

Psychosocial Correlates of Language-Delayed Children: An Egyptian Study

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Language is fundamental to nearly all essential aspects of being and of being human. This paper aims at delineating some correlates occurring with delayed language, with or without hearing impairment, in our society. The word correlates was chosen to avoid implying causal relationship. Factors studied included demographic and perinatal factors, medical and family history, relational patterns between parents, parents and child, affected child and other children, and attitudes towards the problem. The results highlighted the importance of some factors several of which were reported in the literature. However, some findings were different.

(Egypt. J. Psychiat., 1997, 20: 243-264).

INTRODUCTION

The importance of language to human beings cannot be overemphasized. Language is fundamental to nearly all essential aspects of being and of being human: sociability, thinking, feeling, behaving and learning.

The newborn has a remarkable social competence both in reacting to and initiating contacts with adults. His repertoire includes a variety of facial expressions, cues and other sounds and the ability to take turns with an adult in interactive situations. It is true that these behaviors are not truly linguistic as they lack symbolic communication, yet they indicate that social interaction is an innate human ability (Evans, 1987).

Normative data on childhood language development show that language acquisition follows a pattern of stages beginning with an attention stage continuing through a single word, a two

word, a 'grammar formation' and 'grammar development' stage and finally developing into varied and complex language used for a range of linguistic functions (Cantwell & Baker, 1987).

In 1982, the Committee on Language, Speech, and Hearing Services in Schools of the American Speech Language and Hearing Association (ASHA) proposed the following definition for language disorder: "A language disorder is the impairment or deviant development of comprehension and / or other symbol system. The disorder may involve (1) the form of language (phonologic, morphologic, and syntactic systems), (2) the content of language (semantic system) and/or (3) the function of language in communication (pragmatic system) in any combination". However, when it comes to what is meant by delay the literature offers two meanings: deviant language development or a slower development than normal (i.e. a slowmotion version) (Paul, 1995).

A broad range of language disorders prevalence rates between 3% and 15% has been reported by various authors. Generally, the prevalence rates are based

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on surveys of pre-school aged children because this is the age when speech and language problems first present. The differences among reported prevalence rates emerge from differences in sample selection eg. Age ranges, community versus clinic, measurement techniques and definitions of disorders (Beitchman & Inglis, 1991 and Beitchman, 1985).

Correlates of Delayed language

A number of correlates is commonly reported in literature. These include socioeconomic and other demographic factors, cognitive abilities, birth order, parental mental illness, pregnancy and birth complications and medical and psychiatric disorders (Beitchman & Inglis, 1991; Evans, 1987 and Beitchman et al, 1990).

Socioeconomic Status

Several studies reported an association between lower SES and language disorder whether SES was based on family income, occupational status or parental education level (Fundudis et al, 1979; Silva et al, 1982; Baker and Cantwell, 1983; Beitchman et al, 1988 and Beitchman & Inglis, 1991).

I.Q.

The relationship between language and I.Q. is natural and expected since language is a necessary component of most psychometric tests of intelligence. However, it has also been found that some language delayed children fall within normal IQ ranges (Baker & Cantwell, 1983; Silva, 1987).

It is worthy to note that SES also correlates with IQ. At this point it is not possible to say whether SES is specifically associated with language problems or more generally related to cognitive abilities as measured by IQ test (Puckering & Rutter, 1987 and Silva, 1987).

Moreover, in children with delayed language and hearing impairment, the

sensory impairment can confound clinicians and be mistaken for mental retardation (Hindley, 1997).

Birth Order

First born seems to be an advantage as regards language. Language disorders are more commonly associated with second and later-born status. It has been speculated that this association might be due to the greater amount of parental attention that the first born receives compared with second and later born children. Others related it to intrauterine environment (Beitchman, 1985; Puckering & Rutter, 1987; Beitchman et al, 1988 and Beitchman & Inglis, 1991).

Pregnancy and Birth Complications

Different studies found an association between pregnancy and birth complications and language disorders. McGee et al (1984) found that being small for gestational age (as measured by weight and head circumference) was related to delayed verbal functioning in early childhood. Siegal (1982) found that full term infants. Beitchman et al (1984) reported higher levels of prenatal stress and early or late delivery dates among children with language problems. However, it is to be noted that language impaired children studied by McGee et al (1984) and Beitchman et al., (1984) came from lower SES families.

Parental Psychiatric Illness

This is believed to reflect family discord, disruption and ineffective parent-child interactions associated with parental illness. Disrupted family relationships may decrease the quality and quantity of parental interaction with children which affects the latter language development (Rutter, 1987 & Puckering & Rutter, 1987).

Child's Psychiatric Illness

Beitchman et al (1990) studied a com-

munity sample of 1655, 5 year old children. They found that 142 (8.85%) of them had a speech and language impairment using child behavior checklist completed by parents showed that 68.7% of girls and 51.7% of boys with language impairment had a DSM-III axis I psychiatric disorder compared with 15.4% respectively for control girls and boys.

Medical Factors Affecting Language

Several medical factors have been identified by the literature including: 1- defects of speech apparatus eg. Cleft palate; 2-hearing loss; 3-pre, perinatal or acquired brain damage or dysfunction; 4- environmental derivation; 5-unknown etiology developmental language disorder in which affected children fail to develop normal linguistic ability despite their reasonable nonverbal ability, adequate hearing, physical and mental health, as well as, normal home ground i.e. no obvious cause (Evans, 1987 & Bishop, 1991).

Other Correlates

Other relevant variables having a negative effect on linguistic ability include close sibling spacing, maternal or paternal age, single parent family, as well as mothers abusing alcohol and drugs during pregnancy (Beitchman et al, 1989; Beitchman & Inglis, 1991).

The aim of this paper is to delineate a psychosocial profile for children suffering with delayed language and whether that of those with impaired hearing is different. Also, we aim at comparing our correlates with those reported in the literature from Western societies and highlight differences & / or similarities.

SUBJECTS AND METHODS

Within the Phoniatic Unit in Kasr El Ainin Hospital a psychiatric clinic was

operating (twice a week at first then thrice after few months) since March 1992. Phoniaticians referred patients, both adults and children, with a wide range of speech and language disorders.

A convenient sample of 150 children referred to the psychiatric clinic within the unit between March 1992 and November 1992. All were diagnosed by the phoniaticians as suffering with delayed language with or without hearing impairment. All cases frequenting the phoniatic unit on the working days of the psychiatric clinic were studied. Thus some were new referrals while others were in different stages of therapy.

Inclusion Criteria

Sex : both sexes.

Age : between One & half years and 12 years. The operating policy was if a child was mentally retarded or had impaired hearing therapy would start right away. However, if the child was normal, a wait and follow up policy till the age of three was adopted.

I.Q.: 50 and above

Diagnosis: delayed language whether or not there was a hearing impairment.

Exclusion Criteria

Age : below one and half years and above 12.

