

ORIGINAL ARTICLE

AN ASSESSMENT OF FACTORS AFFECTING THE EDUCATION/INCLUSION OF DEAF AND HARD-OF-HEARING STUDENTS IN NORTH AND SOUTH GONDAR ZONE INTEGRATED PRIMARY SCHOOL CLASSES

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ABSTRACT

The main purpose of this study is to assess the factors affecting the education/inclusion of deaf and hard-of-hearing (D/HH) students in integrated primary school classes of the North and South Gondar zones. Data were collected by questionnaires distributed to both teachers and D/HH students in an effort to describe the issues related to teacher education, classroom communication, relationships with peers and the school environment in general for these D/HH students. Results indicated that although the teachers of the D/HH students were accepting and supportive, they typically had little training in special needs education, lacked competencies in meeting the needs of D/HH students, acknowledged poor sign language skills and reported difficulties adapting their methodologies to the needs of these individual students. D/HH students' relationships with peers were also examined, revealing that classmates were generally reported/perceived to be accepting, caring and supportive, although the D/HH students understandably faced communication barriers within the school community. Although both teachers and their D/HH students acknowledged strengths and weaknesses, results indicated that greater support and more specialized training are needed in order for effective instruction to be given to D/HH students. Recommendations are therefore made regarding improvements in teacher training and short term trainings for those working with children who have special needs in integrated classrooms.

Keywords: Deaf and hard-of-hearing (D/HH) students, special needs education, Ethiopian integrated primary schools, peers and teacher training in special needs education

INTRODUCTION

The first schools for the deaf in Ethiopia were established in the 1960s. The children were taught either in sign language or oral language, but these schools were not established with the idea of making the deaf and hard-of-hearing (D/HH) students literate citizens who could become full participants in the work life of the society. The aim was rather to teach them the Bible (Tibebu, 1995). According to Abeba (1996, as cited in Tilahun, 2009), the first method of communication for the deaf in Ethiopia was the American manual system, used for ten years from 1975 to 1986, combined with Amharic signs and speech. The second oral method of communication was introduced by British Sister Barbara from 1986 to 1989, with an emphasis on the philosophy that deaf children can talk (Tilahun, 2009).

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More recently, the government of Ethiopia has committed itself to realize universal primary education by the year 2015, including those who have special needs (MoE, 2006). In terms of meeting Universal Primary Education targets the country has done quite well over the last decade and is on track to achieve this goal (MoE, 2007). However, Moges (2006) in his study in Jimma town revealed that deaf students encounter many social and psychological problems in various social contexts which in turn can lead to major academic problems. Examples of these problems are peoples' negative attitudes towards them, lack of awareness of deaf students' potential, little or no participation in social gatherings, and mistreatment by hearing people. The students also felt inadequacy, inferiority, shame, and rejection. Difficulties with language, mathematics and abstract thinking were also identified as notable academic problems for the deaf students. Ababa (2000) in her study in Addis Ababa found special education teachers and regular classroom teachers in Ethiopia had negative attitudes towards integration and confirmed a lack of smooth relationships between D/HH students and those with typical hearing ability. She concluded the major perceived factors deterring integration were related to communication problems and teachers' feelings of incompetence in facing challenges that may be encountered in the integration process.

Nitsuh (2008) in her study in Amhara Regional State revealed D/HH students often have poor interactions with their teachers and hearing peers. The participation of D/HH students inside as well as out of the classroom activities was insignificant. Authorities who are responsible for students with disabilities were found to lack sufficient background knowledge in special needs education and taking little initiative to provide special support for D/HH students. Similarly, Tesfaye (2014) in his study in Addis Ababa revealed limited use of sign language as a prevalent problem, indicating the schools are not providing a linguistically rich environment for deaf learners; the combination of signed English and Amharic in the development of sign language skills for deaf children is unsatisfactory. In addition, Olika (2009) revealed D/HH children face negative attitudes from many people in society, attitudes that in their turn influence their lives in a negative way.

