Effect of Health Educational Program to Care Givers on their Knowledge, Attitude and Practice towards Children with Physical Disability in Cheshire Home, Khartoum, Sudan (2011-2014)

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MSc., in Pediatric nursing, Academy of Medical Sciences and Technology (2006)

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Date: 24 /July/2014
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Date: 24/July/2014
Dedication

To my all family members

To my Husband

I dedicate this study
Acknowledgement

No words would rightfully express my deepest gratitude to my supervisor Prof. Haydar ElHadi and Co-supervisor Dr. Salwa Alsanousi Hussein for their unlimited patience, advice and guidance.

Special thanks and gratitude go to family with disabled children and all those who assisted me in any way

May God bless and praise them all.
Effect of a Health Educational Program on Care-gives Knowledge, Attitude and Practice towards Children with Physical Disability in Cheshire Home, Khartoum State, Sudan (2011-2014)

Somia Jadalla Ali Frag

Abstract

Disability is one of the great problems that faces the family, society and the state. It has a negative impact on all, therefore it is necessary to consider provision of the needed services for them. This interventional study was conducted at Cheshire home in the period (2011-2014). It aimed at assessing the effect of the educational training program on the disabled children’s mothers on knowledge, attitude and practice and on its effectiveness on improving the child physical performance such as (eating, drinking, expulsion of excursion, movement, playing, articulation and communication with others) in order to be more capable and qualified enough to depend on themselves. Excel program (spread sheet) was used to lay down the sampling which reaches (113) of the mothers. A questionnaire and observational checklist were used. The statistical package for social science (SPSS) version (16) - was used in data in managing data analysis. The significant finding shown in the study is the percentage of the awareness among mothers regarding disability, types, causes, and treatment before and after education program (16.8% and 83% respectively). 93.8% of mothers did not receive any advice or directions towards improving the performance in their children from Cheshire home staff before the study. Following the research program (100%) of had received such advice and counseling. There was significant improvement of doing the daily activities among the disabled children. Before the program 92.0% of them were eating with full support, 9.0% with little help and 6.2% without help, but after the intervention only 42.5% eat with full support, 51.3% eat with little help and 6.2% eat without help. Before the educational program about 93.8% were drinking with an full support, 0.0% were drinking with little help while 6.2% were drinking without help, while after the intervention, only 36.3% drink with full support, 57.5% drink with little help and 6.2% drink without help. Before the educational program about 93.8% were not able to communicate with others while only 6.0% were able doing so, as for, after the intervention, only 36.9% are not able to communicate with others, and 68.1% are able doing so. In conclusion the families of the disabled children are in a crucial need for help, direction, and instruction in order to look after their disabled children. The study recommends the training of the mothers in how to deal with their disabled children, according to their needs so that they can overcome and adapt to such problems, and consequently help their disabled children to depend on themselves.
أثر التثقيف الصحي في رفع مستوى المعرفة و الإتجاه و الممارسة نحو مقدمي الرعاية وسط الأطفال المعاقين جسدياً بدار شيشر – الخرطوم – السودان في الفترة من (2011-2014م)

سمية جادالله علي

ملخص الدراسة

الاعاقة من أكبر المشاكل التي تواجه الأسرة وتؤثر عليها سلباً وعلي المجتمع ووالدولة لذلك لابد من الاهتمام بهذه الفئة من المجتمع وتوفر خدمات الرعاية اللازمة لهم. أجريت هذه الدراسة التداخلية بدار شيشر في الفترة من 2011 الي 2014 وتفتح على تقييم الرسالة التثقيف الصحي على مقدمي الرعاية لأطفال المعاقين جسدياً والوقف على مستوي معرفتهم وممارستهم الطريقة الصحية لرعاية ومساعدة أطفالهم على القيام بنشاطاتهم اليومية كالأكل والشرب والحركة واللعب والتنشئة وال التواصل مع الآخرين حتى يصبحوا مؤهلين للإعتماد على أنفسهم.

استخدم الباحث برنامج إكسيل في تحديد حجم العينة التي بلغت 113 فرد من مقدمي الرعاية للأطفال المعاقين جسدياً الذين كانت غالبيتهم من الأمهات. كما استند الباحثة في جمع البيانات على الاستبانة التي ركزت على تقييم مدى معرفة ووعي مقدمي الرعاية بالطريقة الصحيحة لتأهيل أطفالهم المعاقين جسدياً ومساعدتهم على القيام بنشاطاتهم اليومية. كذلك استخدم الباحث برنامج الحزمة الإحصائية - نسخة رقم (16) - في تحليل البيانات التي تم عرضها في جداول واشكال بيانية. ومن اهم النتائج التي توصلت إليها الدراسة هي نسبة معرفة مقدمي الرعاية بالاعاقة وأنواعها وعلاقتها وطرق علاجها قبل وبعد البرامج التثقيفي والتي كانت 16.8% و 83% على التوالي. كما أوضح أن الدراسة عدد من النتائج على النحو التالي: بلغت نسبة الذين لم يتلقوا نصائح حول إعاقات أطفالهم 93.8% ولكن بعد برنامج التثقيفي زادت بنسبة 100%. حيث تلقى كل العينة النصائح المهمة للعناية بأطفالهم أظهرت النتائج تحسن واضح للأطفال المعاقين جسدياً في القيام ببعض نشاطاتهم اليومية حيث كانت نسبة الذين يتبعون الطعام بمساعدة كاملة 92.0% و30.9% الذين يتبعون الطعم بمساعدة قليلة 9.0% الذين يتبعونه من غير مساعدات 6.2% في التدخل، وبعد التدخل أصبح 42.5% يتبعونه بمساعدة كاملة و 51.3% يتبعونه من غير مساعدات 39.8% يتبعونه بمساعدة كاملة و 62.5% يتبعونه من غير مساعدات 6.2% يتبعونه من غير مساعدات 42.5% يتبعونه بمساعدة كاملة و 51.3% يتبعونه من غير مساعدات 39.8% يتبعونه بمساعدة كاملة و 62.5% يتبعونه من غير مساعدات 42.5% يتبعونه بمساعدة كاملة و 51.3% يتبعونه من غير مساعدات 39.8% يتبعونه بمساعدة كاملة و 62.5% يتبعونه من غير مساعدات 42.5% يتبعونه بمساعدة كاملة و 51.3% يتبعونه من غير مساعدات 39.8% يتبعونه بمساعدة كاملة و 62.5% يتبعونه من غير مساعدات 42.5% يتبعونه بمساعدة كاملة و 51.3% يتبعونه من غير مساعدات 39.8% يتبعونه بمساعدة كاملة و 62.5% يتبعونه من غير مساعدات. وكان 93.8% لا يستطيعون التواصل مع الآخرين و 6.0% فقط يستطيعون ذلك و بعد التدخل أصبح 31.9% لا يستطيعون التواصل مع الآخرين و 68.1% يستطيعون. توصت الدراسة أن هواء الاستماع بحاجة ماسة للأنشطة والترفيهية لرعاية أطفالهم المعاقين. أوصت الدراسة بضرورة تدريب الأمهات على كيفية التعامل مع أطفالهم المعاقين حتى يمكنهم من تجاوز هذه المضاعفة والتكيف عليها وبالتالي مساعدة أطفالهم كي يصبحوا مؤهلين للاعتماد على أنفسهم.
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CHAPTER ONE

Introduction

1-1Back Ground:

A handicapped condition make the normal function of the individual very difficult and lead to dependency ,these condition are increasing day by day due to changing life style and complicated environment, is it social problem in all countries in the world (Abbott,D.A.2000).

Disability is defined as any restriction or lack of ability to perform an activity in the manner (Parul Datta 2009).

According to the World Health Organization, a disability is “any restriction or lack (resulting from any impairment) of ability to perform an activity in the manner or within the range considered normal for a human being.”(WHO 2011)

A person is considered physically handicapped if he has an impairment that substantially limits one or more of life's daily activities (Shechtmon, z.2005).

The World Health Organization's definition of a handicap is the "loss or limitation of opportunities to take part in the life of the community on an equal level with others; encounter a person with disability, social, and physical environment. It is an inability to accomplish something one might want to do. The term emphasizes the focus on shortcomings in the environment and in many tasks and activities, in education, occupation, information or communication (social dimension)."(WHO 2010)

There are many different causes for physical disabilities, these include:

- inherited or genetic disorders, such as muscular dystrophy
- conditions present at birth (congenital), such as spina bifida
- serious illness affecting the brain, nerves or muscles, such as meningitis
- spinal cord injury
A physical disability is any condition that permanently prevents normal body movement and/or control. There are many different types of physical disabilities. Some of the main ones include:

- Muscular dystrophies
- Acquired brain and spinal injuries
- Spina bifida
- Cerebral palsy (Zilko, M. 2000)

The impact of chronic illness and disability on children’s health and functional status is profound (Abbott, D.A. 2000). The national health interview survey revealed that 18% of children with disabilities were in fair or poor health, in contrast to 2% of children without disabilities (Knussen 2004). Rehabilitation of handicapped children should be approached by combined and coordinated use of medical social, participation of the individual in the community. A major principle of family-centered care is a strong partnership between the family and provider, working together to address issues and barriers to accessing comprehensive care and related services (National center http://www.nichcy.org/. Accessed 12 Dec 2006).

1-2 Problem statement:

- Children with physical disabilities spent three times as many day ill in bed and day spent from school as other children. They make 26 million more visits per years to the doctor than typical children and spend 5 million more days in the hospital annually. They are limited in their daily activity for slightly more than two weeks each year, and one tenth of all children with disabilities are unable to play or attend school (WHO 2005).
- According to the World Report on Disability, 1 billion people have a disability; at least 1 in 10 is a child (100 million children); and 80% live in developing countries (WHO 2011)
- The report estimates that 15% of the world populations have disabilities, and higher-income countries have a lower prevalence of disability than lower income countries.
• The national 2008 Sudan Census estimated the prevalence of disability at 4.8%. It also measured the number of children under 18 years at 15 million, indicating that approximately 720,000 Sudanese children have disabilities (WHO 2010).

There is a general lack of knowledge regarding disability and especially factors that are associated with disability in low-income countries. There are an estimated 5.9 million children with severe disabilities in the Africa, and most of them are cared for at home by their parents and families. Indirect evidence suggests that poor caregiver provision of health may contribute to recurrent hospitalizations and out-of-home placements for children with chronic conditions and disabilities. Greater knowledge of caregiver health-related needs would allow for the improvement of existing services and the development of new strategies to sustain caregivers in their vital role (WHO 2012).

Children with physical disabilities have functional limitations that specifically impact their ability to exercise (e.g., fatigue, spasticity, pain), maintain health and nutrition (e.g. gastrointestinal problems), and participate in key aspects of psychosocial development (e.g. low self esteem, preoccupation with weight). Often, this is compounded by co-morbidities and environmental barriers that further limit their access to resources and opportunities. In addition, lack of physical activity can lead to negative spirals that result in secondary conditions (e.g. obesity, pressure sores, Type 2 diabetes), and further functional decline, isolation, and reduced health. A recent Pediatrics study concludes that a strong supportive family unit, along with an extended network of assistance, influences a caregiver’s health while also benefiting the individual with special needs. Embracing the resources provided by government agencies, cerebral palsy organizations, disability networks, community groups, and charitable associations helps safeguard the health and well-being of the entire family. Across the country, awareness of the mission and capacity of various organizations is growing. Many organizations pride themselves on advocacy and ability to assist others. So, although some parents may feel uneasy asking for help, many come to realize the positive impact support affords. (Bookman, A., & et al 2007)
Counseling can Help Your Special Needs Family

Any family who has a special needs child will inevitably have hurdles and mountains that will need to be climbed. Odds that most “normal” families will not need to endure. Marriages where there is a special needs child involved will often become strained to the point of separation or divorce. A special need counselor can help a family deal with day-to-day issues and also prepare the handicapped child for an adult life with independence. (Bailey, A.B.2000)

If a parent is concerned about a child growing up with a disability or handicap counseling can help figure out a plan for your family. A counselor helps the family with daily issues as well as giving your special needs child someone to talk to besides parents and peers. With a disability there is often depression and isolation and a counselor can help with this.

A counselor can also help the family with any adjustments they need to make in regards to a handicapped child.

When a parent feels overwhelmed by social, behavioral and learning challenges that are associated with a special needs child a counselor can also find ways for the family to deal with that as well. Your school may find that a special need child will benefit from a counselor but if your family struggles with the disability seek counseling before the school advises it. (Abram, J.C.2003).

1-3 Justification and Rational:

Disability has become a big problem specially in developing countries, it affect the lives of everyone at some point in life also effects on the entire family--parents, siblings, and extended family members., do not affect the family only but extends to influence on the economy of the country and the whole world , Handicapped children are a vulnerable and neglected in the society and they face many problems, including: lack of financial support, lack of educational opportunities, lack of assistive devices and person working in the field of disabilities lack knowledge and experiences(WHO2010).
Many of the families of children with disabilities considered disabled child is social stigma and therefore do not go to their centers for rehabilitation, but excited inside the home. Therefore, these families need to be educated, provided guidance and psychological support to accept their child’s status (Taub, Diane & etal November 2003)

The main factor that encourages the researcher to carry out this study is when she saw a scene in the center, while he was working there with the students. The scene was when a father, mother and their disabled child, got out from the physician room, the father was shouting loudly at his wife saying “you are the means for obtaining it, repeatedly”, then he assailed her aggressively, until she fell down with her disabled child, while the father still shouting hysterically rebuking his wife that she was the main cause of their child disability. This tragedy arose the idea of conducting this study, and the researcher aims at sending directions to the family of the disabled children particularly when he discovered that the physician told them directly without preparing them or show them the case of their children and its main causes.

1-4 OBJECTIVES

1-4-1 General objectives:

To study the effect of educational training program to mothers of children with physical disability in Cheshire home on knowledge attitude and practice.

1-4-2 Specific objectives:

1) To assess knowledge attitudes and practice of rehabilitation among the mothers of children with physical disability.

2) To develop an educational program for mothers of children with physical disability.

3) To determine barrier against the daily living activities of children with physical disabilities.

4) To assess the effect of the educational training program to mothers on their knowledge attitudes and practices toward their physical disabled children and improving to their physical performance.
CHAPTER TWO

2-1 Literature review:

**Disability** is the consequence of an impairment that may be physical, cognitive, mental, sensory, emotional, developmental, or some combination of these. A disability may be present from birth, or occur during a person's lifetime (Cunningham, PJ (2005).

Disabilities are an umbrella term, covering impairments, activity limitations, and participation restrictions. Impairment is a problem in body function or structure; an activity limitation is a difficulty encountered by an individual in executing a task or action; while a participation restriction is a problem experienced by an individual in involvement in life situations. Thus, disability is a complex phenomenon, reflecting an interaction between features of a person’s body and features of the society in which he or she lives (World Health Organization. Retrieved 11 August 2012).

Disability Defined According to the World Health Organization, a disability is “any restriction or lack (resulting from any impairment) of ability to perform an activity in the manner or within the range considered normal for a human being ”WHO 2008).

Disability is thus not just a health problem. It is a complex phenomenon, reflecting the interaction between features of a person’s body and features of the society in which he or she lives. Overcoming the difficulties faced by people with disabilities requires interventions to remove environmental and social barriers (Smith, T.B. (2012.).)

