BLIND STUDENTS' ACADEMIC AND SOCIAL DIFFICULTIES AND COPING MECHANISMS IN ETHIOPIAN ELEMENTARY SCHOOLS

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The purpose of this study was to examine the academic and social difficulties faced by blind pupils in Ethiopian elementary schools, as well as their coping mechanisms. It employed the narrative design of a qualitative research method to achieve this. A purposive sampling method was used to choose 15 blind students. Data were gathered through focus group discussions and interviews, and word-by-word narrative analysis was used to examine the results. The findings from every respondent showed that blind students in the participating schools faced academic challenges like a lack of instructional resources, an inaccessible learning environment, a rigid curriculum, and a lack of mobility and orientation training. However, blind pupils' learning has been impacted by social issues like hostility from instructors, peers, parents, and other members of society. The study also discovered that blind students used problem-focused coping mechanisms, such as cooperation and tenacity to overcome social and educational challenges. The study suggests that the local government and other stakeholders take prompt and serious action to address the academic and social difficulties found in the participant schools.

Keywords: *Blind, Challenges, Coping strategies, Primary schools, Students*

INTRODUCTION

According to Zelalem (2014) the historical development of blind students in Ethiopia has been associated with the provision of services by the past Christianity movement; hence, the Ethiopian Orthodox Church has taken a critical role in educating these students. Due to its long history, blind students learning have rational church-based education in Ethiopia (Binns, 2013; Tekeste, 2006; Zelalem, 2014). Blind students in Ethiopian primary schools represent 4-9% of the school-age population, those demanding support from various organizations (Demissie and Demissie, 2014; Mehari, 2014; Nebiyat, Alemayhou, and Tigist, 2015; Kahsay and Velisiwe, 2022). To ensure the education and other services provision in Ethiopia the government ratified the United Nations Convention on the Rights of Persons with Disabilities in 2010. Conversely, Ethiopia, like any other developing country in Africa, faced challenges in providing necessary instructional resources for school-aged blind students (Kahsay and Velisiwe, 2022).

The Ethiopian education system, in general, has been inhabited by different challenges that destabilize the provision of quality education for students with disabilities, including those with blindness (MOE, 2016). Thus, the Ethiopian government has established a clear shift towards inclusion in policy design that focuses on achieving education for all students regardless of their intellectual, physical, visual, or hearing problems (MOE, 2015). According to the special needs and inclusive education strategy and its implementation guideline (MOE, 2012), scarcity of instructional resources, an inaccessible environment, and a rigid curriculum are identified as the challenges for all learners with special needs. However, the new education development roadmap, in line with the Education Sector Development Program Six in Ethiopia, plans to achieve Sustainable Development Goal 4, which focuses on ensuring inclusive and equitable quality education to improve people's lives and sustainable development by 2030.
Kisanga (2017) identified the educational challenges that may hinder the successful inclusion of students with disabilities, which varied depending on the kind of disability. Particularly, blind students are inhibited by academic challenges like a shortage of instructional resources, shortage of trained teachers, an inaccessible environment, and a lack of access to the general curriculum (Mwakyeja, 2013; Agesa, 2014). Blind students have experienced low academic achievement compared to their sighted peers, especially in cognitive tasks that require comprehension (Heward, 2013). However, low academic achievement is not only associated with blindness but also with a lack of exposure to Braille reading and writing materials and teachers' low expectations (Hallahan et al., 2012). Lack of trained teachers and administrative resources regarding the evaluation of the system's efficiency are other challenges that hinder the education of blind students (Hakielimu, 2008). Other challenges related to low academic achievement for blind students are the presence of few inclusive schools, inaccessible instructional and examination systems, and unresponsive teaching methodologies (Mwakyeja, 2013).

Most of the blind students in general education classrooms receive support from a resource room teacher, who collaborates with a classroom teacher on curricular and instructional modifications following the needs of the child (Heward, 2013). Teachers who teach blind students are expected to have knowledge and skills on techniques for curriculum adaptation that can enhance auditory learning through adapted teaching methodology, assessment, and instruction delivery skills, as well as methodology in teaching different subject matters (AFB, 2014b). Yet, teachers of blind students have been reported that they lack the requisite knowledge and skills to teach these students, particularly understanding and addressing their needs (Mwakyeja, 2013; AFB, 2014b). This limitations lead teachers feeling incompetent and unable to accommodate the students teaching (Richards, 2016a).

