

*Opportunities and Challenges of Female Children with
Polio to Primary Education: The Case of Addis Ababa
Association of the Physically Handicapped.*

By Abebe Ashagre

*A Thesis submitted to the School of Graduate Studies of
Addis Ababa University department of Psychology
in partial fulfillment of the requirements for the Degree of
Master of Arts in special Needs Education*



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ACRONYMS

- AAAAPH: Addis Ababa Administration Association of the Physically Handicapped
- ADA:- Americans with Disabilities Act
- CSA:- Central Statistical Authority
- EFA:- Education For All
- ENAPH:- Ethiopian National Association of the Physically Handicapped
- ESCAP:- Economic and Social Commission for Asia & the Pacific
- FGD:- Focus Group Discussion
- IDEA:- Individuals with Disabilities Education Act
- IEP:- Individualized Education Program
- ILO:-International Labor Organization
- MOE:- Ministry Of Education
- MOH:-Ministry Of Health
- NATRI:-National Assistive Technology Resources Information
- NCD:- National Council on Disability
- NGO:-Non Government Organization
- POC:-Prosthetics Orhtotics Center
- UMHS:- University of Michigan Health System
- UN:- United Nation
- UNESCO:- United Nations Educational, Scientific and Cultural Organization
- UNICEF:- The United Nations Children's Fund

Abstract

The major purpose of the study was to explore opportunities and challenges of female children with polio with respect to the educational intervention of AAAPH and its stakeholders i.e. association members and their family, ENAPH, Cheshire Service Ethiopia, and four primary schools. The study focused on children well-being that is holistically integrating in the physical, social & emotional, and cognitive development. In the study there were a total of 21 participants drawn from each stakeholder. The selection of participants was made using purposive sampling and simple random sampling techniques. Qualitative research method was used for the study, and data collection was made through different techniques i.e. semi-structured interview, observation, focus group discussion, and document analysis. The study attempts to point out opportunities and challenges of female children with polio in view of the services being conducted by AAAPH and its stakeholders. Accordingly, the enrollment of children with polio in primary schools, classrooms arrangement, rewarding, counseling services by the schools, the existing special needs department and disability club activities in some schools, the provision of mobility aid and medical treatment by stakeholders, advocacy roles by ENAPH and AAAPH are to be mentioned as the major opportunities. The major challenges that were sorted out in the study are the absence of assistive technology in schools, lack of affordable and quality mobility devices, the poor economic condition of the parents/guardians, inadequate care and support services in the rehabilitation center, limited family participation in the programs, lack of play grounds and recreational activities both at home and in school, resistance of family to send their children to school, absences of accessible and affordable pre -schools in the neighborhood. Following the conclusion, pertinent recommendation were drawn such as strengthening partnership, quality and affordable mobility services, separate orthopedic treatment for females, awareness raising, accessible primary and pre schools, children and parental participation, strengthening resources, self reliance programs for the family/guardians.

Chapter one

1. Introduction

1.1. Background of the study

The World Bank is working with the United Nation's Washington Group on Disability Statistics and the World Health Organization (WHO) to establish an internationally comparable approach for measuring the prevalence of disability. In the few developing countries in which this approach has been implemented, findings indicate a disability rate of about 10-12 percent, with about 2-4 percent of the population having significant disabilities. This estimate is in line with the United Nations' often cited figure of 10 percent rate, which is more like an informed guess based on data available from developed countries. (Emmanuel, 2007).

According to the Central Statistical Authority, CSA (1994) population census, the projected statistical report for the total population of the country for 2005 at medium variant is 73,044,000 of which 36,604,000 are males and 36,440,000 are females. Accordingly, the population of Addis Ababa is 2,887,000. (male 1,387,000 and female 1,500,000).

Therefore, as cited by Unite Nation (UN) estimates total the number of people with disability would be 10% of the population i.e. 7,304,400 in the country in general and 288,700 in Addis Ababa in particular. From the gross CSA statistical report, it is observed that the number of people with physical disability has taken the larger proportion.

Disability is not simply a medical condition. It results from the interaction of physical, mental, or sensory impairments with culture, social institutions, and

physical environments. People with physical or mental limitations are often disabled not because of a diagnosable condition, but because they are denied access to education, labor markets, and public services. This exclusion leads to poverty and, in a vicious circle, poverty leads to more disability by increasing people's vulnerability to malnutrition, disease, and unsafe living and working conditions.

This concept of disability is known as the social model of disability, in contrast to the older medical model of disability. The medical model focused on the individual's clinical condition. The social model views disability as an interaction between individuals' functional limitations and the environment. (Emmanuel, 2007).

Females with disability who are representing over 50% of the total number faced a double discrimination, since they are both female and disabled. The society and the family place the burden on their shoulders when a child is born with impairment. The blame, as well as the responsibility and the practical work are theirs. Females with a disability have a higher risk of poor health and a higher death risk, may be because they often get less attention. But the opposite may as well be a problem. Overprotection may lead to isolation from the society and from social learning. Lack of knowledge combined with overprotective care from her mother and family increased their disability. In poor countries, the situation worsens as poverty leads to disability, and disability leads to poverty.

Disability studies and women studies have both the obligation and privilege of learning from the lives and experience of females with disabilities, and of including them as educators. Their participation would assist students, disabled or not, in critically questioning conventional knowledge about elements that have historically promoted oppression of persons with disabilities including disabling environments and policies along with the roles of the impaired bodies and language." (Barile, 2005).

Moreover, the roles of primary schools have significant impact to bring about success of children with disabilities. To this, literature in the book of Clark, Dyson & Alan (1995) stated that detailed observation of the schools and the collection of large range of materials upon pupils' within school organizational factors and school resource levels revealed a number of factors within the school that were associated with more 'effective' regimes. This include..... high levels of pupil involvement , small overall school size, more favorable teacher....

The article by (Benjamin 2002), also states about the similarity of discriminations that has long been existed between gender and disability with reference to girls with disability in their schooling as "The charity/tragedy discourse of disability and traditional versions of femininity bear some striking resemblances. Both are associated with dependence and helplessness, and with resultant practices that are implicated in the enduring reproduction of social and material inequalities." This article looks at the "identity work" of a group of girls, all of whom had been identified as having "special educational needs," in a mainstream school in the UK. Using findings from an ethnographic study, the article explores how the girls position themselves in relation to the subject 'special needs student'. The findings suggest that historical meanings associated with femininity and disability combine with contemporary schooling practices to produce a constrained range of subject positions around which the girls have limited room for maneuver. This article deals with the concerns of females with disabilities as they progress. Females who are blind, deaf, or mobility-impaired face many problems of rejection, not only possibly by their parents, but by public school personnel whenever they are "mainstreamed."

In the context of Ethiopia, a sample study conducted on the attitude of the society towards persons with disabilities has revealed mixed, but predominantly negative attitudes towards individuals with disabilities . The discrepancies that exist in the livelihood of persons with disabilities and non- disabled persons are by and large

attributable to the general public attitude which is predominantly characterized by enduring stereotyped gender roles. (Tirusew et.al., 1995).

The above statistical report that indicates the increasing number of physical disability in the country needs considerable attention. From the types of physical disability polio is the major one that takes a larger number. As (Mugnet Ivory and Ross 1995, cited in Tirussew 2000), described poliomyelitis as a viral infection affecting the anterior horn cells in the spinal cord and brain stem and producing a flaccid motor paralysis. Accordingly, the sample survey conducted in Addis Ababa shows that persons with motor impairment reported different causes among which poliomyelitis was the dominant one. (Tirussew, 1998). According to the report, 50% of cases were polio. Moreover, the data from AAAAPH illustrates the higher percentage of female with polio than the other types of motor disorder.

Therefore, the aforementioned double face discrimination of females in general and under representation of female children with disability in schooling could be traced as a background for the study. Thus, to meet the objective of the study that focused on exploration of opportunities and challenges of female children with polio in primary education; critical study on the ongoing educational program of AAAPH and its stakeholders would be of help to improve the move toward inclusive education.

1. 2 Statement of the problem

According to international estimates 10-20% of any school age population has special educational needs. (ILO 2004, Peters 2003, UNESCO 2001, Wiman & Sandhu 2004 cited in MOE 2006). In Ethiopia, as stated in (MOE 2004) there are estimated numbers of 1.5 to 3 million children with special needs.

The Government of Finland and United Nations Educational, Scientific and Cultural Organization (UNESCO) with the Ministry of Education carried out a

situation analysis of special needs education services in Ethiopia. The analysis assessed the awareness of special needs education as a human right and a component of the overall education sector of the development, and the capacity that the regional education bureaus have in planning and coordinating, special needs education services. The main findings indicate that the goal of primary education includes children with special needs. But, there is no strong awareness that so many young children with special needs enrolled often repeat and dropped out since they do not receive sufficient support. The lack of SNE services, such as identification of special needs, itinerant resources teachers etc. affect both access and quality of education. (MOE, 2005).

Females with disabilities are the most marginalized groups in society as they are multiply disadvantaged through their status as women, as persons with disabilities and are over-represented among persons living with poverty. Females with disabilities (far more than boys and men with disabilities) face discrimination within the family, and denied equal access to health care, education, training, employment and income generation opportunities, and are excluded from community activities.

Female are under-represented in school. This is the case whether the impairment affects her learning ability or not. Describing the historical struggle for the right for education for female in general and relates it to the lack of educational opportunities for female with disabilities today recognize and support the right of females to education and promote a multicultural approach to education that is responsive to the needs, aspirations and cultures , including by developing appropriate education programmes, curricula and teaching aids, and by providing for the participation of female with disability in these processes.

“In light of the international commitment to Education for All (EFA), how are females with disabilities faring? In truth, we don’t know, although from what we can tell, they are not faring well. Widespread cultural biases based on gender

and disability greatly limit their educational opportunities. Why don't we know more? Those committed to gender equity, by failing to consider disability, and those committed to disability equity, by failing to consider gender, have unwittingly rendered disabled females invisible." (Russo, n.d.).

This article indicates that such role confusion with gender and disability program implementation have contributed a lot for the neglect of children with special needs in mainstream schools, that appropriate budget; resources and other necessities for special needs education were not allocated. Moreover, the human right concept of equality and opportunity has no room to be realized under such unconditional circumstances.

Opportunities and challenges happening at the primary schools could have different aspects: how enrollment of children with polio in regular schools brought an impact; how special needs education interfaces with equity efforts; role models performed; and the impact of current educational structures on special needs. Besides, it was observed from the AAAPH data that there were no child female with polio enrolled in modern pre - education, which shows the necessity of early intervention has been neglected. About the importance of early intervention it was emphasized in (Tirussesw 2000) as "Usually , early intervention programs for children with physical and health impairments emphasis assessment of a child's performance in many areas and seek to systematically develop the child's motor, self-help, and communication skills".

Thus, in this research, the aforementioned characteristics were taken in to considerations in accordance with the actual situations of AAAAPH and its stakeholder's services in their educational intervention for children with polio in primary schools. The children enrollment in the school considers many factors that include management and environment of the school, knowledge and skills of teachers, availability of adopted materials and equipment, the implication of mobility devices, socio-cultural background of students, students' wellbeing, and

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characteristics of learners. Therefore, the study that deeply goes through such cases will be of help to point out opportunities and challenges prevailed in the educational program for children with special needs. Besides, the study will highlight the major causes for repeated and drop outs children with polio and why significant number of children with polio are not going to school.

1.3 Research questions

This study attempts to answer the following research questions.

- Do children with polio in Addis Ababa have access to primary education through the support of AAAAPH, and its stakeholders?
- What are the educational opportunities available for children with polio?
- What are the challenges that affect children with polio in primary school?
- What are the current situations of primary schools in Addis Ababa to include children with polio in light of inclusive education system?
- What are the possible ways and means to enhance the achievement of educational goals/ programs of AAAPH and its stakeholders for children with polio?

1.4. Objective of the study

1.4.1 General objective

- To explore opportunities and challenges of female children with polio to education with respect to the provision of educational services in primary schools being conducted by AAAAPH & its stakeholders.

1.4.2 Specific objective

- To assess the learning experiences of female children with polio in selected Addis Ababa primary schools and to sort out specific opportunities and challenges prevailed.
- To identify (Special Needs Education) SNE programs in the selected primary schools of Addis Ababa with regard to the inclusion of female children with polio.
- To examine the role of AAAAPH and its stakeholders in the educational intervention program.

1.5. Significance of the study

The study arises from the theory that female children with polio experience intersecting discrimination because of their gender, disability, traditional, religious, and cultural backgrounds, as well as their economic and political situations.

Therefore, it is believed to attain the following importance from the study:-

- Assist AAAAPH and its stakeholders to develop awareness on identifying the needs of children with polio so as to allocate resources properly in their educational program.
- As the number of learning females with polio seeking services on schools continues to rise, it will be increasingly important to assess the types of services that are needed and those that are currently offered to these students.
- To give insight about the full right of female with polio to education that ensures their unique needs are not overlooked.
- For designing strategies that include children with polio in educational interventions.

- Highlights for the major causes of children with polio who are not attending schools, dropouts and repeated students so that possible ways for the solutions could be drawn.
- Put light on the challenges faced by children with polio in primary school.
- The findings of this investigation may initiate the need for replicating the study in the remaining nine regional associations of ENAPH.

1.6 Delimitation of the study

- This study delimited to the case of AAAAPH and its stakeholders that are directly involved in education for children with polio. Other stakeholders who have no educational program in partnership with the association were not included.
- The study only includes the registered members in the association. There are many others who have not been registered, and are not included in this study.
- The study focused on female children with polio in AAAAPH due to the shortage of resources.

1.7 Limitation of the study

- Back ground of information of the sample children before they became members of the association is not adequate.
- All stakeholders do not have reliable statistical records on the provision of educational and medical services for children with polio.