Tirussew (2005) found the total number of children served by special schools and special classes to be 2,276, which is negligible when considered in light of the prevalence of various impairments including children who are D/HH. Furthermore, according to the population and housing census conducted in 2006 by the central Ethiopian statistical authority, the number of hearing impaired children in the country was 50,957. From this estimation of the number of D/HH children in the country, only 1,675—roughly 3%—were receiving special education services (MOE, 2007). According to this statistical report, the number of D/HH students being served in Special Boarding Schools (52) and in Special Units (238) in Amhara Regional state was only 290.

Studies conducted in North Gondar by graduate students revealed the D/HH students were facing communication problems with their teachers, there was limited support from teachers and peers to D/HH students, lack of materials, negative attitude of hearing peers towards D/HH children, lack of special needs teachers in the integrated class and non-conducive atmospheres in classrooms (Amanu et al., 2013.; Atalaye et al., 2014.; Dereje et al., 2014). However, the studies focused only on one Primary School (Tsadiqu Yohnnes)

found in Gondar City administration. As a result, it provoked an interest in the researchers to further study the issue in a more comprehensive manner taking in more schools and the two zones of Gondar as well.

The present study was designed to assess factors affecting the education/inclusion of D/HH students and their academic situations in integrated primary schools of North and South Gondar Zones. The study aims to describe the issues related to teacher education, classroom communication, relationships with peers and the school environment in general.

FACTORS TO BE CONSIDERED IN THE INTEGRATION OF D/HH STUDENTS

A number of research and meta-analytic studies in special education have clearly revealed the long-term benefits of promoting self-determination skill in terms of positive adult outcomes (e.g., Chambers et al., 2007; Cobb, Lehmann, Newman-Gonchar, & Alwell, 2009; Wehmeyer et al., 2012) which mainly help D/HH students have better communication skills with their teachers and peers. However, Cho, Wehmeyer and Kingston (2012) have observed that students' ability to become self-determined is influenced both by their individual characteristics (e.g., intellectual capacity, personality) and other external factors and so require the concerted effort of all stakeholders especially the school communities. Special needs education educators believe that for the D/HH students' better academic achievement the presence of interpreters in the classroom is necessary. For example, Soraia, Lucia and Leite (2013) affirmed the presence of an interpreter in the classroom is crucial. If teachers are to be effective in their instruction of D/HH students, they may find it necessary to adjust to new and ever-changing technology and facilities (Doggett & Montgomery, 2000; Parton, 2006).

Teachers' role and training, competencies and attitude has a significant effect on the learning of D/HH students. Farrell (2008) stressed those teachers who do not have specialist qualifications need to be aware of how their teaching practices can be adapted to ensure the participation of D/HH students. Teachers play many roles in the classroom, from educator to coach to motivator to guide to counselor to disciplinarian (National Council for Accreditation of Teacher Education, 2001). However, teachers have not had any training for meeting the unique needs of D/HH students and this situation is perhaps felt even more acutely in countries like Ethiopia where basic teacher training programs are still developing and being improved. Sass-Lehrer (1986, as cited in Heward & Orlansky, 1988) surveyed 150 supervisors of instructional programs for D/HH students in both regular and special schools and found the following competencies were among those mandatory: language instruction, addressing individual needs, creating and adapting instructional materials, developing student's self concept, administering and using appropriate assessment, and dealing with crises calmly and effectively.

The attitude of teachers towards students who are D/HH depends upon the environment of the schools where they teach and this may in turn be influenced by the cultural context. For example, Ting and Gilmore (2012) in their study of 200 pre-service teachers in Australia found the academic and behavioral expectations of the teachers toward D/HH students were lower in com-

parison to the hearing students. They further said the teachers' attitude in the classroom was reflected in the student's academic performance, and that more specialized training is usually needed for pre-service teachers. Lucy, Raphael and Beatrice (2014) also investigated attitudes of public primary school teachers from the central region of Kenya. They concluded that despite teachers' positive attitude towards inclusion, they were not ready to adopt this change without prior training on how to teach D/HH students. As a result, Okutoyi, Kochung, Ayieko, Kabuka, and Mbogani (2013) showed that most schools in Kenya used strategies to promote positive attitudes towards D/HH students.

METHODS

The study employed a descriptive survey design and a quantitative approach to examine the data collected through questionnaire.

