# Assessment of Early Identification & Intervention Practices: Focus on Adaptive Behavioural Functions of Children with Intellectual Disability

Asaye Gebrewold Ashengo<sup>1,\*</sup> & Daniel Desta Dolisso<sup>1</sup>

<sup>1</sup>Institute of Educational Research, Addis Ababa University, Ethiopia

\*Correspondence: Department of Special Needs Education, College of Education & Behavioral Studies, Addis Ababa University, Ethiopia

Received: October 3, 2022	Accepted: December 28, 2022	Online Published: January 16, 2023
doi:10.5430/jct.v12n1p73	URL: https://doi.org/10.5430/jct.v12n1p73	

## Abstract

This article aimed to assess the identification & intervention practises of adaptive behavioural functions, focusing on children with intellectual disability. It followed a qualitative approach using semi-structured interviews, focus group discussions, document analysis, and observations. The findings revealed that there were no special educational needs policy implementation frameworks necessary to enforce the provision of early identification and intervention for children with intellectual disability. This has generated a gap between the anticipated policy outcome and what has actually implemented at the national and school level. The practises currently utilised within early intervention programmes are in many ways inconsistent with the recommended practises identified in the literature. The identification practises of adaptive behavioural functions for children with intellectual disability were not coordinated.

Keywords: early identification, intervention, intellectual disability, adaptive behavioural functions

#### 1. Introduction

Intellectual disability is a disability that occurs before the age of 18. In most cases, it persists throughout adult life. If an individual has an intellectual functioning level well below average, as well as significant limitations are observed in two or more adaptive skill areas, a diagnosis of intellectual disability would be made. Early identification and intervention of a child with a disability make a profound difference in the development and progress of the child.

Parents are generally the first to notice and report a developmental problem in their children (Johnson & Myers, 2007). Providing parents with the necessary tools to address symptoms at the earliest point in time is likely to give them confidence and empowerment (Durand et al., 2013). Thus, including parents in the early identification and intervention treatment of children with an intellectual disability has significant benefits for both the child's and the parent's well-being.

According to the epidemiological catchment area study (Fitaw et al., 2006), over 400,000 people in North East Ethiopia have cognitive disabilities that could have been avoided if the early and ongoing intervention had been implemented. According to the findings of this study, children from low-income homes are at the highest risk for both intellectual disability and poor school preparedness. Early intervention is thought necessary to prevent intellectual impairments and poor intellectual development in children whose families do not give appropriate stimulation throughout their early years. Furthermore, the survey found that more children are entering public schools unprepared to meet academic demands.

Accurate and timely diagnosis of intellectual disability has clear benefits in terms of accessing support and services, but it is estimated that only 15-20% of professionals such as pediatricians, doctors, psychologists, and special-need educators use formal screening measures, partly due to a lack of agreement on which screening tool to use (Dobrez et al., 2001). This lack of agreement is understandable given that no single screening tool is sufficiently valid or reliable for use with children with an intellectual disability.

According to Tirussew (2005), children with intellectual disabilities in Ethiopia have not obtained access to early identification, early intervention, education, training, and employment; it is mainly due to the negative attitude, lack of knowledge, stigmatization, and discrimination towards children with intellectual disability. As far as the researchers is concerned, due to the absence of early identification, early intervention, and care, the severity of

intellectual disability is increasing more and more in Ethiopia. This would make the caregiving responsibility of parents lifelong.

The early years are critical to the development of the various developmental domains, such as physical, cognitive, behavioral, and social. In recent years, there has been a gradual increase in the number of children aged seven and below being diagnosed with developmental needs. These children are at risk of further delay and abnormal developmental trajectories. There is evidence-based research and literature that supports early identification and intervention. Bailey et al. (2006) argued the importance of early identification and intervention through research that it enhances children's potential for independence in adulthood.

Early intervention leads to fiscal savings, as untreated symptoms of children with mental disabilities become more abundant and severe later in life, requiring more costly interventions (Harris & Neely, 2007). Further these potential lifelong costs are prohibitive for individuals with intellectual disability that need lasting support.

The research literature of the last two decades provides significant evidence of the effectiveness of intensive early intervention for children with intellectual disabilities. Hence, early identification, coupled with proper assessment and appropriate early intervention, is important to ensure that the child's developmental potential is maximised for optimal outcomes.

#### 1.1 Theoretical Foundation

This research has drawn on the developmental systems approach, developed in western countries' context as a theoretical framework to understand and assess the identification practises and intervention of adaptive behavioural functions of children with intellectual disabilities in selected schools in Addis Ababa, Ethiopia. This theoretical approach allows an asset-based focus on children's competencies, family patterns of interaction, and family resources, while identifying the stressors that impact positive development outcomes for children (Guralnick, 2011). Furthermore, the complexity of the approach acknowledges the environmental circumstances, such as community support, economic circumstances, or experiences of discrimination, that affect the behaviours and interactions between children and families.

