DEVELOPMENT OF A CASE-HISTORY FORM FOR CHILDREN WITH HEARING LOSS

Reg.No. 7

An Independent Project Work Submitted as Part fulfilment for First Year M.Sc, (Speech and Hearing) to the University of Mysore

ALL INDIA INSTITUTE OF SPEECH AND HEARING

MYSORE - 570 006

TO

DEAREST

APPA & AMMA

CERTIFICATE

This is to certify that the independent project entitled:

"DEVELOPMENT OF A CASE-HISTORY FORM FOR CHILDREN WITH HEARING LOSS"

is the bonafide work/ done in part fulfilment for First Year M,Sc., Speech and Hearing, of the student with Register Number: 7

Director,

ALL INDIA INSTITUTE OF SPEECH AND HEARING

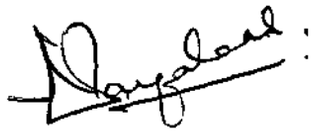
Mysore - 570006

CERTIFICATE

This is to certify that the independent project entitled:

"DEVELOPMENT OF A CASE-HISTORY FORM FOR CHILDREN WI TH HEARING LOSS"

has been prepared under my guidance and supervision.



(GUIDE)

D E C L A R A T I O N

This independent project entitled

"DEVELOPMENT OF A CASE-HISTORY FORM
FOR CHILDREN WITH HEARING LOSS"

is the result of my work undertaken under the guidance of Mr. Jesudas Dayalan Samuel, Lecturer in Audiology, All India Institute of Speech and Hearing, Mysore-570 006, and has not been submitted at any University for any other Diploma and Degree.

MYSORE

DATED: Register No.7

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CONTENTS

Chapter - 1

WHAT IS A CASE HISTORY?

"In its most general terms,diagnosis as an aspect of the clinical method is aimed at acquiring knowledge about nature and origin of patient's difficulties. The essential elements of diagnosis include (1) Securing all relevant information from available sources (2)analyzing these data and (3) planning for the future"(Watson, 1963). Thus case history forms the first element of diagnosis.

Lazarus and Shaffer(1952) define case history of an individual as "a story about his life presented in the most complete and objective manner possible".

Case history is being in use in the medical-field for a long time. Psychologists have found the case history technique a valuable source of data for applied and theoretical purposes. Even the other disciplines have found this to be useful in clinical diagnosis.

Case history forms an essential part of clinical examination. "History fortells the examination's findings; the examination adds insight to historical information. Each acts to illuminate the other"(Fuller,1970). Case history gives a full picture of (i) Onset (ii)Development and (iii) Present status of the problem.

Chapter - 2

"IMPORTANCE OF CASEHISTORY IN AUDIOLOGICAL DIAGNOSIS & COUNSELING"

A case history gives the present portrait of the problem in question against adequate background information. Rosenberg(1978)describes casehistory as 'the first test'. Following points emphasize the importance of this first test in audiplogical diagnosis and counseling.

1. First of all case history taking enables the audiologist to build rapport with the case. This is essential for further testing.

2. Case's parents get actively involved in the evaluation, while audiologist takes casehistory. This involvement makes it easier for the audiologist to explain the test findings and give recommendations to parents during counseling.

3. From case history, audiologist gets information regarding case's age and present condition of the problem. This information helps the audiologist to modify testing procedure to suit the needs. For example, a three year old child with no speech can be tested in a soundfield situation,for hearing.

4. Symptoms of the hearingloss recorded in a case history many times point to the type of hearing loss. For example, History of earpain, eardischarge point to middle ear problem.

5. Case history to some extent, enables the audiologist to choose appropriate test for differential diagnosis. Example- While taking history, if the audiologist finds out that the case is claiming a pension certificate for hearing loss, is making exaggerated attempts to understand speech and giving vague descriptions of his hearing difficulty, then the audiologist may suspect possibility of a functional hearing loss. Then he may choose an appropriate test to confirm or reject his suspicion.

6. Case history, to some extent, indicates severity of the problem.

7. Information available in the case history gives an idea about possible possible causative factor of the problem. Example: "Mother had Rubella in 2nd month of her pregnancy". This information indicates that the hearing loss the child is having might have been caused by Rubella.

Thus case history provides information which may either support or challenge the test results.(Rosenberg,1978).

There is difference of opinion among audiologists regarding the importance of case history in audiological diagnosis.