**Physical disability**

Any impairment which limits the physical function of limbs, fine bones, or gross motor ability is a physical impairment, not yet a physical disability. The Social Model of Disability defines physical disability as manifest when an impairment meets a non-universal design or program, e.g. a person who cannot climb stairs may have a physical impairment of the knees when putting stress on them from an elevated position such as with climbing or descending stairs. If an elevator was provided, or a building had services on the first floor, this impairment would not become a disability. Other physical disabilities include impairments which limit other facets of daily living, such as severe sleep apnea (Prime Minister's Strategy Unit 2005)
Children with Physical Disabilities

Children with physical disabilities have non-sensory physical impairments or health impairments that interfere to a significant extent with their academic performance. This means that the definition excludes things like hearing and seeing. Special education assistance for this area includes modification of the environment, adaptive equipment, and assistance with transportation if needed. Services may include physical and occupational therapy. Children with physical disabilities may have other disabilities needed a team approach to meet all their needs. The common element among people with physical disabilities is that there is some sort of interference with normal motor function. Their range of intellectual abilities would be the same as the general population without disabilities. Some may be average or below while others will be in the gifted range (- Albrecht, D.G. 2000).

Three categories of physical disabilities:

Neurological Conditions – These are disabilities commonly caused by damage to or incomplete development of the brain or spinal cord. The most common neurological conditions are cerebral palsy, epilepsy, spina bifida, and traumatic brain injury. Orthopedic Conditions – This refers to damage, disease, or lack of development of the bones, muscles, or joints of the body. Some common orthopedic conditions are juvenile rheumatoid arthritis, muscular dystrophy, and absence or loss of all or part of a limb. Health Conditions – This covers anything else caused by acute or chronic disease. This is a very broad category but generally the difference is that the condition is usually not affecting movement of motor coordination directly. Some health conditions include asthma, diabetes, cystic fibrosis, or sickle cell anemia. Many students in this category may not need extensive support in their ability to learn, speak or walk. They may need minor accommodations such as modification of curricula such as physical education or need of the teacher to be aware of medication requirements or effects (Specht J, King G, Brown E, Foris C 2002).
Concerns related to Physical Disabilities:

Physical disabilities frequently cause difficulty in mobility because of poor muscle coordination, abnormal muscle movements, paralysis, or weakness. This may require the use of wheelchairs, crutches, or prosthetic devices (Giannini MJ 2001).

Control of the muscles in the oral area (tongue), normal functioning of the vocal tract and respiration tract are necessary for normal speech. An individual may not be able to imitate or reproduce speech sounds. This makes it difficult to communicate regarding everyday normal matters. It also affects social relationships i.e. unfortunately; it is not unusual for someone to assume that a person whose speech is unintelligible is mentally retarded even though the person is of normal intellect. People with speech problems due to physical disabilities often use graphic display boards such as picture boards. Some people use computer systems which produce synthetic speech.

Other activities of daily life which may be difficult for a person with physical disabilities include eating, dressing, bathing and toileting. They may need a personal assistant to help with some tasks or have extended time or accommodations to finish things by themselves ((Seltzer, M. M., Greenberg, J. S 2001).

Emotional and social development concerns may develop along with physical disabilities. Children dealing with acute and chronic medical conditions may have great physical discomfort and hospitalizations. They may have terminal illnesses or losses of body functions from which they may never fully recover. They may not be easily accepted by their peers due to their physical differences or undesirable side effects such as drooling or incontinence. This is likely to affect general disposition and personality. Clinical depression or excessive acting out, low self-esteem or feelings of rejection may develop (Dickman, I. & Gordon, S. (2000).

Physical disability

In the early years, children may have some difficulties in learning to move skillfully. This is not unusual. However, for some children, the muscles and nerves that control body movements may not be properly formed or may become damaged causing a physical disability (Center for Children with Disabilities. http://www.nichcy.org)
Causes of physical disabilities

Prenatal causes: Those disabilities that are acquired before birth. These may be due to diseases that have harmed the mother during pregnancy, embryonic or fetal developmental accidents or genetic disorders.

Perinatal causes: Those disabilities that are acquired during birth. This could be due to prolonged lack of oxygen or the obstruction of the respiratory tract, damage to the brain during birth (due to the accidental misuse of forceps, for example) or the baby being born prematurely.

Post-natal causes: Those disabilities gained after birth. They can be due to accidents, infection or other illnesses (Lavin, J.L. (2001).

Causes of physical disabilities

There are many different causes for physical disabilities. These include:

- inherited or genetic disorders, such as muscular dystrophy
- conditions present at birth (congenital), such as spina bifida
- serious illness affecting the brain, nerves or muscles, such as meningitis
- spinal cord injury

Many causes and conditions can impair mobility and movement. The inability to use legs, arms, or the body trunk effectively because of paralysis, stiffness, pain, or other impairments is common. It may be the result of birth defects, disease, age, or accidents. These disabilities may change from day to day. They may also contribute to other disabilities such as impaired speech, memory loss, short stature, and hearing loss (Stein, R. (2005).

People with mobility and movement impairments may find it difficult to participate when facing social and physical barriers. Quite often they are individuals of courage and independence who have a desire to contribute to the fullest level of their ability. Some are totally independent, while others may need part- or full-time assistance (Stein, R. (2005).
Types of physical disabilities

Mobility impairment is a category of disability that includes people with varying types of physical disabilities. This type of disability includes upper limb disability, manual dexterity and disability in co-ordination with different organs of the body. Disability in mobility can either be a congenital or acquired with age problem. This problem could also be the consequence of some disease. People who have a broken skeletal structure also fall into this category of disability.

Visual impairment is another type of physical impairment. There are hundreds of thousands of people that greatly suffer from minor to various serious vision injuries or impairments. These types of injuries can also result in some severe problems or diseases like blindness and ocular trauma. Some of the common types of vision impairments include scratched cornea, scratches on the sclera, diabetes-related eye conditions, dry eyes and corneal graft, Macular degeneration due to old age, retinal detachment. Hearing impairment is the category of physical impairment that includes people that are completely or partially deaf. People who are only partly deaf can sometimes make use of hearing aids to improve their hearing ability (Albrecht, D.G. (2000).

A physical disability is any condition that permanently prevents normal body movement and/or control. There are many different types of physical disabilities. Some of the main ones include:

Muscular dystrophies

When a child has muscular dystrophy, this means that the muscle fibres in the body gradually weaken over time. Children can have different types of muscular dystrophy. The most common type is Duchenne muscular dystrophy which occurs only in boys. All types of muscular dystrophy are genetic even though other family members may not have the condition.

Acquired brain and spinal injuries

Physical disabilities may result from permanent injuries to the brain, spinal cord or limbs that prevent proper movement in parts of the body.
**Spina bifida**

Sometimes, a baby's spinal cord (the nerves that run down the spine) do not develop normally during pregnancy. When this happens, the child can have a physical disability called spina bifida. The type and amount of disability caused by spina bifida will depend upon the level of the abnormality of the spinal cord. Children with spina bifida may have:

- partial or full paralysis of the legs
- difficulties with bowel and bladder control.

They may also have:

- hydrocephalus (high pressure on the brain because of fluid not being drained away as normal)
- bone and joint deformities (they may not grow normally)
- curvature (bending) of the spine.

**Cerebral palsy**

Cerebral palsy is caused by damage to the parts of the brain which control movement during the early stages of development. In most cases, this damage occurs during pregnancy. However, damage can sometimes occur during birth and from brain injuries in early infancy (such as lack of oxygen from near drowning, meningitis, head injury or being shaken) (Anonymus (2007)).

Children with cerebral palsy may have difficulties with:

- posture (the ability to put the body in a chosen position and keep it there)
- movement of body parts or the whole body
- muscle weakness or tightness
- involuntary muscle movements (spasms)
- balance and coordination
- talking and eating.

Children can have different types of cerebral palsy:
- hemiplegia (involves muscle movements and weakness on one side of the body)
- diplegia (involves muscle movements and weakness in the lower part of the body)
- quadriplegia (involves muscle movements and weakness in both arms and both legs)

**Multiple disabilities**

Some children with physical disabilities will have other disabilities, such as intellectual, visual or hearing impairments. They may also have communication difficulties or other medical conditions such as epilepsy or asthma. When a child has several different types of disability, professionals talk about multiple disabilities rather than listing separate conditions. (Anonymus (2007).

Disability at any age brings about profound changes to lifestyle and attitudes. Acquiring a disability through illness or accident affects not only the person with the disability but family and friends as well. It becomes a dividing line of before and after and requires any number of adjustments physically, emotionally and psychologically (Pless, IB, Pwer, C, Peckham, CS2002).

Usually when people hear the word "disability," they think of physical disabilities. Many are born with physical disabilities and grow up dealing with the limitations they place on their activities and life choices. Others may start life as most everyone else but become disabled due to an illness or an accident. Physical disabilities may range from a stiff joint to major body trauma that puts the individual into a wheelchair. Physical disabilities vary widely, but all have the effect of putting limitations on the person with the disability. Some may not be able to tie a shoe. Others may not be able to reach down to even put on the shoe, but may learn to do so do by using special dressing aids. Still others are limited to the point of needing assistance with the most basic of human needs (Rimmer JH, Braddock D, Pitetti KH2003).
CLASSIFICATION OF IMPAIRMENT IN MUSCLE FUNCTION IN SPASTIC PARESIS

About 80-90% of the children have spastic paresis as the motor disorder. However, with regard to the impairment of muscle function, a variety of clinical symptoms can be distinguished. Several terms have been used in the literature to describe the different symptoms of spastic paresis, and the same terms are often defined differently. The term "spasticity" is often used for all kinds of motor disorders or for all signs of a spastic paresis. Because a proper description of the different symptoms is needed for selection of patients for a specific therapy, conventions about terminology are needed. The following classification is according to the actual insight.

In spastic paresis, three sets of symptoms can be distinguished: impairment of muscle activation; impairment of muscle stiffness; and impairment of muscle length (Van Zelst, B. (2006).

Impairment of muscle activation

Impairment of muscle activation can be divided into deficit symptoms and excess symptoms.

Deficit symptoms are caused by the reduction of voluntary muscle function. In the case of mild involvement, only loss of dexterity of movement, diminished ability to perform fast alternating movements and enhanced fatigability are present. In more severe involvement, the patient can perform only synergistic voluntary movements and the level of force is reduced. The lowest level of motor control is voluntary movement in a general flexion (mostly present in the upper limbs) or extension pattern (mostly present in the lower limbs). Synergistic voluntary movements are also described as "loss of selective motor control." In spastic paresis, the influence of posture is also increased. For instance, it is much easier for most patients to bend the hip in a sitting position than in a standing position. For that reason, it is not rational to use the Medical Research Council scale for grading the force of muscles when synergies of muscle movements are present.
**Excess symptoms** reflect the presence of abnormal muscle activity. Clinically, the presence of abnormal muscle activity can be noticed either during passive joint movements, while the patient is in maximal relaxation, or while the patient is performing motor tasks. (Van Zelst, B. (2006).

**Passive Movement**

During (very) slow passive movements, muscle tone can be examined. Some patients show a raised muscle tone during a very slow passive stretch (hypertonia defined as a non-velocity-dependent resistance to passive stretch). This increased resistance could be caused by a continuous activation of the stretched muscle (tonic stretch reflex activity).

During fast passive movements, the presence of spasticity, defined as the velocity-dependent resistance to passive stretch, can be examined. If only a catch (clasp-knife symptom) can be noticed, the spasticity is mild. In more severe spasticity, a clonus in the muscle or a marked increase in resistance can be evoked. Hyperreflexia of tendon jerks, abnormal cutaneo-muscular reflexes (such as Babinski's response) are also excess symptoms.

When performing motor tasks, three other features of involuntary muscle activation can be present: mirror movements can be present in patients with a hemiplegia or asymmetric diplegia: strong voluntary contraction of a muscle on the unaffected side evokes contractions in the same muscle on the opposite side; involuntary synergies can arise during the performance of a motor task. For example, the occurrence of a flexor synergy in the arm of hemiplegic patients when walking; postural reflexes cause involuntary muscle activity during the performance of a motor task (e.g., the clawing of the toes when walking). The muscle contractions develop gradually during walking. (Van Zelst, B. (2006).

**Active (Voluntary) Movement**

During active movement, co-contraction of the antagonist is also an excess symptom. Clinically, co-contraction can sometimes be observed as a paradoxical movement. For instance, the patient is asked to extend the elbow, but a flexion movement takes place:
the co-contraction of the flexors is more powerful than the contraction of the extensors of the elbow. There is no relationship between the presence of co-contraction during voluntary movement and spasticity during passive movement. The amount of co-contraction in repetitive movements of the ankle is significantly lower on the hemiplegic side than on the unaffected side. (Van Zelst, B. (2006).

**Impairment of muscle stiffness**

Clinically, increased muscle stiffness (defined as hypertonia) can be observed during slow passive stretch of a muscle after maximal relaxation. It is important to choose a posture for the patient in which maximal relaxation can be achieved (i.e., lying supine, flexion-abduction-exorotation in the hip and flexion in the knee will relax the triceps surae muscle). Without electromyographic activity, hypertonia can be caused by changes in the biomechanical properties of the muscle. (Van Zelst, B. (2006).

**Impairment of muscle length**

The development of muscle shortening is a well-known phenomenon in clinical practice. It is unclear why muscle shortening is present in some patients and not in others. A neurological growth disturbance has been postulated. Because muscle shortening takes place in the pattern of movement, a relation between gait pattern and muscle shortening seems probable. (Van Zelst, B. (2006).

**Classification of gait pattern**

In children with CP, the classification of gait pattern can be used to determine developmental risks, to forecast walking ability in time, and to define therapeutic measures, such as orthotic treatment or surgery. For hemiplegic patients, four kinds of gait patterns are recognized. The following classification can be used for both hemiplegic and diplegic patients. Diplegic patients can show different patterns for each leg. (Van Zelst, B. (2006).

**Type 1: Insufficient Foot Lift in Swing**

In children affected only mildly, the main problem in walking is insufficient foot lift in mid-swing and forefoot landing at initial contact. In general, insufficient activity in
the tibialis anterior and/or shortening of the gastrocnemius muscle is the cause of this gait pattern. Van Zelst, B. (2006).

**Type 2: Knee (Hyper)Extension in Midstance without Heel Rise**

More severely affected children show, besides the insufficient foot lift in mid-swing, knee extension or hyperextension after initial contact instead of knee flexion, without heel rise in midstance. This is caused by a premature activation of the triceps surae muscle. The forefoot landing may be caused not only by insufficient foot lift but also by incomplete knee extension in terminal swing due to insufficient selective motor control (in terminal swing, hip flexion must be combined with a knee extension movement (Van Zelst, B. (2006).

**Type 3: Knee (Hyper)Extension in Midstance with Heel Rise**

This gait pattern is similar to type 2, but heel rise takes place in midstance. A higher degree of abnormal activation of the triceps surae muscle is present. Prolonged activation of the vastus lateralis muscle can be present as a sign of insufficient power of the gastrocnemius muscle in terminal stance. In that case, the risk of development of a gait type 4 is present.( Van Zelst, B. (2006).

**Type 4: Knee Flexion in Midstance with Heel Rise**

In severely affected children, a gait pattern characterized by hip and knee flexion in midstance can be present. This gait pattern can be caused by strong abnormal activity (with or without muscle shortening) of the gastrocnemius and hamstring muscles or by abnormal activity of the psoas and hamstring muscles. The former situation has a better functional prognosis than the latter. These children are at high risk of developing shortening of the psoas, hamstring, and gastrocnemius muscles, and, in later stages, flexion contractures in hip and knee joints. Because this gait pattern is very energy-consuming, deterioration in (pre)puberty can be expected. (Van Zelst, B. (2006).
**Type 5: Knee Flexion in Midstance without Heel Rise**

The worst pattern of gait is a gait pattern with flexion of the hip and knee in midstance without heel rise. Insufficient power of the gastrocnemius muscle must be present. Often, it is caused by previous gastrocnemius surgery or Achilles tendon lengthening, but it can also develop spontaneously. If a change of gait pattern in bilateral involvement, at least into type 4 gait pattern, cannot be reached, loss of walking ability can be expected in puberty.