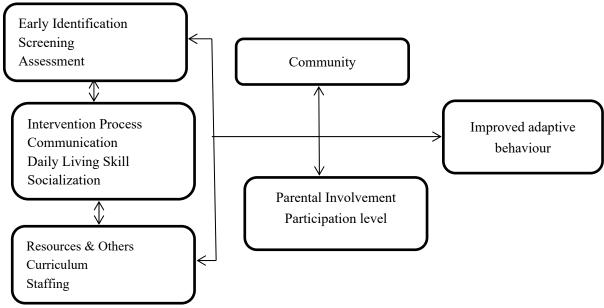


Figure 1. Conceptual Framework of the Study

Source: Researchers' observation & review of literature

## 1.4 Objective

The aim of this study was to assess the identification practices and interventions of adaptive behavioural functions for children with intellectual disabilities in Addis Ababa. Specifically, this study examines the identification process of children with intellectual disabilities and assesses the practices of intervention services based on adaptive behavioural functions for children with intellectual disabilities.

## 2. Methods

A qualitative research approach was used in this study to assess the early identification and intervention of adaptive behavioural functions for children with intellectual disabilities. According to Denzin and Lincolin (2000), qualitative research explains and reveals what occurs in true-to-life situations such as in classrooms and schools. In addition to this, Creswell (2014) revealed that qualitative research provides researchers with the opportunity to investigate the meaning that people attach to personal and social problems.

Purposive sampling was employed to structure the study. The researchers selected two schools: Kokebetsibha and Mekanyesus, since both schools were pioneers in giving care, education, and training to children with intellectual disabilities. A purposive sampling technique was used to select participants with more experience in the schools in order to get appropriate and in-depth information. As key informants for the study, two higher officials from the ministry of education, two experts from the Addis Ababa Education Bureau, one person from the Addis Ababa Education Bureau, two supervisors from the two schools, and four teachers from both schools were chosen.

In addition to the above, the researchers visited and interviewed different organizations that were working on different disabilities. These were the Ethiopian National Association on Intellectual Disability, Ethiopian Resident Charity Organization, Ethiopian Center for Disability and Development, Nia Foundation, and Help for Persons with Disabilities Organization. Furthermore, medical doctors from three hospitals were included in this study based on the information obtained from the two school informants that mostly refer children with intellectual disabilities to them. These were Yekatiti 11 Hospital, Tikure Anbesa Hospital, and Zewiditu Hospital.

## 2.1 Data Collection Methods

A semi-structured interview was used as the primary means of data collection to collect data on the identification of children with intellectual disabilities and intervention practices for adaptive behavioural functions of children with intellectual disabilities.

Focus groups involving special-needs education teachers were used as an explorative research tool to facilitate in-depth discussion. Four focus group discussions with five teachers were conducted in both schools.

Official documents were obtained, reviewed, and analyzed in order to assess the practice of early identification of children with intellectual disabilities.

Four sessions in different classes were chosen for observation. Since the intervention starts and ends at different points in time, the sessions were chosen by convenience sampling in agreement with the early intervention specialists.

#### 2.2 Ethical Considerations

An ethical clearance letter was obtained from Addis Ababa University to reassure participants that their participation in the research was voluntary and that they were free to withdraw at any point and for any reason. In addition to this, participants were fully informed regarding the objectives of the study, while they were reassured that their answers would be treated anonymously and used only for the research purpose. In contrast, the researcher attempted to create and maintain a climate of comfort.

## 3. Findings

The results of this study are presented based on the specific objectives of the research; these are the identification process and intervention practices of children with intellectual disabilities. The data obtained from special needs teachers and directors, medical doctors, the Ministry of Education, and different NGO's were under the two specific objectives.

#### 3.1 The Identification Process of Children with Intellectual Disabilities

#### 3.1.1 Special Needs Teachers and Directors

During the FGD with special-needs teachers in the two schools, the researchers forwarded various issues to assess the identification and intervention practices of adaptive behavioural functions of children with intellectual disabilities. The first point the researchers raised during their discussion was about the person who identified children with intellectual disabilities to join their schools. Almost all the FGD participants stated that most of the children were identified and referred to their schools from hospitals by medical doctors. The rest were identified by special-needs teachers in the schools, school directors, and referrals from the neighbourhood. One of the teachers from Kokebetsibha School described it as follows: "...most of the children are referred from hospitals by medical doctors..." another teacher added that

...they bring a referral letter from hospitals... sometimes the parents or caregivers or guardians bring the children to our school and request us whether they are eligible or not. We assess by observation and using a checklist... based on the result we identify and enroll them.

She added that "bringing a referral letter is not a must to join the school."

On the other hand, another teacher participant from the same group of FGD described "after the identification of the child, the parents/caregivers in collaboration with us, and based on the child's medical history, he/she would be assessed and placed at the appropriate level." Similarly, one of the teachers from Mekanyesus describes the enrolment of children after they were identified as children with intellectual disabilities "Once a child is identified as a child with an intellectual disability, he/she will be assessed based on the center checklist in collaboration with parents. Then he/she will be assigned to the appropriate level for intervention." In both schools, there was an assessment checklist that would be filled out by parents and teachers about the child's current adaptive functioning level in order to plan age-appropriate intervention for the identification of the child's skill gaps. The contents of the form differ from one another. However, both focus on the assessment of adaptive functions.