I. Q . below 50 .

Diagnosis other than delayed language eg. stuttering and articulation disorder. Children with psychiatric conditions, other than M. R. known to affect language eg. infantile autism, pervasive developmental disorders and schizophrenia.

Sensory impairment other than hearing eg. blindness.

Tools

A. Psychiatric Sheet with emphasis on : 1- Sociodemographic data : age ,

sex, number of siblings, birth order of patient. 2- Parents : age and age at birth , education , occupation , personality , pattern of relationship to each other and with the child / children .

3- Developmental history : perinatal, cognitive and neurotic traits .

4- Scholastic achievement academically and socially .

5- Past history : fever , trauma , medical and surgical .

6- Family history : consanguinity , similar condition , familial disease , and recent stresses in the family (last tow years) .

B Semi - structural interview probing the linguistic problem with emphasis on:

1 - Language development.

2- Parent's and child's reaction to the problem .

3- Effect of the problem on school (if appropriate) and social life eg . play with other children.

C . Children were observed and assessed for :

1- General appearances

2 - Interaction with : parents, therapist, environment and play with other children if applicable .

D . Intelligence tests :

1- Binet test.

2- Viand

E- Rutter's children behavior questionnaire for completion by parents (translated by S. M) However , it was not included as the majority of children were below 6 years and hence it was not appropriate .

F Statistical analysis : All statistical procedures in this study were conducted using State - view statistical program and an Apple Macintosh desktop computer (Mancintosh Psrfoma 5200) .

1 - Percentage

2- Range

3- Chi square .

RESULTS

Characteristics of Subjects

Diagnosis

One hundred and eighteen (78.67%) were children with delayed language and no sensory impairment . Through out this paper they will be referred to as **Group I** . 32 (21.33%) were children suffering from delayed language and hearing impairment and will be referred to as **Group II**.

Table 1
Sex Distribution Among Delayed Language Children without and with Impaired Hearing

Sex	Group I *		Group II *		Total	
	No	%	No	%	No	%
Male	71	60.17	19	59.38	90	60
Female	47	39.83	13	46.62	60	40
Total	118	100	32	100	150	100

$\chi^2 = .007$ p = .9351

* Group I: children with delayed language

** Group II: children with delayed language and hearing impairment

As table (1) shows 60 % were boys and 40 % girls . The same percentage applied to both groups.

As regards the age attending the clinic there was no significant difference between the two group . However , none of those with hearing impairment were more than 7.

Birth Order

This ranged from being the first born to the eleventh . 50 (33.56%) were first

born . 85 (57.50 %) were second to fourth . 13 (8.72%) were fifth to eighth . Only one (0.67%) was the eleventh .

Table 2
Age Distribution Among Delayed Language Children without and with Impaired Hearing

Age (years)	Group I *		Group II *		Total	
	No	%	No	%	No	%
> 2 years	20	17.09	6	18.75	26	17.45
3-5	77	65.81	22	68.75	99	66.44
6-7	14	11.97	4	12.5	18	12.08
8-11	6	5.13	0	0	6	4.03
Total	117	100	32	100	149	100

$$\chi^2 = .1719 \quad p = .6327$$

* Group I: children with delayed language

** Group II: children with delayed language and hearing impairment

Number of siblings

This ranged from a minimum of none to a maximum of 10 .

12 (38.05%) had no siblings .

57 (38.26%) had 1 sibling .

70 (46.98%) had 2 to 4 siblings .

10 (6.71) had 5 to 10 siblings .

Table 3
Source of Referral of Delayed Language Children without and with Impaired Hearing

Source of Referral	Group I *		Group II *		Total	
	No	%	No	%	No	%
Medical profession	78	67.82	19	59.38	97	
Family	25	21.74	9	28.12	34	
Media	3	2.61	1	31.12	4	
School	4	3.48	0	0	4	
Neighbors / friends	5	4.35	3	9.38	8	
Total	115	100	32	100	147	

$$\chi^2 = 3.012$$

$$p = .557$$

* Group I: children with delayed language

** Group II: children with delayed language and hearing impairment

As table (3) shows 65% of referrals were via medical profession . However, family members seemed also influential as they were responsible for 23 % of referrals . Accompanying Person

Table 4
Person Accompanying Delayed Language Children without and with Impaired Hearing

Accompanying Person	Group I *		Group II *		Total	
	No	%	No	%	No	%
Father	17	14.41	7	21.88	24	16
Mother	87	73.73	19	59.38	106	70.66
Both	7	5.93	0	0	7	7.67
Others	7	5.93	6	18.74	13	8.67
Total	118	100	32	100	150	100

$$\chi^2 = 8.282$$

$$p = .0405$$

* Group I: children with delayed language

** Group II: children with delayed language and hearing impairment

! Grandmother, aunt, neighbor, & in one case a career from an orphanage.

As table (4) shows the vast majority of children were accompanied by their mothers. More fathers were involved with children suffering from hearing impairment.

Parental age at birth

I- Maternal Age

Table 5
Maternal Age at Birth of Delayed Language Children without and with Impaired Hearing

Maternal Age at Birth	Group I *		Group II *		Total	
	No	%	No	%	No	%
Below 20 years	9	7.76	4	12.9	13	8.84
20-29 years	69	59.48	17	54.84	86	58.5
30-39 years	31	26.72	9	29.03	40	27.21
40 & above	7	6.03	1	3.23	8	5.44
Total	116	100	31	100	147	100

$$\chi^2 = 1.225$$

$$p = .7471$$

* Group I: children with delayed language

** Group II: children with delayed language and hearing impairment

Maternal age at birth ranged from a minimum of 15 to a maximum of 52 . As table 5 shows there was no significant difference between the two groups . Only 8.84% of mothers were below 20 and 5.44% were 40 or above .

II- Paternal Age

Table 6
Paternal Age at Birth of Delayed Language Children
without and with Impaired Hearing

Paternal Age at Birth	Group I *		Group II*		Total	
	No	%	No	%	No	%
Below 20 years	1	0.86	0	0	1	0.69
20-29 years	33	28.7	14	48.28	47	32.64
30-39 years	56	48.7	6	20.69	62	43.06
40-49 years	20	17.39	5	17.24	25	17.36
50 & above	5	4.35	4	13.79	9	6.25
Total	115	100	29	100	144	100

$$\chi^2 = 10.498$$

$$p = .0328$$

* Group I: children with delayed language

** Group II: children with delayed language and hearing impairment

Paternal age at birth ranged from 19 to 63 years . As table 6 shows fathers of children with both delayed language and hearing impairment were younger (48% were between 30 and at time of birth).

This item was added in the later part of the study . It was felt it would be of more significance than occupation taking in consideration that most mothers were housewives and that the job held did not necessarily reflect the level of education attained.

As tables 7 & 8 show illiteracy was lower among fathers (21.54%) than mothers (39.98 %) ; and children with hearing impairment than among those of delayed language only (23.08% vs , 43.4 % for mothers and 7.69% vs . 25 % for fathers respectively).