1.8 Operational definitions of terms

- **Physical disability:-** are problems that result from conditions affecting the central nervous system or loss of limbs or other body systems and their related functions
- **Poliomyelitis (polio):-** is an acute disease that inflames nerve cells of the spinal cord or brain stem and leaves a residual paralysis or muscular atrophy.
- **Post polio syndrome:** - People who have survived polio sometimes develop additional symptoms, notably muscle weakness and extreme fatigue, decades later; these symptoms are called post-polio syndrome.
- **Keble:** - the smallest administrative unit in the government structure.
- **Motor behavior:-** the movement responses made by an organism
- **Self esteem :-** feelings of competence or self-worth
- **Orthoses :-** Aid or substitute weak muscles
- **Prostheses:-** a substitute for a missing body part
- **Orthopedic impairment:-** any disability caused by disorders to the musculoskeletal system
- **Disability:-** (functional level) any reduction resulting from impairment , in the capacity to perform a physical and mental ability
- **Handicap:** - (Societal level) disruption of an individual's participation in the life habits (daily and domestic activities and social roles).
- **Mobility:-** the ability to move safely and efficiently from one point to another
- **Motor functions:-** Fine motor and gross motor activities
- **Primary education:** - eight years duration, offering basic and general primary education to prepare students for further general education and training. (MOE1994).
- **Inclusive schools:-** regular schools where children with disabilities are placed fully or partially in regular classes with children with out disabilities
- **Preschool education (program):-** an institution that consist of nurseries and kindergartens with varying content and varying age- group in different

countries for children beginning from infancy up to the entry in to primary school. But the kindergartens usually severe children of age 3-6 (Encyclopedia Britannica , Vol Xiv, 1974)

- **Accessibility:-**To enable persons with disabilities to live independently and participate fully in all aspects of life.
- **Labeling:** - is the term used to refer to negative effects that are assumed to be associated with the classification of students.
- **Stereotypism:** - people generally are classified and fit into molds or groups that have certain attributable characteristics especially focused on disabilities rather than abilities.
- **Stakeholders:** - All individuals, groups and institutions who are affected by the educational program of AAAPH.
- **An assistive technology device:** - is "any item, piece of equipment or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve the functional capabilities of children with disabilities." Individuals with Disabilities Education Act (IDEA) (Federal Register, August 19, 1991, p. 41272). Cited in (NATRI 2001-2006).
- **Parent(s):-**is a father or a mother or both who provide care to their biological child or children by living together in one home
- **Guardian(s):-** is any care giver other than a father or mother who provides care to a child or children and live together in one home
- **Care taker:** - is any care giver other than a father or mother who provides care and support to the institutionalized child or children.
- **Institutionalized children;-** children brought up in an institution with out their biological parents' or guardians' support and care
- **Quadriplegia:-** all for limbs (both arms and legs) affected
- **Paraplegia:-** a motor impairments of the legs only

Chapter Two

Related Literature Review

2.1 History and Facts about Polio

As retrieved from "<http://en.wikipedia.org/wiki/Poliomyelitis>" The term poliomyelitis comes from the Greek words *polio*, meaning gray, and *myelon*, referring to the spinal cord. The term is accurate, as an important consequence of the disease is the involvement of the spinal cord with resulting paralysis. It was indicated that though polio was not unknown in ancient times; the disease wasn't mentioned much in the medical literature throughout the ages and did not occur in large epidemics until modern times. In fact, it was only in the late 18th century that the disease was first identified as polio. The effects of a polio infection have been known since prehistory. Egyptian paintings and carvings depict otherwise healthy people with withered limbs, walking with canes at a young age, etc. The first medical report on poliomyelitis was by Jakob van Heine in 1840. Karl Oskar Medin was the first to empirically study a poliomyelitis epidemic in 1890. Children were more often affected than adults, which is why the disease was once known as infantile paralysis. The poliovirus enters the mouth and multiplies in the throat and intestinal tract.

The facts about the invasion of poliovirus in the body have been stated that it multiplies in the throat and intestinal tract and then travels to the central nervous system through the blood and lymph. As it moves along the nerve fibers, the virus damages or destroys the motor neurons that carry messages between the brain and muscles. They are carried to the spinal cord, where they may kill or transiently injure motor nerve cells that control skeletal muscles, causing paralysis. Sometimes only a small group of muscles is affected, sometimes the paralysis is widespread. The legs are affected more often than the arms, but

polio may partially or completely paralyze a single limb, one half of the body, even all four extremities. When the disease struck older children or adults, it was more likely to take the paralytic form.

2.2 Prevalence of Polio

When vaccines against polio were developed in the mid-1950s, they spelled the end of a disease that became more disabling, deadly and feared as time went by.

In northern Europe and the United States, small epidemics of paralytic polio began to appear in the late 19th and early 20th centuries.

In 2005 1,831 cases of wild poliovirus (excludes vaccine derived polio viruses) were confirmed worldwide with almost 40% of those occurring in Nigeria.

In 2006, 1763 cases reported by December 5, an increase from the previous year. Only four countries in the world (Nigeria, India, Pakistan, and Afghanistan) are reported to have endemic polio. Cases in other countries are attributed to importation. Nigeria accounts for the majority of cases this year (to date) but India has reported more than ten times the number of cases this year as it had last year (30% of worldwide cases this year). Pakistan has reported 8 cases this year in children despite being given the polio medication.

Today, polio survivors are one of the largest disabilities groups in the U.S. A The 1987 survey conducted by the National Center for Health Statistics found that 1.6 million Americans had contracted and survived polio. About 640,000 of those cases resulted in paralytic polio, which increased the risk for post-polio syndrome. (UMHS 2003).

Ethiopia has a long and porous border with neighboring countries that are still polio infected," "This places Ethiopia at continued risk for further Wild Polio Virus importations. In 2005 18, in 2006 17 Wild Polio virus cases have been detected

in the country MOH (2005 & 2006). The first case of the wild Polio Virus was confirmed that it come in from the Sudan.

Once on the verge of being polio-free, Ethiopia fell victim to the recent polio outbreak originating in West Africa, which quickly spread to 16 countries across the region.

2.3 Education for females with physical disabilities

Education empowers girls with a basic knowledge of their rights as individuals and citizens, and provides them with the knowledge and skills to contribute to and benefit from development efforts (Subbarao and Raney, 1994: Vii; UNICEF, 1992: Vi; Baum and Talbert, 1985:484) cited in (Mitiku, 2004)

Exclusion from education and training prevents the achievement of economic and social independence for people with disabilities and increases their vulnerability to poverty. Studies conducted in the past decades revealed that cultural, social, and political factors have contributed to under participation, under-achievement and under- representation of girls and women with disabilities as compared to males with disabilities. (Abu-Habib, 1997cited in Tirussew 2005).

In rural areas girls and women are more disadvantaged, with higher rates of illiteracy, and lack of access to information and services. Stigmatized and rejected from earliest childhood and denied opportunities for development, girls with disabilities grow up lacking a sense of self-worth and self-esteem and are denied access to the roles of women in their communities. (Fiji Human Rights Commission on 2002) , this implies that education is the key to the advancement of women and girls with disabilities as it provides access to information, enables them to communicate their needs, interests and experiences, brings them into contact with other students, increases their confidence and encourages them to assert their rights.

In Ethiopia, enrollment as well as the participation rate of girls with disabilities is invariably lower than that of boy with disabilities. Gender perspective studies of non-disabled girls in Ethiopia confirmed that school participation rate of girls is alarmingly limited (Abebayehu, 1995; Seyoum 1986; FINNIDA, 1996 Cited in (Tirussesw 2005).

2.4 Curriculum context

Curriculum development is a systematic attempt at problem solving, namely the understanding and guidance of learning in school. (Tyler 1949).

It is obvious that there is a need to curriculum change in the given inclusive education context. Various literatures reveal that there is diversity of needs in schools which can't be administered by standardized guideline. The need for curriculum development and persistent modifications would help to meet such diversity.

As many have pointed out e.g. Giangreco, Cloninger, Dennis and Edelman, (1994), Smith, (1986), Udvari-Solner, (1994a) cited in Catherine, Atan and Alan (1995), Standardized curriculum and delivery approaches have proven to be uninteresting, void of meaning or purpose and unresponsive to the inherent diversity in background experiences, learning rates and styles, and personal interest of many students. Further more (Tirussew 2005) stated that, the inclusive approaches curriculum requires a certain degree of flexibility in that modification, substitutions, exemptions as well as compensations are needed to accommodate the diverse educational needs of children.

2.5 Policies, International Declarations and Conventions.

There are different Policies, International Declarations and Conventions that empower children with disability toward their success in the holistic human life activities.

The Convention of the Rights of the Child is the most complete statement of children's rights ever made and is the first to give these rights the force of international law. A child is defined in the Convention as a person under the age of 18, unless national laws fix an earlier age of majority.

Article 23 (3) provides that "...assistance shall be provided free of charge, whenever possible, taking into account the financial resources of the parents or others caring for the child. Assistance shall be designed to ensure that the disabled child has effective access to and receives education, training, health, care services, rehabilitation services, preparation for employment and recreation opportunities in a manner conducive to the child's achievement the fullest possible social integration and individual development, including his or her cultural and spiritual development." (UN, 2003)

According to the education and training policy (1994) article 3.7.6 special attention will be given in the preparation and utilization of support input for special education. As to the educational support inputs article 3.7.1 states that due attention will be given to the supply, distribution and utilization of educational materials, educational technology and facilities.

As to the curriculum article 3.1.1 the preparation of curriculum will be based on the stated objectives of educationally ensuring that the relevant standard and the expected profile of students are achieved.

The United Nation Convention on the Rights of Persons with Disabilities (UN, 2007) in its article 7 stated about children with disability that ensures their right to express their views and in article 24 about their right to education with a view to realizing this right without discrimination and on the basis of equal opportunity, that ensures an inclusive education system. To ensure personal mobility with the greatest possible independence for persons with disabilities, article 20 states about the facilities of quality mobility aids and devices at affordable cost, and assistive technologies that takes into account all aspects of mobility for persons

with disabilities. Article 30,5d. ensures that children with disabilities have equal access with other children to participation in play, recreation and leisure and sporting activities, including those activities in the school system.

2.6 Pre School /Kindergarten and Primary education for female children with polio

Kindergarten education is the pre-school preparatory education for children and can take up to three years. In this program, children between the age of four to six years are offered fun –like education that would enable them to express their feelings, to appreciate beauty, and to learn to distinguish and form and numbers. (MOE, 2002). According to the document, the opening of kindergarten is an area that has been left for private investors and religious organizations, and for parents who can offer to pay the fees. The government indirectly supported the initiatives for private kindergartens by preparing curriculum, training K.G teachers as well as by offering professional council & advice. (Gezahegne, 2005)

Primary education: - Basic and general education provided for a duration of eight years from grades 1-8 (MOE, 1994:14).

Lower primary: the first cycle of primary education offering basic education for grades 1-4 (MOE, 1994:14-15)

Upper primary: the second cycle of primary education offering general education for grades 5-8 (MOE, 1994:14-15)

Primary education has the general purpose of teaching students basic cognitive skills, developing attitudes and skills that children need to function effectively in society, and advancing nation building, the main purpose being

- To produce a literate and numerate population that can deal with problems encountered at home and at work, and

- To serve as a foundation on which further education is built. Accordingly, completed primary education helps alleviate poverty and advance economic and social development (Lockheed and Verspoor 1991: XV-2, cited in Mitiku, 2004).

The other focal argument asserts that good primary education is a base-rock for development, and that enhance productivity ,of poverty alleviation efforts , environmental protection , family health and planning, good governance , community participation and other social and economic achievements. It could trace their origin of success to quality and expanded system of primary education (World Bank 2003, cited in Asmaru 2004)

2.7 The impact of economic status of girls/women with disabilities on Education

In education, some of the important commitments include increasing enrollment and keeping girls in school so that they complete their education at the required level. (Platform 1996 cited in MOE 2004). In spite of the commitments made, there are still millions of people in extreme poverty and the majorities are women. They have limited access to economic resources, support services as well as education and training. When compared to men, women have less opportunity to participate in decision-making. In many societies women and girls are victims of physical, sexual and psychological abuse that cuts across class and cultures. In education, despite the commitment made, lack of accessible schools inadequate and gender based teaching and educational materials hinder their full participation in education. MOE (2004).

Women with disabilities are one of the most marginalized groups in society in the Asia and Pacific region, as they are multiply disadvantaged through their status as women, as persons with disabilities and are over-represented among persons living with poverty. Women and girls with disabilities (far more than boys and

men with disabilities) face discrimination within the family, and denied equal access to health care, education, training, employment and income generation opportunities, and are excluded from community activities. (ESCAP 2003)

A family who has a child with a disability will experience many challenges such as "repeated physical and emotional crises, interactive family issues, ruined schedules, and additional expenses which can create financial burdens for a family," (Lavin, 2001, p. 21).

In developing countries many girls are kept at home to help with household chores and rarely leave their yards to appear in public. According to (Tirussew 2005), the tendency to discourage and keep girls with disability away from school could also be explained in terms of the valuable service they render at home. The disability could be used as an excuse for parents not to send their daughters to school. Girls with disability are thus more vulnerable to the scorn and scourge akin to home based child labor. Chaband (1970) cited in (Alemayehu 2004) has advised against ignoring the energy –drain caused by household duties, specially, when female students' are already weakened by malnutrition and disease. Poor parents/care takers are not able to provide nutritional food to their children with disabilities. This would impose negative implications towards their education. Raimbant ,A .(1979) cited in Alemayehu (2004) emphasized this concepts brain with out which there can not be any intellectual and hence any school activity , are no exception to this fundamental law. Poor child development deprives the child opportunity to receive the education to which he/she is entitled in the best possible circumstances. Accordingly, proper child nutrition is one of the prerequisites for the exercises of the right to education.

2.8 Environmental impact in education

The degree to which the impairments limit the child's motor interaction with the environment determines whether the impairment is considered mild, moderate or severe. Love and Walthal (1977) cited in Tirussew (2000) have provided guidelines to severity of impairment that are medically oriented.

- Mild: - child can ambulate (with or without prosthesis or orthoses), use arms, and communicate well enough for own needs.
- Moderate: - Children difficulties in locomotion, self help, and communication, but not totally disabled; child requires some special help.
- Severe:- Child is incapacitated and usually confined to a wheelchair ; complete rehabilitation may not be possible

Educators have attempted to define diversified population in to a unified group base on the interference of the motor function in the learning teaching process. Accordingly, motor disorder is considered as a bodily defect or disability condition that interferes with education, development and adjustment.

The greater the environmental resources, the less the individual's impairment are likely to result in a disability or a handicap (Tirusew, 1994). It should be noted that all human beings need to be considered as "open systems", liable to be meaningfully modified by the environmental intervention. (Feuerstein & Rynders, 1998 cited in Tirussew 2000). That is, if society has the right understanding and attitude towards children with disability and if they are provided with the necessary care, upbringing, as well as medical and educational services, they will be able to lead a quality of life like any fellow citizens in the country. Indeed, the basis for the enhancement of the potential of children with disabilities is opening equal opportunities through creating conducive social environment and welcoming community.