Data on the population of teachers of the D/HH students who are currently teaching in integrated primary schools in both North and South Gondar Zones is largely unknown by the education offices of the two zones. Similarly, the population of D/HH students in integrated primary schools of North and South Gondar Zones was largely ignored. Integrated classes for the D/HH students start from grades 5 to 8 before high school (grade 9 to 12) and made it difficult for the two zones' education offices to have clear data. The present research focused on a few selected primary schools with integrated classes: two primary schools from south Gondar, Tabor and Farta, and three primary schools from north Gondar, Tsadiqu Yohannes, Amba Giyorgis and Debarq. The population of teachers in these schools was 26, 19, 45, 25, and 32 in Tabor Primary School, Farta Primary School, Tsadiqu Yohannes Primary School, Amba Giyorgis and Debarq Primary School respectively.

The sampling techniques were both probability sampling and non-probability sampling. To select students and teachers a probability and non-probability sampling (i.e. simple random sampling and quota sampling) were employed. To select the schools, convenience sampling was used. Hence, among the total number of teachers in Tabor, Farta, Tsadiqu Yohannes, Amba Giyorgis and Debarq Primary Schools we took ten teachers for each school, totaling 50 teachers selected as samples of the study by simple random sampling. Of those 50 teachers, the majority of the participants (40 teachers, or 80%) were trained only at the High School Diploma level, 3 teachers (6%) had completed their first degree at the university level, and almost all (47, or 94%) the teachers had specializations that did not include the field of special needs education.

For the student respondents, from a population of 12 (Tabor Primary School), 9 (Farta Primary School), 8 (Tsadiqu Yohannes Primary School), 10 (Amba Giyorgis), 11 (Debarq Primary School) D/HH students, 6 students were taken from each of the 5 primary schools with integrated education (N= 30 students) using a simple random sampling technique. All 30 D/HH students were above the age of 12, with the majority (16 = 53.33%) being between 15-17 years of age. Eleven students (36.67%) were already 18 years or older, despite being at the maximum of 8th grade. The majority of student participants (13=43.33%) were attending grade 7 at the time of the study. Seven students were identified as hard of hearing while 23 (76.67%) self-identified as deaf. The onset of hear-

ing loss for the majority of D/HH students (18 = 60%) was reported to be after birth (adventitious), although most did not know the exact cause of their hearing loss (26.67% reported that an accident had resulted in hearing loss). The D/HH students were also asked about their parents' highest level of academic training. The majority (12 mothers or 40%, and 13 fathers or 43.33%) had only completed primary school, while 33.33% of mothers and 16.67% of fathers had no formal education. Nine of the parents of D/HH students (30%) were living away from home due to work or related factors, 8 (26.67%) were divorced, in 7 cases (23.33%) either one or both parents were deceased and in only 6 families (20%) were the parents married and living together.

The following procedures were used: first, the English language questionnaire for the study was developed by the researchers and revised following comments and suggestions by an expert in the education of D/HH students. The questionnaire was then translated into Amharic and reviewed for maximum accuracy. The letters of permission were secured and taken to the principals of the five primary schools who agreed to have the research conducted in their schools. Both the teachers and the D/HH students were informed of the objectives of the study and consented to participate. Finally, a sign language interpreter was recruited to assist in the data collection process with the D/HH students. Although there was no pilot study to address issues of reliability, questionnaire items were constructed based on a comprehensive literature review and were critiqued by an instructor in the Department of Special Needs and Inclusive Education at the University of Gondar. Data was collected between April 10, 2014 and February 20, 2015.

The quantitative data collected from teachers and the D/HH students through questionnaires was analyzed in the following manner. The questionnaire collected from teachers was a 5-Point Likert scale which was analyzed through frequencies, percentages and mean values. The D/HH students' questionnaire was in a "yes-no" format and therefore analyzed by use of frequencies and percentages.