Blind students have rights to be educated in inclusive schools (Weedon et al., 2012). However, the placement in the few inclusive schools, inaccessible examination systems, and unresponsive teaching methodologies of the teachers are particularly challenging for these students (Mwakyeja, 2013). The education of blind students is influenced by the lack of special instructional resources in Ethiopia (Shefere, 2013). According to Dea and Negassa (2019) and Shefere (2013), blind students' education is challenged by teachers' characteristics, instructional approaches, and the inadequacy of instructional resources. The inadequacy of instructional resources for blind students has also been evident in countries like Spain, Canada, England, Cambodia, Pakistan, and Zimbabwe (Ghulam, Rukhsana, Misbah, Mahwish, and Dur-E, 2014). For example, Ghulam et al. (2014) found that asserting blind students in Pakistan were inhibited by challenges such as the inadequacy of Braille readers and writers, shortage of cassette tape recorders, and a lack of a note-taker during instructional sessions.

On the other hand, blind students require special education support when they are educated in inclusive classrooms with limited resources, where it becomes difficult to address their specific educational needs (Limaye, 2016; MOE, 2016; Naude and Meier, 2019; UNICEF, 2012). In Ethiopia, there are challenges related to inadequate, fragmented,

and uncoordinated teacher training to understand and teach blind students (MOE, 2012). Thus, the Ethiopian education system needs several major reforms (MOE, 2016). The reform aimed at increasing universal access to education to involve blind students in the Ethiopian education system (MOE, 2012). On the other hand, in Uganda, the reform of education aimed at accessing buildings for blind students; however, the construction of building in the country has failed to consider the needs of these students (URT, 2012a). In addition, a lack of pit latrines, water closets, and pathways remain challenging factors for blind students in Uganda (Hakielimu, 2008; URT, 2012).

The different challenging factors in the education system such as inappropriate examination system, a lack of exposure to Braille reading and writing, teaching methodologies that fail to address the needs of these students, and poor infrastructure lead blind students to lag behind in their learning when compared to their sighted peers (Hallahan Kaufman and Pullen, 2012; Mwakyeja, 2013). The special needs and inclusive education strategy in Ethiopia (MOE, 2012) identified that poor physical infrastructure is one of the factors of school dropouts for blind students. According to Kahsay and Velisiwe (2022), the lack of scholastic materials in Ethiopia remains challenge for blind students, whose learning needs do not allow them to access even the few Braille books available in the country. According to the education sector development program six (MOE, 2021) and the new education road map (MOE, 2018), lack of accessible school environments, inadequate teacher training, and socio-economic and cultural-related challenges are identified as the major challenges that affect the education of blind students in Ethiopia.

The report by UNESCO (2020), on the educational provision for blind students across sub-Saharan Africa has highlighted a miserable image when outlining these challenges. As per Kahsay and Velisiwe (2022), the report also points out that some of the educational challenges experienced by blind students were related to inaccessible infrastructure and a lack of assistive devices. On the other hand, MOE (2012) and Asrat (2013) stressed that some academic-related challenges such as the lack of assistive devices, a shortage of trained teachers, shortage of instructional resources, inconvenient assessment, and limited supervision and collaboration among stakeholders have been affected the blind students learning in Ethiopia. According to Kahsay and Velisiwe (2022), these challenges are adversely affecting the realization of inclusion for blind students in Ethiopia.

Some of the challenges that related with inconvenient assessment can be reduced through changing assessment mechanisms such as adapted assessment formats (Clayton, Poe, Piti, and Goodman, 2010). Blind students might require extra time to complete examinations, an alternative format for exams through oral and Braille, a separate and distraction-free examination room, computer-assisted writing for long answers and the use of specialized adaptive software like text readers (Concordia University – Access Centre for learners with Disabilities, 2011). On the other hand, Morris (2014) in Wales found that blind students had difficulty accessing instructional materials such as graphs and diagrams because those materials were provided in an inaccessible format, particularly in the absence of assistive devices to enhance their reading. Fletcher, Levin, Lipper, and Leichty (2014), findings on the accessibility of graphic learning materials concur with those of prior studies conducted in South Africa (Mokiwa and Phasha, 2012).