Besides these gait patterns, foot deformation can be present (varus or valgus). Increased homolateral trunk movements or pelvic drop of the contralateral leg in midstance are signs of weakness of the hip abductors. Also, endorotation adduction motion in terminal swing can be present, in severe cases resulting in rubbing of the knees. This can be caused by shortening or abnormal activity of the medial hamstrings. Persistent adduction in stance and swing can be caused by shortened hip adductors, endorotation by increased hip anteverision and endorotation contractures. (Van Zelst, B. (2006). Exorotational or endorotational foot progression angles can be caused by hip rotational contractures or rotational deformities of the femur or tibia. Insufficient foot clearance in preswing can be related to insufficient hip and knee flexion or abnormal stretch reflex activity (and shortening) of the rectus femoris muscle.

All these aspects of the gait pattern must be taken into account for making a plan for improvement of gait. The task of the medical specialist is to coordinate the multidisciplinary treatment of children with CP. Setting long-term goals on the level of abilities is the major task of the team. The medical specialist must determine the functional possibilities of the child and the risks for deterioration during growth. The medical treatment should take place within a whole treatment program, taking into account all aspects of development of the child and the possibilities of its environment. It is a challenging task for teams specializing in the treatment of children with CP.
**Stigma management**

Individuals with physical disabilities often experience stigma concerning their physical competence and bodily appearance. This leads to impairment in social interactions and devaluation of an individual (Taub, Diane; Elaine Blinde, Kimberly Greer (November 2003).

**General management**

Treatment of children with CP requires a long-term process during growth by a multidisciplinary team, focusing on all developmental aspects of the child and planning interventions in relation to the most urgent needs of the child and the family. The long-term goal is the optimal functioning in adulthood. The organization of the health care for children with CP is very heterogeneous within and among countries. Recently, minimal acceptable standards have been described. Pediatricians, pediatric orthopaedic surgeons, pediatric neurologists, and, rather uniquely in the Netherlands, pediatric physiatrists are involved in the multidisciplinary treatment of children with CP. The International Classification of Functioning (ICF) model (most recent version of the International Classification of Impairment Disability and Handicap, WHO, Geneva, 1999) offers a framework for a multidisciplinary, need-oriented team approach. Based on this model, the Rehabilitation Activities Profile for children (Children's RAP) has been developed. This is an instrument for team communication on the level of abilities and so avoids the use of jargon. The goals of treatment also require description of the level of abilities. Long-term (e.g., the child will walk independently without walking aids, following education in a primary school) and short-term goals (e.g., the child can sit on a chair for 60 seconds without support) need to be described in a measurable way. In this way, evaluation of the goals in the team conferences is possible, and the results of treatment are clear for all team members as well as for the parents (Newacheck PW, Stein REK, Walker DK, et al. (2004)).
The Rehabilitation:

Definition
Rehabilitation is a treatment or treatments designed to facilitate the process of recovery from injury, illness, or disease to as normal a condition as possible.

The Rehabilitation Services Administration (RSA) oversees grant programs that help individuals with physical or mental disabilities to obtain employment and live more independently through the provision of such supports as counseling, medical and psychological services, job training and other individualized services. (Kumar S, 2002)

Purpose
The purpose of rehabilitation is to restore some or all of the patient's physical, sensory, and mental capabilities that were lost due to injury, illness, or disease. Rehabilitation includes assisting the patient to compensate for deficits that cannot be reversed medically. It is prescribed after many types of injury, illness, or disease, including amputations, arthritis, cancer, cardiac disease, neurological problems, orthopedic injuries, spinal cord injuries, stroke, and traumatic brain injuries. The Institute of Medicine has estimated that as many as 14% of all Americans may be disabled at any given time. (Kumar S, 2002).

Precautions
Rehabilitation should be carried out only by qualified therapists. Exercises and other physical interventions must take into account the patient's deficit. (Kumar S, 2002).

Description
A proper and adequate rehabilitation program can reverse many disabling conditions or can help patients cope with deficits that cannot be reversed by medical care. Rehabilitation addresses the patient's physical, psychological, and environmental needs. It is achieved by restoring the patient's physical functions and/or modifying the patient's physical and social environment. The main types of rehabilitation are physical, occupational, and speech therapy. (Kumar S, 2002).
Each rehabilitation program is tailored to the individual patient's needs and can include one or more types of therapy. The patient's physician usually coordinates the
efforts of the rehabilitation team, which can include physical, occupational, speech, or other therapists; nurses; engineers; physiatrists (physical medicine); psychologists; orthotists (makes devices such as braces to straighten out curved or poorly shaped bones); prosthetists (a therapist who makes artificial limbs or protheses); and vocational counselors. Family members are often actively involved in the patient's rehabilitation program (Cooper RA 2004)

Physical therapy
Physical therapy helps the patient restore the use of muscles, bones, and the nervous system through the use of heat, cold, massage, whirlpool baths, ultrasound, exercise, and other techniques. It seeks to relieve pain, improve strength and mobility, and train the patient to perform important everyday tasks. Physical therapy may be prescribed to rehabilitate a patient after amputations, arthritis, burns, cancer, cardiac disease, cervical and lumbar dysfunction, neurological problems, orthopedic injuries, pulmonary disease, spinal cord injuries, stroke, traumatic brain injuries, and other injuries/illnesses. The duration of the physical therapy program varies depending on the injury/illness being treated and the patient's response to therapy.

Exercise is the most widely used and best known type of physical therapy. Depending on the patient's condition, exercises may be performed by the patient alone or with the therapist's help, or with the therapist moving the patient's limbs. Exercise equipment for physical therapy could include an exercise table or mat, a stationary bicycle, walking aids, a wheelchair, practice stairs, parallel bars, and pulleys and weights.

Heat treatment, applied with hot-water compresses, infrared lamps, short-wave radiation, high frequency electrical current, ultrasound, paraffin wax, or warm baths, is used to stimulate the patient's circulation, relax muscles, and relieve pain. Cold treatment is applied with ice packs or cold-water soaking. Soaking in a whirlpool can ease muscle spasm pain and help strengthen movements. Massage aids circulation, helps the patient relax, relieves pain and muscle spasms, and reduces swelling. Very low strength electrical currents applied through the skin stimulate muscles and make them contract, helping paralyzed or weakened muscles respond again (Brandt EL, Pope AM 2005).
Occupational therapy
Occupational therapy helps the patient regain the ability to do normal everyday tasks. This may be achieved by restoring old skills or teaching the patient new skills to adjust to disabilities through adaptive equipment, orthotics, and modification of the patient's home environment. Occupational therapy may be prescribed to rehabilitate a patient after amputation, arthritis, cancer, cardiac disease, head injuries, neurological injuries, orthopedic injuries, pulmonary disease, spinal cord disease, stroke, and other injuries/illnesses. The duration of the occupational therapy program varies depending on the injury/illness being treated and the patient's response to therapy. Occupational therapy includes learning how to use devices to assist in walking (artificial limbs, canes, crutches, walkers), getting around without walking (wheelchairs or motorized scooters), or moving from one spot to another (boards, lifts, and bars). The therapist will visit the patient's home and analyze what the patient can and cannot do. Suggestions on modifications to the home, such as rearranging furniture or adding a wheelchair ramp, will be made. Health aids to bathing and grooming could also be recommended (Hansen, Ruth A.; Atchison, Ben (2000).

Speech therapy
Speech therapy helps the patient correct speech disorders or restore speech. Speech therapy may be prescribed to rehabilitate a patient after a brain injury, cancer, neuromuscular diseases, stroke, and other injuries/illnesses. The duration of the speech therapy program varies depending on the injury/illness being treated and the patient's response to therapy.

Performed by a speech pathologist, speech therapy involves regular meetings with the therapist in an individual or group setting and home exercises. To strengthen muscles, the patient might be asked to say words, smile, close his mouth, or stick out his tongue. Picture cards may be used to help the patient remember everyday objects and increase his vocabulary. The patient might use picture boards of everyday activities or objects to communicate with others. Workbooks might be used to help the patient recall the names of objects and practice reading, writing, and listening. Computer programs are available to help sharpen speech, reading, recall, and listening skills (Pennington L, Goldbart J, Marshall J (2004).
Role of a physiotherapist

Physiotherapists can help children with disabilities and their families by

- assisting the child to learn how to use parts of the body and develop physical skills
- helping a child to become mobile (either independently or by using equipment)
- helping parents to become skillful in assisting their child including lifting, positioning and physical care
- working with staff from the child's preschool or school. (Steultjens E, Dekker J, Bouter LM 2004).

Role of an occupational therapist

Occupational therapists are often called OTs. The role of an OT is to help a child become fully involved in all aspects of life - at home, at preschool or school and within the general community. (Steultjens E, Dekker J, Bouter LM 2004).

OTs work with each child in different ways depending upon the child's disability, interests and skills. For example, an OT may give advice on any physical changes needed in the home or the child's preschool or school. This advice can include information on the type of stairs, handrail or ramp that will be best for the child. An OT may suggest changes to toys, equipment or furniture and can also advise on ways to improve writing and other hand skills. (Steultjens E, Dekker J, Bouter LM 2004).

Role of a speech pathologist

Children with a physical disability may need help with talking. Some will learn to use alternative methods of communication such as:

- communication boards or charts
- electronic devices
- sign language.
A speech pathologist will assess a child's ability to understand and express thoughts, feelings and ideas, and help to improve communication skills using speech or alternatives to speech. A speech pathologist can also help with eating and drinking problems (Pennington L, Goldbart J, Marshall J (2004).

**Other important professionals**

A number of other health professionals may be involved in helping your child. These include the:

- *orthopaedic surgeon* who examines a child's muscles and/or bone structure and provides surgery to manage problems related to these
- *ophthalmologist* who is a specialist eye and vision doctor
- *paediatric rehabilitation specialist* who assesses and manages the physical condition of children and young people with chronic (ever-present) disabilities
- *orthotist* who provides corrective equipment such as splints
- *psychologist* who assesses cognitive (thinking) skills and helps to manage emotional and behavioural problems
- *audiologist* who assesses hearing. (Brandt EL, Pope AM2002).

**Special equipment**

Many different professionals and agencies can provide advice about equipment for children with physical disabilities. Which will be the best source of information depends upon the needs of your child and your family (Giannini MJ 2001).

Depending upon your problems, you may need to speak with a physiotherapist, speech pathologist or an occupational therapist. Each of these therapists knows enough about the work of the others to be able to advise you about who could be most useful.

At different times, your child may require equipment to help with:

- walking/mobility
- talking/communication
- eating
- toileting
- showering/bathing.

Some equipment for children with physical disabilities can include computer and electronic technology, especially for assistance with communication. (Giannini MJ 2001).

**What you can do**

In some families, physical disabilities can be inherited. If your child has an inherited condition such as muscular dystrophy, you may wish to speak to a genetic counsellor. A genetic counsellor will study your family history and explain the risks of any inherited condition being passed to other children. This counsellor would also be able to provide information to you when you are planning to have children if someone in your family has had an inherited disability. Speak to your family doctor or contact your local hospital for further information.

A healthy diet before and during pregnancy can help to prevent some physical disabilities. In particular, extra folate before and around the time of becoming pregnant help to prevent spina bifida.

Immunisation against serious childhood illness will help to prevent some physical disabilities.

Prevent serious injury to the child's brain or spine through, for example, car and home safety (Innocenti, M.S., & Kwisun, H. (2003)).

**If your child has a physical disability:**

Where possible, enroll at child care, preschool or school well before your child is due to attend so that necessary changes to stairs, toilets or classrooms can be completed.
Help teachers by giving them up-to-date information about your child's medical and physical needs. This will assist teachers in choosing the best teaching methods for your child (Naseef, R. A. (2004)).

**Personal Care Assistant**

Personal Care Assistant (PCA), commonly known as caregiver, personal care attendant, patient care assistant, personal support worker and home care aide is a paid, employed person who helps persons who are disabled or chronically ill with their activities of daily living (ADLs) whether within or outside the home. They assist clients with personal, physical mobility and therapeutic care needs, usually as per care plans established by a rehabilitation health practitioner, social worker or other health care professional (Van Zelst, B. (2006)).

While there is no single definition or professional title for PCA's, they may be distinguished as persons who carry out their work as part of the formal health and social services labour market, other than their relatives, friends and others who are unpaid for their caregiving activities.

Personal Care Assistants may help with daily activities, such as helping the individual bathe, eat, prepare meals and maintain their home. Personal Care Assistants may provide rehabilitative assistance for individuals who have had surgery or been ill. In-home hospice care may also be provided (Porterfield, S. L., McBride, T. D. (2007)).

A PCA may be independently contracted on a freelance basis directly by the person needing the assistance or their family, employed by a larger staff network of care providers, such as in an assisted living facility, or employed by a private, government-operated or community-based organization that systematically dispatches providers of personal care to persons in need. The PCA may work exclusively with one client, or have a number of various clients. Some PCA's work with clients with long-term care needs, while others may primarily help discharge hospital patients who have relatively short-term needs.

There is no single model for how a PCA may be employed or paid, just like no single model for a larger health and social care system. The services of a PCA may be paid
directly by some clients under a universal coverage health care system. Financial assistance programs for the disabled may exist amidst the structure of a country's welfare system, with 'supplement' schemes meant to provide individuals with funds to enable PCA care. PCA's may be wholly self-employed and only work for clients who can pay set fees. Because a PCA does not generally provide round-the-clock care or stay overnight at a client's residence, most PCA’s work in shifts to meet individual clients' needs (Porterfield, S. L., McBride, T. D. (2007))

Activities of daily living

Activities of daily living (ADLs) is a term used in healthcare to refer to daily self care activities within an individual's place of residence, in outdoor environments, or both. Health professionals routinely refer to the ability or inability to perform ADLs as a measurement of the functional status of a person, particularly in regards to people with disabilities and the elderly. Younger children often require help from adults to perform ADLs, as they have not yet developed the skills necessary to perform them independently.

ADLs are defined as "the things we normally do...such as feeding ourselves, bathing, dressing, grooming, work, homemaking, and leisure." A number of national surveys collect data on the ADL status of the U.S. population. While basic categories of ADLs have been suggested, what specifically constitutes a particular ADL in a particular environment for a particular person may vary (Kristine Krapp. Gale Group, Inc., 2002).

Basic ADLs

Basic ADLs (BADLs) consist of self-care tasks, including:

- Bathing and showering (washing the body)
- Bowel and bladder management (recognizing the need to relieve oneself)
- Dressing
- Eating (including chewing and swallowing)
- Feeding (setting up food and bringing it to the mouth)
• Functional mobility (moving from one place to another while performing activities)
• Personal device care
• Personal hygiene and grooming (including washing hair)
• Toilet hygiene (completing the act of relieving oneself)

Although not in wide general use, one mnemonic that some consider useful is DEATH: dressing/bathing, eating, ambulating (walking), toileting, hygiene (Roley SS, DeLany JV, Barrows CJ, et al. (2008).

• Using technology (as applicable)
• Transportation within the community

A useful mnemonic is SHAFT: shopping, housekeeping, accounting, food preparation/meds, telephone/transportation.

Occupational therapists often evaluate IADLs when completing patient assessments. The American Occupational Therapy Association identifies 12 types of IADLs that may be performed as a co-occupation with others:

• Care of others (including selecting and supervising caregivers)
• Care of pets
• Child rearing
• Communication management
• Community mobility
• Financial management
• Health management and maintenance
• Home establishment and maintenance
• Meal preparation and cleanup
• Religious observances
• Safety procedures and emergency responses
Evaluation of ADLs

There are several evaluation tools, such as the Katz ADL scale, the Lawton IADL scale, and the Bristol Activities of Daily Living Scale.

Most models of health care service use ADL evaluations in their practice, including the medical (or institutional) models, such as the Roper-Logan-Tierney model of nursing, and the resident-centered models, such as the Program of All-Inclusive Care for the Elderly (PACE). (Lawton IADL scale.)