FACTORS AFFECTING THE EDUCATION/INCLUSION OF D/HH STUDENTS

As indicated in the teachers' responses in Table 1, most (66%) agreed they are not skillful users of sign language. Less than one-third agreed that teachers were using different communication methods while teaching in classes of D/HH students. Slightly more than half of the teachers (54%) responded that the communication methods used by teachers have a positive impact on D/HH students' academic performance. However, two thirds (66%) of the teachers claimed not to use sign language to teach D/HH students. Table 1 also reveals the participants' responses when asked whether they use different types of teaching methods with D/HH students. Although 16% were neutral regarding this item, 48% of the teachers did not agree this was true in their classroom; only 36% either agreed or strongly agreed they are able to use various teaching methods to meet the special needs of these students. However, the majority (62%) of teachers did report being able to use teaching materials designed to assist in their classrooms with D/HH students.

Table 1: Teachers' ratings of their competencies, communication practices and teaching methods with D/HH students (N=50)

Competencies, communication and teaching methods	Relative Agreement								Mean		
	SDA	DA	N	A	SA	Average					
	F	%	F	%	F	%	F	%			
I think that teachers of D/HH students including me are well skilled in sign language	17	34	16	32	5	10	8	16	4	8	2.32
I and other teachers use different types of communication methods while teaching D/HH students	16	32	11	22	8	16	12	24	3	6	2.5
The communication methods I and other teachers use have a positive impact on D/HH students' academic performance	9	18	8	16	6	12	23	46	4	8	3.1
I use effective sign language to teach D/HH students	23	46	10	20	4	8	7	14	6	12	2.26
I and other teachers use different types of teaching methods while we teach in the class of D/HH students	11	22	13	26	8	16	14	28	4	8	2.74
I often use teaching aids in the classroom	5	10	11	22	3	6	23	46	8	16	3.36

Note: A Likert scale was used where, SDA=Strongly Disagree, DA=Disagree, N=Neutral, A=Agree, SA=Strongly Agree.

Table 2: Students' ratings of themselves, their peers and their teachers

D/HH students' views about personal strengths, problem solving skills, communication experiences and support from peers	Agreement					
	Yes		No		Total	
	F	%	F	%	F	%
Do you possess the skills or knowledge to cope with those challenges you face in the school?	14	46.67	16	53.33	30	100
Are you able overcome those challenges you face at school?	13	43.33	17	56.67	30	100
Are you able to socialize with your peers in the school?	24	80	6	20	30	100
Are sign language interpreters involved during lessons?	3	10	27	90	30	100
Do teachers use different types of communication methods while they are teaching you?	14	46.67	16	53.33	30	100
Is there any communication gap between you and your peers to communicate well with each other?	18	60	12	40	30	100
Do you feel frustrated in your efforts to participate in activities due to absence of an interpreter?	22	73.33	8	26.67	30	100
Do you usually prefer to go to hearing students rather than to teachers for help when things are unclear?	22	73.33	8	26.67	30	100
Is there any student note taker to assist you when the teachers are dictating notes?	27	90	3	10	30	100
Do your classmates or friends help you when you feel embarrassed?	28	93.33	2	6.67	30	100
Do classmates give you their exercise books to copy and teach you when you are absent from the school for certain reasons?	10	33.33	20	66.67	30	100
D/HH students' perception of teachers'						
Do teachers make sure you have understood before they move to the next topic?	15	50	15	50	30	100
Do you think most of teachers are not trained to work with special need students and their mode of teaching is therefore difficult for you?	18	60	12	40	30	100
Are the teachers' teaching methodologies helpful so you can get a clear understanding of the lessons?	18	60	12	40	30	100
Are the teachers ready to give you the assistance you need in the classroom when you ask?	26	86.67	4	13.33	30	100
Are you encouraged by your teachers to participate and allowed to learn things by yourself?	19	63.33	11	36.67	30	100

As indicated in Table 2, more than half (53.33%) of the D/HH students acknowledged they do not possess the skills and/or knowledge necessary to cope with the many challenges they face in school. A similar number (56.67%) revealed they are actually not able to overcome those challenges in their school. Many of these students (60%) recognized there is a communication gap between them and their peers, although the majority (80%) also indicated they were able to socialize with their peers and school-mates. Almost all of the D/HH students (90%) disclosed that sign language interpreters are not involved during their lessons in the integrated primary school, and many of them (73.33%) expressed frustration due to their absence. Moreover, approximately half (53.33%) of the D/HH students claimed their teachers were not using different or varied types of communication methods while teaching them. As can be seen in Table 2, more than half (73.33%) of the D/HH students indicated they usually prefer to seek help from hearing students rather than from teachers when things are unclear. It appears that most (90%) of the D/HH students do have access to notes taken for them by hearing students when necessary. Similarly, almost all (93.33%) of the D/HH students acknowledged that their classmates help them when they feel embarrassed. However, most of the D/HH students (66.67%) indicated that classmates did not give them their exercise books to copy, nor did they provide tutoring, when the D/HH students were absent.