Prenatal Factors

A . Pregnancy Complication

1 Diabetes, hypertension , or thyrotoxicosis .

2 On top of a loop , vaginal bleeding . or threatened abortion .

3 Antibiotics, contraceptive pills , antihypertensive or antihistaminic medications.

The pregnancy with the vast majority of the subjects was normal . However, medications taken by the mothers during pregnancy seemed the most common hazardous factors associated with pregnancy of delayed language children in both groups.

Table 7
Maternal Level of Education of Delayed Language
Children without and with Impaired Hearing

Maternal Education	Group I *		Group II*		Total	
	No	%	No	%	No	%
Illiterate	20	43.48	3	23.08	23	39.98
Can read & write	1	2.17	0	0	1	1.9
Primary	6	13.05	1	7.69	7	11.88
Prep	2	4.35	2	15.38	4	6.78
Secondary	8	17.39	5	38.47	13	22.03
University	8	17.39	2	15.38	10	16.95
Post University	1	2.17	0	0	1	1.69
Total	40	100	13	100	59	100

$$\chi^2 = 6.038$$

$$p = .5353$$

* Group I: children with delayed language

** Group II: children with delayed language and hearing impairment

Table 8
Paternal Level of Education of Delayed Language
Children without and with Impaired Hearing

Paternal Education	Group I *		Group II*		Total	
	No	%	No	%	No	%
Illiterate	13	25	1	7.69	14	21.54
Can read & write	2	3.85	2	15.38	4	6.15
Primary	5	9.62	0	0	5	7.69
Prep	1	1.92	1	7.69	2	3.08
Secondary	13	25	6	46.15	19	29.23
University	15	28.85	2	15.38	17	26.15
Post University	3	5.77	1	7.69	4	6.15
Total	52	100	13	100	65	100

$$\chi^2 = 8.447$$

$$p = .2072$$

* Group I: children with delayed language

** Group II: children with delayed language and hearing impairment

Mode of delivery

Table 9

Complications Occurring During Pregnancy Delayed Language Children without and with Impaired Hearing

Pregnancy Complications	Group I*		Group II*		Total	
	No	%	No	%	No	%
Negative	87	75	22	70.96	109	74.15
Medical Condition ¹	3	2.59	2	6.45	5	3.40
Pregnancy at Stake ²	5	4.31	1	3.23	6	4.08
Medication ³	19	16.38	5	16.13	24	16.33
Eclampsia	2	1.72	1	3.23	3	2.04
Total	116	100	31	100	147	100

$$\chi^2 = 1.47$$

$$p = .831$$

* Group I: children with delayed language

** Group II: children with delayed language and hearing impairment

As table 10 shows 84.46% were normally delivered . A higher percentage of children in Group II (12.9%) were delivered by C.S. than those of Group I (5.98%)

Table 10

Mode of Delivery of Delayed Language Children without and with Impaired Hearing

Mode of Delivery	Group I*		Group II*		Total	
	No	%	No	%	No	%
Normal	99	84.62	26	83.87	125	84.46
Caesarean	7	5.98	4	12.9	11	7.43
Assisted I	8	6.81	0	0	8	5.42
Obstructed	3	2.59	1	3.23	4	2.7
Total	117	100	31	100	148	100

$$\chi^2 = 3.74$$

$$p = .2909$$

* Group I: children with delayed language

** Group II: children with delayed language and hearing impairment

¹ ventose of artificial induction was used.

Milestones of Development

As table 11 shows a higher percentage of delayed language only . Delayed walking seemed the next most common affected milestone of development in both groups.

Table 11

Delayed Milestones of Development Delayed Language Children without and with Impaired Hearing

Delayed Milestones of Development	Group I*		Group II*		Total	
	No	%	No	%	No	%
Language only	52	44.44	20	66.67	72	48.98
Language & walking	19	24.79	7	23.34	26	24.49
Language & teething	4	3.24	0	0	4	2.72
Language & crawling	2	1.71	1	3.33	3	2.04
Language walking & teething	22	18.81	1	3.33	23	15.65
Language & Spincteric control	1	0.85	1	33.33	2	1.36
All of the above	7	5.98	0	0	7	4.76
Total	117	100	30	100	147	100

$$\chi^2 = 15.5$$

$$p = .0869$$

* Group I: children with delayed language

** Group II: children with delayed language and hearing impairment

About 60% of subject showed neurotic traits . Although there was no significant difference between the two groups as regard frequency there was a difference as regards prevailing type . In group I nocturnal enuresis was the most common (25.66%) neurotic trait while in Group II thumb sucking was the most common (35.48%) .

Table 12

Presence of Neurotic Traits in Delayed Language Children without and with Impaired Hearing

Neurotic Traits	Group I*		Group II*		Total	
	No	%	No	%	No	%
Absent	47	41.59	15	46.88	62	42.76
Present	66	58.41	17	53.12	83	57.24
Total	113	100	32	100	145	100

$$\chi^2 = .284$$

$$p = .5939$$

* Group I: children with delayed language

** Group II: children with delayed language and hearing impairment

Past History**A. Infection and Fever**

As table 13 shows about 55% of cases showed no past history of fever or infection. A higher percentage (35.48%) of children with hearing impairment suffered from high fever for which they were not hospitalized compared to children without hearing impairment (18.8%).

Table 13
Past History of Infection and Fever in Delayed Language Children Without and with Impaired Hearing

Past History of Infection & fever	Group I *		Group II*		Total	
	No	%	No	%	No	%
Negative	67	57.27	14	45.16	81	54.73
Infection	22	18.8	5	16.13	27	18.24
High fever & no hospitalization	22	18.8	11	35.48	33	22.30
High fever & hospitalization	6	5.13	1	3.23	7	4.73
Total	117	100	31	100	148	100

$\chi^2 = 3.998$ $p = .2617$
 * Group I: children with delayed language
 ** Group II: children with delayed language and hearing impairment

Table 14
Past History of Surgery in Delayed Language Children Without and with Impaired Hearing

Surgical procedure	Group I *		Group II*		Total	
	No	%	No	%	No	%
Negative	96	88.07	23	74.2	119	85
Positive & ENTrelated 1	10	9.17	4	12.9	14	10
Positive & not ENTrelated 2	3	2.76	4	12.9	7	5
Total	109	100	31	100	140	100

$\chi^2 = 5.857$ $p = .0535$
 * Group I: children with delayed language
 ** Group II: children with delayed language and hearing impairment

B - Surgical Procedures

1 Gromet, cleft palate, tonsillectomy & / or adenoidectomy

2 Lipectomy, shunt for hydrocephalus, hernia feet correction, or squint correction.

A higher percentage of children with impaired hearing underwent surgery. However, unlike what one would expect, the highest difference between the two groups was in non-ENT related operations (table 14).