Activities of Daily Living Scale

Aka: Activities of Daily Living Scale, Katz ADL Scale, ADL Scale, Katz Index of Independence in Activities of Daily Living

1. Based on 6 criteria
   1. Bathing with sponge, bath, or shower
   2. Dressing
   3. Toilet Use
   4. Transferring (in and out of bed or chair)
   5. Urine and Bowel Continence
   6. Eating

2. Each criteria is graded on level of dependence
   1. Performs independently
   2. Performs with assistance
   3. Able to perform (assigned 1 point each)

III. Interpretation

1. Level of ADL Dependence graded via score
2. Dependence in ADLs suggested by score of 0 to 1
3. Independent in ADLs increases as score approaches 6. (Katz ADL scale)

How long does counseling take?

Length of counseling treatment varies depending on the individual and the problem they are presenting with.
What can I expect at a counseling session?

It is normal and natural to feel nervous or anxious at your first counseling session. We understand that it takes a lot of courage to come share your emotions and life experiences with someone you have just met. We aim to make the counseling atmosphere comfortable and free from judgment. Depending on your needs, to set goals, change behaviors, maximize your potential, improve relationships and make positive changes in your life (Abbott, D. A. & Meredith, W. H. (2000).

Counseling Can Help Your Special Needs Family

Any family who has a special needs child will inevitably have hurdles and mountains that will need to be climbed. Odds that most “normal” families will not need to endure. Marriages where there is a special needs child involved will often become strained to the point of separation or divorce. A special need counselor can help a family deal with day-to-day issues and also prepare the handicapped child for an adult life with independence. If a parent is concerned about a child growing up with a disability or handicap counseling can help figure out a plan for your family. A counselor helps the family with daily issues as well as giving your special needs child someone to talk to besides parents and peers. With a disability there is often depression and isolation and a counselor can help with this. A counselor can also help the family with any adjustments they need to make in regards to a handicapped child. When a parent feels overwhelmed by social, behavioral and learning challenges that are associated with a special needs child a counselor can also find ways for the family to deal with that as well. Your school may find that a special need child will benefit from a counselor but if your family struggles with the disability seek counseling before the school advises it. Independence comes naturally to normal children and they have no problem as adults functioning in a normal society. Special needs children and their families can be counseled so that the child becomes an independent adult who can function without the help of a caregiver or a parent. You want your child to succeed in life and extra help is always appreciated. Parents of children suffering from disabilities report “lower satisfaction with their parental role, lower self-efficacy, higher levels of depression, lower marital satisfaction, and higher rates of divorce” Shechtman, Z. & Gilat, I. (2005).
The turning point in these families’ lives is when they first hear that their child has a disability. The child may be diagnosed inutero, as an infant, or their disability may reveal itself slowly as they age. Regardless of when this information is revealed to the parents, it can have a significant effect on their family dynamics. Fantasies of cheering for a son whose playing baseball, or watching a daughter walk across her high graduation stage as valedictorian are shattered (Ziolko, M. (2000)). The discrepancy between their child’s real self and their expectation become hard to bear.

The amount a family is being affected can be judged by “sleep disturbances the child’s disability might cause the parents; physical burdens related to dressing, lifting, feeding, and so on that an illness or disability might create for the parents; complicated diets which require extra time; extra housekeeping which might be necessary; financial stress and strain; adaptations that may be needed in housing and furnishings; and the unpredictability of the disease or disability” (Ziolko, M. (2000)). The greater these areas of the lives of the family members are affected, the greater amount of stress and burden that the family experiences. Sometimes the burden placed on the family member will escalate into occasional outbursts of anger towards the child, thus promoting a painful cycle of resentment, guilt, overprotection, and permissiveness (Abrams, J. C. & Kaslow, F. (2003)).

As mothers are more likely to be responsible for day-to-day care taking, most studies have focused their research in the past on the effect that a child’s disability has on mothers’ stress levels and coping strategies. Mothers whose children possess “higher levels of behavior problems and low levels of functional skills seem to be more at risk (Knussen, C. & Sloper, P. (2000)). Margalit, Raviv, and Ankonina concluded that the great discrepancies in how mothers and fathers rate their family dynamics demonstrate low degrees of agreements regarding personal coherence, family opportunities for personal growth, and avoidant coping. Mothers are more likely to experience health problems. Many fathers view their child’s disability as a representation of their masculinity and struggle with directly participating in activities with their child. Frequently, fathers view their child’s disability as less laborious and sometimes deny the majority of the problem (Ziolko, M. (2000)).

Siblings commonly suffer from a lack of routine due to the unpredictability of the child’s disability. Siblings of the disabled child often have feelings of anger and resentment for the amount of parental attention that the child’s disability consumes.
found that siblings of children suffering from autism were “much more likely to have positive view of their behavior, intelligence, scholastic performance, and anxiety than siblings of non-disabled children,” but that demographic characteristics were more likely to effect them. Collectively, all family members of disabled children are inevitably affected by their special needs. Research has shown that these family members are negatively influenced by their situation and that only through adjustment and coping strategies can they learn to confront and manage their difficulties (Sharpe, D., Rossiter, L. (2002).

**Counseling Therapy**

The goal of family intervention via counseling therapy is to create a supportive and confidential environment for families of disabled children to seek guidance and to diminish the increased stress caused by the child’s disability by learning applicable coping behaviors. The therapy should serve the emotional and mental needs of the family members by providing sound counsel. For these intervention therapies to be effective, professionals must learn how to specifically assist families coping with disability-related stressors (Macks, R. J. & Reeve, R. E. (2007). Conn-Blowers (1990) says that “counselors are challenged to assist disabled clients and their families to recognize their strengths and limitations while continuing to view themselves as valued and valuable members of society.” Professionals need to become more aware that all interventions for the child affect the family and A correlation has been identified between the psychological well-being of a family and the emotional, mental, and physical health of a disabled child.

These therapy options are used to accomplish the same goals; however, they each offer different perspectives to aiding families. These approaches are designed to be used either independently or collectively. Involvement in counseling therapy can restore hope, reframe negative issues, promote self-forgiveness, facilitate awareness, reconnect family members, and empower individuals (Bailey, A. B. & Smith, S. W. (2000).

**Individual Counseling**

Individual counseling tailors therapy specifically to each family member based on the child’s disabilities, as well as their individual needs. During the sessions, several methods of treatment could be used. Often the counselor will encourage techniques of reflecting, self-disclosing, positive reinforcement, role modeling, and problem
solving. If the individual is a sibling of the disabled child, play therapy, narrative therapy, or relaxation training may be applicable. Individual counseling offers the family member more privacy and specialized attention. Because they are the only subject in the session a more in depth exploration and analysis can take place. In family counseling, the counselor must divide the allotted time between every family member and the family as a whole, thus resulting in less in depth personal counseling (Morison, J. E., Bromfield, L. M., & Cameron, H. J. (2003).

Family Counseling

Family group therapy also uses the same model of intervention; however, it focuses more on how the group performs together rather than as individuals. During sessions, the counselor may try to assess and mend relationships and improve communication on the whole rather than develop a counseling model for each attending member. Involving any mixture of relatives to the child, family members are able to discuss and evaluate difficulties as a unit and gain a sense of joint problem solving. Because family members are present, there is less distortion in stories and facts; therefore, the counselor can evaluate the family dynamics more accurately (Morison, J. E., Bromfield, L. M., & Cameron, H. J. (2003).

Group Counseling

The final therapy option is group counseling or support groups. This type of therapy often meets in a location other than a psychologist’s office. The group is made up of several family members of different disabled children and attendants are invited to share emotions, reactions, and concerns with fellow group members who are experiencing similar situations. Abrams and Kaslow (1977) found that “group meetings offer a respite, a time when parents do not have to hide concerns or pretend that all is well if it isn’t.” Through group therapy interventions, isolation and withdrawal can be reduced as members discover that they are not alone and begin to gain knowledge about their child’s disabilities and new coping strategies. Many of these support groups can be specific to a certain disorder, which can be helpful for gaining information, but lacking in addressing familial matters such a marital distress. It is important that in large groups members are still able to develop deep insight through personal awareness (Morison, J. E., Bromfield, L. M., & Cameron, H. J. (2003).

Counseling for Parents of Children with Special Needs:

Problems Encountered by Parents of Children with Disabilities
•**Powerlessness.** Do you feel like you have no power to affect the outcome of events around you?
  - Imbalance in Caretaking. Does one parent feel like they are doing all the work?
  - Emotional Imbalance. Does it seem like one parent lacks emotional involvement?
  - Relationship Problems. Have problems in your relationship gotten worse?
  - Stress. Do you never seem to have time to take care of yourself or your relationship with your significant other?
  - Anger/Depression. Does one or both parents express extreme anger or else seem depressed?

**Counseling Can Help:**
Parents of children with disabilities need help coping, strengthening their relationship, and learning how to take better care of themselves. Counseling can help you—

•**Learn That You Have Power.** There are some things you cannot control, but there are many things you can. It helps to be reminded of the things you do have the ability to affect.
•**Balance Caretaking.** You must learn to respect each other's style of caretaking and to communicate and negotiate caretaking roles, so that instead of simply reacting to situations, you can proactively address challenging problems.
•**Respect Emotional Difference.** Different people process emotions differently. One person may grieve openly. Another may feel so overwhelmed that they find some activity to distract themselves. These differences are part of being human and each is valid for that person.
•**Process Feelings.** In order to be there for your children, your relationship and yourself, you must move through the stages of grief in your own way. You must grieve the loss of the life you thought you were going to have.
•**Take Care of Yourself.** To be there fully for your child with special needs, your typical children, and your significant other, you must learn to take care of yourself, both emotionally and physically.
Build a Healthy Relationship. You must also learn to take care of your relationship. If you thrive and your relationship thrives, your child with special needs will thrive to the best of his or her potential, and the whole family will thrive (Taanila, A., Syrjala, L., Kokkonen, J., & Jarvelin, M.R. (2002).

**Benefits of Counseling:**
Counseling has the potential to improve your life, relationship and family in these ways—
- Relationship grows stronger
- Function better both emotionally and physically
- Better care for your child with special needs

**Counseling Parents of Children with Disabilities:**
by Mary Ellen Ziolko

Approximately 30% to 40% of children born this year will suffer from a significant long-term disorder some time during their first eighteen years of life (Whaley & Wong, 1982). Although many families with disabled children manage their lives as effectively as other families, some such families may require counseling or therapy to facilitate the integration of the disabled child into the family (Harris & Fong, 1985). Current studies have demonstrated that there are parental needs at the time of presentation of diagnosis that are not being met and that parent contact with helping professionals must not end following the diagnostic period (Fischler & Fleshman, 1985; Martin, George, O'Neal, & Daly, 1987; Murdoch, 1984). One reason why intervention with the family of a child with a disability is so important is that the child's adjustment and rehabilitative progress is affected by the family's strengths, weaknesses, and emotional reactions (Power & Dell Orto, 1980). This article addresses family's reactions to learning of disabling conditions in their children and implications for parent counseling.

**Family Reactions to a Child with a Disability**
Parents' reactions after learning of their child's disability may be better understood by regarding some of the usual thoughts and expectancies most parents have while preparing for parenthood. The typical parent, while looking ahead to the birth of a child, fantasizes about and forms images of the expected infant (Huber, 1979). The
image of the way a parent would like the child to be reflects the parents' perceptions of themselves. The parents' expectations may include achievements such as success in a societal role or in a profession or proficiency at some activity. These expectations may be reflected in stereotypes such as the father who buys a baseball and catcher's mitt for his newborn son. When the parents are informed that their child has a disability, the loss of the fantasized child and the discrepancy between these expectations and reality precipitate a crisis reaction typified by feelings of grief and loss (Huber, 1979; Styles, 1986). The grief reaction may be reactivated during later transitions in the life of the child and the family (Konanc & Warren, 1984).

Sometimes a child is born with an apparent congenital anomaly and parents are presented with the problem early in the child's life. In these cases, the parents must end the psychological attachment for the child that was idealized during the pregnancy and accept a child who has an imperfection (Whaley & Wong, 1982). The characteristics of an infant born with congenital defects violate the parents' expectations of what their baby should be and are among the most common triggers of disturbed parent-infant relationships (Bassoff, 1982). Often, however, a problem is not discovered until the child is older. Most families are aware that there is something the matter with their child before they receive a diagnosis, but they may "have focused on a rather circumscribed aspect of development" (Robinson & Robinson, 1965, p. 416). If the problem is mental retardation, the parents may suspect deafness or worry about behavioral problems or clumsiness, for example. At least one parent will usually admit a serious concern about the child's behavior, but the other will often deny the problem saying that the child will outgrow it (Robinson & Robinson, 1965).

There are frequently practical problems in the management of a child with a disability (Naidoo, 1984). Seven factors to be considered in weighing the family burden are: (a) sleep disturbances the child's disability might cause the parents; (b) physical burdens related to dressing, lifting, feeding, and so on that an illness or disability might create for the parents; (c) complicated diets which require extra time; (d) extra housecleaning which might be necessary; (e) financial stress and strain; (f) adaptations that may be needed in housing and furnishings; and (g) the unpredictability of the disease or disability (Travis, 1986). Parents of infants with disabilities may become overinvolved in the mechanics of care at the sacrifice of
much of the spontaneity and natural enjoyment that is usually a part of parent-infant interaction (O' Sullivan, 1985/86). Parents may unwittingly overstimulate their infants (O'Sullivan, 1985/86) and there is a strong tendency for parents to overprotect the child (Naidoo, 1984). Maladaptive family responses such as overprotection in response to a child's disability may predispose to psychiatric disorder (Rutter, 1977) or to a decrement in IQ (Sharlin & Polansky, 1971).

**Disciplining the Special-Needs Child**

Submitted by Anonymous on Sat, 05/21/2011 - 00:13

**Discipline & Behavior**

Disciplining a child who is "differently-abled" is likely to bring out the best and the worst in a parent. Parents try to help a child make up for what's missing by increasing their love and attention, yet children with special needs trigger special frustrations in parents. Be prepared to run out of patience. We focus on Down Syndrome in this section, but what we say applies equally to any cause of developmental delay. Our son, Stephen, has Down Syndrome. Our most difficult adjustment in discipline was learning to cope with development in slow motion. Most children go through predictable stages of development. You know about when to expect what behavior and how long it will last. You know that two-year-old temper tantrums will diminish once the child learns to speak. Knowing you don't have to weather this undesirable behavior indefinitely helps you cope. With the developmentally-disabled child, stages seem to go on forever, as do the frustrations in child and parents. For example, it may take this child a year to accomplish three month's worth of "normal" speech development. Parenting a special needs child is a tough job. The ups and downs and joys and sorrows are magnified: You rejoice at each accomplishment, you worry about each new challenge:

1. Don't compare

Your child is special. Comparing your child to others of the same age is not fair. The real breakthrough that helped us come to terms with Stephen's "disability" was when we quit focusing on what he was missing and instead started enjoying him for himself. We had to overcome our tendency to focus on his "problem" to the extent that he became a project instead of a person. "I'll become an expert on Down Syndrome," I thought; "Read everything, go to all the conferences, join all the support
groups. We'll even write the definitive book on children with Down Syndrome." This
didn't work. It took me two years to strike a balance. Martha's maternal drive helped
her focus more on Stephen the baby rather than his condition. She determined that
what he needed most from us was a full dose of attachment parenting, while not
denying that he had special needs that required a special kind of parenting. We also
realized that we could not let Stephen's "condition" distract all of our energy away
from the needs of the whole family.