Blind students have exceptional academic and nonacademic needs that could not be met using a core curriculum designed exclusively for their typical peers (AFB, 2014a). To benefit fully from education, AFB (2014a) claims that blind students require curriculum adaptation, which involves the modification of the core curriculum in the following areas: concept development, academic functioning, communication skills, orientation and mobility skills, career development skills, daily living skills, and sensory motor skills. Tungaraza (2012b) asserts that equitable education access involves equal physical and intellectual access for all children, regardless of their differences. The scholars found that the school buildings available were not user-friendly to students with disabilities, particularly the blind and those with physical impairments (Hakielimu, 2008; Tungaraza, 2012b). Inaccessibility to school infrastructure and the environment was also reported in other parts of Africa (Phiri, 2013) and outside Africa in

Pakistan (Ghulam et al., 2014), as well as in Europe (Soorenian, 2011).
On the other hand, the study conducted by Vik and Lassen (2010) in Norway explored how blind students from grades 5 to 10 cope with challenges related to reading activities. The study used a semi-structured interview and Likert scale questions to collect data from 11 blind students in addition to teachers, teaching assistants, and parents. The study by Vik and Lassen (2010) revealed that both problem-focused and emotional-focused coping strategies were used by the students who participated in the study. Problem-focused strategies used in the study include the audio method, computer assistant, expressive verbal coping strategy, and social support system. The coping strategies used in this study can be used as a bridge for the current study. Emotionally focused coping strategies

reported were those related to students' extracurricular activities such as music, games, and reading for pleasure (novels, songs, and the internet). According to Vik and Lassen (2010), these strategies help blind students cope with negative emotions and enhance social skills for effective participation in inclusive settings and future career choices and development. However, these strategies were not directed at the source of the problem. Thus, there was overdependence on emotional coping rather than on problem-focused strategies, which may hinder students' adjustment to stressful situations, social functioning, and psychological well-being (Givon and Court, 2010; Gustems-Carnicerand Calderon, 2013).

Accordingly, this study is followed by ecological system theory (Bronfenbrenner, 2005) to understand the challenges of blind students in Ethiopian primary schools, which is viewed from two levels, such as the meso and micro levels. The meso level challenges focus on the broader perspective of inclusion, which is related to the curriculum and teachers' attitudes towards the inclusion of blind students in regular primary schools. The micro-level concentrates on the challenges within education settings that can be explained regarding challenges related to instructional methods and materials, lack of access to information, environmental inaccessibility, and lack of orientation and mobility training. On the other hand, it follows the psychodynamic and cognitive theories of Radinitz and Tiersky (2007) to see the coping mechanisms of blind students. Psychodynamic theories are related to "coping as a style (Lazarus, 1993). On the other hand, "coping as a process" by Thompson, Poelmans, Allen, and Andreassi (2007) describes the transactional approach. Cognitive theories of coping with stress focus on the cognitive processes that mediate between the stressful condition and an individual's emotional and behavioral responses to the stressful situation.

Based on the above assumptions, the current study addressed the following research questions.

- What academic challenges do blind students experience in Ethiopian elementary schools?
- What social challenges do blind students experience in Ethiopian elementary schools?
- How do blind students cope with the academic and social challenges in Ethiopian elementary schools?

RESEARCH DESIGN AND METHODOLOGY

Research Design

This study employed a qualitative research method a narrative design (Yin, 2014), to explore the challenges and coping strategies of blind students in Ethiopian primary schools. Two primary schools were selected purposively from Dilla and Hawassa towns, as both include blind students in inclusive settings. The narrative design was employed because the study particularly investigated the challenges and coping strategies of blind students. In this regard, Ryman (2016) recognizes that a narrative design includes research on a community, school, family, organization, person, and events.

Population of the Study

The sample school from Dilla is a regular primary school which involved grades (1-8) and a total of 875 students, of which 57 are students with diverse types of impairment. Of those with impairment, eight are blind students. Similarly, the sample school from Hawassa is a regular primary school which involved grades (1-8) and 871 students, by which 61 are students with diverse types of impairment. Of those with impairment, seven are blind students. From a total of fifteen blind students; male (six), female (two) and a total of eight, and male (three); female (four) and a total of seven blind students were selected from Dilla and Hawassa towns' primary schools respectively for interview and focus group discussions.

