tr>
<td>May 2004– January 2005</td>
<td>First Proposal development &amp; Submission</td>
</tr>
<tr>
<td>February 2007</td>
<td>Final Proposal development &amp; Submission</td>
</tr>
<tr>
<td>June 2007</td>
<td>Defend Proposal (Departmental)</td>
</tr>
<tr>
<td>August 2007</td>
<td>Defend proposal (School)</td>
</tr>
<tr>
<td>January &amp; February 2008</td>
<td>Preparation for research</td>
</tr>
<tr>
<td>March 2008</td>
<td>Data Collection</td>
</tr>
<tr>
<td>March 2009</td>
<td>Data analysis</td>
</tr>
<tr>
<td>April 2009</td>
<td>Thesis writing (1\textsuperscript{st} draft) &amp; Submission</td>
</tr>
<tr>
<td>May – August 2009</td>
<td>Corrections and submission of thesis</td>
</tr>
<tr>
<td>August 2009</td>
<td>Defend thesis</td>
</tr>
</tbody>
</table>
1.9 Conceptual Framework

CPSK Rehabilitation Services

**Human resources factor:**
Adequate and qualified human resources e.g.
- Trained personnel
- Relevant professionals

**Material resources factors:**
Adequate and appropriate material resources e.g.
- Physiotherapy equipment

**Performance Based Motivation Programmes**

**More Effective Management Practice**

**Children with Cerebral Palsy**

**Rehabilitation outcomes:**
- Child is fully integrated in the society
- Child’s disabilities are minimized
- Child is placed in appropriate school
- Child’s environment is made barrier free
- Child’s self reliance is enhanced.
Fig. 1.1: Cerebral Palsy Society of Kenya Rehabilitation

Source: Mwitiki (2006)
APPENDIX A

REPUBLIC OF KENYA
Dear Madam,

RE: RESEARCH AUTHORIZATION.
Following your application for authority to conduct research on "The status of rehabilitation of children with cerebral palsy in Nairobi Province" A case study of the cerebral palsy society of Kenya. This is to inform you that you have been authorised to conduct research at the cerebral palsy society of Kenya in Nairobi for a period ending 30th August 2009.

You are advised to report to The Director Cerebral Palsy Society of Kenya before embarking on your research project.

On completion, you are expected to submit two copies of your research report to this office.

Yours

faithfully

LOONDIEKI FOR: PERMANENT SECRETARY

CC

The Director
Cerebral Palsy Society of Kenya
Nairobi.