2. Change your standards

Before a baby is even born, parents imagine what the child's life will be like: piano
lessons, baseball stardom, graduating from college, etc. Even with a normal child, you
have to reconcile these dreams with reality as your child grows up. With a special
needs child, this is a bigger task. You learn to live in the present. The milestones of
the child's life are less defined and the future less predictable—though your child may
surprise you! In the meantime, set your standards for your child at an appropriate
level. For example, reset your anger buttons. Your child will do some things that
exasperate you. Our then four-year-old, Stephen, after watching his siblings throw
floating toys into the pool, threw my pocket recorder into the pool. In his mind, this
was daddy's toy, and it was okay to throw toys into the swimming pool. Naturally, I
was angry at losing not only a $300.00 recorder, but all the time it had taken to get
those notes on tape. Martha reminded me that Stephen was just doing what was
developmentally appropriate for him. I was the one who had behaved
developmentally inappropriately. I was old enough to know not to leave the "toy"
within Stephen's reach.

3. Different doesn't mean inferior.

In children's logic, being different equates with being inferior. This feeling may be
more of a problem for siblings and other kids than for the developmentally-delayed
child, at least in the early years. Most children measure their self-worth by how they
believe others perceive them. Be sure the child's siblings don't fall into this "different
equals less" trap. This is why the term "special needs" is not only socially correct, but
it's a positive term, not a value judgment. In reality, all children could wear this label.
4. Different doesn't mean fragile

While it is true you have to change your expectations of a special needs child, you don't have to lower your standards of discipline! It's tempting to get lax and let special needs children get by with behaviors you wouldn't tolerate in other children. He needs to know, early on, what behavior you expect. Many parents wait too long to start behavior training. It's much harder to redirect an eighty pound child than a thirty pounder. Like all children, this child must be taught to adjust to family routines, to obey, and to manage himself.

5. Attachment parenting for the special needs child

A special needs child can bring out the best and the worst in a family. David, a baby with Down Syndrome, was born into a sensitive and close-communicating family. Immediately after David's birth, I had a long discussion with the parents and their six-year-old daughter Aimee about surviving and thriving with a special needs child. The family first had to come to terms with the normal "why us" feelings and get to the "where do we go now" level. But then I explained to these parents the need level concept: every baby comes with a level of need, and every family has a level of giving. By practicing attachment parenting and getting connected, the whole family will develop a sixth sense about David, a quality of caring that no book or counselor will be able to give them. With all babies, attachment parenting is highly desirable; with a special needs child it's necessary and a matter of survival.

I pointed out to them the probable pitfalls. Avoid treating David like a project. Join support groups, learn from the real experts: parents who have thrived with their Down Syndrome children. Above all, remember your vulnerability: Love for your child brings out the overwhelming desire to devote 100 percent of family energy to helping David be all he can be. That leaves nothing for the needs of the rest of the family. What David needs most is support from a stable and harmonious family.

It was also necessary to involve the older sibling in these early discussions. I pointed out to Aimee that she may feel a bit left out as her parents appear to give David a lot of the energy that previously went into her, especially since she had been an only child. That didn't mean they loved her less. And the parents needed to guard against
Aimee feeling deprived. They involved Aimee in David's care, plus made sure that she got special attention unrelated to David. The end result was not only that David thrived, but the whole family's sensitivity level went up a notch.

6. Provide structure Special needs children need developmentally-appropriate structure, but it requires sensitivity on your part to figure out what is needed when. Watch the child, not the calendar. Try to get inside his head.

7. Beware of the over attachment syndrome

It is very easy for your whole life to revolve around your special style of parenting, to the extent that it becomes an end in itself. This is a lose-lose situation. You lose the joy of parenting, and you lose your ability to be flexible. Eventually, you will either burn out or you will break.

8. View behaviors as signals of needs

Everything children do tells you something about what they need. This principle is particularly true with special needs children. Sharon, a ten-year-old with Down Syndrome, would go from child to child, pinching each of her peers in her mainstream class. Rather than extinguish this behavior by slapping her hands, the wise teacher perceived this conduct as Sharon's way of communicating, and it gave Sharon distinction: "Sharon's pinch." The teacher used the principle of replacement behavior to channel Sharon's pinching into worthwhile activity, while preserving the child's need to communicate. She gave Sharon the job of passing out papers to each child in the class. Now instead of pinching them she could hand them a paper, and each one (with prompting from the teacher) acknowledged Sharon.

9. Value the child

Don't focus on the disability. Practice attachment parenting to the highest degree that you can without shortchanging other members of the family. Feeling loved and valued from attachment parenting helps a child cope with the lack of a particular ability.
10. Help your child build a sense of responsibility

There is a natural tendency to want to rush in and do things for a developmentally-delayed child. For these children, the principle of "teach them how to fish rather than give them a fish" applies doubly. The sense of accomplishment that accompanies being given responsibility gives the child a sense of value and raises her self-worth.

11. Give your child choices

(Be sure you like all the alternatives.) Initially, you may have to guide your child into making a choice, but just the ability to make a choice helps the child feel important. Present the choices in the child's language, which may mean using pictures, pointing, and reinforcing your verbal instructions (which may not be fully understood) with visual ones. The more you use this exercise, the more you will learn about your child's abilities, preferences, and receptive language skills at each stage of development.

As with all children, your job as parents is to arm the child with self-control tools so that eventually he can discipline himself. Instead of saying to Stephen, "Stop kicking your sister," we'd say "Stephen, control your feet."

Previous study:

(Determinants of Child-Parent Agreement in Quality-of-Life Reports: A European Study of Children With Cerebral Palsy, done by (Melanie White-Koning, PhD,a,b, etal ).

THE OBJECTIVES: The differences between child self-reports and parent proxy reports of quality of life in a large population of children with cerebral palsy were studied. We examined whether child characteristics, severity of impairment, socioeconomic factors, and parental stress were associated with parent proxy reports being respectively higher or lower than child self-reports of quality of life.

RESULTS: The mean child-reported scores of quality of life were significantly higher than the parent proxy reports in 8 domains, significantly lower for the finances
domain, and similar for the emotions domain. The average frequency of disagreement (child-parent difference greater than half an SD of child scores) over all domains was 64%, with parents rating their child's quality of life lower than the children themselves in 29% to 57% of child-parent pairs. We found that high levels of stress in parenting negatively influenced parents’ perception of their child's quality of life, whereas the main factor explaining parents’ ratings of children's quality of life higher than the children themselves is self-reported severe child pain.

(Effects of a Functional Therapy Program on Motor Abilities of Children With Cerebral Palsy, done by (Marjolijn Ketelaar, etal).

The purpose: of this study was to determine whether the motor abilities of children with spastic cerebral palsy who were receiving functional physical therapy (physical therapy with an emphasis on practicing functional activities).

The result: groups' improvements in basic gross motor abilities, as measured by the GMFM in a standardized environment, did not differ. When examining functional skills in daily situations, as measured by the PEDI, children in the functional physical therapy group improved more than children in the reference group.

(Caregiver Research: Children with Disabilities done by (Denboba D, and etal 2008)

The aim: Achieving family and provider partnerships for children with special health care needs.

The result: results of the survey demonstrated that whereas most families of children with special health care needs feel they are partners in the care of their child, further work is needed, particularly for poor, uninsured, and minority children, as well as those with functional limitations. The survey results also demonstrate the importance of partnership; children whose care met the partnership core outcome experienced improved access to care and well-being.

Helping families raise children with special health care needs at home, done by (Johnson CP, and eta 2005).

The one goal: To advise families caring for children with special health care needs effectively.
The result: the intervention with the family of a child with disability is so important is that the child’s adjustment and rehabilitative progress is affected by the family’s strengths, weakness, and emotional reactions.

(Sstress and compliance with a home exercise program among caregivers of children with disabilities, done by (Rone-Adams SA, and etal 2004)

PURPOSE: To determine the relationship between caregiver stress and compliance with home programs in caregivers of children with disabilities.

RESULTS: Sixty-six percent of the caregivers reported some level of noncompliance with their home program. Linear regression analysis revealed a significant relationship between the caregivers’ level of noncompliance with the home program and the level of stress that they reported. Correlation coefficients showed a significant relationship between family problems and noncompliance with home programs. As caregiver and family problems increased, noncompliance with home programs increased.

(A fitness program for children with disabilities done by Fragala –Pinkham MA, and etal 2007).

The purpose: describes a fitness program for children with disabilities and provides preliminary information about the safety and feasibility of the program.

The result: no injured occurred, and improvements in many of the outcome measures were observed. More improvements were observed after the group exercise program than after the home program.


The purpose of research: Two components of physical fitness—muscle strength and cardiorespiratory fitness—were emphasized. Although there is evidence to support the use of physical fitness interventions, there are many gaps in our current knowledge. Additional research of higher quality and rigor is needed in order to make definitive recommendations regarding the mode, intensity, frequency, and duration of exercise.

Result: Muscle strength can be improved with exercise in children with CP when the load is sufficient. An increase in strength appears to have a positive influence on activity. The extent of this influence depends on multiple factors, including the duration of the program, the degree of weakness compared with the strength required for the target task, and the coexisting impairments. Impairments such as joint
contractures and spasticity, which potentially limit the effectiveness of training, should be addressed to maximize functional gains. Current treatment approaches include physical therapy interventions aimed at minimizing joint contractures, serial casting, medications (botulinum toxin, baclofen), and surgery. The combination of resistance training with surgical and medical treatments is another understudied area. To date, research has been focused on children with the spastic form of CP. Little is known about the effects of resistance training for children with other types of movement disorders such as athetosis, dystonia, ataxia, and hypotonia.
CHAPTER THREE
Material and methods

3-1 Study design:


3-2 The Study area:

Cheshire home:

Cheshire home located in Altaeif bloock 22,Eastern Kenana Company on Eibaid Khamte street. Cheshire home was established in 1973, in Khartoum state as Sudanese voluntary organization. It is one among 250 homes in the world. That concern with physical disabled children. The home has a specialist manager, a secretary, counter and workers who are classified into group (departments) according to their specializations. It provides physical therapy, surgeries and helping tools for children with physical disability. The Cheshire home introduce different helps for more than 8,000 physical disabled children.

The home includes the following departments:

- Clinic unit: includes two orthopedic specialist, two doctors and workers in the medical field.

- Physiotherapy unit: Deal with physical treatment for more than 300 children, two session per week for everyone.

- Water, swimming and horse riding treatment unit: is not working now.

- Workshops unit: produce many aids movement equipment such as splints, walkers and wheel chairs. It provide more than 1000 movement equipment each year, all workers in this unite are Sudanese most of them are disabled.

- Craftworks unit: held training courses for the disabled children whose age are 10 years and more.
- Surgery unit: includes two specialist in orthopedic surgery for pediatric with medical staff and nursing staff conducts two surgeries per week, it conducts more than 300 surgeries per year.

- Wards: provides medical care and nursing for more than 50 children who need treatment and daily care after surgery

3-3 The Study population:

Mothers and children with physical disability in Cheshire home during the study period (from March to April 2011). Mothers and their disabled children.

3-3-1 The Inclusion criteria:

Newly mothers of children with physical disability referred to Cheshire home

3-3-2 The Exclusion criteria: The study excluded the mothers of disabled children, who already started dealing with the center before the study commencement.

Sampling:

3-4 The Sample size: Using spread sheet program (113) mothers and their disabled children (Annex 3).

3-5 data collection tools:

A pretested adapted validated was used after test modifies through pilot study questionnaire and check list was designed by the researcher. The questionnaire consisted of many sections, including the following variables: the demographic data such as age of children with disabilities, level of education of mothers, occupation of mothers. Kindness between disabled child and mothers, it also included variables addressing the assessment of the knowledge of the mothers regarding definition of disabled child, type of disability and how to manage him/her. It also included the assessment of their skills regarding (The Daily Living Activities) of the disabled children (Eating, Drinking, Walking, Playing, Speaking, Communication.)
3-6 The process of conduction of the study:

3-6-1 Preparation phase:

The researcher designed questionnaire and an official letter was taken from Aljazeera University to approach the director of the Cheshire home. The researcher has designed a questionnaire and subjected it to a pretest to make sure that all the questions involved are well made, comprehensible and whether they help realizing the objectives of the study or not. This was done by selecting 20 persons from the mothers of children with disability (sampling) to fill the questionnaires, after analyzing the questionnaire, some statistical problems appeared, where as vague and indefinite questions were included, therefore, the researcher reformed the questions and check list according to the recommendations of the analyzer in order to realized the intended objectives.

In order to measure and evaluate the daily activities( eating, drinking, wear cloths, sitting, walking and movement, playing, speaking and communication) of physical disabled children the researcher was assess them before the study program and the records as follows: 92.9% of physical disabled children were eating with full support, 93.8% of physical disabled children were drinking water and other liquids with an full support, 93.8% walking ,movement, setting and playing with an full support, 93.8% they can’t speaking and communication and control bowel and bladder. Then the respondents were investigate to assess the gained knowledge attitude and practice after program by using the same tools and follow up after 3 months.(memory gap)

3-6-2 intervention phase: first step: The researcher carry out an individual counseling for each mothers through the personal interviews, then he wrote the notes for each family an application forms for a disabled child even to complete the sample size (113)

Second step: The researcher divided the sample size into ten groups according to similar characteristics such as disease of their child and concept of the families and their sense.

Third step: The researcher designed a training program(annex2) it included lectures to all groups which include both theoretical back ground about (the definition of disability, types, causes and the importance of early intervention for rehabilitation and
the role of every one's help in rehabilitation and how to deal with treatment of
disabled child. The significant of punctuality to treatment and visiting other treatment
center for further treatment according to child needs, and what they expect from a
disabled child when rehabilitation occurs.

Therefore the researcher introduce a number of directions and notice as well as
helping tools for the caregivers in order to help their disabled children so as to
dependant on them self gradually. The researcher did not face any obstacle to explain
the theoretical contents there for he find it easy to communicate the intended
information. And practical work about:

1- The perfect body position
2- The perfect body position when eating
3- The perfect body position when drinking
4- The perfect body position when elimination urine and stool
5- The perfect body position when wearing cloths
6- The perfect body position when playing
7- The perfect body position when walking and moving

The practical part aim at learning of the physical therapy to the mothers and
continuous exercises at home, beside the researcher also provides some exercises that
help the child to practice the activities of daily living to become independent.

The number of theoretical lectures was four lectures three sessions per week for each
group, each session took forty five minutes. The researcher and his tutor explain the
requirement of questionnaire to the respondent. (Annex 1)

The number of practical lectures was eight lectures (annex 2) aim at educating how
the right exercises do for disabled child it took one hour for three time per week for
each group, in each session the care taker learns one skill and applies it probably
under the guidance of the tutor to be applied at home in order to learned the disabled
child such skill then shift to a new skill. After the completion of all session for all
groups we did weekly program to review all the skills for every mothers to be
corrected by the observer group under the supervision of tutor. The duration of
intervention program started from May to December. Then the researcher did post test
using the same tools to a comparison between the pre and post intervention program
which conducted to evaluate the influence of these program on the respondent.
The evaluation consider the following:

(Knowledge attitude and practice regarding child with disabilities and rehabilitation).

The researcher also evaluate the program through the director using special questionnaire concerning the importance of establish office of educational training program for families, effective of this program as well.

Then we did follow up after three months to evaluate the mothers regarding how to help disabled child on daily activities living through the panel discussion among the mothers.

3-6 Evaluation phase: A post test was using the same tools questionnaire a compare between pre and post intervention program which were conducted to evaluate the effect of the program on respondent.

The researcher evaluate the experiment to find out the positive effect among the disabled children, this was carried out by direct application for the proper methods introduced by the researcher and findings show better improvements in some skills, and the result show the following: 42.5% of physical disabled children were eating with full support, 36.3% of physical disabled children were drinking water and other liquids with full support, 58.4% walking, 7.1% setting with full support, 24.8% playing with full support, but no change in speaking and control bowel and bladder.

The evaluation consider the following:

(Knowledge attitude and practice regarding child with disabilities and rehabilitation as well.

The duration of memory gap starting from January to march when some of the respondent unfortunately did not know to practice what they have already taught.