All teacher participants in both schools of FGD perceived the role and value of early identification and intervention of children with intellectual disabilities as a more crucial issue for the children's adaptive functions and the parents' well-being. One of the teacher participants from Kokebetsibha expressed that "early identification and intervention for children with intellectual disability improve children's opportunities to maximize their adaptive behavioural functions as well as their quality of life and social participation." The other teacher from the same group of FGD described

...it would be good if the children were identified as early as possible to enable the impact of an intervention to be effective. Even though we don't have such a big service, it enables timely, effective, and adequate access to particular care, where needed.

Thus, the teachers in both schools gave more attention to the improvement of the children's adaptive skills than academics, and it was seen that they had a good understanding of the role of early identification and intervention of adaptive behavioural functions for children with intellectual disabilities.

#### 3.1.2 Medical Doctors

The researchers interviewed medical doctors who were working in three government hospitals: Yekatiti 11 Hospital, Tikure Anbesa Hospital, and Zewiditu Hospital. When the researchers inquired about the availability of screening or identification tools for children with intellectual disabilities in their hospitals, all of them responded that they did not have written screening tools for those children, but that they were already aware of their symptoms. Thus, they had been identifying the children based on their prior knowledge and experience.

The researchers asked the medical doctors what they could do whenever they identified children with intellectual disabilities. One of the doctors from Zewditu Hospital replied that "first I try to give counselling service for the parents of the child; then I explain to them to take the child to special schools for early intervention." He added that "...I will tell parents to bring them to the hospital to follow up on their health status. Normally some of the parents bring them on a regular basis, but most of them can't do this." On other hand, the medical doctor from Tikure Anbesa described,

It is really difficult to persuade parents that their children are children with intellectual disabilities. Most of the time, we identify these at birth, sometimes three months up to one year later. We try to guide and coach them on what to do and refer them to physiotherapy.

He added that "some of the children might need special follow-up and surgery, so we advise parents to bring them to us for further treatments." Similarly, the doctor from Yekatiti 12 hospital replied "the first thing we do is to counsel parents to accept their child as he/she is, then we struggle to solve other complications." When these children are identified as children with intellectual disability at birth or less than six months old, most of them have additional problems." The researchers asked whether the medical doctors had knowledge about special classes and inclusive education, which had been given in Addis Ababa. They stated that they had the knowledge and had been refereeing students to the schools.

#### 3.1.3 Ministry of Education

The researchers interviewed two employees from the ministry of education. One of the informants was a senior special needs expert and had worked more than twenty years; whereas the second was a junior special needs expert

and had worked three years in the office. The first question the researchers asked the interviewee from the Ministry of Education was about the availability of policy frameworks or guidelines that give direction to special needs screening and/or assessment practice across the country. One of the informants stated, "we don't have a policy framework or guidelines; however, we take this as a cross-cutting issue in the inclusive education strategy of 2019 and are working thoroughly to develop different assessment tools for different types of disabilities." The other informants also clearly replied, "the government has taken special needs education as a cross-cutting issue and included it in the 2019 inclusive education strategy. This might help us to develop a policy framework in the future."

Both of the informants replied that there was no policy framework or guideline that gives direction to special needs screening and/or assessment practices across the country. However, both replied that they had an inclusive education strategy that focused on the preparation and implementation of screening and assessment tools. In particular, they said that in the 2019 inclusive education strategy, the ministry office evaluated itself and blamed that they could have done more in the area of screening tools and assessment. One of the informants revealed that "in 2019 we gave focus to making steep progress in the preparation of the tools; we have planned to develop different screening and assessment tools."

Secondly, the researchers asked them about the availability of screening or assessment tools for children with intellectual disabilities that were used in Ethiopia. One of the informants stated, "We had the knowledge that some schools have developed and are using assessment tools for different types of disabilities, including intellectual disability. But they are not recognized by the ministry of education."

According to the interviewee, the ministry of education was aware that certain schools had developed their own screening and evaluation procedures for identifying and evaluating children with various disabilities. With the aid of the Finnish government, the ministry of education was attempting to address this issue by developing uniform screening and evaluation instruments that could be used across the country. However, they had difficulty deciding which language to use to prepare and distribute the tools across the country. In 2017, they developed various tools, such as "evaluation and assistance for kids with special needs in pre-primary schools," to assist teachers and families in identifying children with developmental delays and intervening as early as possible.

The contents of Assessment and Support for Students with Special Needs in Pre-Primary Schools: the toolkit had six objectives that can be merged into one objective "empowering pre-primary school teachers to identify children with developmental delays and intervene appropriately."

#### 3.1.4 Different Non-Governmental Organizations

The researchers visited and interviewed different organizations that were working in the area of different types of disabilities. These were the Ethiopian National Association on Intellectual Disability, Ethiopian Resident Charity Organization, Ethiopian Center for Disability and Development, Nia Foundation, and Help for Persons with Disabilities Organization.