C. Trauma

Table 15
Past History of Trauma in Delayed Language Children Without and with Impaired Hearing

Past History of Trauma	Group I *		Group II*		Total	
	No	%	No	%	No	%
Negative	102	89.93	26	81.25	128	86.49
Head & Loss of consciousness	2	1.72	3	9.38	5	3.38
Head & Loss of consciousness	11	9.48	2	6.25	13	8.78
Broken limbs	1	0.26	1	3.12	2	1.35
Total	116	110	32	100	148	100

$\chi^2 = 5.724$ $p = .1258$
 * Group I: children with delayed language
 ** Group II: children with delayed language and hearing impairment

As table 15 shows 86% of children had no past history of trauma. Although there was no significant difference between the two groups, children with hearing impairment suffered more from loss of consciousness.

Family History**A Consanguinity**

As table 16 shows there is a highly significant difference ($p = .0037$) between the two groups as regards positive consanguinity. Children with hearing impairment had a higher occurrence of consanguinity the ratio being 2: 1 (56.67% : 28.45%).

Table 16
Consanguinity in Parents of Delayed Language Children without and with Impaired Hearing

Surgical procedure	Group I *		Group II *		Total	
	No	%	No	%	No	%
Negative	83	71.55	13	43.33	96	65.75
Positive	33	28.45	17	56.67	50	34.25
Total	116	100	30	100	146	100

$$\chi^2 = 8.429$$

$$p = .1258$$

* Group I: children with delayed language

** Group II: children with delayed language and hearing impairment

B . Family History of a Similar Condition .

Table 17 shows that children in Group II had a higher percentage of a similar condition in the family than Group I (35.48% & 26.72% respectively) . However, the difference is not statistically significant.

Table 17
Family History of a Similar Condition in Delayed Language Children without and with Impaired Hearing

F.H. of a Similar Condition	Group I *		Group II *		Total	
	No	%	No	%	No	%
Negative	85	73.28	20	64.52	105	71.43
Positive	31	26.72	11	35.48	42	28.57
Total	116	100	31	100	147	100

$$\chi^2 = 8.429$$

$$p = .0037$$

* Group I: children with delayed language

** Group II: children with delayed language and hearing impairment

Spheres likely to be affected by the Problem

1- Nursery / School

A. Attendance

1 As a result of being ridiculed because of his language .

Although there was no significant difference between the two groups, more children belonging to Group I (38.8%) were enrolled in a nursery / school compared to 29.30% of those of Group II.

Table 18
Nursery / School Attendance Among Delayed Language Children Without and with Impaired Hearing

Nursery / School Attendance	Group I *		Group II *		Total	
	No	%	No	%	No	%
Not yet	69	59.48	22	70.97	91	61.9
Ordinary	45	38.8	9	29.03	54	36.74
Withheld	1	0.86	0	0	1	0.68
For mentally handicap	1	0.86	0	0	1	0.68
Total	116	100	31	100	147	100

$$\chi^2 = 8.429$$

$$p = .0037$$

* Group I: children with delayed language

** Group II: children with delayed language and hearing impairment

B- Level of Scholastic Achievement

Table 19
Level of Scholastic Achievement in Delayed Language Children without and with Impaired hearing

Level of Scholastic Achievement	Group I *		Group II *		Total	
	No	%	No	%	No	%
Average	26	56.52	6	66.67	32	58.18
Below average	20	43.48	3	33.33	23	41.82
Total	46	100	9	100	55	100

$$\chi^2 = .318$$

$$p = .5726$$

* Group I: children with delayed language

** Group II: children with delayed language and hearing impairment

C. Playing and Mixing with Children at Nursery / School

There was no significant difference between the two groups as regards scholastic achievement (table 19) and mixing and playing with other school children (table 20) . However, children from Group II tended to be better achievers both academically (table 19) and socially (table 20) .

II - Interaction with Children Outside School (Appendix) .

As table (21) shows the majority of children in both group were able to interact with other children in the neighborhood or family however those with hearing impairment were more disrup-

Table 20
Playing & Mixing with Children at Nursery /
School Among Delayed Language Children
without and with Impaired Hearing

Playing & Mixing At school	Group I *		Group II*		Total	
	No	%	No	%	No	%
Average	36	80	8	88.89	44	81.48
Limited	9	20	1	11.11	10	18.52
Total	45	100	9	100	54	100

$$\chi^2 = .393$$

$$p = .5309$$

* Group I: children with delayed language

** Group II: children with delayed language
and hearing impairment

Table 21
Patterns of Interaction with Children Outside
School among Delayed Language Children with-
out and with Impaired Hearing

Interaction with Children Outside School	Group I *		Group II*		Total	
	No	%	No	%	No	%
No friends	15	14.92	5	16.13	20	14.7
Leader	6	5.71	2	6.45	8	5.88
Follower	15	14.29	0	0	15	11.04
Plays	52	49.52	17	54.84	69	50.74
Disruptive	13	12.38	7	22.58	20	14.7
Helpless	4	3.81	0	0	4	2.94
Total	105	100	31	100	136	100

$$\chi^2 = 7.513$$

$$p = .1852$$

* Group I: children with delayed language

** Group II: children with delayed language and
hearing impairment

1 For operational definition of patterns of interac-
tion see Appendix A.

tive 22.58% when compared to those
with no sensory impairment 12.38%.

III - Predominant Patterns of Relation between Parents and the Delayed Language Child (Appendix B)

1 For operational definition of pre-
dominant patterns of interaction between
parents and delayed language children
see Appendix B.

There was no significant difference
in the pattern of relation of parents to-
wards there language delayed children

Table 22
Predominant Patterns of Relation between
Parents and Delayed Language Children
without and with Impaired Hearing

Pattern of Relation between Parents and Delayed-language Child	Group I *		Group II*		Total	
	No	%	No	%	No	%
As other siblings	43	39.09	8	27.59	51	36.69
Spoiled because of the condition	38	34.54	11	37.92	49	35.25
Spoiled because of other reasons	22	20	8	27.59	30	21.58
Only one parent cared	5	4.55	2	6.9	7	5.04
Other siblings were preferred	2	1.82	0	0	2	1.44
Total	100		29		139	100

$$\chi^2 = 2.294$$

$$p = .6819$$

* Group I: children with delayed language

** Group II: children with delayed language and
hearing impairment

with or without hearing impairment .
However , a higher percentage of par-
ents (39% 0 of children with normal
hearing treated them as their normal
children as opposed to 27.59% of par-
ents of those with hearing impairment .

IV- Predominant Attitude (Reaction) to the Child's Problem (Appendix C)

A . Father

Table 23
Father's Predominant Attitude/reaction 1
to the Problem of their Delayed Language Children
without and with Impaired Hearing

Father's Reaction to the Problem	Group I *		Group II*		Total	
	No	%	No	%	No	%
Not informed	10	9.09	0	0	10	7.14
Not involved	2	1.82	1	3.33	3	2.14
Minimized the problem	14	12.72	0	0	14	10
Rationalization	12	10.92	3	10	15	10.71
Depressed	32	29.09	18	60	50	35.71
Overactive	3	2.73	1	3.33	4	3.86
Worried & anxious	7	6.37	4	3.34	11	7.86
Negative attitude	6	5.45	0	0	6	4.29
Positive attitude	24	21.81	3	10	27	19.29
Total	110	100	30	100	140	100

$$\chi^2 = 17.534$$

$$p = .025$$

* Group I: children with delayed language

** Group II: children with delayed language and
hearing impairment

1 For operational definition of child's predominant
attitude/reaction see Appendix C.

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As table 23 shows none of the fathers of children with impaired hearing minimized the problem nor adopted a negative attitude .