As depicted in Table 2, the majority (60%) of D/HH students in this study were aware that most of their teachers were not trained for educating students with special needs, and that often their teaching strategies were not very effective when they compare their teachers in special unit classes. Nevertheless, most (86.67) of the D/HH students did recognize that their teachers were ready and willing to provide assistance in the classroom when asked. Similarly, more than half of the D/HH students (63.33%) reported their teachers encouraged them to participate and to learn things by themselves when appropriate.

THE INTEGRATION STATUS OF D/HH STUDENTS

As depicted in Table 3, teachers were asked whether or not the D/HH students were facing academic problems in the schools and about the level of participation of these students in classroom activities. Thirty-two teachers (64%) either "Agreed" or "Strongly Agreed" that the D/HH students were facing academic problems in the primary schools with integrated education. At the same time, a majority (31, or 62%) of the teacher participants either "Disagreed" or "Strongly Disagreed" with the statement that D/HH students actively participate in the classroom. Thirty one (62%) of the teachers either "Disagreed" or "Strongly Disagreed" with the idea that D/HH students are medium and top-ranking in their classes.

As shown in Table 4, more than half (70%) of the D/HH students disclosed they were satisfied with their level of participation in extra-curricular activities and the majority (53.33%) also reported satisfaction with their social relationships at school. However, more than half (63.33%) of them stated they did not feel a sense of belonging (satisfaction with being part of the regular classroom) in the school with integrated education. In addition, most (70%) indicated there were insufficient learning materials in the school and a strong majority (86.67%) of the D/HH students disclosed they believed they were not learning

as well as their hearing peers. As a result, most of the D/HH students (63.33%) reported they did not feel proud of their current educational performance.

Table 3: As witnessed by teachers (N=50)

Teachers' ratings of D/HH students' academic performance	Relative Agreement										Mean Average
	SDA		DA		N		A		SA		
	F	%	F	%	F	%	F	%	F	%	
I believe D/HH students are facing academic problems in school.	7	14	5	10	6	12	13	26	19	38	3.64
D/HH students participate actively in the classroom.	13	26	18	36	6	12	10	20	3	6	2.44
Most D/HH students are medium or top-ranking students in their classes.	21	42	10	20	5	10	10	20	4	8	2.32

Table 4: As witnessed by D/HH students themselves (N=30)

D/HH students' participation in extra-curricular activities, availability of resources and satisfaction with integrated classroom	Agreement							
	Yes		No		Total			
	F	%	F	%	F	%	F	%
Do you feel satisfied with your participation in extra-curricular activities?			21	70	9	30	30	100
Are there sufficient learning materials available for you in the classroom?			9	30	21	70	30	100
Are you satisfied with being integrated into regular classes at your school?			11	36.67	19	63.33	30	100
Are you satisfied with the social relationships you have within the school community?			16	53.33	14	46.67	30	100
Do you think you are learning equally to the hearing students in the school?			4	13.33	26	86.67	30	100
Do you feel proud of your current educational performance?			11	36.67	19	63.33	30	100