The study population was blind students in grade eight. The schools were selected because of the availability of more blind students than the other schools, by which the school from Hawassa town serves as a resource center for all other satellite schools in the town and the school from Dilla town has a good physical accessibility to the blind studentss. Similarly, grade eight blind students were supposed to give their views, feelings, and opinions better than those in lower grade levels as they have developed more experiences throughout their school's life.

Data Collection Tools

Semi-structured interviews

Semi-structured interviews were conducted with all blind learners to explore the academic and social challenges they experience in their learning and the strategies they used to cope with them. The interviews were conducted within the school compounds in opposite shifts. To avoid delays and disappointments, prior arrangements were made with each respondent through personal contact for scheduling an appropriate time and date for an

interview. Each interview session lasted for one hour per interviewer, and one interviewer interviewed at one time. Seven pages of data were generated from each respondent from interview by 12 size font and 1.5 points spacing. The interviews data were collected in Amharic and coded anonymously. Then, fifteen interviews were transcribed into text by an instructor from English and foreign language department. The respondents also asked again after the final report writing to check the accuracy of the instrument.

Focus group discussions (FGDs)

FGDs involved small groups of eight and seven learners in discussing the challenges encountered at the primary education level and the coping strategies they used. The FGDs were conducted after completing the interviews, which were held with all blind learners, and one focus group discussion session lasted for an hour. The FGDs were conducted in the venue and time the preferred. The data in FGDs were collected in Amharic and coded anonymously.

Data Analysis

Data collected through semi-structured interview and FGDs were subjected to narrative analysis because of its flexibility when examining data for emerging topics or ideas relevant to the research questions (Bryman, 2012; Bryman, 2016). The narrative analysis assisted the researchers in identifying, analyzing, and recording the respondents' data. The essence of comparing one interview transcript with another was to check for consistency in the data generated because the recurring responds in interviews and FGDs indicate that the concept narrated is shared by different respondents, which enhances the reliability of the data (Denscombe, 2014). This process was preceded by a transcription of data from interviews and FGDs.

Validity

According to Creswell (2012), the researchers are expected to determine the accuracy of the findings through different strategies and in this case, member checking was used to validate the study. According to this author, member checking is a process in which the researcher asks one or more of the participants within the study to check the accuracy of the accounts. Thus, the researchers will go back to the participants and ask about the report's accuracy.

Credibility

According to Yin (2003), credibility allows for minimal errors and biases in the study. It requires all procedures of the study to be carefully documented. Thus, to ensure credibility, all fifteen interviews were conducted in a place the respondents chose. No interviewee was informed about what the other respondents were going to ask.

Ethical Considerations

The researchers obtained informed permission from the research and dissemination directorate of Dilla University to proceed with the proposed study. In addition to this, the researchers explained to the people in the study area about the objectives of the study, the reason their site was selected, why the respondents were chosen, the benefits, and discomforts of the study in which the respondents requested for the interview. Hence, the researchers designed the interview questions in such a manner they may not violate the rights of respondents. Besides, the researchers avoided sensitive questions such as age and records that may contain personal data because it may develop negative feelings in collecting qualitative data due to the long contact with the respondents. The respondents were assured of the confidentiality of information provided by them, and personal names did not appear on research documents. Instead, numbers of identification were used to represent them.

RESULTS AND DISCUSSIONS

1. What academic challenges do blind students experience in Ethiopian primary schools?

The respondent blind students' were coded by "B" and the responses from all respondents were analyzed as follows;

Shortage of instructional resources

One of the respondents explained that,

In Hawassa primary school, where I am attending my learning, there are some instructional materials such as Braille reading and writing; however, there is still shortage of computers with job access with speech (JAWS) technology, which is important for blind learners (B1 interviewee, 2021).

The other respondent (B9) stated that "most *of the available computers and Braille machines were not working in Dilla primary school that I am attending".* This concept is further explained by (B2) that *"in my school out of four*

computers with JAWS technology only one is working properly, and we had a serious shortage of slate for the long time".