However ,they were more prone to depression (60%) as opposed to 29% of fathers of children with no hearing impairment . parliament .

B . Mother

Table 24
Mother's Predominant Attitude / Reaction to the Problem of their Delayed Language Children Without and with Impaired Hearing

Father's Reaction to the Problem	Group I *		Group II *		Total	
	No	%	No	%	No	%
Not informed	2	1.79	0	0	2	1.41
Minimized the Problem	4	3.57	0	0	4	2.82
Rationalization	7	6.25	4	13.34	11	7.75
Depressed	54	48.21	19	63.33	73	51.41
Overactive	1	.89	1	3.33	2	1.41
Worried & anxious	16	14.29	2	6.67	18	12.68
Negative attitude	2	1.79	1	3.33	3	2.10
Positive attitude	26	23.21	3	10	29	20.42
Total	112	100	30	100	142	100

$\chi^2 = 17.534$ $p = .025$
 * Group I: children with delayed language
 ** Group II: children with delayed language and hearing impairment
 1 For operational definition of child's predominant attitude/reaction see Appendix C.

As table 24 shows depression was the most frequent attitude of mothers more so among mothers of children with impaired hearing . Mothers (table 24) , of children with no hearing impairment were more able to adopt a positive attitude .

C . Child (Appendix D)

Language delayed children with impaired hearing seemed more aware of their problem; tended more to take action to overcome the problem ; and more aggressive or irritable asked to speak hearing seemed unaware that they have a problem as opposed to 36.67 % of those with impaired hearing .

Table 25
Children's Predominant Attitude / Reaction 1 to their Problem

Child's Attitude to the Problem	Group I *		Group II *		Total	
	No	%	No	%	No	%
Seems Unaware	58	55.24	11	36.67	69	51.11
Shy & / or avoidant	13	12.38	3	10	16	11.85
Aggressive or irritable	14	13.33	7	23.34	21	15.56
Depressed & / or upset	8	7.62	1	3.33	9	6.67
Takes action	5	4.76	4	13.33	9	6.67
Aware of problem	7	6.67	4	13.33	11	8.14
Total	105	100	30	100	135	100

$\chi^2 = 7.673$ $p = .1752$
 * Group I: children with delayed language
 ** Group II: children with delayed language and hearing impairment
 1 For operational definition of child's predominant attitude/reaction see Appendix D.

Pattern of Interaction as Observed During the Interview

A- With Accompanying Person (Appendix E)

Table 26
Patterns of Interaction of Delayed Language Children without and without and with Impaired Hearing with The Accompanying Person

Patterns of Child's Interaction with accompanying Person 1	Group I *		Group II *		Total	
	No	%	No	%	No	%
Warm	48	43.64	16	53.33	64	45.71
Clinging	44	40	5	16.67	49	35
Negativistic	14	12.73	9	30	23	16.43
Manipulative	1	0.9	0	0	1	0.72
No interaction	3	2.73	0	0	3	2.14
Total	110	100	30	100	140	100

$\chi^2 = 7.673$ $p = .1752$
 * Group I: children with delayed language
 ** Group II: children with delayed language and hearing impairment
 1 For operational definition of child's observed patterns of interaction with accompanying person see Appendix E.

As table 26 shows delayed language children with impaired hearing showed less clinging and more negativistic attitude towards accompanying person (usually a parent) than those with normal hearing 16.67% vs 40% and 30% vs 12.37% respectively .

B - With Interviewing Therapist (Appendix F)

Table 27
Patterns of Interaction of Delayed Language
Children without and with Impaired Hearing
with the Therapist

Patterns of Child's Interaction with Interviewing Therapist ¹	Group I *		Group II*		Total	
	No	%	No	%	No	%
None or limited	19	17.27	8	25	27	19.01
Eye contact	14	12.72	7	21.88	21	14.79
Trying to communicate	60	54.55	16	50	76	53.52
Shy or fearful	15	13.64	1	3.12	16	11.27
Observant/testing	2	1.82	0	0	2	1.41
Total	110	100	32	100	142	100

$$\chi^2 = 7.673$$

$$p = .1752$$

* Group I: children with delayed language

** Group II: children with delayed language and hearing impairment

¹ For operational definition of child's observed patterns of interaction with interviewing therapist see Appendix F.

There was no significant difference between the two groups in the ways they related to the therapist. However, a higher percentage of those with normal hearing was was shy or fearful.

C . With the Surroundings in the Interviewing Room (Appendix G)

Table 28
Patterns of Interaction with the Surroundings in the
Interviewing Room Among Delayed Language
Children without and with Impaired Hearing

Patterns of interaction with the Surrounding ¹	Group I *		Group II*		Total	
	No	%	No	%	No	%
No interaction	24	21.82	3	9.68	27	19.15
Limited exploration	58	52.73	14	45.16	72	51.06
All over the place	28	25.45	14	45.16	42	29.79
Total	110	100	31	100	141	100

$$\chi^2 = 7.673$$

$$p = .1752$$

* Group I: children with delayed language

** Group II: children with delayed language and hearing impairment

¹ For operational definition of child's observed patterns of interaction with interviewing see Appendix G.

Children with impaired hearing interacted more and more actively with the surrounding environment than those with normal hearing (table 28).

Cognitive Functioning (Intelligence)

A - As clinically Assessed

Table 29
Clinically Assessed Cognitive Functions in Delayed
Language Children without and with Impaired Hearing

Clinically Assessed Cognitive Functions	Group I *		Group II*		Total	
	No	%	No	%	No	%
Mild M.R.	42	37.84	9	29.03	51	35.92
Borderline	41	36.94	11	35.94	52	36.62
Average	21	18.91	9	29.03	30	21.12
Superior	7	6.31	2	6.46	9	6.34
Total	111	100	31	100	142	100

$$\chi^2 = 1.711$$

$$p = .6345$$

* Group I: children with delayed language

** Group II: children with delayed language and hearing impairment

Table 29 shows that there is no significant difference between the two group as regards cognitive functions when clinically assessed

B- As Psychometrically Assessed

Table 30
Psychometrically Assessed Cognitive Functions in Delayed
Language Children without and with Impaired Hearing

Psychometrically Assessed Functions	Group I *		Group II*		Total	
	No	%	No	%	No	%
Mild M.R. (50-70)	22	32.84	2	15.38	24	30
Borderline (70-89)	34	50.75	8	61.54	42	52.5
Average (90-110)	11	16.41	2	15.38	13	16.25
Superior (>110)	0	0	1	7.7	1	1.25
Total	67	100	13	100	80	100

$$\chi^2 = 6.635$$

$$p = .1565$$

* Group I: children with delayed language

** Group II: children with delayed language and hearing impairment

When cognitive functions were psychometrically assessed the majority of cases fell within the borderline category 52.5% (table 30) as compared to 36.63% when clinically assessed (table 29).