Cole and Mary Lovely wood (1978) feel that taking case history is an important component of differential

diagnosis. According to Sweitzer an audiologist can use the case history information for assessing the validity of his test results. While Rosenberg(1978) called case history the first test, Myklebust (1954) felt that case history taking is the first step in diagnosis Katz and Struckmann (1972) and Hannah and Sheeley(1975) opine that case history helps to plan the test procedure appropriately.

But there are others who question the wisdom of case-history.

Northern and Downs(1974) feel that (i) case history taking before testing induces a bias in the audiologist. This may affect his observations and mislead him and (ii) an audiologist need not take case history because historical information is collected by other specialists.

But stream and Stream(1978) object to this view. According to them, an audiologist need not be always a part of multidiciplinary team. In such a case, it is essential that the audiologist take case history. This helps him in diagnosis and counseling.

Fulton believes more in behavioral orientation than in etiological identification from case history. Marshall[2] feels that the audiologist must not spend unnecessary time with patient either in taking a case history or doing an evaluation.

Based on personal correspondence between Dr.Robert T.Fulton, professor, Depatment of Hearing and Speech, University of Kansas Medical Center, Kansascity and the investigator.

Based on personal correspondence between Dr.Lynne Marshall, Assistant Professor and Clinical Co-ordinator of Audiology of University of Nebraska Medical Center, Omaha and the investigator.

Chapter - 3

WHY A CASE HISTORY FOR CHILDREN?

"A child is very special. He has special charm, special needs, special skills and special problems. We who serve him must find special ways to do so and we must do it in the time he will allow"(Ehrlich, 1978). So it is obvious that children are special and need special care.

This holds good for both the cases- a normal child and a child with a problem. In the case of the latter, the needs are actually more. A.J.Smedley(1978) feels that- "The child who is normal; and easy to teach, will need and deserve our care. But the child with a problem has further to reach, And should get a more bountiful share".

Case history is the primary diagnostic tool in a clinical evaluation. "Special care" mentioned above includes a case history too. Children differ from adults in many ways behavior, needs, problems etc. Hence a case history being used for the adults will not fit in to the needs of children. A seperate, special one would serve the purpose.

Chapter - 4

"ADULTS'CASE HISTORY FORM VS CHILDREN'S CASE HISTORY FORM"

A child is individualistic in his own way. He is not just a miniature form of an adult. The case history needed for a child has special features and differs from that needed for an adult. The differences between the two can be traced along the following lines.

1. Identifying information for an adult includes his address, education, occupation, income etc. A child is identified by the address, occupation, education and income of parents for obvious reasons.

2. For a child, the informant may be his parents, family members or his guardian. Most of the times, an adult himself can report about his problem.

3. Statement of the problem will be in the words of the informant which differs from an adult to child.

4. Vertigo and tinnitus form important symptoms to be recorded if the patient is an adult. This is because they indicate adulthood hearing problems like meniere's disease and otosclerosis. A child cannot report these symptoms.

5. Prenatal history forms an important part in the case history for a child. It is shown by evidence that factors which affected the mother during pregnancy will have an

effect on the developing embryo. By prenatal history, most of the times it is possible to identify possible causative factor of congenital problem. This information is not needed for an adult.

6. Same difference between adult and child case histories holds good for natal, neonatal and developmental histories. Natal history includes information like place and type of delivery duration of labor etc. These things determine whether a child is born normal or with brain damage or congenital anamoly. Under neonatal history, came diseases affecting the new born,example- neonatal jaundice causing hearing loss and braindamage in the child/developmental history assesses whether child is normal or delayed in development.

7. Dosage of drugs causing ototoxicity varies from an adult to a child lesser amount of drugs can cause otoioxicity in children.

8. Auditory behavior of a child throws light on presence or absence of hearing loss. It is not relevant in the adult case history.

9. Speech and language behavior form essential part of a child's case history. This depends upon child's auditory awareness. An adults case history does not require this.

10. In social history some items like habit of bedwetting, thumb-sucking, hyperactivity and play behavior indicate child's emotional and social status. It is irrelevant for an adult's case history.

11. An adult case with hearing loss should be asked about his difficulty in hearing at home, his occupational set up etc. A child cannot express these things usually.

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Chapter - 5

"CONSTRUCTION OF A CASEHISTORY FOR CHILDREN WITH HEARING LOSS"

The need for a special casehistory for children has already been justified in the previous chapters. So far, a common case-history for both adults and children is being used in our set up. This led the investigator to develop a case-history for children with hearing loss.