The first question that the researchers raised during these interviews was the availability of an assessment or screening tool for children with intellectual disabilities in their organization. Except in the help for people with disabilities organization, none of the organizations could find assessment tools. However, all the above organizations have participated in the Ministry of Education and ESNEPA validation workshops. One informant from the Nia Foundation described how "we don't have an assessment tool which will be used for children with intellectual disability; however, we use the translated version of checklists to assess our children with autism disorder." Similar to this, the other four organizations have confirmed that they don't have assessment tools that could be used for children with intellectual disabilities.

One of the interviewees from ESNEPA expressed that "the government didn't give due emphasis to the children with intellectual disabilities and more needed to be done in this area." He added, "At the same time, the ministry of education should work by taking home initiative rather than implementing the donors' interests." On the other hand, according to one informant from Help for Persons with Disabilities Organization, "the ministry was involved with the preparation of manuals, documents, teachers' guides, etc.; however, it should work beyond these." Similarly, he commented that "we were only invited at the last moment of the work to comment on the materials that were prepared by stakeholders." Furthermore, he stated that it would be good if they participated from the initial until the end of the process since they were the primarily concerned personnel.

In Help for Persons with Disabilities Organization, the researchers found a "Screening Checklist for Children with Intellectual Disability (SCC-ID) for Primary School Teachers". It was prepared by the Ethiopian Special Needs Education Professional Association (ESNEPA) in collaboration with the FDRE Ministry of Education and the British

## Council (QESSP).

The researchers inquired if the respondent from the Help for Persons with Disabilities organization had been involved in the tool's creation. He replied that "no, we didn't participate in the development process.... However, I remember that I participated in the validation workshop." He added that "it is really a good tool; it is the first tool that has been prepared in our country; however, I have doubt that the tool is being used in the schools."

### 3.2 Intervention Practices for Children with Intellectual Disability

The researchers assessed the practices of intervention of adaptive behavioural function services from different perspectives: identification and assessment, curriculum, planning for intervention, teaching and learning, parental involvement, appropriate staffing, appropriate infrastructure, and community involvement.

#### 3.2.1 Identification and Assessment

According to the informants, all government and private (organizational) schools are unable to use the same approach for identifying and evaluating children with intellectual disabilities. This was shown at the two schools where the research was carried out. Both institutions have their own methods for identifying and assessing students. The director of Mekanyesus stated,

These assessment tools and checklists that we are using are developed by the centre with my initiative of me. I have worked here for the last thirty-five years and we have been editing and upgrading the tools to make them standard for children with intellectual disabilities.

She added that "currently we are editing based on the Vineland II adaptive behavioral scale survey form which we got from researchers."

All of the interviewees have stated that it would be important and helpful if the children were identified as early as possible so as to reduce further complications. In Kokebetsibha around half of the children with intellectual disabilities have joined the school after the age of eight years, whereas in Mekaneyesus around a quarter of them joined after eight years. On the other hand, the interviewee from Kokebetsibha informed us that there was a lack of knowledge, perhaps not surprisingly. According to their responses, if they knew about their school service, they would bring their children straight to them.

#### 3.2.2 Curriculum

The researchers focused on and observed curriculum content, procedure, relevance, and implementation in the classroom at the two schools. Mekanyesus's curriculum contains ten areas. These were: communication aspect, daily living aspect, functional academics, Amharic writing, mathematics, matching numbers with objects, ordination, environmental science, sex education, and physical education. Similarly, Kokebetsibha curriculum document contains ten areas. These were: academic education aspect, social aspect, health and society, living skills in society, daily living skills, pre-vocational skills, vocational skills, drawing, music and physical education.

Self-help activities such as eating, toileting, dressing, tying shoes, washing hands, and brushing teeth were mentioned by all FGD participants as being among the most common activities in their daily schedule. One of the Mekanyesus FGD participants shared her thoughts on the curricula and interventions used in their school. She expressed.

... Our curriculum focuses on the enhancement of adaptive skills of children's adaptive skills. We do have ten core areas of adaptive functions in which our curriculum is developed. These are communication skills, self-care skills, functional academics, Amharic writing, mathematics, matching numbers with objects, ordination, environmental science, sex education, and physical education. In each section, there were brief descriptions and sub-sections that described each domain.

#### Similarly, another participant from the same group explained:

Basically, every time we change the curriculum to accommodate diversity and to keep up with the current situation, it focuses on day-to-day living skills like communication skills, feeding skills, toileting, brushing, etc. The difficulty here is that you may not see changes in a year or two, but you will continue to teach; this is the most difficult aspect of our work. In contrast, we will be surprised when they show dramatic changes in their adaptive skills.

According to the informants, the curricula in both schools primarily focus on enabling children's adaptive functions in the community to function properly. Both of them gave due emphasis to improving adaptive behavioural skills. The researchers confirmed all of these during the observation and document analysis. The teachers were observed while they were teaching the above activities in the classroom. In addition to this, the researchers observed it in their daily plans.