DISCUSSION

Characteristics of Subjects

Sex

In both groups there were males (60%) than females (40%) (table 1) , whether the same would apply to the general population awaits further community studies .

Age

About 84% of subjects were five years or below . There was no difference between the two groups except that none of those with hearing impairment tended to wait for longer before seeking medical help mostly in the hope of normalization as the child grows up .

Birth Order

Only one third of the subjects were first born which is line with findings reported in the literature where language disorders were more commonly associated with second and later born status (Beitchman , 1985; Puckering & Reutter , 1987; Beitchman et al, 1988; Beitchman & Inglis, 1991) .

Accompanying Person

Seventy person of cases were accompanied by their mothers which could be explained by the fact that 87.5% of the mothers in this study were housewives .

Source of Referral

Sixty five percent of cases were referred to phoniatic unit by medical profession . This could be due to the novelty the unit at time or more likely being highly specialized and parents would usually seek advice first from the pediatrician , Yet 23 % the referrals were initiated by family members . Media showed a minimum contribution of 3.8 given the importance of early detection and management, it would be difficult to overemphasize the importance of media in increasing the awareness of the public

as regards linguistic problems . With an illiteracy rate of 40% among mothers (table 7) and 21.5% among fathers (table 8) radio and T.V . role becomes invaluable . If we take into consideration that illiteracy rates are higher in the general population a justified concern is how many children are suffering and not receiving help or treatment .

Parental Age

Beitchman & Inglis 1991 reported that maternal age has a negative effect on linguistic ability . However , the results of this study are different . Sixty percent of delayed language children without or with hearing impairment were born to mothers between 20 and 29 years old and there was no difference between the two groups studied (tables 5) . Only 5.344% born to there was a substantial difference where fathers of those with impaired hearing were younger) table 6)

Perinatal Factors

Pregnancy and Birth Complications
In 74% of cases pregnancy was full term (table 9) and in 85% it was normal delivery (table 10) . This is in contrast to the studies reporting an association between pregnancy and birth complications and language disorders (Seigel, 1982; McGee et al, 1984; Bietchman et sl, 1984) . However , it is worthy to note that in 16% of subjects , mothers were on medication during pregnancy especially antibiotics (table 9) . In such a situation it is difficult to tease out what was associated with the delayed language and the hearing impairment : was it the condition that necessitated the medication or the medication itself . On the other hand , more mothers of children with impaired hearing suffered a medical condition as diabetes , hypertension, thyrotoxicosis or eclampsia during pregnancy as well as needing C.S . for delivery (tables 9 & 10) which suggest

that pregnancy and birth complication seem to be more associated with hearing impairment than delayed language only in this study .

Milestones of Development

In fifty percent of the whole sample language was the only milestone delayed . However , this was more so among those with impaired hearing (67%) compared to 44.5% of those without (table 11) . It is well known that milestones of development are among the criteria for clinically assessing intelligence especially in children . In this study I.Q. assesses clinically showed that about 70% were below average (table about 29) while psychometric assessment showed a higher percentage about 80% (table 30) . As the relationship between language and I. Q. is natural and expected since language is necessary component of most tests of intelligence) Baker and Cantwell, 1983 & Silva , 1987). Also when dealing with a delayed language child who is also mentally retarded it is important to elucidate two issues : firstly is level as other cognitive impairment and secondly is the language development (rutter & Hersov, 1985) . The condition is even more confounded in children with hearing impairment as they can be mistaken easily for mental retardation (Hindly , 1997). In this study , however fewer children with hearing impairment were diagnosed as mildly retarded when compared to those without both clinically and psychometrically 29% vs . 38% and 15% vs 33% respectively (table 29 & 30)

Neurotic Traits

57% of children showed neurotic traits. It is important to note that some of the children were beyond the age to consider the event as a neurotic trait, for example, thumb sucking is not a neurotic trait until the age of 2, nocturnal enuresis till the age of 4 and encopresis till the

age of 3 (Abdel Rahman, 1987). In this study the most common neurotic trait among those without hearing impairment was nocturnal enuresis (25.6%), while the most common among those with hearing impairment was thumb sucking 35.5%. This is in line with literature were Cantwell and Baker (1987) found that 21% of their sample had a learning or other developmental disorder as enuresis and encopresis.

Past History

Positive consanguinity in those with hearing impairment was double that in those without 57% vs 28.5% respectively (table 16). This suggests a genetic role for vulnerability to hearing at least. A finding having important implication for prevention. However, the difference between the two groups as regards positive family history for a similar case was statistically non significant (table 17).

School

Only 29% of children with impaired hearing attended nursery or school compared to 39% of those without (table 18). It is worthy of note that 84% of the children were below 6 years the starting age for school enrollment. Also as the majority of mothers were housewives nursery enrollment was not needed. However, those who did, said it was because they believed it would help their child to talk. Delayed language children with hearing impairment were less impaired achievement wise (table 19), as well as less limited in playing and mixing (table 20). However, in non school play this group seemed to encounter more problems. 16% had no friends and 22% were described as disruptive compared to 14% and 12% among those with no hearing impairment (table 21). This is inline with findings reported in the literature that deaf children appear more likely to engage in solitary play,

show decreased use of object substitution and less play despite having basic play competence.

In the sample as a whole 2/3 of the children were able to maintain a degree of play outside school; in school 80% had no problem mixing and playing with other children. This might reflect a greater acceptance within our culture than western cultures. The discrepancy between ability to play and mix in school and out might be because those who managed to join school had better socializing strategies and maybe higher cognitive abilities than those who did not. Fey (1986) stated that language impaired children are poor communicators, relative to their normal peers. They are seen as less responsive and less able to maintain a conversation with their peers. Language impaired children might suffer from difficulties in social interaction with their normal peers in integrated pre-school settings. Rica et al (1991) studied a group of pre-school children age ranging from 3 years 5 months to 6 years 1 month. They found that children with limited communication skills were more likely than their normal language peers to initiate with adults and to shorten their responses or use nonverbal responses. Also normal language peers were the preferred addressee in peer initiation for normal language children i.e. those with limited skills were less recipient of an initiation. Multiple contributing factors are implicated including intelligibility, limited linguistic flexibilities, limited discourse skills and self consciousness about communicative competence. Table 25 shows that those who had hearing impairment were more aware of having a problem. Only 37% of them seemed unaware (or to be more accurate neither the parent nor the assessing psychiatrist were able to detect awareness) as opposed to 55% of those with delayed language only. This seemingly unharness

could have contributed to the ability of these children to mix and play as their self image was that of non disabled and not different from others.