Instructional materials are the medium through which teachers edify essential concepts and constructs. Materials are also the means by which students access information and demonstrate their comprehension and understanding. The traditional artifacts of teaching –standard curriculum texts, worksheets, paper and pencil–offer a very narrow range of access and expression. The more varied and rich the materials, the more avenues for expression and opportunities to capture evidences of the student's knowledge. Students with disabilities may use the same materials as other students in class, require slight variations or need alternative materials. Materials may be changed or created to be more manipulability, concrete, tangible, contextually –based, simplified and matched to the student's learning style or comprehension level. (Catherine...1995).

Preference for Natural Areas Access is essential to experiencing a setting. For that reason, the Americans with Disabilities Act (ADA) constitutes landmark legislation in its guarantee of access to public buildings, sites, and programs for persons with physical disabilities (Public Law 101-336; U.S. Dept. of Justice, 1991).

The benefits of leisure and recreation for people with disabilities have received some empirical attention. Anderson, Schleien, McAvoy, Lais, and Seligmann (1997) cited in National Center on Physical Activity and Disability (2001-2003) reported positive changes in relationship development, recreation skills, and quality of life in a longitudinal study of people with and without disabilities who participated in an integrated outdoor adventure program.

There are a variety of reasons for this lack of access. Caldwell and Gilbert (1990) cited in National Center on Physical Activity and Disability (2001-2003) found that persons with disability are confronted with both external and internal barriers to recreation participation. The external barriers might be caused by lack of adequate transportation or problems of universal design; the internal barriers, by

contrast, include personal motivation, social skills, and perceptions of one's competence.

2.9 Assistive technology (Special devices and appliances) for children with polio in school

Many children with physical disabilities use special orthopedic devices to increase their mobility and help their bone, joints and muscles develop. Accordingly, some of the important special devices include residual functioning, that is a procedure of helping children to use some of their skills and abilities to become more independent. Most psychologists recognize the importance of movement in the development of social and emotional behaviors. Young children must move about to learn to be independent and to interact with other young children. Limited motor skills, with limited self-help and self-care skills can limit students' social interactions. (Tirussew 2000)

The Individuals with Disabilities Education Act (IDEA) defined an assistive technology device as "any item, piece of equipment or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve the functional capabilities of children with disabilities." (Federal Register, August 19, 1991, p. 41272 cited in NATRI 2001-2006).

To support implementation, assistive technology was added to the list of special education services that can be included in a student's Individualized Education Program (IEP). IDEA defines assistive technology services as, "any service that directly assists a child with a disability in the selection, acquisition, or use of an assistive technology device" (Federal Register, August 19, 1991, p. 41272). Assistive technology that is not properly selected and implemented can give the impression that the technology is not effective. The apparent failure of AT can

lead to under-use of the device, device abandonment, and the perception of stakeholders that AT is a costly risk. , cited in (NATRI 2001-2006)

According to the National Council on Disability (NCD), almost six million individuals with disabilities receive educational interventions have a right to appropriate support services and assistive technology devices are needed to promote their learning in inclusive settings with their non disabled peers. Since the inception of IDEA, the availability and use of assistive technology devices have increased.

2.10 Social environmental impact

Socialization involves many types of behavior, including social skills, physical skills, traits, values, knowledge, attitudes, norms and dispositions. Socialization is critical for motor development, because motor experiences are vital to the full development of motor skills. Children who are more socialized in to motor experiences are more likely to learn motor skills. Increased proficiency in skill performance is enjoyable and rewarding in itself and in turn promotes continued participation. On the other hand children who are not exposed to motor experiences are less likely to master motor skills. With only limited practice, children are more likely to fail and lose interest in physical activities (Greendorfer, 1983). When individuals expect failure to motor skills, this expectation becomes a limitation to their skill performance. Social skills involve the behaviors that are employed in successful and appropriate interactions with other. These skills appear to have bases in social cognition such as social perception and social reasoning (Renshaw & Asher, 1983 cited in concise encyclopedia of special education c 1990).

Schools and classroom are social environments. Social skills are needed most effectively with in the classroom and to profit fully from instructional activities that occur in an interactional context. Beyond the interaction skills needed in school settings, it is important that a pupil have the skills to participate effectively in

general social exchanges and to conduct himself or herself appropriately in various social settings. Perhaps even more important, the normalization of

handicapped persons involves their preparation to function as normally as possible within the recurring day-to-day life situations of their culture (Woulfen Sbergar, 1974 cited in concise encyclopedia of special education c 1990).

Peer groups can influence and even teach how to behave in class, study for test, provision and share reading material, converse with teachers and school administrators, and can contribute, to the success or failure of an individual's performance in school in many other ways. It is true that, peer group can positively or negatively affects school performance. In the peer group, it is observable formal and informal structure in the school; especially the adolescent level of educational aspirations seems positively related to his /her peer group membership. If his/her peer-group values more education, her/his desire for more is reinforced (Gonzales Cauce, Friedman and Madon, 1996 cited in Temesgen 2006)

The rational handicapping labels are basically used to explain a medical problem or to aid in educational intervention, but the result generally is stereotyping of individuals, which may lead the misleading and inhumane effects. (Encyclopedia 1990)

A number of people still take the general hereditary view of achievement potential, which in its extreme form considers that the ultimate level of an individual's functioning is determined solely by his genetic endowments (Kirk et.al., 1993 cited in Tirussew 2000). They often assume that a baby with a disability will lead a damaged life. They place the label "handicapped" on such a baby and think that child's physical condition will in and of itself Limit and define the person.

✓ 2.11 Family influence or Parental attitude toward children with disability

In comprehensive review of parental attitudes toward children with physical disabilities, Barker, Wright, and Gonick (1946) as cited in Tirussew and et.al (1995) revealed three sorts of parental attitudes toward "crippled" children which were considered distinctively harmful. These were: (1) inconsistent behavior involving careful provision for necessary physical care, together with resentment at the burden entails (2) outright rejection of the child (3) overprotection of the child.

The degree of relationship of the child with his family members would have significant effect on his/her well-being. For this (Rossa et.al., 1996) as cited in (Tirussew 2005) describes that family cohesion and emotional bonds among family members shown to mediate the relationship of stress to family wellbeing and correlate with the child health or adjustment.

Children with physical and health impairments are served in a wide variety of educational settings, ranging from regular classroom to homes and hospitals. Special educators address the needs of these students from infancy to young adulthood, in cooperation with parents, other educators, and specialists (Yesseldyek & Algozzine, 1995; Taylor, Sternberg & Richard, 1995 cited in Tirussew 2000).

2.12 Inclusive education

The problem of illiteracy affects the general population of every country. The barriers that confront women with disability will need to be confronted by the public education system in every country as a matter of course, not as a special consideration or afterthought. Like all disadvantaged groups, people with disabilities often require remedial measures to address past discrimination. Any remedial programming, needs to pay special attention to the concerns of women

with disabilities, as these women are most likely to be in need of such programming due to the consequences of double jeopardy.

A number of school reform initiatives in the United States have led to the call for education restructuring related to students with disabilities. Among the initiatives are those that hope to include in school and community life those students who in the past have been excluded. Today, many people are using the terms inclusion and inclusive education to refer to the concept of educating all children with in their local community.

The movement to integrate children with special educational needs in to mainstream or "ordinary" classes and schools is now so firmly established in many societies that it can be called a world-wide movement in educational reorganization. Linked with this trend has been the associated movement to relocate helping initiatives for pupil to the ordinary school, rather than at the level of separate specialist provision.

2.13 School effectiveness in the context of inclusive education

Inclusive education requires a shift of emphasis on the task of persons providing educational services to make sure that the educational settings were adjusted to accommodate the special educational needs rather than trying to make the children with disabilities fit in to the given educational setting (Clacsson,1995; Evans, 1998 cited in Tirussew 2005)

The attempt is then made to use an ongoing school effectiveness study, and the school effectiveness perspective itself, to shed some light on some of the contemporary problems associated with the integration of children with special needs with in British schools and classrooms. If we look the detail at British research, some of the important factors within school determining high levels of effectiveness were argued by Ruter (1980) cited in Catharine (1995) to be :-

- The system of rewards and punishments – ample use of rewards, praise and appreciations are associated with the favorable outcomes
- School environment –good working conditions responsiveness to pupil needs and good care and decoration of buildings were associated with better outcomes
- Ample opportunities for children to take responsibilities and to participate in the running of their school lives – this appeared to be conducive to favorable outcomes
- Successful schools tended to make good use of homework , to set clear academic goals – and to have an atmosphere of confidence as to their pupils' capacities
- Outcomes were better where teachers provided good models of behavior – by means of good time-keeping and willingness to deal with pupil problems
- Effective group management in the class room –preparing lessons in advance , keeping the attention of the whole class, unobtrusive discipline , a focus on rewarding good behavior and swift action to deal with disruption were all important factors

According to Johnson and Johnson, (1984) cited by Tirussew et.al (1995), In any learning situation, teachers can structure positive goal interdependence (i.e., cooperation), negative goal interdependence (i.e., competition) or no goal interdependence (i.e., individualistic efforts) among students.” there is strong evidence that cooperative learning experiences promote more positive cross – handicap relationship than do competitive and individualistic ones.”

2.14 Early intervention for female children with disability

Dunst,Synder and Mankin (1995) as cited in Tirussew (2000) indicated that the term early intervention has been broadly used to describe efforts designed to prevent or ameliorate developmental or behavioral problems resulting from

environmental or biological influences or the combination of the two. In their contest early intervention is considered as a set of actions that have the intent or effects or altering the course of a process either by coping coming between or interrupting the future activities or purpose.

Early diagnosis and appropriate intervention improve the projects for children with special educational needs, and reduce the need for expensive intervention later on. (Sue Roffey 2001)

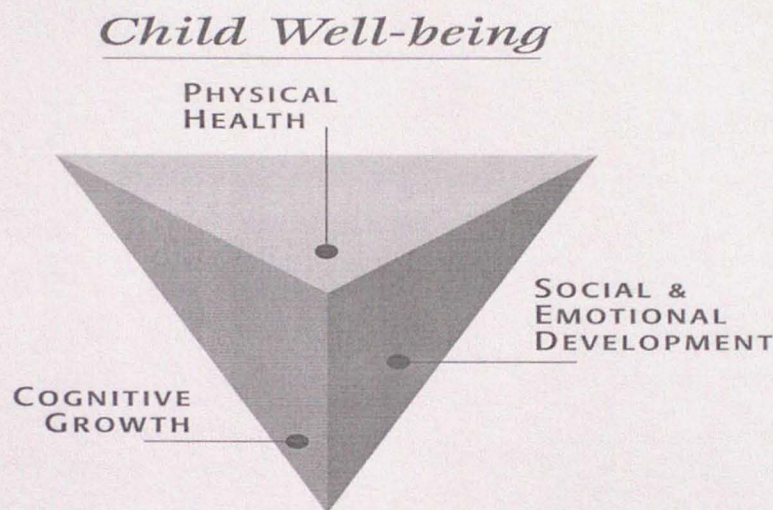
The goal of early intervention is to prevent or minimize the physical, cognitive and emotional and resource limitations of young children with biological and environmental risk factors (Odom et.al, 2003). Also suggests that early intervention is designed to accomplish a number of other goals.

- Ought to help children become actively engaged in their environments, be independent and exhibit a desire to master their environment
- Should support failures in achieving their own goals and in securing the support they need for the successful adaptation to child with a disability
- Should promote children's development in key areas including cognition communication , self help , socio-emotional, fine motor and gross motor skills
- Should provide and help prepare children for normal life experience. This means that early intervention should be provided in typical environments with typical children.

Children's well-being is holistically, integrating physical, cognitive, and social-emotional dimensions and bridges child well-being with a developmental perspective across the life course. Well-being is a state of successful performance throughout the life course integrating physical, cognitive, and social emotional function that results in productive activities deemed significant by one's cultural community, fulfilling social relationships, and the ability to transcend

moderate psychosocial and environmental problems. (Elizabeth L. Pollard & Lucy Davidson, 2001)

Foundational elements of well-being have been operationally defined as clusters of positive behaviors, skills, capacities, and/or characteristics that can promote the health and adaptive functioning necessary for well-being prevent or mitigate illness and dysfunction that would diminish well-being, and be nurtured within the ecology of genetic and environmental influences.



Elements of Well-Being

Physical Well-Being

Physical well-being is defined as including good nutrition, preventive healthcare, physical activity, safety and security, substance abuse prevention, and reproductive health. (Rogers, M. F. & Leavitt, C. H. (In press) cited in Elizabeth L. Pollard & Lucy Davidson, 2001).

Social and emotional wellbeing is defined as emotional regulation, well developed coping mechanisms, the development of autonomy and trust, the development of self-esteem, identity, and self-concept, the development of empathy and sympathy, and lastly, the formation of positive relationships with family and peers. A striking commonality between the elements of this domain is the influence that each has on the other and how each can be promoted by the others. For example, a child's ability to regulate his or her internal emotional reactions is a key contributor to the quality of relationships with parents, siblings, and peers. At the same time, loving and supportive relationships with parents, siblings and peers help to increase feelings of security and happiness and reduce the prevalence of psychological problems such as depression and anxiety. Thus, there is a multidirectional relationship between the child's emotional state and social interactions with others. Another common theme of social-emotional well-being is that the elements of this domain can promote and be promoted by the core elements of both the cognitive and physical domain. For example, warm and responsive parenting styles promote the development of trust and autonomy, which foster feelings of security within the infant which in turn lead to increased exploration of his or her physical environment. Both motor and cognitive developments are stimulated by this exploration (Halle, T. G. & Zaff, J.F. (In press) cited in Elizabeth L. Pollard & Lucy Davidson, 2001).

Cognition and Wellbeing

Defined as perceiving, remembering, conceiving, judging, and reasoning in order to obtain and use knowledge are all important cognitive skills. It is also very important for individuals to communicate their thoughts, feelings, and wishes in order to get their needs met. All of these cognitive skills are necessary for adaptation to the environment as well as the formation and maintenance of social relationships. Several environmental factors support healthy cognitive development. For example, environments where children are exposed to both artistic and intellectual stimulation seem to foster this type of development. Additionally, a balance between repetition and variety seems to help with

cognitive development, especially memory, exploration, and novelty-seeking. Human interactions foster language development and strong attachment between caregiver and child promotes curiosity, goal persistence, motivation, problem solving, and intellectual development. (Bornstein, M. H. & Smith, D. C. (In press) cited in Elizabeth L. Pollard & Lucy Davidson, 2001).