In the case of Kokebetsibha, the FGD participants revealed that there were different curricula that were provided by the ministry of education and different non-governmental organizations. One teacher participant described

...we do have a curriculum that was provided by the Ministry of Education, but it is somewhat old. Addis Ababa University instructors and students used to provide us with ideas and suggestions to improve the curriculum. Sometimes they bring us their own work to be implemented in the school. Generally, we don't have a uniform curriculum to be implemented in the school. The Addis Ababa education bureau also provided us with directions and checklists to be used as guidelines.

On the other hand, the director of Mekanyesus expressed:

I went to the United States to obtain expertise in special education, particularly with children with intellectual disabilities. I had a lot of expertise with assessment tools by that point. We revised our curriculum and assessment methods after returning from there. Meanwhile, two employees have been dispatched to India to share their assessment tool experience. They also came up with new experiences and attempted to incorporate them into our programme. We are both teaching and learning.....

The researchers asked the interviewee about the relevance of the curriculum document. One of the informants described it as "for learners with intellectual disability, could be looked at items of how well the curricula address the age-appropriate needs of the learners and how much it prepares them for adult life." On the other hand, the director of the Mekanyesus stated:

Learning and social adjustment are common problems for these kids. They require a curriculum tailored to their needs in order to live and operate in their homes, neighbourhoods, and communities. They also require educational programmes to teach them self-care, independent living, and communication skills so that they can become contributing members of the community.

The curriculum paper they were utilizing, according to Mekanyesus' response, was appropriate and relevant to the children. Meanwhile, they emphasized the significance of curriculum revision, particularly in the area of assessment. "Nothing is flawless," the director emphasized, "and we realize that our curriculum, particularly in the assessment areas, requires adjustment." We are presently attempting to improve our assessment tool by comparing it to the Amharic translation of the VABS II survey form."

### 3.2.3 Classroom Teaching and Learning

Based on Mekanyesus's informants the children with intellectual disabilities in most of the classes were grouped according to their level of adaptive functions into five categories: physiotherapy, pre-group, Montessori, prevocational, and vocational. At the first level, most of the children are directly referred from hospitals, and some of them are screened by the school teachers and directors. In this category, the children would receive physiotherapy and assessment so as to be ready for the appropriate type of adaptive behavioural intervention services by professionals. As soon as the child shows some progress, she/he would be promoted to pre-group. On the other hand, if the children show normal adaptive behavioural functions, they could attend kindergarten. In the second class, the children would receive basic adaptive behavioural skills like eating, drinking, toileting, and wearing. In the third category, the children would receive intensive adaptive behavioural training. In the fourth category, the children would be trained to make them ready for vocational training. Lastly, the children would attend vocational classes, in which they learn different types of skills. The time of the training or teaching in one category depends on the child's ability. It might take four or above in one category.

On the other hand, children with intellectual disabilities were grouped into four levels in Kokebetsibha School. The special needs supervisor described

In our school, children with intellectual disabilities are assigned to four levels. Based on their performance, children who showed progress after continuous assessment, follow-up, and intervention will be promoted to the second level, section "B" or to the third level, section "A". Here also, there would be continuous intervention. If the child shows progress, he will be promoted to the next level, which is section "A". After this, the children who meet the standard will join the inclusive class. The children who fail to meet the standard will join the vocational level, which is section "D."

In the planning stage, based on Mekanyesus interviewees, the goal of planning adaptive behavioural intervention for children with intellectual disabilities was to improve their communication, daily living, socialization, and modify

behaviours to improve an individual's quality of life. Based on the FGD and interviews, the participants from Mekanyesus revealed that they give due emphasis to the intervention of adaptive behavioural skills. On the other hand, they stated that the planning process would start after the teachers and directors identified the needs of each child through assessment.

Self-help tasks such as eating, toileting, dressing, trying on shoes, washing their hands, and brushing their teeth were among the most prevalent activities in the FGD participants' daily schedules. During the observation and document analysis, the researchers confirmed all of these. The teachers were observed in the classroom while teaching the above exercises. The researchers noticed it in their daily schedule at the same time.

The researchers have observed four sessions, both in Mekanyesus and Kokebtsibha. During the observation, the researchers focused on classroom activity, physical environment, resources, and techniques of intervention. In the early classrooms, there were proper materials to teach with and the teacher tried to manage the students. At different times, children were observed when taking off their shoes, combing their hair, and moving from one chair to another. Whereas, in the former, there were no practical materials to teach and the teacher was struggling to explain them theoretically. On the other hand, similar to Mekanyesus, the children were shouting, moving from one chair to another, and combing their hair. In both classes, there was a lack of structure to many of the activities, and little assessment of achievement was observed during the session.

Although there were good examples of lively, well-planned lessons involving activities designed to capture the imagination of the children and delivered in an enthusiastic manner, the researchers seem to indicate that this is an area that needs much attention. It should be said that much of the teaching takes place in environments that are far from conducive to the above and that all the units struggle with a lack of resources appropriate to this group of children. However, there would appear to be room for much improvement in this area.

During the observation in both schools, the teachers started by stating the day's objectives and letting the children know the activities they would be doing. During that time, some of the students were actually listening to the teacher, and most of them were talking and playing with their nearby friends. The teachers were observed when they smoothly passed from one activity to another.