One of the respondents stated that,
In Dilla primary school that I am attending my learning I had a great shortage of Braille materials and other assistive devices because the two computers available in the school were insufficient to meet the needs of seven blind students, and those few available resources were also not working properly (B6 interviewee, 2021).

The experience of blind students in terms of instructional resources differs peculiarly in the two schools under the study. Regarding Braille reading and writing materials, and the computers with JAWS technology; the findings indicated that Hawassa primary school had better Braille reading and writing materials but still had shortage of the computers with JAWS technology than Dilla primary school to cater the needs of all blind students and had the freedom to use them in their respective rooms even after working hours when the resource room closes.

The findings from this study on the scarcity of instructional resources, are consistent with other studies (Hakielimu, 2008; Soorenian, 2011; Reeds and Curtis, 2011; Tungaraza, 2012; Nasiforo, 2015) which reported that the scarcity of instructional resources and/or inaccessibility of alternative learning materials that can help to address their needs were the great educational challenges for blind students. It is also in agreement with that of (Kahsay and Velisiwe, 2022), which is verified that Ethiopia faced challenges in providing necessary instructional resources for school-aged blind students. Thus, this study revealed that scarcities of instructional resources are most of the challenging factors for blind students in the participant primary schools.

Rigid curriculum
One of the respondents explained that:
The current curriculum, as now, is a challenge for us. For example, the curriculum prepared for special schools was okay for us because they were standardized in learning materials. A book was discarded as a textbook for all primary schools throughout the country; each subject took a book, and each book had its copy in Braille. In addition, there was collaborative work among stakeholders on the implementation of that curriculum. The education experts who visited our schools constantly asked teachers to show the material that has been prepared to teach blind students in the classroom. However, one of them failed to show because the current curriculum has many challenges (B13 interviewee, 2021).

Findings of the study also recognized various challenges related to the curriculum, which is consistent with the studies by (Mwakyeja, 2013; Agesa, 2014). This subsection is organized in two major parts in accordance with the subthemes that emerged on this topic, namely, the lack of inclusive curriculum and the exemption of blind students to learn Mathematics and Science subjects. Just like the tests and examination challenges, blind students reported more curriculum-related challenges in their learning. Accordingly, the curriculum developers are expected to set clear criteria for the nomination of subject representatives to include the voices of teachers with different conditions/impairments in curriculum development or reforms. The Ethiopian national education curriculum excludes blind students from accessing subjects related to drawing diagrams as well as reading and drawing maps, which creates difficulties for blind students to grasp some concepts such as geometry and other graphic subjects (UNESCO, 2006; AFB, 2014a). In other words, the Ethiopian national education curriculum does not only hinder the education accessibility for blind students but also limits their range of career choices in higher level of education, especially in mathematics, sciences, and even technical drawing (MOE, 2018). Therefore, this study revealed that the rigid curriculum design is one of the challenges that affect the education of blind students in the participant schools.

Inaccessible learning environment
One of the respondents' (B10) stated that *"the environment in my school was not arranged to lodge blind students. Primarily, the school routes were surrounded by a border of spiny scrubs and in some cases; it was surrounded by big stones."*

The other respondent further elaborated that,
Mobility for blind students was extremely hard in the school compound because there were big stones and clatters in the school. Most regular primary schools in the study area were aligning of big stones and clatters to make some

flags and from the dormitory to the classrooms one can travel about fifteen minutes, and he/she find big stones and clatters everywhere (BS9 interviewee, 2021).

The findings of this study have shown that the education infrastructures in Ethiopia are not easily accessible to blind students and other physical impairment. During the interviews and FGDs sessions, the respondents described their school environments are extremely limited in terms of accessibility. The findings of this study agree with (Phiri, 2013; Ghulam*et al.*, 2014; Nasiforo, 2015), who reported that inaccessibility is the great challenge in the primary schools' environments and buildings in Zimbabwe, Pakistani and Rwanda, respectively. Phiri (2013) also reported that physical challenges forced some blind students and physical impairment in Zimbabwe to sacrifice most of their lectures, which were conducted in inaccessible lecture halls. The education sector development program four (MOE, 2021) and the new education road map (MOE, 2018) recognized that lack of accessible school environments is identified as the major challenges that have affected the education of learners with special needs in Ethiopia. In addition to this, most of the regular schools in Ethiopia have obstacles which hinder the mobility of blind students (MOE, 2012). These include big stones, clatters and/or broken steps. For example, the use of big stones for adorning corridors and the schools' compound was reported as challenging factors and adversely affected the mobility of blind students in the participant schools. Both schools involved in this study were reported about an inaccessible environment for blind students, despite accepting them. This indicates that the inaccessible environment in schools' compound is affected the educational participation of blind students in the participant schools.