2.15 Play grounds for female children with polio

Play is important to the social and physical development of all children. Kids with disabilities have the same desires and needs to climb, rock, swing, slide, pretend, socialize, balance, build strength, test their abilities, spin, dig, splash, and have fun, just like kids who don't have disabilities. When kids with and without disabilities play together they learn to appreciate each others "abilities" and similarities. And just think about the impact on our world when these kids are the grown-ups in charge of life! How different our schools, neighborhoods, workplaces, and communities will be when each person is viewed as a unique individual and valued for what they can do. Inclusion in play activities today improves the quality of life for the child, their family, the community and other children who don't have disabilities.

Through recreation and leisure experiences families have opportunities to experience self-actualization, creatively express themselves, build family unity, be healthier, build esteem of the individual members and of the collective family, reduce stress, conquer boredom, and socialize with each other while extending their social network by making new friends outside of the family (New York State Recreation & Park Society, 2004). Article in National Center on Physical Activity and Disability (2001-2003) retrieved from <http://www.ncpad.org/>

Leisure, recreation and play should be an important component of any child's life, this should be no different for the child with a disability. Children learn important life skills through play. Parents teach children important lessons in recreation and leisure times. For the family of a child with a disability, some may think that due

to the nature of the child's disability that their child cannot or should not participate in leisure activities for fear of them getting hurt physically or emotionally. For other families, parents may not know how or where to get their child involved in these types of activities. The healthy family knows that "those who play together stay together". (New York State Recreation & Park Society, 2004).

Chapter Three

Methodology

3.1 Research design

The intention of this research is to collect in-depth information specific to female children with polio and understand typical cases towards their educational opportunities and challenges in Addis Ababa primary school. For this purpose qualitative method of research was used so as to be able to investigate the on going situation of female children with polio in their primary school who are embraced by their umbrella association known as the Addis Ababa Administration Association of the physically Handicapped (AAAPH) .

3.2 Sampling procedure

3.2.1 Study area sampling

The Ethiopian National Association of the Physically Handicapped (ENAPH) is a non- government, non-profit and right based organization that was established in 1991 to protect the rights and privilege of physically handicapped in Ethiopia and address problems associated with motor disorders (physical disabilities). ENAPH is operating in eight regional states of the country and one of its operational

areas is in Addis Ababa. AAAPH is selected for this study because it is the only association for all people with motor disorder including children. There is no other government and non government organizations that play the same role.

The Addis Ababa Administration Association of the Physically Handicapped (AAAPH) was established in 1991. Members' record file of AAAPH tells that there were a total of 3,850 members as of 1998, from whom 1043 are females and 2807 are males excluding children.

The AAAAPH is operating in ten sub cities conducting the major activities on various development program based on the core areas of ENAPH's strategic plan which set core projects that are designed to address the key issues. These include, empowerment of the women wing, conducting youth and children development program, community awareness and, Access to built public environment and public transport. The mentioned major projects can not be implemented with out the educational interventions. Therefore, AAAAPH has set its first priorities for educational program of which the case of children with polio has got the primary attention.

AAAAPH has achieved creating awareness to its members, playing advocacy role in the area of equal opportunity toward education and other accessibilities, conduct demonstration program to get public approval to alleviate discrimination in the hidden culture and traditional practices. The Women Wing of the association has been playing the leading role to undertake activities that are crucial to females' members of the association to tackle the double face discrimination i.e. by their disability and gender.

It has been documented in the report of AAAAPH that members have achieved a lot in meeting their educational needs through the persistent advocacy of the association. The report further noted that AAAAPH has been conducting its educational program in partnership with its major stakeholders who have direct educational program. AAAAPH has different development partners to run its

program as per the designed strategic plan. Among different stakeholders those who run education program and have intensive experience working with the AAAAPH on children with polio have been selected for the study purposefully.

These stakeholders are:-

1. Beneficiaries: children with polio and their parents, guardians and care takers
2. ENAPH
3. Cheshire Service Ethiopia
4. Four primary schools ,namely, Kokeb Tsebha , Biruh Tesfa, Tsehay Gebat and Melakam Ermijachen

3.2.2 Participants and selection technique

To enhance the reliability of the data that have been collected from different stakeholders of AAAAPH, methodological triangulation was used so that cross checking of the data was made possible. The participants of the study are the representatives of the major stakeholders mentioned above. The total number of participants in the study is 21. These participants were selected using purposive sampling techniques as dictated here-under.

1. Children with polio:-

Primarily, the researcher has used the child - record file of the AAAAPH to sort out children with polio. According to AAAAPH 1996-1999 data those children who are members of the association are a total 115 of whom 57 are females and 58 are males. From the total number of female children 29 are with polio. However, the number would exceed as there are children whose types of impairments were not recorded but expected to be polio cases. For the reliability of the data, only those whose cases are identified as polio were considered in the study.

From the 29 female children with polio there are only 13 children who are in school being supported by the association and its stakeholders. The detailed information about these thirteen children in school was summarized as follows:-

Table one: - data summary for the 13 students in primary education

S/N	Age	Grade	Degree of impairment	
			Moderate	Severe
1	16	9	X	
2	17	4	X	
3	14	3		
4	13	4	X	
5	17	10	X	
6	15	9	X	
7	16	2		X
8	18	-		X
9	18	2		X
10	17	7	X	
11	14	3	X	
12	14	1	X	
13	14	2		

Therefore, in view of the objective of the research and to meet with the point of research questions, criterion was set by the researcher so as to be able identify the targeted children. This criterion has been dictated as follows to select five Female children with polio

- Those who are the member of the AAAAPH.
- Those with polio, and with moderate and sever impairment. Multiple disabilities are not considered.
- Those children with in the age limit of 14-18
- Those who are attending primary school in Addis Ababa
- Those who are currently getting services from AAAAPH stakeholders i.e. Cheshire service, ENAPH and selected elementary schools

Thus, those who have fulfilled the specified criterion are only nine. Those children in high schools and one child below 14 years of age are excluded. Then, 5 children out of the remaining nine were randomly selected using simple random sampling (SRS) technique, lottery method. These children are given codes that replace their names i.e. case 1, 2, 3, 4, and 5.

2. Parents, guardians and care takers

Two parents, two guardians and one care taker of the targeted children who fulfilled the above specified criterion were selected purposively.

3. Cheshire Service Ethiopia

Cheshire Service Ethiopia was selected as it has education program on children with polio in partnership with AAAAPH. Cheshire Service Ethiopia is an international, non-profit, Non Government Organization (NGO) working with children and youth with disabilities. It was first established as the Cheshire Home in 1962. Among the major activities being performed by the NGO are physical rehabilitation, production and provision of walking aids, and provision of educational support. The NGO is working in different regions of the country, and there are 2,500 children and youth with disabilities in Addis Ababa receiving orthopedic services. Among the beneficiaries members of AAAAPH are included.

4. ENAPH

ENAPH is selected because AAAAPH is one of its branch associations where by the strategic plan was designed in collaboration of all the national and regional associations. They have common vision, mission and objectives.

5. Four primary schools namely, Birhu Tesfa, Kokebestesbha,TsehayGebat and Melkam Ermijachen

These primary schools were selected because the targeted five children are enrolled in these schools. Accordingly, two of them are in Birhu tesfa, one in Kokebtsebha , one in Malkeam Ermijachen, and one in Tsehygebat primary schools.

5.1 Biruh Tesfa primary school From grade 1-8

Case two and four are attending in Biruh Tesfa primary school which is located in Kolfe Keranio sub city kebele 02/03 around Zenebework hospital. It was established in 1948.

5.2 Kokeb Tsebha primary school grade 1-8

Case one is attending her primary education in Kokebe Tsebha located in Addis Ababa region Yeka sub City kebel 16. Kokebtsebha elementary school was established in 1924.

5.3 Tsehay Gibat primary school grade 1-8

Tsehay Gibat primary school was established in 1993. Case three is attending in this school. It is located in -sub city ---keble near to Emanuel Hospital.

5.4 Melakm Ermejachen from K.G up to lower primary school i.e grade 5.

Case five is attending in this school which is located at Arada sub city kebele 10. It was established in 1973.

Table 2: Sample primary schools in Addis Ababa

Name of the school	Establishment	Addresses			Sampled Cases enrolled in the respective school
		Sub city	Keble	Village name	
Biruh Tesfa	1948	Kolfe Keranoi	01/02	Zenebework Hospital	Case two and case four
Koekebe Tsbha	1924	Yeka	16	Kebena	Case one
Tsehay Gebat	1993	Addis Ketema	06/07	Emanuel Hospital	Case three
Melakm ermijachen	1973	Arada	10	Piazza	Case five

3.3 Instruments/materials

In order to obtain adequate and reliable information multiple methods of triangulation approach was employed. Semi-structured interview was taken for the respondents from the targeted children and their respective parents/care takers as well as from the representatives of the sample schools. Focus group discussion with a group comprising representatives from AAAAPH, ENAPH, Cheshire service and the sample schools was held. Besides, personal observation has been conducted during the interview held in the three groups. In addition secondary sources from different documents, literature and websites have been reviewed.

Instrument guide was developed from the relevant reviewed literature and document analysis so that appropriate way of approaches has been

implemented. Accordingly, semi-structured interview guide designed to find out in depth situation of the target groups was administered. Opinions and feelings of the interviewees were fully expressed through the interview. In the same way, focus group discussion guide was developed to enrich the information that was acquired from the interview. The observation check list was also prepared on the specified points related to the interview questions to be able to cross check the information that was collected from the three groups of interviewees. Document analysis guide was also in place that points out the necessary information required from the sample organizations with respect to their particular experiences in education. Besides, the stakeholders vision, mission, and objectives, and their partnership with the AAAAPH has also been considered to be included in this guide

Table three: Number of participants in the study

Methods	Children with polio	Parents, guardians, and care takers	Organizations			Primary schools				
			AAAA PH	ENA PH	Cheshire Service	Birhu Tesfa	Kokebe Tsebha	Tsehay Gebat	Melakm Ermijac hen	Total
Interview	5	5	-			1	1	1	1	14
Focus group	-		3	1	1	1		1		7
Total	5	5	3	1	1	2	1	2	1	21

3.4 Data Collection procedures

First relevant information obtained from different literatures, documents and web sites were critically examined in accordance with the objective of the study and the research questions. These helps to develop data collection instruments that have been conducted with participants of the study.

Then, the researcher has sorted out the address of the sample children, their parents /care takers and their school from the record file of AAAAPH. The first contact was made in the pilot work with two children and their parents when they came to the head office of the association to get services. For the interview test, pilot work helps to make some adjustment on the instruments. Accordingly, some concepts in the interview questions were changed so as to meet the level of the respondents. A few of questions were also cancelled as they were to be administered in the interview with sample schools representatives and some of the points in the focus group discussion. Besides, it has been noted that two of the sample children are in the rehabilitation center and one of the two knew neither her parents nor her relatives. Therefore, in order to fill the gap for short of information expected from such interviewees' one home reared child was included and the number of targeted children became five, and the number of their respective parent/care taker became five. The case of institutionalized children was not overlooked in the study as it was believed to be important for comparison purpose, and these children are with in the scope of selected criterion from the out set. Furthermore, the pilot work depicts the necessity of giving orientation on disability issues and about the purpose of the study to all respondents. Then, the actual study has been conducted after all the correction was made on the pilot work.

Focus group discussion was organized for stakeholders of AAAPH who have direct partnership in educational intervention of children with disability. These

stakeholders have contact with the beneficiaries' i.e. Sample children and their respective parents/care takers.

The data that has been collected through each instrument was organized, analyzed and interpreted. Then, discussion was made on the findings of the study. On the bases of the findings, conclusions were drawn and pertinent recommendations were forwarded.

3.5 Data Analysis procedures

In this study, qualitative research method of data analysis was employed. Data gathered through interviews, focus group discussions, observations and document analysis were analyzed qualitatively. During data analysis, special consideration was made so as to make it consistent with the purpose of the study and the relevant information obtained from review of literature.

Chapter Four

Findings and Discussion

4.1 Presentation of findings

The total number of participants in the study was 21. These were 5 children with polio, 5 parents, guardians care takers, 1 Cheshire service program Manager, 1 chair person of AAAAPH, 2 women wing leaders from AAAAPH, 1 Manager of ENAPH, 4 principals of primary schools and 2 teachers from special needs department of Kokebtsbha and one teacher who is also head of disability club in Tsehy Gebat primary school.

- **Interview and observation result with the sample five children.**
- Case 1, a- 12 year old child in grade three is attending her school in Kokebetsebah primary school. She is living with her mother and with her elder sister age 14 grade 7 and her elder brother age 18 at grade 9, in small two rooms rented from kebele. One of her elder brother is out of home engaged in some technical activities. She is with severe paralysis caused by polio virus and she is using wheelchair for her mobility.
- Case 2 is a - 16 year old child attending her school in grade 7 in Biruh Tesfa primary school. She has been living in a rehabilitation center which is run by Addis Ababa Social and Civil Affairs Bureau in Kolfe Keraneo sub city Keble 02/03 since the age of 8. She doesn't know her parents. But, she said that some of her relatives told her about her brother living in rural area. She is moderately impaired by polio case and she is using two crutches for her mobility. Both her legs are supported by full brace.

- Case 3 is a -13 year old student attending her school in grade 1 in Tsehay Gebat primary school located around Emanuel hospital in Addis Ababa. She is living with her relative (her care taker) who is married and with her three children, two boys age 18 and 16 attending grade 7 and 6 respectively & one 18 –year old girl in grade 10. They all are living in one small room rented from Kebele by five birr around Emanuel hospital. Her parents died while she was a child and they sent her through a driver to her uncle whom she didn't know; at present she is living with her.
- Case 4 is a -13 years old grade 3 in Tsehy Gebat primary school. Her two legs became paralyzed at the age of 3, and both her hands became very weak that she can't drive her wheelchair. She used her finger to write and to do slight activities. She has no brothers and sisters. She joined the government institution at the age of 8.
- Case five is a 14 year old child, and she is in grade 2 in Mlkam Ermijachen lower primary school. She came from rural area three years back. She was living with her uncles around Addis Ketema sub city (merkato) area, but currently she is living with her uncles' daughter around psiazza (Arada sub city) in a one small room rented from kebele. Her left leg became paralyzed because of polio.