3.2.4 Involvement of Parents or Caregivers in the Intervention Practice

Parents' or caregivers' involvement in the intervention service in the two schools was different. In Mekanyesus there was relatively high parent-caregiver involvement, whereas in Kokebetsibha there was low involvement. One of the teacher FGD participants from Kokebetsibha revealed

Most of the parents/caregivers of children with intellectual disabilities are economically low-income. Whenever we summon them to participate in the intervention service, they won't come to school since they are dependent on their daily income. Sometimes, in collaboration with donors, we prepare some gifts and call them. By that time, they usually come and participate in the intervention service.

Similarly, another participant of the FGD from the same school described

I can say with certainty that they won't participate in the intervention service. We are also afraid to call them to the school. When we call them, we are making them lose their daily income. They asked us 'what would I feed if I dropped and came to work?" This is the question they asked us.

Thus, the participation of parents/caregivers in the intervention service was very low in Kokebetsibha School.

In contrast to the above, in Mekanyesus there was relatively high parent/caregiver participation in the intervention service given in the center. One of the FGD participants from Mekanyesus revealed that "it is clear that parents/caregivers are the child's first and most important teachers, especially when you work with children with intellectual disability. If parents are not involved in all activities, they don't have any meaning at all. So we involve parents/caregivers in all aspects of the child's development." She added that "except for a few parents/caregivers, we have a good relationship with parents and most of them actively participated in enhancing the children's adaptive behavioural skills."

Similar to the above, the director of Mekanyesus center has revealed the parent/caregivers' participation as follows:

When I talk about parents' or caregivers' relationships with the teachers and the school, I do not mean that all parents or caregivers work in collaboration with us regarding their children's adaptive functions. In contrast, a few parents did not cooperate with teachers and expected teachers to take on all of their children's responsibilities... but we required them to attend monthly school meetings at the very least.

In the interview, the director of Mekanyesus revealed that most of the parents/caregivers of children with intellectual disabilities were from low-income families. In order to help them, they have a donation schema in which they are provided with food and beverages, and sanitation items. So it was easier to access the parents or caregivers. Generally, with a few exceptions, the directors of both schools reported that there was good parental/caregiver involvement in the identification of children with intellectual disabilities. On the other hand, the present study revealed that there was higher parental or caregiver involvement during the intervention service in Mekanyesus than in Kokebetsibha.

Regarding staffing of both schools, the researchers interviewed the director of Mekanyesus and the special needs supervisor of Kokebetsibha. In the early years, there were sixteen classes and thirty-two teachers. Three of the teachers were first-degree holders, seven were diploma graduates, and the rest were certificate holders. Of those, three of them were physiotherapists. On the other hand, there were eleven teachers in Kokebetshibha. Of those, three of them graduated with first degrees, and the rest were diploma graduates. There were four sections in the school. All the teachers from both schools have taken training in special-needs education.

Questions about the community's attitude and involvement were raised during the focus group. Even though there had been some changes in the community's attitude and involvement in the diagnosis and intervention of children with intellectual disabilities, participants from both schools indicated that there was still work to be done in the community. A participant teacher from Kokebetsibha stated that

Our community doesn't have awareness about these children. There are so many children with intellectual disabilities at home, so the government should give due emphasis to sensitising the community. Most people don't have any idea of what we are doing, so we need to promote early intervention of intellectual disability. Once our community understands its benefit, we won't beg for outsiders.

Similar to the above, the director of Mekanyesus expressed:

Many children with intellectual disabilities are locked up in a single room at home due to misunderstanding and isolation. Our community's attitude toward them needs to alter. We will not be successful until they are involved. As a result, the community should treat the children equally.

#### 4. Discussion

According to Charema (2010), assessment for the identification of pre-primary children with intellectual disabilities requires a multi-disciplinary assessment team that consists of medical doctors, special needs experts, psychologists, speech and language specialists, physical and occupational therapists, counsellors, and other relevant professionals. Nevertheless, the present study revealed that there was no "team of experts" in the schools, hospitals, and non-governmental organizations. This indicates that there had been no thoughtful assessment of the identification exercise with regard to children with intellectual disabilities.

The number of young children likely to be affected by intellectual disability worldwide is eclipsed only by the diversity and complexity of developmental patterns. Nevertheless, expectations are quite high that much can be accomplished during the first five years of life through the thoughtful implementation of systematic, comprehensive, experientially-based early intervention programmes (Guralnick, 1998). More specifically, it is anticipated that early intervention would enhance the development of young children already exhibiting intellectual delays, both by altering their developmental trajectories and by preventing secondary complications from occurring. In contrast to the above, the present study revealed that more than half of the children with intellectual disabilities joined schools after the age of eight. This could have an adverse impact on the children. If the children join intervention centres at a late age, the possibility of exposure to secondary complications becomes high. Thus, in order to make the intervention more effective and efficient, children with intellectual disabilities should be enrolled in and start early intervention programmes in their first four years.