Predominant Parental Reaction to Child's Problem

Depression was the most common reaction among both fathers and mothers, more so among parents of children with hearing impairment (table 23 & 24). This is inline with the literature. Hindley (1997) stated that from the time when their child's deafness is confirmed, images of disability and attitudes towards disabled children confirm that having a deaf child is a tragedy. As a result the most prevalent model used result the most prevalent model used to explain parental response is that of crisis / adaptation, in which the confirmation of deafness is understood as provoking feelings of loss which have been compared with bereavement (Danek, 1988 & Hindley, 1997).

Patterns of Interaction as Observed during the Interview

Fifty percent of children belonging to both groups tried actively to communicate with the assessing psychiatrist (table 27). Children with delayed language were more clinging to accompanying adult 40% while 30% of those with impaired hearing were negativistic (table 26). 45% of the later group showed overactivity compared to 25% of those with delayed language only. A number of studies have suggested that deaf children show greater degrees of impulsivity than hearing children (O'Brien, 1987 & Hindley, 1997). It is important to bear this in mind when assessing a deaf children showed overactivity only one qualified to the diagnosis ADHD as defined by DSM-III-R) (APA, 1987). The overactivity not only interfered with socialization with other children and created stress at home but also sometimes interfered with therapy.

Conclusions and Recommendations

1- This study highlights several adverse events occurring very early (sometimes in utero) in language delayed children especially those with hearing impairment. These include mothers' suffering with medical condition (thyrotoxicosis, diabetes, hypertension and eclampsia) or receiving medication during early months of pregnancy especially antibiotics. Children suffering with fevers, head trauma with loss of consciousness and undergoing surgeries even those not ENT related. A highly statistically significant factor is positive consanguinity among parents of children with hearing impairment.

2- Children with delayed language could be classified according to several criteria for example IQ hearing impairment, etiology, etc. For management a different approach seems more helpful. It is our opinion that Paul's (1995) suggestion to use WHO terms, impairment, disability and handicap (Wood, 1980) with their precise meaning gives clinicians a good description of conditions they deal with.

Impairment is 'any loss or abnormality of psychological, physiological or anatomical structure or function' (Wood, 1980). It refers to some difference between the child with impairment and other children.

Disability is 'any reduction in person's ability to address the needs of daily situations or stages of life' (Wood, 1980). In our case the term disability refers to child's needs for functioning in real world environments. We as clinicians aim to increase the child's ability to get along in everyday world for example communicating and playing with other children.

The term handicap refers to 'any social or occupational disadvantage a per-

son suffers because of an impairment or disability. This is affected not only by the person's impairment or disability, but also by the attitudes and biases of others with whom the person comes in contact' (Wood, 1980). When we use the term handicap we are referring to ways in which we can work not only with the child, but with the people in child's environment to maximize participation and success for example in the class room. As such to children with similar conditions might be managed differently according to abilities, characters and environments.

3- Psychiatric assessment of delayed language children with hearing impairment poses some problems / difficulties. Effective features are less likely to be picked up as similar facial expressions could convey different messages e.g. anger, distress, opposition. Sensory impairment can confound clinicians when estimating intelligence. The clinician may be lenient attributing the affected performance to the sensory impairment rather than the cognitive ability. More commonly, however, the child's condition is mistaken for mental retardation. Another issue is the greater impulsivity observed among deaf children. Impulsivity may confound assessment of ADHD or lead to reporting higher rates of ADHD among them.

4- One issue of great importance that has not been addressed in this paper is the relationship between psychiatric and communication disorders in children. Several psychiatric disorders in childhood have communicative symptomatology as part of their clinical picture. These include infantile autism, pervasive developmental disorders and schizophrenia. According to Cantwell & Baker (1991) even when patients with these disorders are excluded many other child patients with a variety of different types

of psychiatric disorders, have been found to have speech and language disorders.

5- We need more information on the effect the various types of speech and language therapy have not only upon linguistic function, but also upon psychiatric symptomatology for example effect of language session and repetition in children with autism or stereotype. Moreover, we need to know more about the effect of various types of psychiatric intervention on a child's linguistic sessions. One problem encountered during the study was a child with remarkable overactivity who responded relatively well to thioridazine titrated up to 10 mg tds. Unfortunately with such a dose he seemed slow in the linguistic session, though more attentive and less disruptive. It was important in this case to manage conjointly with the phoniatrist to reach an acceptable compromise between overactivity and slowness.

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Appendix A

Patterns of Interaction with Children outside School

No Friends: this maybe because of:

1) parental restrictions (neighborhood not suitable; to avoid quarrels and problems; or living in isolated areas); 2) although among other children, the child sits alone and does not participate in their activities; 3) parents not allowing their children to play except with siblings & / or relatives.

Leader : the child leads other children, tell them what to do, what to play & when and even decides who joins the game. His/her presence is considered essential by other children.

Follower: Child joins whoever is playing and submit to their orders and follow suit.

Plays: The parent reports that the child join children during their play but cannot specify the predominant pattern or mentions a mixture of patterns.

Disruptive: either the child is aggressive towards other children or sabotages

the game because he wants to enforce his own terms (eg. does not wait his turn, destroys the toys, etc.) regardless of the rules of the game and the desires of other children.

Helpless: when among children the child is usually attacked and cannot protect self even if other children are younger.

Appendix B

Predominant Pattern of relation between Parents and the Child with the Problem

As other children (siblings): the child is treated like the siblings i.e. demanded to abide to the same rules & told off for the same misbehaviors.

Spoiled because of condition: parents are more lenient with the child only because he/she is suffering from the problem addressed i.e. delayed language with or without hearing impairment.

Spoiled because of other reasons:

parents are more lenient with the child because he/she is the youngest, oldest, only child, because he is a boy, or being the child preferred by mother or father.

One parent only cares: when one parent is aggressive or not involved with the child especially because his/her condition, so the other parent tries to compensate.

Other Siblings preferred: when the child with the problem is regarded as a defect or not deserving care, thus he/she is neglected or parents invest their love and interest in the other children as they are healthy.

Appendix C

Parents' Predominant Attitude/ Reaction to the Problem

Not informed: because of being

abroad or seriously ill and thus not told, or no relation after a divorce or separation.

Not involved : this was reported by the accompanying parent. The themes were he/she does not care (because of discord or divorce or personality of person), or no reaction (all leading questions probing for one of the listed reactions in this appendix were negated).

Minimized the problem: the parent denied the presence of a problem, viewed the child as normal or acknowledges child is different but not alarming 'the child will overcome the problem as he/she grows, the condition does not need any interference'.

Rationalization: listing reasons for the occurrence of the problem '(s) he is underweight, I was grieving when (s) he was born' or 'it's God will what can I do'.

Depressed: weeping and feeling sad, preoccupied by the inability of the child and gloomy.