Table four: Background information of children with polio

Identification name of children with polio	Age	Education level	Parents, guardians, care takers			Number of Siblings /relatives living with her	
			Father	Mother	Other	Males	Females
Case 1	12	3		X		2	1
Case 2	17	7		X	Care taker (Institution)	2	-
Case 3	13	1			Guardian	2	1
Case 4	13	3			Care taker (institution)	-	-
Case 5	14	2			Guardian	-	-

Table Five: Degree of Impairment of female children with polio

Identification name of children with polio	Age of on- set of impairment	Degree of impairment		Description
		Moderate	Severe	
Case 1	6-months		X	She is wheelchair user as both her legs are affected severely and her arms are affected less severely (Quadriplegic)
Case 2	4 years	X		She is using crutch as both her legs are with full brace both above and below the knee (paraplegic)
Case 3	4 years	X		She is using crutch as her right leg is affected (paraplegic)
Case 4	3 years		X	She is wheelchair user, but due to the problem with her hands and her spinal cord she cant drive her wheelchair (paraplegic)
Case 5	3 years	X		She is using one crutch as her left leg is affected (paraplegic)

When they are asked about their mobility status, how they are moving from place to place and the difficulties they have been encountered; who are their assistance?

Case 1 responds as she is not moving with her wheelchair at home as their home is very small and can not have enough space to use her wheelchair. She is crawling on the floor to get on her bed and to play with the family. The school is near by their home taking about 10 minutes from her home. She is over weight and the road is gravel that she is not able to drive her wheelchair by herself. She said that her mother used to take her to school as she can't drive her wheelchair on the gravel road. "The inaccessibility of latrine and water in the school forced my mother to come to school during class break both in the morning and in the afternoon to help me use latrine and water at home". The child said. During class hours, she is assisted by the school peers to go in out of class.

Case two replied that she can use her crutches in school to get in and out of her class very frequently as her class is at the ground floor. She faces little difficulties going to school as it is very near that takes about five minutes from the rehabilitation center where she lives. Thus she always reaches school in time. The location of the school toilet is not accessible that she can never try to use it. She used to go to her 'home' for the use of latrine and water when ever she is in need. It was observed that, the class arrangement in the rehabilitation center is one big hall for 30-40 children. The room is furnished with double beds arranged in two rows. About the assistance from the coordinators in their camp, she replied that she doesn't need any assistance to undertake her regular activities such as going to school and getting back home in time. "The shelter has made an arrangement for accessible water, latrine and bath rooms which I can manage using it all by myself" she said.

Case three responds that she used to go to school by herself using her crutch which takes her about 1-1:30hrs. Her class is at the ground floor and she can go in and out of the class without assistance. The latrine was not made accessible for her and she cannot use it. Whenever she is in need, she remains having a sensation of pain until she gets back home. She had to put off her orthopedic shoe and iron made brace in order to make her leg flexible and use latrine even at home. She moves from place to place with a walking stick to undertake her regular activities like feeding herself, getting dressed and washing her hands and body. In her school she is moving independently using her crutch, orthopedic shoe and iron brace fixed on her leg. She insists that she is in need for further orthopedic treatment to get relief from such continuous discomforts in her mobility.

Case four is living in the same room with case two in a rehabilitation center. She always needs assistance as she is not able to drive her wheelchair by herself. Both her hands are weak and can hardly move her wheels, thus sometimes her school peers used to push her wheelchair. She expressed about her assistance that it is her school friends and dorm mates who used to assist her by pushing her wheelchair. In their 'home', even though the latrine and water is accessible, her dorm mates are always assisting her to help her perform her regular private activities. Her mother sometimes came to the center to assist her and gives her better caring.

Case five replied she is independently moving from home to school using her one crutch. She stated that her school is near-by her home and it will take her only 15 minutes. The main road is comfortable, but the route to her home is not accessible to walk by her crutch, and sometimes she feels down on the gravel road. She is using both the latrine and water in school as it is accessible for her. Her class is arranged to be on the ground floor and she needs no assistance to go in and out of her class. Cheshire service through its service branch at Tikur Anbessa hospital gave her iron brace which helps her to use only one crutch. Before treatment she was using two crutches.

Table six: Status of mobility (movement from place to place)

Cases	Mobility condition		How they are moving and types of mobility devices they are using	
	Home	School	Home	School
Case 1	Dependent on her mother	Dependent on her mother and school peers	Crawling and carrying	Wheelchair
Case 2	Independent	Independent	Two crutches	Two crutches
Case 3	Independent	Independent	Walking stick	One crutch
Case 4	Dependent on her dorm mates	Dependent on her school peers and dorm mates	Wheelchair and carrying	Wheelchair and carrying
Case 5	Independent	Independent	One crutch	One crutch

For the question regarding mobility aid,

Case one answered that she received wheelchair from Ethiopian National Association of the Physically Handicapped (ENAPH). She further elaborated that her mobility was improved from crawling on the earth to using wheelchair, which she got it more comfortable to improve her mobility.

Case two replied that, she received crutch and iron brace from black lion hospital thorough the support of Cheshire service. But, through times she can't be comfortable wit the iron made brace and her crutch can no more be useful. Then, with the fund she got from the rehabilitation center she receives orthopedic treatment from Prosthetic Orthothic Centre (POC) and she got full brace both below and above her nee. At present she is using her crutch properly with out

pain. (POC is a non government organization provides Orthotic /prosthetic services for people with physical disabilities and runs its operation by selling such appliances.)

Case three replied that she was using her walking stick before she received crutch from the support of Cheshire services. Besides she got orthopedic shoe and support iron brace from black lion hospital through the support of Cheshire services. The shoe is to be changed every 6 months and she will be given new crutch pin when the old is worn out. But, she claimed that she was not comforted both with the shoe and iron brace during her regular movement. She said hat she is in need for full brace which she tried to get it once from POC but can't afford it, she is asked Eth. birr 1000 for comfortable brace.

Case four received wheelchair from AAAAPH. She further elaborates that she was using two crutches which she had received it before she got to use wheelchair. But due to the problem with her spinal cord, as it goes to change its normal position she couldn't be able to continue using her crutches .She had to use wheel chair due to the severity of her impairment.

Case five is using brace given from cherisher services. Because of the brace she was able to use crutch only. She was using two waking stick before her crutch. But, she noted the brace is iron made and it is so heavy that she couldn't bear it. Bedsides, she is felling a kind of burning sensation as the iron brace got hot during day time.

Table seven: mobility aid

Cases	Types of Mobility aid obtained			Support from organization	Mobility improvement	What they need
Case1	Wheelchair			AAAPH	From being carried to use wheelchair	Medical treatment
Case2	1 st time Crutch			Cheshire service		
Case 2	2 nd time full brace	Orthopedic shoe	Crutch	POC		
Case3	Above knee brace	Orthopedic shoe		Cheshire		Below knee brace
Case4	Crutch			Cheshire 1 st time	From crawling to crutch	
Case4*	Wheelchair			AAAPH 2 nd time	*From crutch to wheelchair	Medical support
Case 5	Brace (Iron)			Cheshire service	From two walking sticks to one crutch	Comfortable brace

* Case 4 as she was unable to use crutch due to lack of sufficient medical treatment for her leg, she had to use wheelchair so as to get more comfort.

Regarding their social interaction and participation at home and in school,

Case 1 replied "I play well with my friend when there is no class. During this time my classmates are always around me to play with and give me the necessary support. But, during school break, and sport period, I usually remain alone in class and some times the principal assigned one of two students to stay with me in class where others are out to the sport field for entertainment & physical exercises". As to her study situation she replied that she used to be with her class mate for group study. She has never been alone while studying in class.

Her relationship with the family is also very intimate that she used to play with her mother and her siblings after school. They are sleeping on one bed in one of the two rooms and have talks together every evening.

Case two is an outstanding student who stood first from her class. For the question, she answered that that she has warm communication with her peers in class during free periods. is activist in the class communication as her classmates are looking her help in their study she stood first from her class. During sport period, she used to go to the field to watch the sport activities of her classmates. During school break she also gets out of class and stay around her class along with her class mates. After school, she said that she is out of the rehabilitation center to the near-by area with her friends. It was observed that the neighboring area is highly attractive with its natural beauty having flowers and different plants.

Case three used to be alone in her study in the class room as she couldn't be able to join the groups. During school break she usually stayed in class but when looking for water she sometimes uses that was made available for teachers and staff. The water point for the students was not located in accessible place that she never tried to use it. The library is accessible but grade 1 students are not

allowed to use it due to shortage of resource materials. Therefore case 2 never got a chance to study in the library. During sport period she sometimes goes to the sport field if there is available chair for her to sit. At her home she is playing well with the children of her care taker. They are all in one room during the evening and stay together having meal together and chatting.

Case four doesn't go out for class break. She stayed in class both in sport period and school breaks. She gets sport grade from the theory result in class. She can't use the library unless some one helps her to drive her wheelchair. Some ones should help her to take her. She studies both in group and individually in the class room and at home on her bed. But, she emphasizes the inconveniences of the room atmosphere in the center that it is disturbing as they are over crowded and every one forming a small sub groups in the room used to chat and listen to the radio/tapes with loud voices.

Case five was assisted by her uncles' daughter at home in doing her home work and study at home. There is no group study organized at school. During leisure time she used to go for a break with her classmates and other school peers. But, in sport period she was given a chair to sit and watch different games in the field. She only takes the theoretical part of the sport class and that was considered for her final grade report. She stayed at home alone with a door shut and there is no one to play with her as there are no children around her home.

Table eight: Interaction with school peers

Cases	Interaction during various activities in the school		
	In class	School break	Sport period
Case 1	Active With class mates	Alone (no interaction)	Alone (no participation)
Case 2	Active with class mates	Sometimes with class/school mates	Sometimes with class mates
Case 3	Alone	Alone (no interaction)	Alone (no participation)
Case 4	Sometimes with class mates	Sometimes with class mates	Alone (no interaction)
Case 5	With her group mates	with class/school mates	Alone (no participation)

Table nine: - Interaction of children at home

Cases	Study at home (after school)	Evening	Night	Week end
Case 1	With her brother and sister	Chat together with the family	She sleeps with her mother and sister on one bed	Stays at home
Case 2	Individually	Chat together with the dorm mates	She sleeps alone	Visiting entraining areas around with her dorm mates
Case 3	With the children of her guardian	Chat with her guardian and 'Siblings' (guardians' children)	She sleeps with her care taker	Stays at home with the care taker
Case 4	Individually	Chat with her dorm mates	She sleeps alone	Stays in the dormitory
Case 5	With her guardian	used to watch TV and have talks with the uncles' daughter	They sleep together on one bed	She stays at home alone as her guardian is busy all the week end

About the physical accessibility to the built environment and availability of resources.

Case one replied about her study situation in school, as she can not use the library as it is located upstairs which is not accessible for her. About the class arrangement she answers that the school made the ground floor available for her class. Besides, she was given the front seat with the special desk where- by she can use it to write and read as her wheelchair is not comfortable to do so.

Case two replied as she is using the library which was made available with ramp. Her class is on the ground floor where she can easily get in and out of class. The library at the center is also accessible that she used to study. But she can't have access to attend physical exercises during sport periods.

Case three is assigned in a ground floor for her class; the library is made accessible for the students with mobility impairment so that she can use it. She is given preferences to take comfortable seats in the class.

Case four was given to take the front position in her class. Her class is on the ground floor which is accessible for her wheelchair. But her wheelchair is not comfortable for her to write on and /or use reading materials on it. Besides, her hands are weak that she can not write well. As a result, she always becomes very poor in class activity usually in writing exercises and taking notes. But, with the help of her school peers she sometimes uses the library which was constructed with ramp.

Case five said that she is welcome by her peers in the study group that was organized by her teacher. Her participation in the group is as equal as those children with out disability. She further states that she is using water as it is

located in accessible area. But, for the use of latrine it is not accessible for her and she used to go to her home near-by. As to her class, she sated that the school has made arrangement to make it at the ground floor. For the sitting arrangement she was given to take seats on her choice. The school has no library.

Table ten: - Infrastructure accessibility in schools

Cases	Infrastructure accessibility in the school			Resources provided by the school
	Class	Library	Water/latrine	
Case 1	Accessible	Inaccessible	Inaccessible	Special desk in class room
Case 2	Accessible	Accessible	Inaccessible	-----
Case 3	Accessible	Accessible	Inaccessible	-----
Case 4	Accessible	Accessible	Inaccessible	-----
Case 5	Accessible	Not available	Water is accessible but latrine is inaccessible	-----

- Interview and observation result with the sample parents, guardians and care takers

Table eleven: - Back ground information of parents, guardians care taker

Cases	Responsible	Age	Education	Experience (Duration of stay with the child) (in Year)
Case 1	Mother	40	7	12
Case 2	Care taker	41	12 complete	
Case 3	Relative	37	Reading and writing	13
Case 4	Employee (as care taker position)	41	12 complete	
Case 4	Mother	36	12 complete	13
Case 5	Uncle's daughter	27	Diploma graduate ,& 2 nd year degree student	One year and half

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Regarding Mobility situation with regard to the experience of the child starting from the onset of impairments; the mother of case one replied that she used to carry her child both at home and outside before the child starts using wheelchair. "I used to carry her when I was in need to go out of home for various purposes; like going to hospital, in the child preschool etc." The mother said.

The care taker of case two and case four replied that there is no one assigned in the center particularly to help those children with mobility impairment. She said she can not manage every activity by herself, and there is no one responsible in the center who could take care of these children on daily bases.

The guardian of case three replied that, the child is able to mange all movement with out any help from others. She never calls for help in all activities she is doing both at home and in school.

The guardian of case five pointed out that the child has mobility problem as the road to home is gravel and she can not control her balance. Sometimes she failed on slippery roads. But, under normal circumstances, on accessible road, she can independently manage her mobility.

About the condition of their home environment; case one, three and five have similar geographical environment that it is overcrowded and shanty area. All of the Parents/guardians of these children replied that they are living in a small room paying birr 5-7 for rent to kebele. These children have no means to enjoy indoor and outdoor activities. In most cases they are in a closed door staying at home when other family members are out of home. Case two and case four have entertaining environments like cafeteria and gardens where they spend their leisure time during the day; and they are also enjoying watching TV and Video films in their cafeteria usually at the evening.

About the economic situation of the sample children; the mother of case one who is divorced from her husband earns a living on meager amount of income she gets from washing clothes and baking injera (local food). The guardian of case

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three has inadequate income from the salary of her husband who is a guard. She said, the amount of income can not cover the food expenses of the family. The guardian of case five replies that she is doing her best to help the child; paying school fee, giving her food, covering all the cost of medication etc. from her salary. Care takers of case two and four stated about the economic assistance provided for the children that they are given all services such as food, clothing's, bed facilities, school fee, medication and mobility aids. Besides, the care taker elaborates that the institution tries to keep providing them nutritional food on regular bases. Besides, those who are under medication will be given special food based on the Doctors' recommendations. About their dormitory, the care taker expressed that there are a total of 8 blocks in the center having double beds in two rows in one room.