3-7 Ethical consideration:

-An official letter was taken from the Gezira University to approach the directors of the Cheshire home for permission to conduct the study.

-Informed consent will be taken individually from each parent.
3-8 Data analysis and processing:

The Data was analyzed by SPSS program data were comparison by using chi-square

3-9 Data presentations:

Data was presented in the form of simple frequency, tables and graphs. statistical significance analysis will be performed to test the impact of the intervention.

The training package (annex 2):

1- knowledge:

The care taker should be able to:

Describe the following:

- Perception of the cause of the illness.
- Understanding of what the illness dose to the child.
- Perception of the seriousness or severity of the illness or disability
- To know early transfer that mean early treatment and restriction of disability.

- Access to rehabilitation by continuity care.

- Length of the time the illness is expected to last.

- Types of treatment that the family would prefer to have used.

2- Skills (annex2): Children should be able to perform the following:

To achieve their highest level of independence of function in self help (Activities of Daily Living).
CHAPTER FOUR

Result

The aim of this study is to develop educational training program to educate the mothers how to develop and improved the daily activities living among children with physical disability. This has been achieved through assessment of their knowledge, attitude and practice related to daily activities living regarding their children with physical disability, the program develops and implement the methods that to these mothers have to do with their disabled children.

The impact of the program on their knowledge, attitude and practice had been evaluated the result of the study were presented as the following:

Figure (1): Age distribution of children with physical disability in Cheshire home (n=113)

It shows the distribution of age of the children with physical disability more than half of these children range between 1-5 yrs.
Figure (2): Distribution of study sample by Residence (n=113):

More than half 61.9% of mothers lived in Khartoum state followed by 22.1% lived in the Omdruman and 15.9% lived Bahri.

Figure (3): Distribution of study sample by relationship patient (n=113)

The majority of mothers are mother of children with physical disability 95%.
Figure (4): Distribution of study sample by level of education (n=113):

The majority 45.1% of physical disabled children mothers have completed the basic level, 32.7% the secondary level and 22.1% the university level.

Figure (5): Distribution of study sample by job (n=113):

The majority of the mothers of the children with physical disability are house wife 89.4%, and 10% are worker.
Table (1) Knowledge of the mothers regarding the definition of children with physical disability before and after intervention (n=113)

<table>
<thead>
<tr>
<th></th>
<th>Pre education</th>
<th>Post education</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>%</td>
</tr>
<tr>
<td>Know</td>
<td>19</td>
<td>16.8%</td>
</tr>
<tr>
<td>Don’t know</td>
<td>94</td>
<td>83.2%</td>
</tr>
<tr>
<td>Total</td>
<td>113</td>
<td>100%</td>
</tr>
</tbody>
</table>

Chi-Square=89.33 P value<.000

About awareness of mothers regarding the definition of the child with physical disability Before the study program, about sixteen point eight (16.8) percent were answer the question perfectly, while eighty three point six (83.6) percent were not. But after the training program, about seventy nine point six (97.6) percent their awareness has raised and they answer the question perfectly, while twenty point four (20.4) do not know.

Table (2) Knowledge of the mothers regarding types of disabilities before and after intervention in Cheshire home (n=113)

<table>
<thead>
<tr>
<th></th>
<th>Pre education</th>
<th>Post education</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>%</td>
</tr>
<tr>
<td>Know</td>
<td>44</td>
<td>38.9%</td>
</tr>
<tr>
<td>Don’t know</td>
<td>69</td>
<td>61.1%</td>
</tr>
<tr>
<td>Total</td>
<td>113</td>
<td>100%</td>
</tr>
</tbody>
</table>

Chi-Square=95.69 P value<.000
About the knowledge of the mothers regarding the different types of disabilities. Before education program, about sixty one point one (61.1) percent of the mothers knew the different types of disabilities, while only thirty eight point nine (38.9) percent did not know. However, after the education program the percentage of those who know the disability types has raised to reach ninety nine point one (99.1) percent, while the percentage of those who did not know has dropped to five point nine (5.9) percent.

Table (3) perception of the study group regarding the treatment of disability pre and post intervention in Cheshire home (n=113)

<table>
<thead>
<tr>
<th></th>
<th>Pre education</th>
<th>Post education</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>%</td>
</tr>
<tr>
<td>Can never be treated completely</td>
<td>57</td>
<td>50.4%</td>
</tr>
<tr>
<td>Can be treated completely</td>
<td>56</td>
<td>49.6%</td>
</tr>
<tr>
<td>Total</td>
<td>113</td>
<td>100%</td>
</tr>
</tbody>
</table>

Chi-Square=74.447 P value<.000

Before the education program, about fifty point four (50.4) percent of the mothers think that, disability can never be treated completely while forty nine point six (49.6) percent think that can be treated. However, after the education program, the whole sample (100%) have recognized that the disability can’t be treated or recovered completely, but just the child may improve to the level that corresponds to his competence only, that means, he can able to serve himself “self care” and do the daily activities by himself so as not to be as other burden upon his family.
Table (4) Knowledge of the mothers regarding the purpose of rehabilitation of children with physical disability pre and post intervention in Cheshire (n=113)

<table>
<thead>
<tr>
<th></th>
<th>Pre education</th>
<th>Post education</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>%</td>
</tr>
<tr>
<td>Know of the aim of rehabilitation</td>
<td>66</td>
<td>58.4%</td>
</tr>
<tr>
<td>Don’t know of the aim of rehabilitation</td>
<td>47</td>
<td>41.6%</td>
</tr>
<tr>
<td>Total</td>
<td>113</td>
<td>100%</td>
</tr>
</tbody>
</table>

Chi-Square=59.34 P value<.000

There was significant improvement in the knowledge of mothers regarding the aim of rehabilitation, before the education program, about 41.6% of the mothers didn’t know the aim of rehabilitation, while 58.4% were know, as for after the education program all of the study group (100%) recognize the main aim of rehabilitation, which are to reduce the deformity of muscle and joint and to reach the highest possible level of self care.
Table (5) Knowledge of the mothers regarding the period of rehabilitation of children with physical disability pre and post intervention in Cheshire home (n=113)

<table>
<thead>
<tr>
<th></th>
<th>Pre education</th>
<th>Post education</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>%</td>
</tr>
<tr>
<td>Take from months to years</td>
<td>85</td>
<td>75.2%</td>
</tr>
<tr>
<td>Take few days</td>
<td>28</td>
<td>24.8%</td>
</tr>
<tr>
<td>Total</td>
<td>113</td>
<td>100%</td>
</tr>
</tbody>
</table>

Chi-Square=28.838 P value<.000

Before the education program 75.2% said that the period of rehabilitation of physical disabled children it take from months to years, while 24.8% said that it take few days, as for after the education program the awareness of study group about the period of rehabilitation has raised to 99.1%.

Table (6) Knowledge of the mothers regarding reach maximum ability to take care for them self’s pre and post intervention (n=113)

<table>
<thead>
<tr>
<th></th>
<th>pre</th>
<th>post</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>%</td>
</tr>
<tr>
<td>Know</td>
<td>100</td>
<td>88.5%</td>
</tr>
<tr>
<td>Don’t know</td>
<td>13</td>
<td>11.5%</td>
</tr>
<tr>
<td>Total</td>
<td>113</td>
<td>100%</td>
</tr>
</tbody>
</table>

Chi-Square=13.791 P value<.000

Before the education program 88.5% thought that the disabled children could not realize the self care by themselves except by the help of others as a team work, while
11.5% thought the opposite, however after the education program all study group (100%) has well know that.

**Table (7) Knowledge of the mothers regarding the impact of the physiotherapy treatment pre and post intervention in Cheshire home (n=113)**

<table>
<thead>
<tr>
<th></th>
<th>Pre intervention</th>
<th>Post intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>%</td>
</tr>
<tr>
<td>Positive impact</td>
<td>107</td>
<td>94.7%</td>
</tr>
<tr>
<td>Negative impact</td>
<td>6</td>
<td>5.3%</td>
</tr>
<tr>
<td>Total</td>
<td>113</td>
<td>100%</td>
</tr>
</tbody>
</table>

Chi-Square=6.164  P value<.013

Table seven, Handles the percentages of the mothers who aware of the significance of the physical treatment. Before the education and training program, the percentage of those who said that “physical treatment has no any influence” was five point three (5.3) percent, while ninety four point seven (94.7) percent of the sample said that “it has a great and good influence upon disabled children improvement” as for, after education program, the whole sample (100%) realizes that.

**Table (8) Distribution of children with physical disability regarding the treatment received pre and post intervention in Cheshire home (n=113)**

<table>
<thead>
<tr>
<th></th>
<th>Pre intervention</th>
<th>Post intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>%</td>
</tr>
<tr>
<td>physical therapy</td>
<td>94</td>
<td>83.2%</td>
</tr>
<tr>
<td>surgical therapy</td>
<td>18</td>
<td>15.9%</td>
</tr>
<tr>
<td>used device</td>
<td>1</td>
<td>0.9%</td>
</tr>
<tr>
<td>Total</td>
<td>113</td>
<td>100%</td>
</tr>
</tbody>
</table>

Chi-Square=17.783  P value<.013

83.2% of respondent received physiotherapy treatment and 15.9% received surgical treatment and only 9% received device to help movement.
Table (9) Distribution of mothers regarding receiving advice from the Cheshire home pre and post intervention (n=113)

<table>
<thead>
<tr>
<th></th>
<th>Pre education</th>
<th>Post education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Received advice</td>
<td>7</td>
<td>113</td>
</tr>
<tr>
<td></td>
<td>6.2%</td>
<td>100%</td>
</tr>
<tr>
<td>Don’t received advice</td>
<td>106</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>93.8%</td>
<td>0%</td>
</tr>
<tr>
<td>Total</td>
<td>113</td>
<td>113</td>
</tr>
<tr>
<td></td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Chi-Square=1.996 P value<.000

Table nine, this table explains the proportions of the mothers who have received advice and directions introduced by Cheshire rehabilitation center.

Before education program, about ninety three point eight (93.8) percent of the mothers didn’t receive any advices or instructions regarding child disability or rehabilitation, while only six point one (6.1) percent of them got some instructions and directions from the TV, radio, text books or magazines. But after the education program all of study group (100%) received the advice.

Table(10) Distribution of mothers regarding visiting other treatment center pre and post intervention(n=113)

<table>
<thead>
<tr>
<th></th>
<th>Pre education</th>
<th>Post education</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>%</td>
</tr>
<tr>
<td>Visiting other center</td>
<td>11</td>
<td>9.7%</td>
</tr>
<tr>
<td>Don’t visiting other center</td>
<td>102</td>
<td>90.3%</td>
</tr>
<tr>
<td>Total</td>
<td>113</td>
<td>100%</td>
</tr>
</tbody>
</table>

Chi-Square=78.959 P value<.000
This table deals with: visiting other center for other treatments constitutions such as articulation, communication, listening, and integration program. The survey showed that, ninety point three (90.3) percent didn’t go to any other rehabilitation center for the other treatment, while only nine point seven (9.7) percent went and visited other center. As for, after the education program, the percentage of those who went to visit other rehabilitation center has raised to reach sixty seven point three (67.3) percent, while the percentage of those who didn’t go has dropped to thirty two point seven (32.7) percent.

Table (11) Performance of mothers regarding practicing exercises at home pre and post intervention(n=113)

<table>
<thead>
<tr>
<th></th>
<th>Pre intervention</th>
<th>Post intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practice physical exercise at home</td>
<td>91 (80.5%)</td>
<td>112 (99.1%)</td>
</tr>
<tr>
<td>Don’t practice</td>
<td>22 (19.5%)</td>
<td>1 (.9%)</td>
</tr>
<tr>
<td>Total</td>
<td>113 (100%)</td>
<td>113 (100%)</td>
</tr>
</tbody>
</table>

Chi-Square=21.346 P value<.000

Table eleven, Home exercises practice: Before the education program, those who practice physical treatment exercises at home were eighty point five (80.5) percent, yet, after the study program, the percentage has raised to ninety nine point one (99.1) percent and consequently a positive impact improvement has occurred on the concerned child.
Table (12) Distribution of mothers regarding receiving help from the family members doing the exercises at home pre and post intervention (n=113)

<table>
<thead>
<tr>
<th></th>
<th>Pre education</th>
<th>Post education</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>%</td>
</tr>
<tr>
<td>Help from family members</td>
<td>65</td>
<td>57.5%</td>
</tr>
<tr>
<td>No help</td>
<td>48</td>
<td>42.5%</td>
</tr>
<tr>
<td>Total</td>
<td>113</td>
<td>100%</td>
</tr>
</tbody>
</table>

Chi-Square=57.562 P value<.000

Table twelve, Mother receiving help from the family members regarding physical exercises at home. Before study program, the proportion of mothers who didn’t receive any help in exercise performance was forty two point five (42.5) percent, while those who had received help from the father and brothers, represent fifty seven point five (57.5) percent. However after the education program about 99.1% received help while only 9% did not received.

Table (13) Distribution of mothers regarding punctually to the time table of physical therapy at Cheshire home pre and post intervention (n=113)

<table>
<thead>
<tr>
<th></th>
<th>pre</th>
<th>post</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>%</td>
</tr>
<tr>
<td>Punctual to time of treatment</td>
<td>98</td>
<td>86.7%</td>
</tr>
<tr>
<td>Not punctual</td>
<td>15</td>
<td>13.3%</td>
</tr>
<tr>
<td>Total</td>
<td>113</td>
<td>100%</td>
</tr>
</tbody>
</table>

Chi-Square=13.183 P value<.000

Table thirteen, treatment timetable punctuality at the center, Pre the education program, those who were regularly coming to the center for treatment represent eighty six point seven (86.7) percent, yet after the study program, the majority(99.1%) of them have become more punctual to the treatment timetable, only 9% are not.
Table 14 Distribution of the father's treating their disabled child pre and post intervention (n=113)

<table>
<thead>
<tr>
<th></th>
<th>pre</th>
<th>post</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>%</td>
</tr>
<tr>
<td>Normal treating</td>
<td>108</td>
<td>95.6%</td>
</tr>
<tr>
<td>Don’t normal treating</td>
<td>5</td>
<td>4.4%</td>
</tr>
<tr>
<td>Total</td>
<td>113</td>
<td>100%</td>
</tr>
</tbody>
</table>

Chi-Square=5.113 P value<.024

Table fourteen, Father’s treating his disabled child, the majority (ninety five point five (95.5) percent of the fathers, treat their disabled children normally and carefully, while only four point four (4.4) percent of them do not care about their children. This may attribute to their frustration and depression, or to their negligence of how to deal with them, however, after they received more advices and instructions, the objective has been realized, that means, all fathers are treating their disabled children normally and properly the same like the well normal child.

Table 16 Distribution brothers treating their disabled brother pre and post intervention(n=113)

<table>
<thead>
<tr>
<th></th>
<th>pre</th>
<th>post</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>%</td>
</tr>
<tr>
<td>Normal treating</td>
<td>106</td>
<td>93.8%</td>
</tr>
<tr>
<td>Don’t normal treating</td>
<td>7</td>
<td>6.2%</td>
</tr>
<tr>
<td>Total</td>
<td>113</td>
<td>100%</td>
</tr>
</tbody>
</table>

Chi-Square=4.665 P value<.031

Table fifteen, children treating their disabled brothers, Ninety three point eight (93.8) percent of the normal brothers were treating their disabled brother properly, while
only six point two (6.2) percent were treating their disabled brother badly and that is attributed to the mothers’ fearful towards the disabled child not to be harm — untendly- by his normal brother. However after instructions and orientations, the mother allows the normal brothers to play and deal with their disabled brother and consequently all the normal children are now playing and treating the disabled children normally.