Overprotecting: excessively protecting the child by not adjoining him in a nursery or school out of fear that the child would be ridiculed or not understood. They allow the child to depend on them and not to do age appropriate tasks.

Worried and anxious: occupied and worried about how the condition will progress. Feeling uptight and nervous. Some parents stated that their anxiety interfered with their daily life.

Negative attitude: these ranged from being angry; embarrassed and shy that they have a defective child guilty feeling responsible for their kid's disability; hopeless: lost any hope that their child will improve; up to rejecting the child, refusing to have another child; accusing the child of pretending or blaming the spouse for the child's condition.

Positive attitude: eager to do something (eg. seeking medical advice) not only early but all through trying to find out more ways to help the child. Parents were optimistic and feeling they are on the right path though things tend to take a fair amount of time.

Appendix D

Child's predominant Attitude/ Reaction to the Problem

This was concluded from the informant (a parent, usually the mother, or a relative). Also from the child directly, if possible, or as detected from his/ her reactions through out the interview.

Seems unaware: this applied especially to very young children i.e less than three years who were not able to report or answer questions about how they feel and whose reactions did not reveal awareness as for example by asking for hearing aids, refusing to join children or talk for fear of ridicule. (The word seems is used because we are aware that children might be aware but not capable of communicating).

Shy and / or avoidant: if the child stated this verbally, or if the child hides or avoids talking in front of strangers or becomes anxious if (s) he has to speak. This may also occur during the interview with the therapist eg. child hides face when mother was explaining the problem.

Aggressive or irritable: if the child throws a temper tantrum or becomes destructive, irritable and antagonistic if not understood, mocked or asked to speak properly. The child might try to silence the accompanying person from describing the problem by putting his hand on his/her mouth with evident aggression and sometimes by smacking the adult.

Depressed and Upset: the child seems depressed and weeps when not un-

derstood, rebuked or criticized for defective language the child reaction may range from crying or being annoyed up to refusal to go to nursery or mix with kids. Depression may extend beyond the incident (s). The child might become annoyed or depressed while the mother is recounting the story to others or the psychiatrist during the interview.

Takes action: the child makes an effort to be understood using his hands to point to things he wants or asks for his hearing aid to listen to a conversation or before going to play with kids.

Aware of the Problem: this category included children reported by the accompanying person to be definitely aware of having a problem but cannot specify a specific constant predominant reaction. It could be any combination of the above reactions, and the child has indicated in the interview that (s) he has a problem.

Appendix E

Child's Interactions with the Accompanying Person as observed during the Interview

Clinging: child remains attached to the accompanying person refusing to sit on a separate chair or to do anything not accompanied for example to pick a toy from the shelves in the same room.

Negativistic: the child is disobedient, stubborn, refusing to do or to refrain from whatever the parent asks and in some cases child might be aggressive if pressed eg. hits or forcefully pulls the accompanying person in more than one occasion and not solely when the latter was desiring the problem.

Warm: the child-parent relation is mutually friendly. The child making an effort to understand and respond. There is a wide margin of responsible permissiveness allowing the child to explore him/herself and to move around in the room and be independent.

No interaction: either the child was asleep or sat still without communicating verbally or non-verbally all through the interview.

Manipulative: the child kept screaming or destroying thing to force parent to leave room.

to leave the room, weeping and pulling their parent either not to enter or to leave room.

Testing / bserving : the child does things to test the limits eg. pulls a toy or plays with keys of the air condition and waits to see therapist reactions.

Appendix F

Child's Interactions with the Therapist as Observed during the Interview with the Therapist

None or limited: either the child was sleepy, or in few cases had to join their sessions and the interview was held with the mother only. Or the child sat still and did not indulge in any interaction.

Eye to Eye contact: the child maintained eye contact but was unable or unwilling to communicate verbally. Also the child kept distant.

Trying to communicate: the child tried to communicate whether verbally or non-verbally. Also, children in some cases initiated the communication by saluting, asking questions, coming to the therapist to shake hand or kiss hello or showing something.

Shy or fearful: the child was either shy, (hiding, avoiding answering the therapist but instead whispered the answers to the parent). or fearful wanting

Appendix G

Child's Interactions with the Surrounding Environment as Observed during the Interview

No interaction: either the child was asleep, held by accompanying person, hypoactive or taken aback and thus sitting still.

Exploration within limits: the child explored the place with his / her eyes while sitting in his / her place or only explored objects within reach where (s) he is sitting in spite of the presence of more interesting objects in other part of the room. Examples include playing with a piece of paper in front the child instead of playing with a toy on a side table.

Allover the place: the child explored everything in the room and even outside it. Sometimes the child left the room and was about to leave the unit leaving the accompanying person and therapist to explore.

Corrélations psychosociales des enfants souffrants d'un retardement de langue: une étude Egyptienne

La langue est une chose fondamentale pour tout les aspects essentiels d'être humaine. Le but de ce travail est de délinéer quelques corrélations qui ont lieu avec le retardement de langue dans notre société. Les facteurs qui ont été étudiés inclus: les facteurs démographies et périnatales, histoire médicale et familiale., manière de rapport entre les parents, les parents et l'enfant, l'enfant retardé et les autres enfants. Les resultats on délinéer l' importance de quelques facteurs.

المصاحبات النفسية والاجتماعية للتأخر اللغوى فى الأطفال دراسة وصفية مصرية

يستعرض الباحثان فى هذه الدراسة التراث النظرى لأسباب التأخر اللغوى. وقد قام الباحثان بإجراء دراسة وصفية إكلينيكية لعيئة تتكون من مائة وخمسين طفلا من المترددين على وحدة السمعيات بمستشفى القصر العينى - جامعة القاهرة. وقد تقصى الباحثان البيانات النفسية الإجتماعية والتاريخ الإنمائى للطفل والتاريخ المرضى من خلال المقابلة مع الوالدين كما أجريا مقابله شبه منظمه لإستبيان موقف الوالدين وردود أفعالهم وتفاعلاتهم وعلاقة الطفل بمدرسته أو أقرانه ولعبه- وذلك بالإضافة إلى إجراء مقياس ستانفورد بينية لذكاء الأطفال ومقياس رتر لوصف سلوكى الطفل ومقياس فاينلاند للنضج الإجتماعى.

يناقش الباحثان النتائج التفصيلية للدراسة وملامح العينة والسمات المميزة ومدلولات هذه النتائج فى العينة المصرية فى البيئة الثقافية الوطنية بالمقارنة بالدراسات الأخرى عبر الثقافات المختلفة - كما يوصى الباحثان بالنظرة الدقيقة الفاحصة للعوامل البيولوجية والإجتماعية النفسية لهؤلاء الاطفال الذين يعانون فى التأخر اللغوى كما يدعوا إلى مزيد من الدراسات المقارنة بين مجموعات مختلفة طبقا للعوامل الإكلينيكية المسببة أو التصنيفات المتشابهة أو لنوعية الخطة العلاجية المقترحة.