About the experience of the child in pre school; case one replied "the child was suffering hardship in orthodox priest school as her peers were mocking, bullying over her". Due to the continuous rejection from her peers, the mother was forced to withdraw her from priest school after she had attended only for two months. However, the mother continued teaching her child at home, for two years. After two years of study at home, the child was admitted in grade one at Kokebetsebah primary school through entrance examination. Case two attended her preschool education from a priest who was her relative living around her home. After she joined the rehabilitation center, her friends in the center thought her basic reading and writing which helped her to pass entrance examination for her primary education. Case three attended her preschool in priest school near-by their village for 2 years and she succeeded to join Tsehay Gebat primary school after passing entrance examination successfully.

Case 4 started preschool education at home by her mother who taught her using different teaching materials for one year. After she joined the rehabilitation center, her friends at the center helped her to develop her skill of reading and writing. Finally, she passed entrance examination for Birhu Tesfa primary school.

Case 5, after she came from rural area she was attending medication for her impairments by the support of Cheshire Service Ethiopia for one year, said her guardian. Then, she attended her priest school for one year near- by her previous village, around merkato (Addis Ketema sub city). She managed to read and write with in a year and got a chance to join her present Melakam Ermijachen primary school through entrance examination.

Table twelve: - Pre schooling

Cases	preschool			Rehabilitation center	Duration period
	Age started	Priest	At home		
Case 1	8	X			2 months
			X		2 years
Case 2	7	X			1-year
				X	2 years
Case 3	9	X			2 years
Case 4	7		X		6 months
				X	2 years
Case 5	12	X			1 year

About the interaction of parents with the school principal and teachers, the mother of case one replied that she has sustained very strong relationship as she is coming to school four times a day to support her child. During these times, she is receiving every report from the school principals about the wellbeing of her child and her improvement in her mobility, social interaction, and her academic work. Besides, she is sharing them what is at home about her child activities. Case threes' mother replied that she had no contact with the school except for

the cases sometimes requested by the school to pay fees and to deal with some disciplinary measures when ever necessary. Birhu Tesfa primary school where case two and case four are learning has a policy that deter parents/guardians of students from any kind of communication with their child in the school. It is only the institution that has a right to deal about the children in school. The care taker of these children replied that she had a weekly contact with the principal and teacher regarding the students who are living in the rehabilitation center. They discuss about the day today attendances of the children, how they are using the materials given, what they are in need of, and how efficient in their academic performances. She said that she is caring them as their parents and responsible to advice them and to deal with all cases in school. She further expressed that she is quite busy in other activities in the center and she can hardly maintain such interactions with the school. The guardian of case five said she is so busy that she can not participate in the parent committee organized by the school. Her communication with the subject teachers is through written comments/suggestions on the child's exercise books. Exchange of ideas between her and the respective subject teachers mainly focused on the child's regular academic performances, how the child is doing his assignments and his examination results. She used to send such weekly report, checked and signed, to the respective subject teachers.

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Table thirteen: - Parents, guardians, care takers interaction with the schools

Cases	Types of interaction		Frequency and Activities being done
	Formal	Informal	
Case 1		X	Four times a day , receives and give daily report about the child
Case2	X		Weekly
Case 3		X	Rarely to pay student fee and for disciplinary measures as requested by the school. Once a year only when discipline measure is to be taken.
Case 4	X		Weekly
Case 5	X		Written communication every week

About the child activities at home, the mother of case one replied that her child has been engaged in home chores like washing plate and cleaning the floor on regular bases. The guardian of case three briefed about the activities of her child that she is doing all home chores including cleaning, washing, cooking and sometimes she stays at home when other family members are out.

According to the expression from the care taker of the rehabilitation center, Case two and case four have similar experience that they are busy keeping clean the area around their bed, washing their plate and arranging beds. As a whole there are assistants assigned for their regular help. The guardian of case five stated that the child is doing all activities at home except baking Injera (local food), as there is no kitchen to do so. She further gave remarks that it is the child who took all responsibilities at home as she is busy all days at her regular work and night school

- **Interview and observation result with the sample primary schools' representatives**

Birhu Tesfa Primary school

About the internal rules and regulation for children with special needs; the school principal replied that eligibility is by entrance examination and by their previous document they have from pre schools. About their attendance, he said their problem is considered if their absence is associated with their disability. The guards are advised to let them in when they came late. He further elaborated that the school at the end of the year conducts a final ceremonials to reward those outstanding students in public. This is applicable for all student with and with out disability.

For the question regarding class arrangement, The principal replied, "The most accessible class on the ground floor has been made available for children with mobility impairment, and they are attending classes with out significant difficulties" As to the seating arrangement in class, he replied that the choice is given to the children.

About the accessibility of services such as water, latrine sport fields and materials he replied "the school was not made accessible when it was designed,

even the new building under construction excludes the accessibility of such services for children with mobility impairment. Thus children with polio, either moderately or severely impaired have no access use water and latrine in the school, and the school has no earmarked budget for renovation to make it accessible.

About the involvement of children with polio in sport and leisure activities, the principal replied that they have only access to go and watch their peers in the sport field. During leisure time (class break), they are only watching different games, physical exercises played by their friends. But the principal expressed that this doesn't bring any segregation on the children with disability. To justify this point, he further noted that the school was initially established for children with Ex-leprosy as they are the first settlers in the area for the reason that they can get medical treatments from the African Leprosy Rehabilitation Center (ALERT) located in that area. After the establishment of the school, the parents of children with polio were also found to live in the same area. Besides, the rehabilitation center opens its Head office in the same area. As a result of this, it was common to see people with different types of disability in that area for many years and there is no segregation with in such similar types of norms.

About the study situation of these children, he answered, "the library gate was re-constructed with ramp, and children with moderate and severe mobility impairment have access to use the library. The school has not made any arrangement for group study for children with polio. Regarding this, the principal said" it is the capacity and the level of communication of the individual to form group study.

For the question about parental participation, he replied that the school has not established formal way of interaction with parents. But, a care taker from the rehabilitation center used to come and consult teachers and the school principal about the progress of their children in school. They formally communicate with

the teacher and exchange information about the activities of their children in school.

Kokebetsebha primary school

About the school internal rules and regulations for children with special needs, the principal of Kokebe Tsebha primary school said that there is special needs department in the school which was established in 1987 to include children with different types of disability such as motor disorder, mentally retarded students, autistic children, down syndrome & epileptics. Children with any types of disability have got chance to be enrolled in the school by entrance examination. There is special workshop in the school where these students except those with motor disorder are learning. It is equipped with materials by which the student could get better facility to attend education. There are three female teachers for the department one of them has got a chance for further study in special needs education for diploma at Kotebe College. The remaining two are giving services in the school for the students with special needs.

The special needs department conducts orientation program in different occasions mostly during the beginning and end of school. The orientation focuses on disability awareness and about the special needs for the student with disability. Some considerations are therefore underlined for the implementation strategy of the rules and regulations on children with special needs. For instance, absentness and late comers of mobility impaired children are assisted by the school teachers to help them cover some of the periods they missed.

For the class arrangement for the student with polio, the school administration has made available the ground floor, the principal said. Besides, special sitting arrangement in class has been made for these students. For instance case 1 is taking the front seat with special desk facilitated by the school.

About the accessibility of latrine and water in the school, the principal expressed that the latrine which was made of wood is so breakable that it can not accommodate wheelchair users. He further noted that the mother of case one used to come to school frequently during class breaks would take her child home for help.

About the child study situation in the school, the principal said that the library which is located up stairs is not accessible for her and she would stay in her class, and her friends assisted her in their group study.

For the sport activities, the principal with the sport teacher replied that there are no sufficient sport materials which these students can use to do some physical exercises in sport period and during leisure time. As a result, case one and other children with mobility impairment will remain in class with one or two friends assigned by the school. Sometimes, special arrangement would be done to help them watch the filed exercises and games played by their peers.

About the level of parental participation, in the school educational program, the principal, and three special need needs teachers answered that parent are frequently visiting their children and used to ask about the progress of their child in the school. Case ones' mother in this case is very much open to ask question and to take advice about her child. She also gives information about the child situation at home.

Tsehay Gebat primary school

The principal of Tsehay Gibat primary school when asked about the status of special need students, he answered that the school has organized disability club to address the needs of children with special needs and other vulnerable children in the school. For the detailed questions, the Principal refers to the disability club head briefing the researcher that the club is delegated to handle all such cases.

Then, the next questions were answered by the club head who is also a teacher in the school.

About the question regarding the club, he answered; the club was voluntarily established in about 3 years back. Its objective is to create inclusive system for equal participation of children with special needs. The club consist a total of 32 members. From this 9 are teachers and 24 are students with and with out disability.

According to the club head the major activities of the club is to create awareness on disability in the school community. To this effect, professionals from Cheshire services and other NGOs were giving trainings and orientation about disability to all students, staff and teachers in the school every month. Besides, the club in partnership with volunteer NGOs and individuals has been providing economic support such us school uniform, educational materials to the children with disability and other vulnerable children. Further more, the club members are having a meeting on weekly bases to deal with various issues of children with special needs in their schooling.

For the question about internal rules and regulations of the school, The club head replied that all children have to pass entrance examination to join the school. The school through its club is addressing the need of children usually raised every month in the club committee meetings. The club has no intention to set separate rules and regulation for the children with disability. But the program is to address their need together with other children with out disability.

The club has also made class facilitation for the student with mobility impairment by transferring them to the ground floor from the existing classes in the four stairs building of the school.

The water point and cafeteria is located in accessible area where all children with mobility impairment can use it, But the latrine is not accessible that it is difficult for them to use it.

The library is a small room which can not accommodate all children in the school. Thus, those from grade 1-4 are not allowed to use it. As the integration is improving through times, group study was observed that includes children with disability.

According to the club head, there is no arrangement for the participation of parents of children with and with out disability in the school program. He said, we are only inviting professional from Cheshire services and other NGOs to give training/orientation to the school community and so that we expect children who received such trainings will influence their parents.

Melakm Ermejachen, K.G up to lower primary school

About the internal rules and regulation, the school principal said that the school is open to all children with mobility impairment based on their entrance exam result. He further noted that they have counseling and guidance section for all children in the school. Those children with special needs would get such services from the section. Accordingly, other discipline measures for the violations of the school rules and regulations were handled by the counseling and guidance section. The counseling and guidance section have established line of communication with parents and guardians to execute appropriate measures. Usually, according to the principal, children with special needs and their parents/guardians are encouraged to participate during counseling program. The Scholl has annual program to introduce its rules and regulations to the parents and to reward students who stood from 1-3rd from their class. Case five according to the principal report is an average student. The class arrangement for the mobility

impaired student was made by the school. To this effect, case five has got opportunity to have her class at the ground floor.

For the accessibility of services, he replied that water is available at accessible area but the latrine is not. He claimed the budget constraints for such problem.

For the activities of children with polio in sport period and leisure time, the principal said that special seats were arranged to help them come in to the field to watch games. Grade report for the physical education was considered from the theory part she is taking in class.

The school has organized group study having a circle in class, and children with special needs are included. Case five has a group to study with and participate actively in the group discussion. The school has no library, the principal expressed.

About parental participation and involvement in the school program, he replied that the school has set a general meeting with parents three times a year. In all the three sessions during the year (at the beginning, at the middle and at the end) of the academic year, the school used to give orientation how parents are to be involved in the program. The school is announcing in this occasions that they are open the whole year for parents for any questions, comments and suggestion about the school service in general and their respective children in particular. Besides, there is written communication with parent through the exercise book of the student about the regular academic achievement of the student in class. Assignments, instruction from the school, examination result are disclosed for parents to return it back with their reply. Moreover, the school has suggestion box that invite parents to give any comments at any time, according to the expression of the principal.

- **Focus group discussion result**

The FGD was conducted in the head office of ENAPH. There were 7 participants in the discussion selected from all stakeholders. These participants are manager of ENAPH, chair person of AAAAPH, women wing leaders of AAAPH, program manager of Cheshire Service Ethiopia, Disability club head from Tsehay Gebat primary school and Director of Birhu Tesfa primary school. All have acquired long years experience working with persons with disability in general and with the targeted children, parents, guardians and care takers in particular. The time taken for the discussion was 2:30hrs. There were three items being discussed which mainly focused on the experience of the participants in their educational intervention for children with disabilities in general and with polio in particular, opportunities and challenges encountered during their experience, and about the pre- education for children with physical disability.

For the question about the start of educational intervention in their program that includes children with polio, they replied that the prevailing economic stress and double discrimination on female children with disability has become a base for intervention. Besides, the child right convention and the educational policy gave them a ground to launch the educational program for children with disabilities. Based on this, the partnership of NGOs and schools started considering the vulnerability of children who are in abject poverty and with disability. They devised a strategy to undertake activities for the services of children that include the participation of their respective parents, guardians and care takers, the schools near-by area and the community at large. For this, Cheshire Service Ethiopia program manager pointed out that they were giving services to the children such as medical aid, mobility devices, food, and educational materials. For parents/care takers and the surrounding community, they conduct training to raise awareness on disability issues which could empower them to send their children to schools. To the schools teachers and staff, workshop and training have been conducted about the need for inclusive education. This helped to

enable some school to organize disability club and some have managed to construct ramps for the sever mobility impaired children, and all have made appropriate adjustment for class arrangement to the children with special needs.

The participants raised gender issues particularly the double discrimination of children /girls with disability as a spring board to deal with this issues in relation to their education. One of the women wing leaders of AAAAPH stressed this point saying "we have frequently observed that most children with polio came for registration at their later age. They stayed home doing home chores and their families do not allow them to go out of home". To this point all participants underlined the resistance of parents/care takers to send their children schools. According to the participants, such complex discriminations on children with polio indicate the need for educational intervention.

About their experience in educational program, and opportunities and challenges; the discussants raised that awareness raising program that has been conducted by the associations and NGOs brought an impact to increase the demand for education. Parents/care takers started bringing their children for registration to be the member the association, and forwarding request about the need for the enrollment of their children in primary school.

The cooperation of schools to admit children with polio and their subsequent action to make facilitation such as constructing ramp for wheelchair users, and arranging class at the ground floor for the children with mobility impairments has created conducive atmosphere in the ongoing educational program.