According to Wong (2018), during the identification of children with intellectual disabilities before starting intervention services, there should be an intensive assessment of age-appropriate skill gaps. Based on the present study result, before the schools started intervention, they assess the child's medical story in collaboration with parents/caregivers and fill out a checklist that requests the child's current adaptive behavioural functions. After that, they plan the intervention service based on their age and needs. The main problem faced in the two schools was that most of the children who were joining the schools were over the age of eight. This has an impact on the delivery of the early intervention. So the result of this study showed that children were not identified as early as possible. At the same time, the participants of this study revealed that early intervention has a great benefit for children with

intellectual disabilities if they receive intervention service as early as possible, around the age of four or less, as it prevents them from secondary problems.

According to Baker et al. (2015), as established in classical theories, learners with intellectual disabilities can attain a high quality of life in diverse aspects of life with appropriate support provided. Furthermore, they added that the curriculum and instructional methods for such students should be modified to help them attain their potential in adaptive functional areas of life like independent living. Hence, the instructional strategies for students with intellectual disabilities should focus on improving independence and self-reliability. In line with the above study, the present study revealed that both schools gave due emphasis on improving the children's adaptive functioning. Even though there were some differences in the curricula of the two schools, basically their themes were similar. They focused on enhancing the children's adaptive behavioural skills through different behavioural skill training. Similarly, all the classroom activities were focused on enabling the child to lead their daily life independently and communicate properly within society.

Decision-making, development of assessment tools, and training mechanisms to set up policies to improve integration and coordination of early identification and intervention of children with intellectual disabilities through leadership were not observed in the present study. Let alone throughout the country, in Addis Ababa, there was no integrated and coordinated approach at the system level. Each school and NGO that were working with intellectual disability. There were attempts and concrete works that had been done in these organizations. Some NGOs tried to develop assessment tools, and others were working on community sensitization. Nevertheless, it was not organized and coordinated. If they had worked in an organized and coordinated way, the scenario of early identification and intervention of children could have changed.

According to the developmental system theory, all system components should be personalized. The most significant finding of the study was that both institutions tend to adopt an individualized instructional plan. They examine each child's needs and develop an intervention plan before beginning the session. Meanwhile, they want to put the family at the center of the intervention process. Despite the fact that most parents, particularly those from Kokebetsibha, did not participate as planned.

In addition to the above, in developmental system theory, all components of the early intervention system centre on parents or caregivers. Without the active involvement of parents or caregivers, there won't be any successful interventions. As the present study revealed, most of the parents were not taking part in the intervention practice because of their dependency on their daily income. However, the government as well as schools need to address this problem through different mechanisms. For example, as it was done in Mekanyesus, other schools should provide donations on a monthly or weekly basis. The special needs teachers should visit the children's houses, using communication books for those parents/caregivers who can read and write, writing permission for their employer, calling through phone, etc.

#### 5. Conclusion

There were no special educational needs policy implementation frameworks necessary to enforce the provision of early identification and intervention for children with intellectual disabilities in the country. This has generated a gap between the anticipated policy outcome and what is actually implemented throughout the country and at the school level. On the other hand, most of the children with intellectual disabilities joined the school after the age of eight. It was noted that the participation of parents/caregivers in the identification process of children with intellectual disabilities was good, whereas there was poor involvement during the intervention. Eighty percent of parents/caregivers were from low-income communities; they are dependent on their daily income. Hence, this made it difficult for them to participate in the intervention practices.

There were different screening and assessment tools for the identification and assessment of children with intellectual disabilities which were prepared in the country. In particular, the tool which was found in Kokebetsibha revealed that there was an attempt to develop screening and assessment tools that would be used for children with intellectual disabilities forty years ago. Despite the fact that there was no clear information about the purpose of the tools, as well as no indication of who was involved in the preparation process or what procedures they had undergone, the availabilities in Ethiopia was deeply ingrained. In addition to this, there were different tools that were prepared by different NGOs and schools. There should be in-depth research to collect and analyze those tools that were prepared in a fragmented way. If these were all done in collaboration with each other, it could develop

standardized and uniform assessment tools for children with intellectual disabilities that would be used throughout Ethiopia. Thus, the government, especially the ministry of education, should take the initiative to coordinate this work.

Whereas the government should have a policy that encourages parents/caregivers to actively participate in the identification and intervention of children with intellectual disabilities, once their child is identified as a child with an intellectual disability, these parents or caregivers should be given leave once a month wherever they work. Both the employee and the employer would benefit from giving leave. The former would work his/her work without stressing about his/her involvement in the intervention and progress of his/her child, and the latter would benefit from a motivated and committed employee.

In addition to this, the government should accept that early identification and intervention of children with intellectual disabilities have huge academic, social, and economic benefits, including savings to society. Thus, there should be a policy framework that would focus on parents/caregivers, as the most critical feature of early identification and intervention of children with intellectual disabilities. This framework needs to include concepts related to parent empowerment, the establishment of parent-professional partnerships, and recognition of the significance of family patterns of interaction to children's developmental well-being. Meanwhile, the ministry of education as an institute needs to develop a harmonized curriculum based on the policy framework, which would be designed at a country level.

