

## **Preferred Means of Communication among the Deaf**

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**Objective:** To describe the methods of communication preferred among hearing impaired students and their usage of hearing aids, the benefits of using hearing aids, their impact on verbal communication and other problems affecting academic skills.

**Setting:** Al-Amal Institutions for Deaf, the Arab Open University, the Culture Center for the Deaf, and the Sport Center for the Deaf in Riyadh.

**Design:** Questionnaire study.

**Method:** Two hundred and sixty volunteers participated in the study, 50% were boys and 50% were girls, their average age ranged from 12 to 24 years. The hearing loss of those students varies from moderate to profound bilateral sensorineural hearing loss (SNHL).

**Result:** The majority of the respondents indicated that they prefer to use total communication 138 (53%); while only 67 (25.8%) used sign language with some oral communication, and 55 (21%) prefer sign language besides oral communication. Use of hearing aids within the female student population is higher among young girls than it is among older girls.

**Conclusion:** In this study, we found that the majority of deaf individuals prefer the total communication method, while 67 prefer sign language alone and 55 prefer sign language besides oral communication. Only 174 (66.9%) of the participants reported using hearing aids.

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Deaf education in Saudi Arabia continues to depend predominantly on auditory-speech approach. The Saudi Sign Language special education method applied as a primary mode of manual communication at deaf institutions. The majority of children in the present study use manual communication, which is the teaching procedure at institutes for the deaf in Saudi Arabia. Most of the schools for the deaf depend on sign language to teach their students, the chances for these children to learn spoken language are diminished and the child's social life is therefore limited to the deaf community<sup>1</sup>.

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In the last few years, few changes in traditional deaf education have been made, the most important of which is enrolling deaf students in mainstream schools, which provide regular language rehabilitation programs. The longitudinal study was concerned with comparing those hearing-impaired children exposed to regular language rehabilitation programs and those who did not have the opportunity, possibly due to limited parent awareness or the limitations of the rehabilitation clinics.

Those who were rehabilitated were able to join mainstream schools and as a result, they were able to lead a normal life among normal hearing individuals up to high education levels. Students who were not rehabilitated and who were enrolled in schools for the deaf were condemned to be “hearing impaired with limited verbal communicative abilities” for the rest of their lives<sup>2</sup>.

The aim of this study is to determine the preferred method of communication among hearing impaired students and the usage of hearing aid.

## **METHOD**

Two hundred and sixty questionnaires were completed out of 400 distributed to the hearing impaired, 50% were boys and 50% were girls, age ranged from 12 to 24 years. The hearing loss of the participants varied from moderate to profound bilateral SNHL. The study was conducted from February 2007 to July 2007. Incomplete questionnaires were excluded. Informed consent was taken from children less than 15 years old; for older children the consent was taken from their parents.

The information included in the questionnaire were the following: age, sex, parental relationship, family history of deafness, hearing complaints and speech problems, the benefits achieved by using hearing aids and their impact on verbal communication, the age of hearing loss detection, aural rehabilitation and continuation of that program, the actual use of hearing aid, communication method preference and other problems, which might affect their academic skills. The questionnaires were sent to the parents of the hearing impaired who were less than 15 years old. The older student questionnaires were filled with the help of teachers or translators, who in some cases translated the questions using sign language.

## **RESULT**

Two hundred and sixty questionnaires were completed. The result indicates that 138 (53%) of deaf individuals prefer the total communication method; 67 individuals (25.8%) indicated that they prefer using sign language alone, and 55 individuals (21%) prefer sign language besides oral communication. Unfortunately, from the total number of completed surveys, only 174 (66.9%) indicated that they use a hearing aid, see Tables 1 and 2.

**Table 1: Method of Communication (n = 260)**

Method of Communication	Girls Age		Boys Age		Total
	12-18	18-24	12-18	18-24	
Age	12-18	18-24	12-18	18-24	
Sign language	21	6	31	9	67
Sign language + oral communication	11	18	4	22	55
Total communication	51	23	40	24	138
Total	83/130	47/130	75/130	55/130	260
Percentage	63.8 %	36%	57.7 %	42.3%	100%

**Table 2: Use of Hearing Aid(s) (n = 260)**

Using Hearing Aids	Girls Age		Boys Age		Total
Age	12-18	18-24	-	18-24	
Using hearing aids + sign language	5	4	1	-	7
Using hearing aids with sign language +oral communication	11	18	4	22	55
Using hearing aids + total communication	40	20	31	18	109
Percentage	56/130 (43%)	42/130 (32.3%)	36/130 (27.7%)	40/130 (30.8%)	171/260 (66.9%)

## DISCUSSION

Deafness and hearing impairment are major causes of disability in developing countries<sup>3</sup>. Hearing impairment is a broad term used to describe any degree of hearing loss in one or both ears. Hearing impairment refers to complete or partial loss of the ability to hear from one or both ears; the level of impairment could be mild, moderate, severe or profound. Deafness, however, refers to the complete loss of ability to hear from one or both ears<sup>4</sup>.