Lack of orientation and mobility training

One of the respondents, S4, said that *"I have not ever perceived mobility and orientation training throughout my learning to date. By our own struggles, we get access to our school environment."* This study revealed that blind students in the study areas did not receive orientation and mobility training, especially at the lower grade level, to support them to be cognizant of their school environment and how to travel securely. This was informing that orientation and mobility training were not provided for the students at every level of education. The burden is for the students to sort out the deliberate struggles to recognize and control their school environment. This was shown during interviews and FGDs, where all respondents confirmed that none of them received any orientation and mobility training at their lower grade level.

Most of the educational infrastructures in the study area were reported to obstruct the mobility of blind students. This limitation implies that the government and other stakeholders in the public and private education institutions were either unaware of the universal principles of education or they found it difficult to implement (Burgstahler, 2012).The current study is constituent with the prior study of AFB (2014a) that assumes blind students require curriculum adaptation, which involves the modification of the core curriculum in orientation and mobility skills training. Hence, the findings of this study confirmed that lack of orientation and mobility training in the participant schools is hindering the education of blind students.

2. What social challenges do blind students experience in Ethiopian primary schools?

One of the respondents stated that,

Some teachers perceive us as failures whenever they talked about the achievement of national examination results and if a class had been let us say three blind students, they would always say, this year I am going to get three divisions zero in my class (B1 interviewee, 2021).

One of the respondents (B14) further explained that, *"some teachers in our school were unhappy to have blind students in their classes, as they believed that the presence of these students would lower their school's rank in National Examination achievement by increasing the number of Division Zero's".*

Findings of this study revealed that some teachers have negative attitude towards blind students. It was indicated that some teachers perceived blind students as incapable. This perception affects the teachers' expectations of blind students, and most of them have low expectations of these students. Teachers' exclusionary practices can also be associated with their attitude to blind students because attitude influences behavior (Fishbein and Ajzen, 1975). The negative attitude of blind individuals was also reported by Plasket (2015) as some sighted peers tended to perceive those with blindness as weak and low in the social hierarchy. The respondents approved that some teachers, peers, parents, and other people in society perceived them as incapable in their learning. This is constituent with Phiri (2013) and Lyakurwa and Tungaraza (2013) who reported the presence of negative attitude among teachers, as well as sighted peers towards blind students affected the social interaction of these students in the school. Dea and

Negassa (2019) and Shefere (2013) also articulated that negative attitude toward blind students are highly affecting their learning in Ethiopia. Other literature reported negative attitude towards these students in terms of negative labels such as zombies and monsters given to them by their sighted peers (Plasket, 2015). Thus, findings of the current study revealed that negative attitude by teachers, peers, parents, and other people in society is generally affected the education of blind students in the participant schools. The findings of this study generally found out that the attitudinal challenge exists among all groups of people regardless of their educational level, religious affiliation, and individual position in society. It was found that some teachers have a negative attitude towards blind students and their failure.

The findings of this study are in line with the ecological system theory (Bronfenbrenner, 2005) to understand the challenges of blind students at two primary schools, which is viewed from two levels such as the Meso and Micro level. Regarding the Meso level challenges, blind students faced the challenges that related to rigid curriculum and teachers' negative attitude in their learning. The micro-level challenges related to instructional methods and materials, lack of access to information, inaccessible environmental, and lack of orientation and mobility training were also highly affected the blind students in the participant schools.

3. How do blind students cope with the academic and social challenges in Ethiopian primary schools?

Sharing the available resources

One of the respondents in the FGDs informed that:

We used to share available resources to cope the challenges related to the scarcity of instructional resources. With the shortage of Braille reading and writing materials, we used to allocate time amongst us to utilize the materials in turn for writing notes. However, this was difficult during assessment session (B10 interviewee, 2021).