Table(16) Distribution of manner of disabled child feeding pre and post intervention (n=113)

<table>
<thead>
<tr>
<th></th>
<th>Pre intervention</th>
<th>Post intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>%</td>
</tr>
<tr>
<td>with full support</td>
<td>105</td>
<td>92.9%</td>
</tr>
<tr>
<td>with little help</td>
<td>1</td>
<td>0.9%</td>
</tr>
<tr>
<td>without help</td>
<td>7</td>
<td>6.2%</td>
</tr>
<tr>
<td>Total</td>
<td>113</td>
<td>100%</td>
</tr>
</tbody>
</table>

Chi-Square=76.303        P value<.000

Table sixteen, manner of a disabled child feeding, Before intervention and training practice process, about ninety two point nine (92.9) percent of the disabled children, were taking their meals with an full support, while only nine (9) percent of them were taking their food with a little help and sixty point two (60.2) percent were taking their food without any help. However, after intervention and training practice of a child feeding manner, using special tools, the situation has improved, whereas, the percentage of those who were eating with an full support, has dropped to forty two point five (42.5) percent and who were eating with a little help has raised to reach fifty one point three (51.3) percent. This shows and emphasizes that, a child who is allowed to do a particular activity, he will do it with a gradual and rapid improvement.
Table (17) Distribution of manner of the disabled child drinking pre and post intervention (n=113)

<table>
<thead>
<tr>
<th></th>
<th>Pre intervention</th>
<th>Post intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>%</td>
</tr>
<tr>
<td>with full support</td>
<td>106</td>
<td>93.8%</td>
</tr>
<tr>
<td>with little help</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>without help</td>
<td>7</td>
<td>6.2%</td>
</tr>
<tr>
<td>Total</td>
<td>113</td>
<td>100%</td>
</tr>
</tbody>
</table>

Chi-Square=93.741      P value<.000

Table seventeen, manner of a disabled child drinking, Before intervention and training process, about ninety three point eight (93.8) percent of the disabled children were drinking (water and other liquid substances) with full support from others, while only six point two (6.2) percent were drinking without any help, and, zero (0) percent with a little help. Yet, after intervention, training, practice, learning the efficient manner and using the helping tools, the situation has improved whereas, the percentage of those who were drinking with an full support, has dropped to thirty six point three (36.3) percent, fifty seven point five (57.5) percent drink with a little help, and only six point two (6.2) percent drink without any help.

Table (18) Distribution the ability of disabled child to wear his clothes pre and post intervention (n=113)

<table>
<thead>
<tr>
<th></th>
<th>Pre intervention</th>
<th>Post intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>%</td>
</tr>
<tr>
<td>with full support</td>
<td>106</td>
<td>93.8%</td>
</tr>
<tr>
<td>With little help</td>
<td>7</td>
<td>6.2%</td>
</tr>
<tr>
<td>Total</td>
<td>113</td>
<td>100%</td>
</tr>
</tbody>
</table>

Chi-Square=5.442      P value<.020

Table eighteen : Ability of a disabled child to wear his clothes, Before the intervention and training process, there were ninety three point eight (93.8) percent of the disabled children used to were their clothes with an full support, while only six
point two (6.2) percent used to wear their clothes with a little help. However, after the intervention and training, a little change has occurred, whereas, the percentage of those who were used to wear their clothes with an full support, has dropped to eighty four point eight (84.8) percent, and the percentage of those who were used to wear with a little help, has raised to reach fifteen point nine (15.9) percent.

Table(19) Distribution the ability of disabled child to control bladder and bowel movement pre and post intervention (n=113)

<table>
<thead>
<tr>
<th></th>
<th>Pre intervention</th>
<th>Post intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>%</td>
</tr>
<tr>
<td>Controlled</td>
<td>7</td>
<td>6.2%</td>
</tr>
<tr>
<td>Uncontrolled</td>
<td>106</td>
<td>93.8%</td>
</tr>
<tr>
<td>Total</td>
<td>113</td>
<td>100%</td>
</tr>
</tbody>
</table>

Chi-Square=0.71  P value<.789

Table nineteen, ability of a disabled child to control urine and stool, Before intervention and training practice, the children who were not able to control urine and stool, represent ninety three point eight (93.8) percent, while only six point two (6.2) percent were able to do that. But after the intervention and training, there is no any change and the result remains as it was.

Table(20) Distribution of disabled child walking and movement pre and post intervention (n=113)

<table>
<thead>
<tr>
<th></th>
<th>Pre intervention</th>
<th>Post intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>%</td>
</tr>
<tr>
<td>with full support</td>
<td>106</td>
<td>93.8%</td>
</tr>
<tr>
<td>with little help</td>
<td>7</td>
<td>6.2%</td>
</tr>
<tr>
<td>without help</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Total</td>
<td>113</td>
<td>100%</td>
</tr>
</tbody>
</table>

Chi-Square=39.000  P value<.000
Table twenty, disabled child walking and movement. Before intervention and training program, about ninety three point eight (93.8) percent of the disabled children were move and walk with an full support, while only six point two (6.2) percent were moving and walking with a little help from others. However, after the training practice, the result has improved, whereas the percentage of those who were moving with full support has dropped to fifty eight point four (58.4) percent and of those who were walking with a little help has raised to forty point seven (40.7) percent, besides nine (9) percent move and walk without any help.

Table (21) Distribution of disabled child sitting pre and post intervention (n=113)

<table>
<thead>
<tr>
<th></th>
<th>Pre intervention</th>
<th>Post intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>%</td>
</tr>
<tr>
<td>with full support</td>
<td>106</td>
<td>93.8%</td>
</tr>
<tr>
<td>with little help</td>
<td>7</td>
<td>6.2%</td>
</tr>
<tr>
<td>without help</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Total</td>
<td>113</td>
<td>100%</td>
</tr>
</tbody>
</table>

Chi-Square=1.701

P value<.000

Table twenty one, disabled child sitting. Before the intervention and training program, the percentage of those who were not able to sit down by themselves (self sitting) was ninety three point eight (93.8) percent, while only six point two (6.2) percent were able to do so with a little help. As for, after practicing the exercises and training program, the situation has considerably improved whereas the proportion of those who were not able to sit by themselves, has dropped to seven (7) percent, and eighty five (85) percent are now able to sit with a little help, while those who now able to sit without any help are eight (8) percent.
### Table (22) Distribution of disabled child playing pre and post intervention (n=113)

<table>
<thead>
<tr>
<th></th>
<th>Pre intervention</th>
<th>Post intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>%</td>
</tr>
<tr>
<td>with full support</td>
<td>106</td>
<td>93.8%</td>
</tr>
<tr>
<td>with little help</td>
<td>6</td>
<td>5.3%</td>
</tr>
<tr>
<td>without help</td>
<td>1</td>
<td>0.9%</td>
</tr>
<tr>
<td>Total</td>
<td>113</td>
<td>100%</td>
</tr>
</tbody>
</table>

Chi-Square=1.116     P value<.000

Table twenty two, disabled child playing, this table distinguishes three categories of the disabled children playing as follows: before the training program there were ninety three point eight (93.8) percent playing with an full support, five point three (5.3) percent playing with a little help, while nine (9) percent were playing without any help. After the training program practicing, the situation has changed as follows: twenty four point eight (24.8) percent, play with an full support, sixty nine (69) percent play with a little help, while the percentage of those who were playing without help, has dropped to six point two (6.2) percent. It is noticeable that the significance of this training is that, it helps strengthening the muscles of the child extremities and consequently joining, combining, and communicating others.

### Table (23): Distribution of disabled child speaking and articulation pre and post intervention(n=113)

<table>
<thead>
<tr>
<th></th>
<th>Pre intervention</th>
<th>Post intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>%</td>
</tr>
<tr>
<td>Speaking</td>
<td>7</td>
<td>6.2%</td>
</tr>
<tr>
<td>Don’t Speaking</td>
<td>106</td>
<td>93.8%</td>
</tr>
<tr>
<td>Total</td>
<td>113</td>
<td>100%</td>
</tr>
</tbody>
</table>

Chi-Square=0.00     P value< 1.000
Table twenty three, disabled child speaking and articulation. Before the intervention and training program, the percentages were as follows: eighty three point eight (83.8) percent of the disabled children were not able to pronounce at all, while only six point two (6.2) percent were able to pronounce. After the intervention and training program achievement, there is no any change.

**Table (24) Distribution of disabled child regarding communication with other pre and post intervention (n=113)**

<table>
<thead>
<tr>
<th></th>
<th>pre</th>
<th>post</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>%</td>
</tr>
<tr>
<td>Communicate</td>
<td>7</td>
<td>6.2%</td>
</tr>
<tr>
<td>Don’t Communicate</td>
<td>106</td>
<td>93.8%</td>
</tr>
<tr>
<td>Total</td>
<td>113</td>
<td>100%</td>
</tr>
</tbody>
</table>

Chi-Square=92.840 P value<.000

Table twenty four, disabled child communication with others, this table shows the proportions of the disabled child communication and attentiveness, before and after the training program, as follows: before the training program, about ninety three point eight (93.8) percent were not able neither to communicate with others, nor to give attention around them, while only six point two (6.2) percent were able to do so. After the training program and intervention, the situation has improved, whereas, the proportion of those who were able to communicate and to give attention around them, has raised to sixty eight point one (68.1) percent.
Figure 1: distribution of employee in Cheshire home by job (n=9)

Figure 2; distribution of employee in Cheshire home by qualification (n=9)
Figure 3: Distribution of years experience of employee in Cheshire home.

Table 1 shows the disruption regarding establishing an office concerning family of disabled children orientation in Cheshire home.

<table>
<thead>
<tr>
<th></th>
<th>No</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Important</td>
<td>4</td>
<td>44.4%</td>
</tr>
<tr>
<td>Not important</td>
<td>5</td>
<td>55.6%</td>
</tr>
<tr>
<td>Total</td>
<td>9</td>
<td>100%</td>
</tr>
</tbody>
</table>

55.6% of the sample said it is not necessary, while 44.4% of the sample said it is necessary.

Table 2 shows the distribution regarding the effect and efficiency of the program in Cheshire home.

<table>
<thead>
<tr>
<th></th>
<th>No</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effective</td>
<td>9</td>
<td>100%</td>
</tr>
<tr>
<td>Non effective</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Total</td>
<td>9</td>
<td>100%</td>
</tr>
</tbody>
</table>
In order to evaluate these programs and to show their efficiency, the researcher prepared special form filled by the managers in Cheshire center. It includes the following:

- The role of establishing specialized office for family direction and orientation. About 50% of the samples said that, it is not necessary since the families already take orders and advices directly from those who deal with them during exercises practice and physical treatment, while the other half of the samples, said that “it is good idea, but more expensive as it adds a new function to the center.

- Concerning the effect and efficiency of the programs, the whole sample agreed that, “these programs are very useful because they create good relationships and interactions between the families and the workers of the center, furthermore, they encourage the families to be more punctual in times of treatment continuation which has a positive and good psychological impact in one hand and the rate of stress, anxiety and disturbance, has decreased among parents and the special needs children as well.
Chapter five

Discussion:
The study included 113 questionnaires which was filled by the researcher and trained person working at Cheshire disabled children care center the data was collected from the mothers of the physical disabled children who attended the education program regularly.
The ages of the physical disabled children range between one to five years, and the majority of their mothers are their mothers, and that is good for the benefit of these children.
It is noticeable that the majority of the physical disabled children mothers have completed the basic school only, therefore, the researcher delivered the training package in a simple language convenient with their educational level in order to get good understanding, which is the main aim of the training session. Also it is worth mentioning that the majority of these mothers are unemployed which is a good chance as it has a positive impact on the child care. The employed mother have no enough time to look after their physical disabled children and consequently, they may compel to recruit a baby sitter for their children, moreover, may not come regularly on time for their child management.
Before the educational program the mothers had poor knowledge about the definition, types, causes and treatment of physical disability and how to deal properly with their children, about three quarter of them were entirely have no knowledge of the above variable, however, after the educational program their knowledge was improved among all of them. As it is necessary for the mothers of the physical disabled children to obtain good knowledge that relevant to their children, and that was conformed with study done by (Dikman & Gordon, in New Yourk 1985).
Regarding the role and positive impact of physical treatment on the physical disabled children rehabilitation, there was small number of the mothers (5.3%) thought that it has no any positive impact on their disabled children, but after the training program was noticed an improvement has occurred on their disabled children, the angle of stiff joint was widened denoting that the muscle tone and balance were enhanced which encourage them to do regular physical treatment. This result conformed with other studies done by (Maria A Fargale- Pinkham MA in France 2004) in which they
discussed the significance and the positive impact of the physical treatment on the physical disabled children. It also this agrees with study done by (Eileen G Fowler, Thubi HA Kolobe and others in California 2007) in which they revealed the significance of the physical treatment on children with cerebral palsy enhance muscle tone and balance.

The majority of study group (93.8%) did not received any advice at chiesher home, however, after the educational program, the whole study group (100%) have received the advice regarding their disabled children care, how to deal properly and how to help them in performing their daily activities. Where as the parents of physical disabled children if there were not received advice so early at time of diagnosis will suffer from psychological stress and complicated crisis which may not be overcome, hence it needs support and help accept that problem, as stated by (Bailey, A.B. & Smith, S.W. in USA 2000). Therefore it is necessary to consider and provide psychological support and advice in order to save and help their children. This fact correspond with study done by (Admin Leave in USA, 2011) & (Albrecht, in New Yourk 1995) in which reveal that, a family which received a psychological support immediately after the diagnosed of disabled child, will be able to adapt it easily and consequently able to help their disabled child.

In contrast with study done by (Rone-Adams SA, Stern DF, Walker V. in Florida 2004) in which he conclude that, the majority of the mothers suffer stress from the exercise at home therefore, they do not practice it. This study showed that all study group had recognized the importance of the therapeutic exercise at home, and positive effect as it revealed sign on their disabled children, and they start doing it regularly.

Regarding the mother receiving help from the family member, to perform physical treatment at home the study show that before the training program about more than half of study group did not received any help, while after the educational program the whole study group were receiving help from their family members that is good as it mitigates the continual stress on the mothers of disabled children. This finding correspond with study done by (Knussen & Sloper, in USA 1992) in which he revealed that the majority of the mothers of disabled children suffer from high stress due to their consideration of their disabled children as well as daily home duties, therefore it is necessary to help them.
The result show that the majority of the fathers of disabled children (95.6%) treated their children with more consideration and care, while about (4.4%) of study group do not care of their disabled children, either because they are disappointed or ignorant that mean they don’t know the proper method of dealing with them. However after the advice there was significant improvement the whole study group tend to treat their disabled children normally equal with their normal children, this good and positive impacts on both the disabled and normal children. However the over care of the disabled child, may limit his activities and self dependence as well, beside it may also encourage the normal children to become jealous and with discrimination psychological problems. This fact correspond with study done by (Macks & Reeve in USA, 2007) in which they demonstrate that the disabled children’s brothers suffer jealousy and psychological disturbance due to more parent’s care toward the disabled children compared to them.

Regarding the normal children treatment with their disabled brothers and sisters, there was small proportion of them did not treat their disabled brothers properly. This was attributed to the mother’s anxiety to be harmed - unentendely - by his normal brothers. However, after the educational program, the outcomes were positive. The mothers allowed the normal children to play with their disabled brothers, which has good and positive impact on normal children were not suffer the jealousy. This observation is mentioned in study done by (Macks & Reeve, in USA2007) in which they reveal that the brother of disabled children suffer from psychological problems that may lead to Autism.