The actual extent of these disabilities is not yet known. There is a lack of awareness about the means of prevention and the various methods of treatment and rehabilitation. The World Health Organization views prevention of disabilities as an essential feature of world health policy.

In Saudi Arabia, special education was established for the deaf in 1964, in the capital city of Riyadh with the establishment of the “Institute of Hope”. There were two schools, one for girls and one for boys. In 2004, there were 1560 schools and programs for deaf boys and girls<sup>5</sup>. However, several problems were encountered. One of these problems is the resistance of parents; it has been very difficult to convince them to allow their children to enroll, especially in boarding school. Even until now, some parents are hesitant to send their children for education, especially for girls.

The Al-Amal Institute, which is a school for the deaf, offers an educational program, which applies up-to-date hearing rehabilitation service. The primary level is 6 years, the intermediate is 3 years, and the secondary school is 3 years. Girls and boys are taught in separate schools.

Unfortunately, there is no governmental university, which accepts deaf students. Through personal effort, a fund was raised through charity for 12 scholarships, which has increased to 65 students in 2008, 42 males and 23 females. All the students are deaf; they were able to complete their studies at the Arab Open University. The program of education used is “the Unified Sign Arabic Language (USAL)” for teaching<sup>6</sup>. USAL is the most effective way of communication with deaf people because it is one of the most frequently used languages for the deaf in all Arab countries for TV news and other activities, as well as both personal and professional purposes. USAL has been approved by the United Arab Organization Working for Deaf Care in April 2002, but it is not applied in our institutions for the deaf<sup>7</sup>. Students with no knowledge or skill in USAL can enroll in a USAL beginner’s course. The program enables students to interact with deaf students in various Arab countries and to become involved in the social and cultural activities of the deaf community.

In the last few years, few changes in the tradition of deaf education have been made; one of them is enrolling deaf students in the mainstream schools that provide regular language rehabilitation programs.

Changes that may help the deaf student to complete their higher education in the future include:

**Integration in public classes could be either total or partial:**

**1. Total integration is fulfilled through recent education means.**

- a. Room sources program
- b. Moving (mobile) teachers
- c. Consultants

**2. Partial integration.**

- a. Classrooms that have special education programs for the deaf
- b. Classrooms with ordinary public school curriculum for moderate and mild hearing impaired children

Hearing impairment in Saudi Arabia has been found in 13% of the children who were surveyed. Sensorineural hearing loss (SNHL) was found in 1.5% of all children surveyed, whereas mixed hearing loss was 1.1%<sup>8</sup>. Services provided for handicaps usually depend on the extent of the problem, studies were conducted in 1993, 1994, 1999, 2002 and 2003 to screen the hearing impaired children, their co-morbidities and their use of the hearing aids<sup>1,8-11</sup>.

In this study, we found that the majority of deaf individuals prefer the total communication method, while 67 prefer sign language alone and 55 prefer sign language

besides to oral communication. Only 174 (66.9%) of the participants reported using hearing aids. These findings are similar to a study by Vibeke; 72% of their group use oral communication and children with hearing loss of 0.5 - 4 kHz, 60-89 dB had significantly better use of hearing aids than children with hearing loss < 56 dB or the profoundly hearing impaired (> 90 dB)<sup>12</sup>. A previous study of students at Al-Amal Institute for the deaf indicated that out of 150 students, only 65.3% specified improvement in their daily life, social activities, and verbal communications due to the use of hearing aid<sup>13</sup>. Complicating matters farther is the distinction between the need for amplification due to the extent and impact of the auditory deficit versus the benefit the hearing impaired gain from hearing aids<sup>14</sup>. A study reported that some deaf adults neither participate nor do they care to participate in the hearing society because participation is only possible when the deaf person has maximum use of their residual hearing<sup>15</sup>. Another study reported that the deaf individuals who develop bicultural skills are able to function effectively in the dominant culture, as well as in the culture of the minority group. They are often able to succeed professionally in the hearing world while at the same time continuing to identify with the deaf community and fight for social change<sup>16</sup>.

This is consistent with our previous study about the importance of early aural and language rehabilitation to improve the language skills of hearing impaired children to lead a normal life<sup>2</sup>.

## **CONCLUSION**

**In this study, we found that the majority of deaf individuals prefer the total communication method, while 67 prefer sign language alone and 55 prefer sign language besides oral communication.**

**Appropriate early hearing aid fitting, high level of parental guidance, and early language intervention seem to be basic principles for helping the hearing-impaired to overcome their handicap. It is mandatory to provide continuous integration programs along with regular language rehabilitation. This may help the deaf student to complete their higher education in the future.**

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