The improving networks between and among governmental and non - governmental, national, regional and international organizations and bodies who are working on disability strengthened the program. NGOs roles in educational intervention and their partnership with disability association and schools have become a great significance for the promotion of educational intervention. In

connection with this, the discussants stressed, the African decade disability movement which includes Ethiopia at present, and the convention on the right of person with disability signed by Ethiopia are strong bases for such opportunities. The increasing participation of person with disability in the overall program was also mentioned in the discussion as a positive implication for the program. Dwelling places of students near by the school was also considered in the discussion as an advantage for the success of children in school.

As a challenge, the discussants stressed some of the major points such as the inaccessibility of services and facilities in schools that became the cause for the increasing absentees and drop out of children with polio. These happened because they could not stay the whole day in school with out good facilities. One of the participants raised the cases of many children as "most children with physical disabilities/polio didn't not drink water as they have no way to use latrine in school". They have also pointed out the inaccessibly of transportation and its associated problem, the fear of risks as the safety of their children may not be secured. Family resistance to send their children to school was also considered as a major reason for most children with polio who are not starting school yet. The discussants suggest that it may also be one of the reasons for the late start of schooling for these children.

Environmental and physical problems both in the school, the route to the school and around homes could be an additional challenge, they stated. They also raised the issue of inadequate number of professionals in the field and the poor social status and less payment given to those who are at work with children of special needs. With such remark, they concluded that it has been one of the major challenges that affects their education program. They have traced experiences of medical professional like orthopedic technicians and school teachers they are working with as a reference to justify their points. The problem with policy implementation was also considered as a factor that deters the effort being made. One of the participants noted that they used to report to the

respective education bureau about the need for special needs education staff, and the support they require for promoting their activities. But they said that they didn't get reply despite their persistent request, reluctances on the follow-up of the education program for the children with special need have been observed. This indicates that there is no well specified curriculum development designed by the education bureau to meet the diversity of needs in school, particularly for children with special needs.

They added to this point, the policy implementers who are assigned at the grass root level lack capacity to promote the policy. The degree of awareness on disability is still minimal that school buildings that are even currently constructed exclude the need of people with disability. Besides, they raised the economic constraints by the schools to restructure the building. Further more, the discussants underscores some of the poor implementation strategy of both GOs and NGOs in the promotion of services for persons with disability. It focused on charity concepts, provision of free hand outs which have no sustainable bases to direct beneficiaries towards development perspectives.

About pre schooling for children with polio; they pointed out that the long period of medication that these children take could be a factor for not going to school at early age. According to the experience from the women wing of AAAAPH, one of the participants from the women wing shared her experience by stating that children with polio usually takes three to five years for getting medical treatment to their physical impairments.

In the discussion some of the experience from the participants was noted that they were trying to get cooperation from the existing K.G for free education to children with polio, but their request was not accepted. The discussants finally raised that even if it is possible to afford the expensive school fee, the accessibility of such K.G is not welcoming to the children with polio. It was further dictated that the parents of non-disabled children would not let their children to

be with children with disability, and therefore, the school administration has fear to have lost the public approval which is associated to affect its "business".

As to the way forward to deal with such problem, they have pointed out that they are in progress working with international institutions. In this respect one participant raised that UNICEF has given training to 70 teachers from Addis Ababa, and has designed to start model pre-schools in the selected areas. Having this point, the discussants have traced that some interest from international bodies in general and from those disability associations and institutions in and out of the country in particular would help to give pressure for the launch of preschool program for children with special needs. They have underlined the need for strengthening partnership to effect such program.

Discussion

The results of the findings with respect to the research objectives and the research questions was discussed and interpreted focusing on the thematic contents drawn from the findings.

- **Regular schools for children with physical disability**

All sample schools were open for children with polio. All who have passed entrance examination are admitted. Parents/care takers replied that they had faced no challenge the first day they took their children to the respective primary school for registration. All the schools have no rules and regulation that deter children with disability from enrollment. In FGD it was also pointed out that schools were cooperative to register children with such mobility impairment without any preconditions.

All the four sample schools had made arrangements of class for the children with mobility impairment for better access. In FGD it was expressed that all schools

have changed the previous class from up stairs to the ground floor to give access to mobility impaired students. The observation result confirms such reality. This indicates that there is a positive attitude from the school principals and teachers to promote cooperative action for the children with special needs. Besides, case 1 and case 4 with sever disability expressed that they have access to go in an out of class by themselves and with little support from their peers.

The internal rules and regulations of all schools consider the day to day mobility problem of these children and when these children came late, they were given opportunity to take notes from their friends for the missing periods. Regarding the disciplinary measures by the schools due to the misconduct of children and/or any deviations from the rule, it is encouraging to see that all parents/guardians/care takers of children with disabilities are contacted to participate in the corrective measures to be taken. This will help to collect sufficient information about the child situation at home for appropriate decision, and it will also give a way to the involvements of parents in the education program. Besides, the counseling service being conducted in some of the sample schools would help to critically examine the cases of children with special needs and to call for other necessary interventions.

The reward being conducted for outstanding students will open opportunities for children with disability to reveal their potentials. For instance, case 3 who stood first from her class was rewarded in public during the annual ceremony of the school end. On the celebration day it was noted that different participants were invited. Parents/care takers of the children with disability and with out disability, community representatives, local government authorities were among the participants. Thus, the outstanding performance of a child with polio would challenge the misconception of the participants that they have on disability. Besides, it will bring about positive impact on the child and her peers with disability to focus on their ability rather than on their disability. Ruter (1980) cited

in Catharine (1995) confirms this experience tracing that ample use of rewards, praise and appreciations are associated with the favorable outcomes.

- **Policy influence on the educational intervention**

The training policy (1994) which says children and students with disabilities are one of the disadvantaged groups entitled to receive special support in education has a room for special needs services. FGD raised this point as an important pushing factor for their move toward the promotion of such services for children with special needs. However, it was underlined that their persistent effort to strengthen their good start was not in progress for the fact that they have no support from the respective education bureau. Despite their persistent request for human and material resources to reinforce special needs education in schools they didn't get any response from the respective authority. The capacity to implement the policy is minimal and the budget earmarked to promote the policy was not well specified. Currently, the MOE has launched its strategic plan which has substantial effect to resolve the aforementioned challenges that the AAAPH and its stakeholders faced in their way forward to implement educational program. Strengthening SNE teacher education, preparation of guidelines for curricular modifications so as to be able create awareness to education leaders at all levels including school managers and teachers to provide supports to all groups of learners so that all citizens of school age could be included and to be able actively participate in schools and society (MOE 2006).

The signing of the convention on the right of persons with disability by Ethiopia in 2007 is a base rock to support the strategic plan of MOE and address the educational need of children with special needs including girls with disability. Accordingly, article 6 of the convention which emphasized the multiple decimation of girls with disability will pave the way to tackle the existing problems. Article 20 which state about mobility reinforces the effort being started by the AAAAPH and its stakeholders to create mobility access for children with

moderate and mild mobility impairment. The provision of crutches, wheelchairs, and the medication being made with braces were such a great help to the beneficiaries. The MOE strategic plan, education policy as well as the UN convention, therefore, would give help for the progress of the good start by the AAAPH and its stakeholders. In FGD the discussants raised that training on mobility such as wheelchair training by stakeholders will be continued. In this respect the convention supports in article 20: C specifying that provision of training in mobility skill is one of the effective measures to empower the people with disability for independence in their mobility. From the interview with the children it was noted that some of them couldn't afford the expensive price for the quality mobility aid. The policy enforces such problem is to be resolved by stating in article 20: b about the necessity of having quality mobility aids at affordable cost for person with mobility impairment.

For the route to create inclusive education in Ethiopia, the sample schools and stakeholders are at the starting point in the promotion of services for children with special needs. To this effort, the convention has set supportive rules and regulations in Article 24 which stated that the promotion of inclusive education is to be the best intervention for the realization of equal opportunity and participation and to avoid discrimination. Further more article 24... states ".....children with disabilities are not excluded from free and compulsory primary education, or from secondary education, on the basis of disability..."

- **The impact of special needs education department and disability club in some schools**

It was identified from the interview result with school principals that two of the four sample schools are promoting services for children with special needs run by the delegated special needs department and disability club. Assignment of such tasks in such organized form indicates that there is a growing demand in the field to provide quality service at the standard. Needs of intervention could be

identified and accordingly strategic actions could be drawn. For instance, the launch of orientation and training on disability to create awareness for the school community has brought an impact to change the attitudes of students and teachers in the schools so that there is no observable segregation on the children with disabilities. Case one who is in such school has expressed her view that her class mates are very much cooperative to be friendly to her in all her activities she is doing in class. They are studying together sharing her materials they get from the library and other sources which she is not accessed to do so. This was confirmed when the researcher made his observation in case one class while taking interviewing with her. Group studies in such schools are in good terms that children with special needs have become friendly with the norms of group discussion.

- **The impact of mobility aid and assistive technology in educational intervention.**

All sample children were given mobility aid which helped them to improve their mobility impairments. According to the expression observed from all cases both severely and moderately impaired sample children received mobility aid from stakeholders which improved their mobility from the experience they had before. However, case one and four, wheelchair users, expressed their difficulties that they are not able to drive their wheelchairs. Case two and five also indicated that they used to take off their iron made brace when they get back home so as to be free from their pain and feel comfortable. Moreover, case four who was moderately impaired turned to severe impairment due to lack of appropriate appliance and orthopedic treatment. This indicates that, there is a need to improve the quality of their mobility aid. Prosthetics, Orthotics, and adaptive devices (applicable for school settings), often take advantage of their residual functioning. (Garword; 1983; Hewword and Orlansky ,1988; Yessleydke and Algozzine,1995 cited in Tirussesw 2000).

Besides it was indicated by case one and four that they have a problem of writing as their hands are weak by the effect of polio. The students would require other assistive technology to help them attend their education independently.

Computer and related technology can help provide the means to adopt classroom children's diverse needs. Technology can provide with and with out disabilities the opportunity for maximum participation in the social and educational environment of the early childhood setting. Young children with limited motor abilities who have difficulty communication, playing , and/or interacting with their environment can benefit from technology in a number of ways such as alternative keyboards , touch sensitive screens , hand-held devices, switches and voice input. (Karen and Joyce 1998)

Assistive technology, such as computers, may allow a child circumvent his weaknesses. Carefully selected technology can enhance certain children's independence and encourage their active participation (Holder –Brown& Parette, 1992; Holzberg, 1994; Prickett, Higgins & Boone, 1994 Cited in Karen and Joyce 1998)

- **The implication of geographical location of schools and dwelling places of sample children in their schooling**

Case 1, 3 and 4 have benefited a lot from getting access to primary education which is located near by their dwelling places. The need for water, latrine and other health breaks has become fulfilled at home as they have got access to go home frequently. Besides, the inaccessibility of transportation which the cost is also not affordable would give temporary remedy for these children. On the contrary, those children whose home is at a far distance from their school would face a big challenge. For instance, case 2 is under stressful condition that she can hardly continue her education. As she said in the interview she can not stand

taking 1:30 hrs. walk on her crutch to go to school on regular bases. For a child with such harsh challenge, it is not possible to attend school effectively. This reason could be one of the major causes for increasing number of school dropouts of children with special needs. The AAAAPH record file shows that many children with polio who were moderately and severely impaired are not in school, and the number of dropout students is increasing from year to year.

- **The social interaction of children with polio at home and in school environment**

The home environment of case three and five, as it is observed by the researcher, is very crowded that there is a lot of drinking places and red light bars with many drunk customers. Therefore, parents/care takers didn't allow their children to go out of home for safety purpose. Children under such unconditional circumstances are given responsibilities to stay at home, which they can not bear it.

The "siblings", children of the guardians of case three are always out and did not spare time with the child. As case three responds in her interview "I am alone studying at home and doing home chores". The mother also said, she is watching home while all are busy outside. In this case both the environmental and social factors are not conducive to children with special needs for socialization.

The establishment of a family and the size of family are not an end by themselves, and the quality of family interaction is very important (for example the happiness and mutual understanding of the family members) (Fuglesang et.al., 1994 and Rye, 1997 cited in Tirusew 2005).

Case 1 has frequent contact with her brothers and mother, they used to chat and play together after school and during weekends. The home environment is convenient that she got access to have regular contact with her non-disabled peers from her neighbors. Besides, the siblings are always at her help during her

study at home. This intensive loving relationship in the family helps the child to experience social interactions which could help her to make friends at school. It was found out in the interview with the child and the observation result that this child was having many friends in school and as a result she was always accompanied by her school peers. Social behaviors are developmental phenomena and can be influenced by intervention. Socialization, in the sense of the development of interactional skills and the facilitation of interaction with others, is most important for the student who is handicapped (Kingsley, Viggiano, & Tout, 1981 Cited in Cecil and Elaine 1990).

As it was indicated in the interview responses both from the children and their parents/care takers and the observation being made both in the school and home environment, there is no accessible play grounds for the children with mobility impairment and all of them were out of the groups who were used to play together in various activities. The existing inaccessible route in the school is not free of obstacles that wouldn't get in the way of kids moving around the play area with an assistive device such as a wheelchair, walker, and crutches. Thus, the socialization process for these children became very challenging due to their lack of experience in sports fields and recreational activities both at home and in school.

Through recreation and leisure experiences, families have opportunities to experience self-actualization, creatively express themselves, build family unity, be healthier, build esteem of the individual members and of the collective family, reduce stress, conquer boredom, and socialize with each other while extending their social network by making new friends outside of the family (Recreation & Park Society, 2004).

These challenges would be a cause for the start of segregation of children with special needs from those non disabled children. Because, children with polio would be frustrated for not having skill of running, jumping and climbing during this time. Besides, such experience which is most common in all sample primary

schools will encourage labeling and stereotyping in schools and home environment, imposing wrong views that these children are not competent with the non- disabled children.

It was found from the interview with the school principals that all schools are giving the theoretical part of physical education in class which children with polio have opportunity to attend. This is a prominent step to let children with mobility impairment to acquire knowledge on the necessity of physical education for their wellbeing. Eventually, the accumulation of such knowledge would instigate children with disability to raise their voices for access to sport field. Schools can also contribute to the promotion of this element by making physical education a priority and devoting classroom time to educating children about the importance of physical activity. (Conner, (In press), Cited in Elizabeth & Lucy 2001).

- **Parental involvement in school**

It was indicated that case one and case three have no formal interaction with the school that there is no planning from the school for establishing relation with the parent/care takers. The informal interaction from the parents indicates that there is a need for the involvement of the parents for the better caring of their children. The mother of case one for instance is showing her anxiety about her child that she is visiting her child four times a day. The guardians of case three is also with critical condition as she always thinks of her child with problem during her stay in school for the whole day as the school is with out accessible facility of water, latrine, and recreational areas. The guardians of case five informal communication through writing is helpful for the follow up of her child in her regular academic performance. But this is not enough to know about her child situation with regard to her social interaction at school and her special needs both at school and home. Besides, the school could not be able to acquire information about the child's' general conditions at home. A positive parental attitude to schooling will provide a sound foundation for improving children's

learning. Furthermore, what parents do to their children counts and have a direct impact on their learning (Thomas & Feiler 1988, cited in Tirussew 2005).