#### 6. Limitation of the Study

The present study was conducted in Addis Ababa with a limited number of children with intellectual disabilities. Thus, this finding may represent early identification and intervention practices specific only to these areas and may not be generalizable to the whole population in Ethiopia. In addition to this, the study included children with intellectual disabilities who were already accessing early identification and intervention. Thus, further studies might also need to include those children outside the support setting for greater insight.

## References

- American Academy of Pediatrics, Committee on Children with Disabilities. (2001). Developmental surveillance and screening of infants and young children (RE0062). *Pediatrics*, 108, 192-196. https://doi.org/10.1542/peds.108.1.192
- Bailey, D. B., Bruder, M. B., Hebbeler, K., Carta, J., Defosset, M., Greenwood, C., Kahn, L., Mallik, S., Markowitz., J., Spker, D., Walker, D., & Barton, L. (2006). Recommended outcomes for families of young children with disabilities. *Journal of Early Intervention*, 28, 227-251. https://doi.org/10.1177/105381510602800401
- Baker J. N., Rivera C. J., Morgan J. J., & Reese N. (2015). Teaching algebraic equations to middle school students with intellectual disabilities. J. Am. Acad. Spec. Educ. Professionals, pp. 29-43.
- Charema, J. (2010). Inclusive Education in Developing countries in the Sub Saharan Africa: from theory to practice. *International journal of special education*, 25(1), 87-93.
- Creswell, J. (2012). *Research Design: Qualitative, Quantitative and Mixed Methods Approaches* (4th ed.). Thousand Oaks, CA: Sage
- Denzin, N., & Lincoln, Y. (2000). The Discipline and Practice of Qualitative Research. In: Denzin, N.K. and Lincoln, Y.S., (Eds.), *Handbook of Qualitative Research*. Sage, Thousand Oaks, 1-32.
- Dobrez D., Lo Sasso A., Holl J., Shalowitz M., Leon S., & Budetti P. (2001). Estimating the cost of developmental and behavioral screening of preschool children in general pediatric practice. *Pediatrics, 108*, 913-922. https://doi.org/10.1542/peds.108.4.913
- Durand V. M., Hieneman M., Clarke S., Wang M., & Rinaldi M. L. (2013). Positive family intervention for severe challenging behavior I: A multisite randomized clinical trial. *Journal of Positive Behavior Interventions*, 15(3), 133-143. https://doi.org/10.1177/1098300712458324
- Fitaw Y., & Boersma J. M. (2006). Prevalence and impact of disability in north-western Ethiopia. *Disability and Rehabilitation, 28*, 949-953. https://doi.org/10.1080/09638280500404552
- Gargiulo, R. M. (2009). *Special education in contemporary society: An introduction to exceptionality* (3rd ed.). USA: Sage Publications.

- Guralnick M. J. (1998). Effectiveness of early intervention for vulnerable children: a developmental perspective. *American Journal on Mental Retardation, 102, 319-345.* https://doi.org/10.1352/0895-8017(1998)102%3C0319:EOEIFV%3E2.0.CO;2
- Guralnick, M. J. (2011). Why early intervention works: A systems perspective. *Infants and Young Children, 24*, 6-28. https://doi.org/10.1097/IYC.0b013e3182002cfe
- Guralnick, M. J. (2017). Early Intervention for Children with Intellectual Disabilities: An Update. *Journal of Applied Research in Intellectual Disabilities*, 30, 211-229. https://doi.org/10.1111/jar.12233
- Harris, G. E., & Neely, W. J. (2007). Cost comparison of early intensive behavioral intervention and special education for children with autism. *Journal of Child and Family Studies*, 16, 401-413. https://doi.org/10.1007/s10826-006-9094-1
- Johnson, C. P., & Myers, S. M. (2007). Identification and evaluation of children with autism spectrum disorders. *Pediatrics*, 120, 1183-1215. https://doi.org/10.1542/peds.2007-2361
- Macloughlin, J. A., & Lewis, R. B. (2005). Assessing students with special needs (6th ed.). USA: Prentice Hall.
- Olsen, G. (2010). The benefits of parent involvement: *What research has to say*. Retrieved October 21, 2021, from http://teaching.about.com/od/JRteachingvocabulary/g/Parental-Involvement.htm
- Reynolds B. A., Tammy, C. E., Zupanick Psy. D., & Mark Dombeck. (2014). The Choice of Educational Settings; The Pros and Cons of Mainstreaming Children with Intellectual Disabilities. 21 May 2013. MentalHelp. Web. 13 Nov. 2014.
- Stein Z. A., & Susser M. W. (1984). *The epidemiology of mental retardation*. Proceedings of the 34<sup>th</sup> Symposium of Colston Research Society, held in the University of Bristol in March 1982. Bristol: Wright, 21-46.
- Tirussew, T. (2005). *Disability in Ethiopia: Issues, insights and implications*. Addis Ababa: Addis Ababa University Printing Press.
- WHO. (2016). Global health Observatory. Retrieved January 1, 2021, from http://apps.who.int/gho/data/view.main.680
- Wong. Kai. (2018). Identification of children with intellectual disability. Economic journal, Hong Kong.

#### Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (http://creativecommons.org/licenses/by/4.0/).