To begin with, the compiler wanted to collect the case-history samples used for children in western countries, as most of them use a separate one for children. For this purpose following members of'American Auditory Society'were contacted.

1. Anderson C..V.
2. Barry S.J.
3. Bate H.L.
4. Beasley D.S.
5. Berger K.W.
6. Bess F.H.
7. Bluestone C D .
8. Borton T.E.
9. Brunt M.
10. Conway F.S.
11. Downs M.
12. Ernest E.C.
13. Fulton R.T.
14. Gerber S.E.
15. Goldstein D.P.
16. Keith R.W.
17. Klein C..S.
18. Krebs D.
19. Lynn G.E.
20. Marshall L.
21. Mattingly S-C.
22. Rassi J.A.
23. Raymond H.A.
24. Seideman M.F.
25. Silverman I.

They were informed about the purpose of this project and were requested to send the casehistory form which they use for children with hearing loss.

Members who sent children's case history forms were-

1. Anderson C.V.
2. Barry S.J.
3. Beasley D.S.
4. Bess F.H.
5. Borton T.E.
6. Fria T.J. for Bluestone C D.
7. Gerber S.E.
8. Goldstein D.p.
9. Keith R.W.
10. Klein C.S.
11. Miller L. for Mattingly S.C.
12. Rassi J.A.
13. Seidman M.F.
14. Silverman I.

Some members informed that they were not using a separate casehistory form for children. However they sent the casehistory forms they are using for adults. They are Raymond and Tepper who feel that a special casehistory for children needs to be developed.

Downs, Fulton and Marshall expressed their opinion that case history does not form an important element in audiological diagnosis.

Apart from these casehistory samples, some appearing in the books -

1. Hand book of clinical Audiology - Katz.
2. Diagnostic methods in speech pathology- Spriestersbach & Darley.

3. Hearing loss in children - Jaffe
4. Paediatric Audiology - Martin
5. Auditory disorders in children-Myklebust were also taken*

Combining the different items appearing in these casehistory samples, a rough format was developed. It goes as follows -

IDENTIFYING INFORMATION:

Date:

Child's name: Date of birth: Age:

Sex: Birth place:

Address: Phone:

Referred by:

Father's name: Age:

Occupation : Education:

Mother's name: Age:

Occupation : Education:

Marital status of parents: Married - Widowed - Separated-Divorced-Unmarried

Siblings:

Name	Age	Sex	Grade in school	Speech and Hearing or medical problems

Child is living with: Natural parents- One parent alone-
Adoptive parents- Foster parents-
Parent and step parent- Other

Child or family Doctor's name:

Address:

Interviewer: Informant:

Others living in child's home:

Nationality of parents : Family's religion:

Languages spoken in home :

Statement of the problem

Description of nature of the problem:

When hearing loss was first suspected:

By whom: Duration of loss: Right-Left-Both

What are the symptoms of the loss :

Has the child received medical attention for the loss?

Date:	Name & Address	Findings

Hearing loss - Fluctuates - Progressive - Constant

What do the parents believe the speech and hearing centre can do for their child?

Prenatal History

Mother's health during pregnancy (put _ mark for the appropriate state)

Excellent_____Good_____Fair_____Poor_____Very poor

Whether the mother had any of the following problems during Pregnancy:

Excessive vomitting	Toxemia	Thyroid problem
Bleeding	German measles	Kidney disease
Swelling	Anemia	X-rays exposure
High B.P.	Diabetes	Diet
High fever	Heart problem	Anesthesia during pregnanc
convulsions	Asthama	Rh incompatibility

If yes, during which month:

Was hospitalization necessary:

Any accidents: Type of injury:
Whether hospitalised:

Previous pregnancies:

Miscarriages: False alarms:

Length of pregnancy:

Midication: Name & dosage of drug: Duration:

Natal history

Delivery: (i) At home _____

(ii) At hospital Duration of stay:

Type of delivery: Normal_____Caesarean:_____Breech:_____

Dry_____High forceps_____

Other _____

Duration of labor_____Birth weight_____

Whether anesthesia was used_____Whether premature _____

Prolonged stay in incubator_____Birth cry_____

Blood transfusions _____

Whether the newborn had any of the following problems:

Fever	Convulsions/Seizures
Excessive vomitting	Jaundice (yellow baby)
Allergies	Birth defects
Bleeding	Sucking or feeding difficulty
Colic	
Excessive crying	

	6 months	1 year	At present
Weight of Infant			
Height of Infant			

Whether child was given any injectable antibiotics:_____

Family History

Information	Yes	No	Uncertain	Relation to child	Audiologis comments
Consanguinous marriage					
Family History of:					
i) Hearing loss					
ii) Kidney disease					
iii) Speech & language problems					
iv) Learning disabilities					
v) Progressive blindness					
vi) Previous still births or miscarriages					
vii) Seizures					
viii) Mental retardation					

ix) Congenital anamolies :

x) Diabetes :

xi) Tuberculosis :

Developmental History

The age at which the child:

(a) could hold the head erect_____ (i) Sat unsupported_____

(b) followed objects with eyes_____ (j) Crawled _____

(c) was aware of light_____ (k) Stood alone _____

(d) Rolled over from back to stomach_____ (m) (l) Walked along _____ Dressed himself_____

(e) Played with hands_____ (n) ride tricycle

(f) reached for objects (o) achieved toilet training _____

(g) creep

(h) fed self _____ Day_____ Night

Coordination _____ & Balance _____

Hand preference_____ Drooling ^

Unusual eating habits:

Medical history

Whether the child had any of the following diseases:

Encephalitis	Meningitis	Chorea
Whooping caugh	Rickets	Tuberculosis
Allergies	Rheumatic fever	Convulsions (i) with fever
Mumps	Polio	(ii) without fever
Scarlet fever	Ear aches	Running ears
Measles	Chronic colds	Infantyle paralysis
Chicken pox	Typhoid	Tonsillitis

Pneumonia	Mastoiditis	German measles
Diphtheria	Pleuracy	Bronchitis
Croup	Influenza	
Sinusitis	Headache	

If yes, at what age and show severe was it _____

Operations	Age	Whether hospitalized	How long
Tonsillectomy Adenoidectomy Mastoidectomy Palate repair Others			

Accidents (put /mark if accident involved head injury)	Age	Whether hospitalized If yes, duration & whether had lost consciousness	Any chagge in the child following accident

Medication Any drugs have been prescribed	Amount of dosage	Reason for prescription	Duration of dosage

Auditory behavior

Whether the child responds to:

1. His name_____
2. loud sounds with a startle _____
3. Verbal instructions _____
4. Verbal instructions with gestures _____
5. Gestures alone _____
6. Vibrations_____
7. Only low pitched sounds and never responds to high pitched sounds such as bell _____
8. Sounds inconsistently_____
9. Sounds with eye and/or head movement _____
10. Whispered speech_____
11. Speech when visual clues are not given _____

Whether the child becomes confused with the direction of sound_____

Whether he favors one ear for listening_____

If yes, which ear _____

Whether the child is inattentive to speech at home or at School _____

Whether hearing evaluation has been done _____

If yes, when_____where_____findings_____

Whether 'hearing seems to fluctuate _____

Any change in hearing within last 6 months_____

Alertness in other modalities_____

Vision_____Touch_____Vibration_____

If the child is/was wearing hearing aid _____

Make of hearing aid_____Model_____

Ear_____Recommended by _____

Age when aid was bought_____Hours of use per day_____

Child's reaction to aid_____Whether Aid is Satisfactory_____

Speech & language behavior

Did or does the child show following speech and language behavior. If yes, what age _____

Crying_____Normal_____Little_____Great deal_____

Babbling_____Moderate_____Little_____None_____

Jargon speech_____Echolalia_____First word_____

Two word phrases_____Sentences _____

Had a name for most common objects and familar people____

Whether child acquired speech and then stopped talking_____

If yes, when_____and why _____

How well child's speech can be understood: BY parents_____

By siblings_____By friends _____

By others _____

Child's voice: Normal_____If unusual, describe:

Mode of communication	Eyes/ Facial expression/ Gesture/Verbal
(i) Of parents (ii) Of child	

Awareness of his own speech_____

Describe _____

Whether child attempts to use speech_____If yes, :

How often does he use speech_____: Frequently - Occasionally - Never

Does he imitate and/or repeat sounds or words: Yes / No

Does he have difficulty in finding word(s) he wants to say_____

Does he have difficulty pronouncing certain sounds

Does he understands speech unexpectedly

Whether there is any change in child's speech in last 6 months _____

Any previous speech evaluation and therapy_____

If yes, when_____Where_____How long _____

Findings:

Educational history

Whether child attends regular school _____

If yes, name and address of school _____

Grade in which child is studying _____

Any failures _____

Difficulty with any subject _____

Whether frequently absent from school _____

If yes, why _____

Individual tuition _____

Where is the child seated in the Class Room _____

Child's academic performance _____

Child's attitude about his school and teachers_____

Any special training given _____

If yes, therapist_____Speech reading_____Language_____

Auditory training_____Speech correction _____

Social history

Is the child: Highly distractible_____Hyperactive_____

Oblivious_____Behaviorally consistent_____

Withdrawn_____Nervous _____

Primarily responsive to objects_____

Easily manageable at home _____

Does the child show _____

1. Unique habits and mannerisms _____

   If yes, specify _____

2. Unusual fears _____

3. Thumb sucking _____

4. Unusual sleeping patterns _____

5. Bedwetting _____

6. Concern when separated from parents_____

7. Retardation in social perception _____

8. Leadership/follower tendencies in the group_____

Whether child plays alone/with playmates _____

Age of play mates_____Favorits play activities_____

Whether child had any emotional traumatic _____

Experience_____If yes, describe _____

Child uses_____(R) Hand_____(L) Hand_____both hands_____

Type of discipline used with the child _____

Strict_____Lenient_____Inconsistent _____

Child's attitude towards his problem _____

Parent's attitude towards his problem _____

Copies of this form was given to post graduate students and members of teaching faculty, All India Institute of

Speech and Hearing Mysore. They were given following instructions -

"Here is a casehistory form for children with hearing loss. While going through this (i) put '0' mark for that point which you feel is not relevant to Indian setup and give reasons. (ii) Put 'M' mark for that point which you feel should be modified and what is the modification you suggest. (iii) You may suggest any other point which you feel needs to be added."

Copies of the form, evaluated by them were collected. Omissions(O), Modifications (M) and additions (A) suggested by them are given below.

1. <u>Identifying Information</u>

(a) A - case registration No.

(b) 0 - Marital status of parents

divorced-because divorce cases are rare here.

unmarried - as unmarried parent will not admitt the child is illegitimate.

(6) 0 - Child or family doctor's name - because most of children in our set up will not have a family doctor.

(d) M - Child is living with : Natural parents____, One parent alone____

Adoptive parents____,Foster parents_____

parent & step parent_____, others _____

Modification : Child is living in - Nuclear family

- Joint family
(specify members)

(e) A - Other languages to which the child is exposed.

(f) 0 - Telephone No. as it applies to only urban areas.

(g) M - Siblings

Name

Modification suggested

Siblings

No

2. <u>Statement of the problem</u>

(a) 0 - what do parents believe the speech and hearing clinic can do for their child - because most of the parents here will not be aware of speech and hearing services.

(b) A - Any evidence of hearing before.

3. <u>Prenatal History</u>

(a) 0 - Mother's health during pregnancy (put tick mark for appropriate state)

Excellent___good_____Fair_____Poor_____very poor.

- Because this description is very subjective.

(b) A - Noise exposure during pregnancy - as this is shown to cause hearing loss in the child.

(c) A - Psychiatric treatment during pregnancy.

(d) A - attempted / threatened abortion.

4. Natal History

6 months 1 year At present

(a) 0 - Weight of Infant

Hight of Infant

- because most of the children's hight and weight are not measured regularly here.

(b) A - Delivery-at home (whether professional assistance was available.

5. Family History

(a) o - Learning disabilities - parents cannot report this.

(b) M - Previous still births or miscarriages.

Modification suggested - should come under prenatal history.

6. Developmental History

(a) 0 - ride tricycle -because most Indian children will not have an oppurtunity.

(b) 0 - followed objects with eyes and was aware of light.

As it is difficult for the parents to report the age at which these milestones were achieved by the child.

7. Medical History

(a) O - Rheumatic fever. Chorea, Pleuracy, Diphtheria Scarlet fever - parents usually will not know all these medical terms unless the doctor who attended to the child told them about diagnosis.

(b) A - Allergic rhinitis.

(c) M - arrange the items and give symptoms of diseases.

8. Auditory behavior

(a) O - Whether child favors one ear for listening -because in congenital unilateral loss child does not even realize that the other ear does not work.