Case two and four also are in problem though the visit was made by a care taker every week. There are 176 children in the rehabilitation center and all of them are attending their school in Biruh Tesfa except those very few who are above elementary school. The care taker who was assigned to interact with the school is with heavy work load and couldn't conduct interaction with the school principal and teachers effectively. Besides, she has not been given any course or training in the area of special needs education during her stay in the institution over the last 27 years. Therefore, her capacity would be in question to address the specific need of all children in school. For such lack of resources in the institutions O'Toole & Mc Conley 1995 ; Tirussew ,2003 cited in Yirgashewa 2004 indicate that there is a major problem of providing services both in rural and urban areas in countries like Ethiopia where there is actually less resource and more needs for special services.

- **The economic situation and its impact on the educational activities of sample children**

Case 1 and 3 as their mothers expressed are living in sever poverty situation as they have only little income which is not enough to cover the cost of their basic necessity. To meet the growing demands of these children i.e. to cover the expenses of food, clothing, medication , school materials etc. is unaffordable. Lack of nutritional food would likely affect the children holistic growth. Leavitt & Tonniges (In press) cited in Elizabeth & Lucy 2001 depicted that consuming an adequate amount of essential vitamins and nutrients are necessary for healthy physical, cognitive, and socio-emotional growth and development.

As to their medication, case 1 for instance, was in need of medical follow up to get relief from the regular pain she is suffering. Therefore, these children will

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Case 1 and 3 as their mothers expressed are living in sever poverty situation as they have only little income which is not enough to cover the cost of their basic necessity. To meet the growing demands of these children i.e. to cover the expenses of food, clothing, medication , school materials etc. is unaffordable. Lack of nutritional food would likely affect the children holistic growth. Leavitt & Tonniges (In press) cited in Elizabeth & Lucy 2001 depicted that consuming an adequate amount of essential vitamins and nutrients are necessary for healthy physical, cognitive, and socio-emotional growth and development.

As to their medication, case 1 for instance, was in need of medical follow up to get relief from the regular pain she is suffering. Therefore, these children will

suffer additional burden for the lack of such basic needs and eventually it will affect them in their educational activities. Case three was not comforted with the iron brace she is now using, and she is looking for the comfortable full brace from POC which she can not afford. The mother said she tried once and talked to the POC official to get the support, but the required cost to cover the medical expenses is very high that she couldn't not afford. Besides, the child used to take 1:30 hrs. a day to go to school due to lack of transportation budget. Her care taker knowing all such cases tried her best to cover some of the expenses from her small amount of income but her effort was in vain. She couldn't not afford to rent better house near by the school. A family who has a child with a disability will experience many challenges such as "repeated physical and emotional crises, interactive family issues, ruined schedules, and additional expenses which can create financial burdens for a family," (Lavin, 2001, p. 21).

Case 2 and 4 who are living at the government shelter can rarely meet the specific need based on of their own request. It is for the whole children in the shelter that all budgets are assigned for. Case four turned to use wheelchair from crutch due to lack of medical follow up. Had she got medical treatment earlier her spinal cord wouldn't have been turned to change its normal position. There was no individual follow up in the shelter and it affects those with special needs. Special services in institutional setting can be very expensive and the present mode of rehabilitation based on institutional care, would absorb more than the total health and education budgets of most developing countries (Mercer, 1997; Riperand Emeric, 1990 cited in Yirgashewa 2004)

The high rate of poverty was one of the more troubling findings. Extremely low incomes are likely to cause multiple strains that may affect health, including difficulty in paying for uncovered health care services and goods, in transportation for medical care, in having sufficient income for a healthful diet, supplements, medications, preventive care, medical devices, etc., and for allied medical services that may be needed. Carol cited in <http://www.uic.edu/orgs/rrtcamr/research.htm>

All cases have reported that they have been busy in home chores after they came from school and during the week ends. This seems to be time consuming for them and it takes their study hours at home. Besides, the poor facilities and equipment available are not made convenient for the children with mobility impairment to encourage them for work. The sample children reach home already tired from the difficulties of their movement and they are under low poverty situation that they can get nutritional food. At such conditions additional routine tasks at home would be of considerable causes to affect their schooling.

Barriers such as lack of accessible transportation, steps into the school and families wanting to keep their disabled daughters at home to do chores prevent women with disabilities from attending school. Carol cited in <http://www.uic.edu/orgs/rrtcamlr/research.htm>

- **Family influence or Parental attitude toward children with disability**

Case one as reported from the interview, the mother used to carry her to the school and bring her back. She said, she used to take care of her to attend her regular duties such as dressing, feeding, and toileting. In this case the child was not exposed to such experiences to develop such self-help skills. This over protection by the mother was done fearing that the child will get in to more complicated situation.

The guardian of case three reported that her child who came from rural area at her child hood was abandoned and she doesn't know her parents. She said, a driver who first brought the child from rural area dropped her saying "she is sent from your relative and the child parents are died" Since then; I started rearing her, letting her know all activities. It was observed that case three had opportunity to adopt the environment and manage her movement through experience. She was starting moving by her self with her traditional walking stick

before she used crutch. Case three had more exposure to movements compared to case one and as a result she acquired some experiences of self help skills.

From the record file of AAAAPH; it was observed that that most of children were not enrolled in school. Those who are starting primary schools are those who got support from AAAAPH and stakeholders. This implies that parents/guardians have not given ways and means to these children to go to school fearing the social stigma and discrimination. They rather forced to hide their children at home than sending them to school. Regarding this Erikson's theory of psycho social development (1975) cited in (Tirussew 2000) indicates, if society's perception and attitude towards children with disabilities are full of myths, misconceptions, fear and rejection, children are in turn likely to develop mistrust, shame hostility and feelings of inferiority. In light of a loving, trusting relationship with a caregiver and a feeling of autonomy as well as initiative are traits which are laid down in the minds of the child in the early years development.

- **Pre-education for children with polio**

The study which particularly focused on poor children with polio specified that there is no pre school or kindergarten which is open to these children. As the available kindergarten established by private investors are only for those who can afford the expensive fees. Besides, most of them are not accessible for the mobility impaired students.

Therefore, all the cases have reported that they had no chance to get preschool at its standard in their eligible school age. Table pre schooling shows that all cases 1, 2,3,4,5 started their pre school in priest school and at home at later age i.e. at the age of 8, 7, 9,7,12 respectively; they have not been accessed to pre schooling at their eligible age which has its own negative implications in the process of early intervention program. It is important to have access to the females with disability.

In Ethiopia, early childhood education period by and large covers the life span from 4-6 years. This is the time when the child has opportunity to be away from the mother and be exposed to new experiences, such as meeting a large number of new children of his or her age learning to sit in the class room and to play in the play ground with others as well as dealing with unfamiliar adults like the care giver, the teachers and the guards. This is where the child needs to learn to interact and play with peers, to listen to what the care giver says and respond. This great and exciting opportunity which formats the basis for the subsequent development of the child has been a privilege for the participating few Ethiopian children. The traditional pre primary schools however, still remain to be assets for children in rural areas as well as children from the low income urban dwellers families who neither have the access nor the money to send children to modern early childhood establishments. (Tirusew 2005).

Case 1, Case 2 and Case 3 attended their pre school in priest school for two months, one year and two years respectively. Such priest school was not at its standards to meet the requirements for the kindergartens in terms of its environmental, equipment and facilities...and, the condition of having no appropriate resource both human and material resources for the children with special needs. Case 4 hadn't been in Pre School neither in priest school nor in modern kindergarten.

Poor adequacy of resources, such as human resources as Heffernan and Todd (1960:4) and Hildebrand (1971:3) cited in Dereje 1999 called for special training of preschool teachers for the fact that the profession requires a happy and creative, an intelligent and energetic teacher to serve in the programme. The authors hold that in this way that preschool –age children can adjust to the school environment and also be guided toward their optimum development.

The mother of case 1 indicates that she forced her child to withdraw from the priest school for the fear of their regular mocking, bullying over her child from her

peers. This strongly affects the child's self esteem which could bring about negative implications on the child holistic development which includes physical, cognitive, and social-emotional dimensions. Children's self-esteem is dependent on his or her surrounding (Apter, 1997). Particularly, the type of early childhood upbringing, early school experiences and peer relations play a vital role in molding the child's self-esteem (Bernard van Leer Foundation, 1994; Klein et.al., 1996). As suggested by Odom et.al, 2003, due to lack of the aforementioned accessibility in the priest school and at home where the houses and the environment of all access is under stress, the children development in the area of communication with peers will not be in progress and the development of self skill both in fine motor and gross motor skills will be limited.

Chapter five

Conclusion and Recommendations

5.1 Conclusion

The above specified analysis was made based on the objective of the study, exploring opportunities and challenges of females with polio to education with respect to the services rendered by the AAAAPH & its stakeholders in their educational interventions. Accordingly, the outcome of the study reveals the major opportunities for the children with polio are schools that are open to admit children with physical disabilities/polio, the school effort to arrange regular classrooms for these children, the positive remark of reward being included as part of internal rules and regulations of the schools , counseling services being given for the children with physical disability by the schools, the start of special needs department and disability club in some schools, the provision of mobility aid being given for children with polio and close proximity of dwelling places of children to their schools, are to be mentioned as the major opportunities.

The major challenges are the absence of assistive technology in schools , lack of affordable and quality mobility devices, the poor economic condition of the parents guardians, inadequate services given for the institutionalized children , poor family interactions, lack of play grounds and recreational activities both at home and in school, limitation in the parental participation in school, resistance of family to send their children to school, lack of accessible and affordable pre school near-by areas of children with polio and poor capacity of policy implementers at grass root level.

5.2 Recommendations

Based on the aforementioned remarkable points in the conclusion part pertinent recommendation were forwarded as follows:-

1. Partnership of AAAAPH and its stakeholders should be strengthened.
2. Schools should be welcoming for the children with mobility impairment /polio that accessible building , library, play ground , leisure places and separate latrines for females should be facilitated
3. Provision of mobility devices should be continued considering the quality and affordability of the items to be given
4. Female children should be given due attention to have their own separate room during orthopedic treatment.
5. Awareness on disability and the need for education should be promoted for the parents and the community.
6. Pre- schools should be made available near –by villages for children with mobility impairment
7. Parents, guardians and Children should participate in the school program and in the overall program of AAAAPH and its stakeholders.
8. Schools should be staffed with professionals in special needs education with associated budget assigned for salary and teaching materials/equipment, assistive technology and other resources. Furthermore, curriculum development should be designed to meet the needs of children with special needs.
9. Design project for socio-economic conditions of families/care takers to help them be self sufficient than letting them send their children to rehabilitation center.

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Appendices

I. Semi- structured Interview guide for sample children

1. Background information

1.1 Age _____ Sex _____

1.2 Address

Sub city _____ Kebele _____

1.3 Care taker of the student

Father _____ Mother _____ Relative _____ Other _____

1.4 Siblings

Number of brothers _____ number of sisters _____

1.5 Types of the impairment _____

1.6 Causes of the impairment _____

1.7 Onset of the impairment _____

1.8 Educational information about the student and her brothers and sisters

Grade: - Student with polio _____ Brothers _____ Sisters _____

2. Mobility aids and medical support

2.1 Do you have problem in moving from place to place? What kind?

2.2 Did you get assistance from your family/care takers? From whom?
What type of help?

- 2.3 How far is your school from home?
- 2.4 How do you reach school in time?
- 2.5 Is it possible to have clothes and shoes that are easier to manage?
- 2.6 Did you get mobility aid? What? From where?
- 2.7 Has your mobility improved since you have begun to receive services? How?
- 2.8 If you are wheelchair user, what help do you need to get in and out of wheelchair?
- 2.9 What help do you get from your association AAPH, ENAPH, and others?
- 2.10 What medical services did you receive in addition to mobility services?
- 2.11 Do you think you need additional services to improve your mobility ?

3. Social interaction and participation in home and at school

- 3.1 How is your communication and relationship with your brothers, sisters, friends, neighbors and school peers?
- 3.2 How do you participate in the play ground/sport field in school? Leisure time (school break)?
- 3.3 Do you have friends in school? How frequent you pass the time with them?

4. Academic work

- 4.1 How is your study situation in school?
- 4.2 Do you study alone or with friends? How often do you study with others/ siblings/?
- 4.1 Are you comforted with the class arrangement and the building structure?

II. Semi - structured Interview guide for parents, guardians, care takers of sample children

1. Background information

1.1 The child relationship with her care taker

Father _____ Mother _____ Relative _____ Brother _____ Sister _____
Others _____

1.2 Age _____ Sex _____

1.3 Address

Sub City _____ Kebele _____

1.4 Martial status

Single _____ Married _____ Divorced _____ Widowed _____ dead

1.5 Source of income

1.6 Educational status

Illiterate _____ primary _____ secondary _____ college _____

2. About the child situation in the family and in school?

2.1 How long your child is able to move without assistance and with assistance?

2.2 How the child is playing with the siblings and neighbors' children?

2.3 How is the child independence skill such as feeding, toileting, dressing? and undressing?

2.4 How is your child pre-school experience?

2.5 Is your child engaged in home chores? What type?

2.6 Do you have relationship with the school principal/teachers? In what ways?

III. Semi - structured Interview guide for school Principals /teachers in the sample primary schools

1. The school activity in the provision of services for children with special needs

- 1.1. How is the internal rules and regulations in school regarding entrance, discipline ,attendance, punishment and reward for the student with disability?
- 1.2 How is the class arrangement for children with polio?
- 1.3 How is the accessibility of services like library, water, latrine and play ground?
- 1.4 How is the involvement of children with polio on physical education?
- 1.5 How is the accessibility of library, toilet, and tea room in school for the student with polio?
- 1.6 Do parents/care takers participate in school program? How?

IV. Focus group discussion guide for the Principals/teachers of primary schools, and Leaders/managers of AAAAPH, ENAPH, women wing of AAAAPH, and Cheshire Service Ethiopia

1. How do you start educational intervention for children with special needs, and what is your experience in their regard?
2. What are the major opportunities and challenges that you have faced in your intervention?
3. What is you plan of action in early intervention particularly with regard to pre-schooling?