FACTORS AFFECTING THE EDUCATION/INCLUSION OF D/HH STUDENTS AND THE STATUS OF THEIR INTEGRATION

Factors related to teachers

Despite the richness of their prior experiences, the teachers' backgrounds were often inadequate to meet the educational and personal needs and interests of D/HH students in their care. Although most of the teachers are diploma holders, they typically have no training or qualifications related to special needs education and as indicated in this study very few of them have sign language skills. Consistently with the findings in other studies (Amanu et al., 2013; Baker & Child 1993; Heward & Orlansky, 1988; Ling, 1984, as cited in Heward & Orlansky, 1988; Nitsuh, 2008), teachers in this study often did not adequately use different methods of communication such as speech-reading, cued speech, sign language, finger-spelling or total communication when interacting with D/HH students. Indeed, inadequacies can have a negative effect on the academic performance of D/HH students, particularly if the teachers are not able to meet their students' academic interests and needs. For example, Tichaona and Thembinkosi (2013) have discussed the various problems met by children who are D/HH in ordinary schools, concluding that teachers should undergo in-service training in order to know how to effectively integrate D/HH children into their classrooms. Ideally, teachers should also be provided with proper equipment to help them to teach these children effectively. However, in developing countries such as Ethiopia this is not usually possible and the children themselves are unlikely to have hearing aids. Furthermore, many teachers who work with D/HH students in general education classrooms find that including both a D/HH student and a sign language interpreter can be quite challenging; without prior training regarding ways of effectively using interpreters in a classroom, having this additional resource may not be especially beneficial.

Requiring specialized training and certification standards, as recommended by Heward and Orlansky (1988), may be a valuable measure, but is not easily applied to the Ethiopian context. Training in special needs education that includes the study of speech and hearing anatomy, audiology, language assessment and development, reading, manual communication and the use of technology is only available in rare situations and university settings. Most teachers of D/HH students in the present study of integrated classrooms were found to have only a high school diploma (possibly from a Teacher Training Institute) and only a small minority have been fortunate enough to obtain a higher degree.

Rittenhouse (2004) in a study evaluating newly-trained teachers of the deaf found that while they were typically energetic and willing to tackle new ideas, they often lacked the skills necessary for the successful maintenance and development of individualized instruction for D/HH children. Once again, it was suggested that quality programs for training teachers of the deaf should include: 1) improving sign language skills; 2) improving subject matter knowledge; and 3) improving the writing skills of teachers of D/HH students. All of these goals are applicable in a wide array of cultural contexts, but it is also important to remember that in situations where resources are severely limited it will take much time and patience before these can be realized. One should also not overlook the point that newly-trained teachers worldwide are

likely to be eager, enthusiastic, willing to learn and to try new ideas and that they generally have the best interests of all their students in mind when they embark on a teaching career. These qualities were clearly evident in the responses of many of the teachers participating in this study. Nevertheless, this encouraging spirit can easily be defeated if their efforts to meet the needs of individual students fail, or if they do not feel sufficiently prepared to accomplish this task successfully. Teachers of children with special needs, integrated into regular primary school classrooms such as those studied here, face serious challenges and need the support of parents, other school personnel, their communities and public education policies. Without this, it will be the D/HH children who will suffer and be short-changed in their efforts to obtain an education that should be available to all children in Ethiopia and elsewhere.

Factors Related to peers

Many of the students in this research reported experiencing a communication barrier with their hearing peers and that they are often reluctant to participate in class due to the lack of interpreters. Yet, apart from other studies conducted in the country (see, for example, Abeba, 2000; Amanu et al., 2013; Atalaye et al., 2014; Dereje et al., 2014; Moges, 2006) a positive finding was that peers of the D/HH students were co-operative and supportive, in contrast to reports in the literature about special needs students not being well accepted or supported by their classmates. For example, hearing classmates were reported to be approachable and friendly and they offered help in note-taking while teachers were dictating. As a result, the D/HH students apparently are more willing to go to their peers than to their teachers when clarifications are needed. Thus, the communication barrier did not prevent the peers of the D/HH students from communicating with, being friends with, and being supportive of their fellow students who have special needs.

Factors related to schools

Consistent with other findings (see, for example, Amanu et al., 2013; Atalaye et al., 2014; Dereje et al., 2014) the schools where these D/HH students are seeking their education seem to be lagging behind in terms of supplying necessary teaching and learning materials both for the teachers and students alike. This was evidenced in the study by the finding that the teachers were unsure whether they were using teaching materials that are helpful to make lessons accessible for their D/HH students. The majority of D/HH students boldly stated that the learning materials and teaching strategies in their schools were inadequate to meet their needs. Admittedly, the same might be said by most of their hearing classmates, as the education system in most of the developing world is still catching up with that of more advanced countries and resources continue to be scarce. Nevertheless, it should be understood that children with hearing loss have unique needs for visually-accessible communication and for certain accommodations that make it possible for them to achieve the same results of hearing peers. The lack of resources may prevent teachers from teaching their D/HH students adequately, thus denying the D/HH students opportunities for learning properly. Yet, the satisfactory participation of D/HH students in extra-curricular activities may pave the way for a better relationship with their peers, for acquiring more confidence and social skills, and for learning how to successfully approach their studies.