On the other hand, it was reported by one of the respondents (B8) that *"we knotted for the materials available since each one would like to finish his or her assessment early to have ample preparation time for the next assessment*".

These statements proved that learners tried to cope with the challenges encountered by sharing the available resources for the benefit of all blind students. As such, they exercised a communal method of life in which everything available in society is shared among its members.

The findings of the present study support the results of other studies which recognized the use of social support among blind individuals in coping different challenges they encountered (Phiri, 2013; Stevelink, Malcolm and Fear, 2015). Stevelink, Malcom and Fear (2015) argued that coping with blindness is a continuous struggle that needs social support. This view was also supported by Phiri (2013) who recognized the use of family and peer support among blind students in coping with educational challenges. The current study revealed that blind students copped the challenges by sharing the available resources in their respective schools.

Personal effort with determination and persistence

One of the respondents stated that:

I wanted to have an independent life as well as a family, and there was not any way that I could be independent and marry someone without having a good job. This motivated me to be a strong worker (B7 interviewee, 2021).

The other respondent (B13) motivated to fight for his education despite the challenges he faced, was his ambition to be independent and have a family. This determination gave him energy to be persistent to sustain all hindrances that came his way. Being determined was also demonstrated by the students' ability to set high objectives in life. This was revealed during the FGDs as one of the respondents (B5) elaborated that *"I normally set high objectives in my studies; this is why I get high performance".* It was stated that coping the educational challenges is prevalent in Ethiopian's education system which demanded a blind student to be determined and persistent. Such a student needs to be aware of who she or he wants to become in the future. This awareness motivated blind students to work hard and use the available support effectively to fulfill their ambitions.

Personal efforts in coping with the inaccessible environment

One of the respondents (B12) stated that "*what I always do in a pristine environment is to be inquisitive when walking around with a sighted peers; I try to be aware of what things are available on and around my way"*. The findings from FGDs revealed that apart from using readers and their peers to cope with inaccessible environments, blind students also struggled to create a mental picture of a given area. The mental picture of an area assisted blind students to identify the locations of physical and human-caused features in their environment. These include the

presence of hills, steep slopes, ditches, broken stairs, and any other object in the environment. Awareness of various objects and features surrounding their environment enabled them to be more independent.

Similarly, some blind students are coping in inaccessible environments by acquainting themselves with one route before looking for alternative ones. It was reported that one of the strategies for coping with an inaccessible environment is to avoid using more than one route before mastering one simple route. However, students differed in what they meant by a simple route. Whereas some students perceived a simple route as the one with a short distance to their destination, others perceived it as the one with few and manageable obstacles. The last suggests that a route which is shorter in terms of distance but has many obstacles on the way is not categorized as a simple route for blind students.

This coping strategy involves various exertions of an individual to overcome stressful situations. It includes general and specific personal efforts. One of the general personal efforts reported was determination and persistence. Blind students who reported determination and persistence as one of their coping strategies copied better than their counterparts. This is in line with Jones and Maloney's (2015) view that individuals with self-determination were more likely to achieve their goals effectively than those without such self-determination. This study verified that blind students in the participant schools are using general and specific coping strategies to cope with challenges related to the inaccessible environment in their education and social life.

CONCLUSIONS

The shortage of instructional resources, inaccessible environment, rigid curriculum, and lack of mobility orientation training has affected the participation of blind students in the participant schools. The social-related challenges such as negative attitudes by teachers, peers, parents, and other people in society have affected the education of blind students in the participant schools. The problem-solving coping strategies such as sharing available resources, and personal efforts of blind students themselves were some of the coping mechanisms that used in the participant schools. Generally, the above aforementioned education and social challenges affected blind students in the participant schools.

RECOMMENDATIONS

- To improve the academic and social challenges such as shortage of instructional resources, rigid curriculum, inaccessible environment, lack of mobility and orientation training and teachers' negative attitude in the current study area needs the collaborative work between the local government and other stakeholders.
- The Ministry of Education should also focus on inclusive teachers training approach and designing of inclusive curriculum to meet the varying needs of students with special educational needs in general and blind students in particular.
- Regarding the society's negative attitude reported in this study, the education system should focus on adaptive coping strategies to manage the negative attitude in the schools.
- The schools are also expected to make the learning environments accessible for blind students.

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