Regarding a disabled child eating and drinking method, the study showed that before the training program, the majority of disabled children were taking their meals, drinking water and other liquid with full support from the mothers, while after the training program, the outcomes were improved the majority of disabled children eat and drink with little help. When the mothers subjected to special training deal with the correct and appropriate position and the used of special equipments help to do that. This conformed with study done by (Deborah French, in France 2013) in which he emphasized that the use of special eating and drink equipments, is very important to help disabled child to learn good eating and drinking skills.
Before the training program and intervention many family were not practicing playing with their disabled child, however, after the intervention, they recognized the role of playing for disabled child since it strength muscles and help him/her to communicate and contact with other. This result agree with study done by (Macy Kaiser in UK 2001) to which showed that when families play with their disabled child it builds stronger sense of families. The another study done by (Susan J. Schwartz, MAEd, senior director at the Child Mind Institute's Learning and Diagnostics Center in Manhattan said that "Imaginary play is important for all children because it helps them understand their surroundings,". "It's a way for them to practice. It's a way for them to explore the world." While jump-starting it may seem daunting, this "practice" also helps create a foundation for other skills, and the consequences of a child's inability to play imaginary games can be detrimental to her development in the future. For example, imaginary play is the basis of later language skills, says Dana Battaglia, outreach clinical coordinator at The Eden II Programs and a visiting professor at Adelphi University in Garden City. Children who do not participate may suffer a lack of flexibility in their language later in life, meaning they could be unable or find it difficult to express themselves. "Practice," says Schwartz, also helps children learn basic social skills.

The researcher trained the mothers to applying some techniques for their physical disabled children in order to help in normal bowel and bladder function but there were not significant improvement on that as it may need more practice and time. Toilet Training Methods (published by Lee vander Loop, CP family net work editer) The Diagnostic Center, Southern California has developed an approach toward toilet training a child with developmental delays that it calls “habit training.” In this approach, a mental picture, signal or visual cue of a toilet becomes linked in the child’s mind with a need to void. The Center has a six-page hand-out that takes you through the steps and provides other good suggestions. Another study, this one published in 2010 in the Journal of Urology concluded that wearing a programmable wrist watch was successful at helping many children manage daytime bladder control problems. The study also suggested that timed bathroom trips are a crucial part of urotherapy for daytime incontinence.
The researcher trained the mothers to use some helping tools like wheelchair and walking equipment for their physical disabled children to help them to walk and move smoothly. Consequently, it reflected a good result, such as (93.3%) of disabled children walking and moving with full support, and after the intervention, the percentage decreased to (58.4%), and this conforms with (Michael W. et al. in London 2008) who stated that “Walking aids devices help to maintain upright ambulation by providing any or all of: improved stability, reduced lower-limb loading and generating movement.”

Regarding the disabled child communication with others, there was a positive change after they were taught simple sign and pictures. (Pennington L, Goldbart J, Marshall J in USA 2004) stated that “Picture cards may be used to help the patient remember everyday objects and increase his vocabulary. The patient might use picture boards of everyday activities or objects to communicate with others.”

The researcher trained the mothers to use some helping tools like wheelchair and walking equipment for their physical disabled children to help them to walk and move smoothly. Consequently, it reflected a good result. (Michael W. Whittle, R (2008) stated that “Walking aids devices help to maintain upright ambulation by providing any or all of: improved stability, reduced lower-limb loading and generating movement.”

Regarding the disabled child communication with others, there was a positive change after they were taught simple sign and pictures. (Pennington L, Goldbart J, Marshall J (2004) stated that “Picture cards may be used to help the patient remember everyday objects and increase his vocabulary. The patient might use picture boards of everyday activities or objects to communicate with others.”
Chapter six
Conclusion and recommendations

Conclusion

The study concluded that:
All study group received advices that helped them taking care for their disabled children and became compliant in physical therapy treatment.
There was improvement the knowledge of the mothers of disabled children about disability, types, causes and rehabilitation has increased, and most disabled child’s mothers helped by the family members.
All fathers acting normally toward their disabled children and their brothers and sisters are treated them normally and play with them.
After the education and training program most of physical disabled children are eating and drinking fluid and other liquid with less help, and easier for them to communicate with others.
Unfortunately there is no change in speaking skills and bowel and bladder control.

Recommendations

The researcher recommends the following:
1) Frequent supportive psychotherapy counseling of mothers.
2) Training courses for mothers of physical disabled children regarding the proper and perfect methods of doing the physical exercises at home efficiently.
3) Propose regular parent meeting in the center for exchange experience and skill as well.
References


44. World Health Organisation, 'World Report on Disability: 2010


Annex (1)

يمن الله الرحمن الرحيم

جامعة الجزيرة

كلية الطب

مركز الرعاية الصحية الأولية والتنقيف الصحي

استمارة تقييم معرفة وإداء مقدمي الرعاية للأطفال المعاقين جسديا

1- اسم المريض : .................................................................

2- العمر : .................................................................

3- العنوان ................................................................

4- رقم الهاتف .................................................................

5- صلة القرابة بالمريض .................................................................

6- المستوى التعليمي .................................................................

7- المهنة ................................................................

8- ماذا يعني مصطلح الأطفال ذوي الاحتياجات الخاصة ؟

أ- هو الطفل الذي يختلف عن الطفل العادي أو المتوسط من حيث القدرات العقلية أو الجسدية أو الحسية .

ب- هو الطفل الغير قادر علي تلبية متطلبات اداء دوره الطبيعي في الحياة نتيجة عيب خلقي أو غير خلقي.

ج- هو الطفل الذي ينحرف ادائه عن اداء الأطفال العاديين فيكون فوق المتوسط أو دون المتوسط بشكل ملحوظ.

9- ماهي اسباب الاعاقات الجسدية والعقلية عند الأطفال هي :

أ- اسباب وراثية

ب- اسباب بيئة ( تعرض الام للاشعة او بعض الامراض اثناء الحمل – الاختناق اثناء الولادة – الطفل الخديج)

10- ماهي أنواع الاعاقات عند الأطفال هي :

أ- ذهنية

ب- عضوية

ج- ذهنية وعضوية

11- هل يتم علاج الاعاقة بصورة نهائية ؟

أ- نعم

ب- لا

12- ما هو الغرض من تأهيل الطفل ؟
أ/ ليصبح طفل طبيعي بدون إعاقة.
ب/ تقليل التشوهات في العضلات والمفاصل.
ج/ الوصول لأعلى مستوى ممكن من العناية الذاتية.

13- ما هي المدة التي يستغرقها تأهيل الطفل؟
أ/ أيام.
ب/ أشهر.
ج / سنوات.

14- هل سيصل هولاء الأطفال إلى الامكانيات القصوى من قدراتهم ب:
أ/ مساعدة الرعاية الأولية فقط.
ب/ مساعدة الرعاية المقدمة من جهة الدار فقط.
ج/ مساعدة الجميع و العمل كفريق واحد.

15- ما هو مفهومك للعلاج الطبيعي؟
أ/ له أثر إيجابي.
ب/ ليس إلا ثني و فرد للمفاصل أو عمل مساج للعضلات و هذا لا يؤثر في تطور الطفل الحركي تماما.

16- ما هي أنواع العلاج التي يتلقاها الطفل في الدار؟
أ/ المعالجة الفيزيائية (العلاج الطبيعي).
ب/ المقويات الجراحية أو التنقية.
ج/ العلاج عن طريق الأجهزة التعويضية و الجبائر.

17- هل قدمت لك في الدار أي نصائح أو ملاحظات حول رعاية طفلك؟
أ-نعم
ب-لا

18- هل تذهبين لأي مكان آخر لمتابعة علاج الطفل؟
أ-نعم
ب-لا

19- هل تقومين بالتمارين العلاجية في المنزل؟
أ-نعم
ب-لا

20- هل يساعدك شخص في المنزل في عمل التمارين؟
أ-نعم
ب-لا

21- هل تلتزمين بمواعيد التمارين العلاجية في الدار؟
أ-نعم
ب-لا
هل الاب يعامل طفله المعاق كباقي اخوته الاصحاء؟
- نعم
- لا

هل اخوة الطفل المعاق يعاملونه معاملة طبيعية؟
- نعم
- لا

<table>
<thead>
<tr>
<th>النشاطات اليومية</th>
<th>يقوم بها من غير مساعدة</th>
<th>يقوم بها بمساعدة قليلة</th>
<th>يقوم بها بمساعدة كاملة</th>
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<tbody>
<tr>
<td>أكل الطفل</td>
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<td>شرب الطفل</td>
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<td>انتقال الطفل من مكان لآخر</td>
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<tr>
<td>يتحكم في الالخراج</td>
<td>لا يتحكم</td>
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<td>ينطق</td>
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<td>لا ي التواصل مع الاخرين</td>
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<td>لا ي التواصل مع الاخرين</td>
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استمارة (2) لتقييم مدى فعالية برنامج التثقيف الصحي على الأطفال المعاقين ومسهمهم الذي قدمه الباحث في الفترة من 2011-2014:
- مسمى الوظيفة ............................................................
- العمر .................................................................
- المؤهل الدراسي ......................................................
- تاريخ التحاق العمل بالدار ...........................................
- هل وجود مكتب ارشاد وتوجيه لاصحالأطفال المعاقين في الدار مهم؟
- نعم
- لا
هل برنامج التثقيف الصحي الذي قدمه الباحث للاطفال المعاقين واسرهم له اثر إيجابي عليهم ام لا؟
- نعم له اثر إيجابي
- لا ليس له اثر
Educational training program for mothers of children physical disability

Health education is the process of providing learning experience for purpose of influencing knowledge, practice and attitude relating to health.

Counseling is process of helping in professional way to help an individual to understand them self and their surroundings.

The objectives of the counseling:

- Teach care takers to be self responsible
- Improve on the negative image
- Help them to adjust their self with the environment
- Help them to change their behavior and strengthened the inner strength.
- Help them to be more productive and creative in problem solving.

Counseling process:

Characteristics of counseling process:

1. A period to make change in the care takers-a few hours, a few session or meetings.
2. Systemic methods steps:
   - Counselor to build a relationship with the client
   - Exploration of the problem
   - Problem’s management
3. Open relationship in between the care takers and counselor
4. Knowledge on mankind is important in counseling process

Steps in counseling process:

1. Preparation of pre session
2. Establish relationship with the care takers
3. Explore and analyze the problem
4. Identify the problem
5. Taking action(intervention)
6. Termination

The aim of this program is to advice and educate the care takers how deal their child with special needs and who to assistance them on their daily activities living (to become independency).
Plan of action:

first step: The researcher carry out an individual counseling for each care taker through the personal interviews, then he wrote the notes for each family an application forms for a disabled child.

Second step: The researcher divided the sample size into ten groups according to similar characteristics like type of disabilities of child and concept of the families and their sense.

Third step: The researcher presented some lectures to all groups which include both theoretical and practical work, the theoretical part contains: the definition of disability, types, causes and the importance of early intervention for rehabilitation and the role of every one's help in rehabilitation and how to deal with treatment of disabled child. The significant of punctuality to treatment and visiting other treatment center for further treatment according to child needs, and what they expect from a disabled child when rehabilitation occurs.

The practical part aim at learning of the physical therapy to the mothers and continuous exercises at home, beside the researcher also provides some exercises that help the child to practice the activities of daily living to become independent.

The presented exercises are:

8- The perfect body position
9- The perfect body position when eating
10- The perfect body position when drinking
11- The perfect body position when elimination
12- The perfect body position when wearing cloths
13- The perfect body position when playing
14- The perfect body position when walking and moving

The number of theoretical lectures was five lectures three session per week for each group, each session took forty five minutes. The researcher and his tutor explain the requirement of questionnaire to the respondent.
The number of practical lectures was ten lectures aim at educating how the right exercises do for disabled child it took one hour for three time per week for each group, in each session the care taker learns one skill and applies it probably under the guidance of the tutor to be applied at home in order to learned the disabled child such skill then shift to a new skill. After the completion of all session for all groups we did weekly program to review all the skills for every care takers to be corrected by the observer group under the supervision of tutor. The duration of intervention program started from May to December Then the researcher did post test using the same tools to a comparison between the pre and post intervention program which conducted to evaluate the influence of these program on the respondent.

The evaluation consider the following:

( knowledge attitude and practice regarding child with disabilities and rehabilitation).

The researcher also evaluate the program through the director using special questionnaire concerning the importance of establish office of educational training program for families, effective of this program as well.

Then we did follow up every three months to evaluate the care takers regarding how to help disabled child on daily activities living through the panel discussion among the care takers.

### Time table for theoretical part

<table>
<thead>
<tr>
<th>Lectures</th>
<th>Objectives</th>
<th>Time</th>
<th>Teaching method</th>
<th>Media</th>
<th>Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definition of disability &amp;causes</td>
<td>Define disability &amp; causes</td>
<td>45 minutes</td>
<td>Lecture &amp; discussion</td>
<td>Projector &amp; Hand out</td>
<td>Oral question</td>
</tr>
<tr>
<td>Types of disability</td>
<td>Define types of disability</td>
<td>45 minutes</td>
<td>Lecture &amp; discussion</td>
<td>Projector &amp; Hand out</td>
<td>Oral question</td>
</tr>
<tr>
<td>Management(Rehabilitation(1))</td>
<td>Define the rehabilitation</td>
<td>45 minutes</td>
<td>Lecture &amp; discussion</td>
<td>Projector &amp; Hand out</td>
<td>Oral question</td>
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<tr>
<td>Management(Rehabilitation(2))</td>
<td>Concept of rehabilitation</td>
<td>45 minutes</td>
<td>Lecture &amp; discussion</td>
<td>Projector &amp; Hand out</td>
<td>Oral question</td>
</tr>
<tr>
<td>Skill</td>
<td>Objective</td>
<td>Time</td>
<td>Teaching method</td>
<td>Media</td>
<td>Evaluation</td>
</tr>
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<td>--------------------------------------------</td>
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</tr>
<tr>
<td>Manner of disabled child eating</td>
<td>To educate perfect position when eating</td>
<td>1hr</td>
<td>Lecture &amp;Demonstrate</td>
<td>Actual demonstration &amp;hand out</td>
<td>Re demonstration</td>
</tr>
<tr>
<td>Manner of disabled child drinking</td>
<td>To educate perfect position when drinking</td>
<td>1hr</td>
<td>Lecture &amp;Demonstrate</td>
<td>Actual demonstration &amp;hand out</td>
<td>Re demonstration</td>
</tr>
<tr>
<td>Manner of disabled child wear cloths</td>
<td>To educate perfect position when wear cloths</td>
<td>1hr</td>
<td>Lecture &amp;Demonstrate</td>
<td>Actual demonstration &amp;hand out</td>
<td>Re demonstration</td>
</tr>
<tr>
<td>Manner of disabled child control of bladder &amp; bowel movement</td>
<td>To educate perfect way to control bladder and bowel movement</td>
<td>1hr</td>
<td>Lecture &amp;Demonstrate</td>
<td>Actual demonstration &amp;hand out</td>
<td>Re demonstration</td>
</tr>
<tr>
<td>Manner of disabled child walking &amp;movement</td>
<td>To educate perfect position when walking &amp;movement</td>
<td>1hr</td>
<td>Lecture &amp;Demonstrate</td>
<td>Actual demonstration &amp;hand out</td>
<td>Re demonstration</td>
</tr>
<tr>
<td>Manner of disabled child sitting</td>
<td>To educate perfect position when sitting</td>
<td>1hr</td>
<td>Lecture &amp;Demonstrate</td>
<td>Actual demonstration &amp;hand out</td>
<td>Re demonstration</td>
</tr>
<tr>
<td>Manner of disabled child playing</td>
<td>To educate perfect position when playing</td>
<td>1hr</td>
<td>Lecture &amp;Demonstrate</td>
<td>Actual demonstration &amp;hand out</td>
<td>Re demonstration</td>
</tr>
<tr>
<td>Manner of disabled child speaking &amp;communication</td>
<td>Perfect way to educate speaking and communication</td>
<td>1hr</td>
<td>Lecture &amp;Demonstrate</td>
<td>Actual demonstration &amp;hand out</td>
<td>Re demonstration</td>
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</tbody>
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