Factors related to D/HH students

In Ethiopia, the expected starting age for grade 1 is 7 years, while the expected age for completing grade 8 is 14 years. Sadly, almost all of the D/HH students participating in this study were above 15 years old and the majority was still in grade 7. Ethiopia is not different from many other countries in that there is still a stigma and negative attitude towards people with disabilities. Parents may be so affected by this negative attitude that they are unwilling to send their children with disabilities to regular schools. Such an attitude is often the result of pressure put on these families by the local governing body. Factors preventing parents from sending a child with disabilities to school include fear their children will be ridiculed and the belief their children will not succeed in their education. Therefore, it is all too often the case that children with disabilities are not allowed to attend school until it is almost too late. Clearly, the motivation to be educated and to help educate others is a lesson seen in the results of this study, both from the D/HH students themselves and from their teachers.

It is also important to point out that more than half of the D/HH students in this study had lost their hearing after birth, due to unknown causes—undoubtedly accidents or illness, many of which could perhaps have been treated fairly easily if proper medical care had been available. In other words, hearing loss was not necessarily an inevitable outcome, but throughout the country this is a recurring pattern. In Ethiopia, many causes and long-lasting effects of disabilities would be preventable if adequate screening and early intervention were available. This situation is exacerbated by environmental and poverty-related issues such as malnutrition, poor sanitation and hygiene and drought (Tirussew, 2005). As found in this study, additional factors that may be disadvantaging D/HH students have to do with their family backgrounds: many have parents who are poorly educated themselves, who are divorced or perhaps deceased, or who may be working and living long distances from the home. These circumstances, when combined with the special needs presented by a D/HH child, may result in that child having many of these needs unaddressed.

CONCLUSIONS

Although the teachers of the D/HH students are accepting and supportive, their lack of training in special needs education, lack of awareness about how to best meet the needs of D/HH students, poor visual communication (sign language) skills and unsuitable teaching methods result in classroom environments in which D/HH students are often not receiving an appropriate education. Interactions of the D/HH students with their peers seem to be adequate, but communication barriers still exist mainly with their teachers and classmates in particular and the school community in general. The presence of sign language interpreters, teacher aids and further specialized training of these teachers of students of the deaf and the hard of hearing are almost entirely lacking. In the future, it seems it would go a long way towards improving this situation and allowing North and South Gondar schools to serve all of their young students more effectively. It would be reasonable to conclude that due to the multifaceted factors affecting the inclusion of the participant D/HH students they are not effectively integrated into the teaching/learning process and

unless remedial actions are taken their future academic success is questionable.

As a conclusion to the study some recommendations are offered. Firstly, North and South Gondar Zonal Education offices in the future should recruit teachers who hold specializations in special needs education. The same bodies should arrange training for the teachers of the deaf and the hard of hearing students in integrated classes, in areas of awareness, sign language skills, equipping teachers with suitable teaching methodologies and development and usage of teaching aids. Secondly, *woreda* bureaus and communities of the schools of the study should hold regular meetings concerning the improvement of the appropriate integration of the D/HH students in their education. These bodies should plan how to develop communication skills (sign language) of classmates, teachers and school communities to effectively communicate with D/HH students. Finally, the next steps toward improving the educational opportunities of the D/HH students will require the will of policy-makers and educational leaders to see that the effective integration of D/HH students becomes a priority and those citizens at the local levels become aware of the tremendous potential these young students might have if given sufficient support and opportunities.

ACKNOWLEDGEMENTS

We would like to thank the University of Gondar for providing funds for this research. We would like also to extend our gratitude to the School of Education and Department of Special Needs and Inclusive Education at the University of Gondar for their cooperation in facilitating the release of research funds and for writing letters to the integrated primary schools involved in this study. Finally, we would like to thank the principals, teachers and the D/HH students of the schools participating in this study for their cooperation in completing this research.

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