(b) 0 - Alertness in other modalities

Vision ---- Touch_____Vibration.

because this is not relevant in auditory behavior.

(c) A - Type of cord of hearing aid.

(d) A - If hearing aid has been prescribed and not bought why?

(e) A - Body level / Earlevel aid.

9. Speech & language behavior

(a) 0 - Mode of communication Eyes facial expression

i) parents

ii)child

because it is very ambiguous.

(b) A - Amount of speech and language stimulation available at home.

10. Educational History

(a) 0 - Child's attitude about his school and teacher - it is not relevant.

(b) A - Special school which the child may be attending.

11. Social History

(a) 0 - Does the child show concern when separated from

parents - because every child shows such concern and does not indicate anything.

(b) 0 - retardation in social perception - this is a very vague and abstract concept.

(c) 0 - Type of discipline used with the child strict_____ lenient_____Inconsistent_____

- This is very subjective.

(d) 0 - Child's and Parents attitude toward the problem, -because this is rather a direct question for which answering will be difficult.

(e) A - Amount of domestic help child can give.

These suggestions were taken in to consideration. Apart from these, following modifications and additions and emissions were done in the process of developing the final form —

(1) A both permanent and present addresses of the parents were included because the parents might be working in a transferrable job.

(2) 0 - False alarms during pregnancy because not relevant.

(2) M - Whether premature - prolonged stay in incubator.

Modified item - Whether premature - (a) by birth weight

or (b) By period of gestation

(3) A - anoxia (blue baby)

(4) A - Cleft palate (nasal regurgitation) in medical history.

(5) A - Symptoms of Encephalitis like headache, vomiting and fever.

(6) A - palate/lip repair in operations.

(7) A - Bleeding through ear and / or nose under accidents.

(8) A - Auditory behavior items were arranged in developmental sequence including more items.

(9) A - If the hearing aid has been bought and is not being used, reasons for doing so -

(10) A - Comprehension level of the child..

(11) M - Items under Speech and language behavior are arranged in developmental sequence.

(12) A - Reading and writing level of child.

(13) A - Relation of child with

(i) Parents

(ii) Siblings

& (iii) Other members in family (if any)

(14) A - Clinician's comments (if any)

(15) M - Interviewer's name and signature in the end of the form instead of in the begining.

The resultant, final " case history form for children with hearing loss" is given in the next pages.

CASE HISTORY FORM FOR CHILDREN WITH HEARING LOSS

NOTE: Some of the items in this form have alternative answers. Put ✓ mark for the appropriate one.

1. IDENTIFYING INFORMATION

NO. Date:

Child's Name : Sex:

Age : Date of Birth:

Present Address: Permanent Address;

Father/Guardian's Name:

Age: Education:

Occupation: Income:

Mother's Name:

Age: Education:

Occupation: Income :

Nationality; Religion;

Whether the parents are consanguinously married -

i) NO ii) YES (Specify relation)

Child is living in -

i) Nuclear family ii) Joint family (Specify the members)

Mother tongue:

Other languages to which child is exposed -

Siblings	Age	Sex	Class in School	Any speech, Hearing or Medi-cal problems
1 2 3				

Informant: Referred by:

2. STATEMENT OF THE PROBLEM:

When hearing problem was first suspected:

By whom:

Why (Describe):

Duration of the problem:

Whether the problem involves -

i) Both the ears ii) One ear - Right /Left

Is it i) Progressive ii) Constant.

If the child has received Medical attention for the problem, then,

Date	Name and address of the Doctor or Clinic	Findings

Any earlier evidence of hearing:

3. PRENATAL HISTORY:

Whether mother had any of the following problems during pregnancy -

Problem	Month	Any complications
i) Rh incompatibility		
ii) Excessive Vomitting		
iii) Bleeding		
iv) Anemia		
v) Toxemia - a)High Blood pressure b)Convulsions c)Swelling of face & limbs		
vi) Rubella		
vii) High fever		
viii) Tuberculosis		
ix) Syphilis		
x) Heart problem		
xi) Renal problem		
xii) Thyroid condition		
xiii) Diabetis		
xiv) Asthama		
xv) Anesthetized		
xvi) Attempted or Threatened abortion		

Problem	Month	Any complications
xvii) Psychiatric treatment xviii) Noise exposure xix) Malnutrition		

Previous Pregnancies :

i) Normal ii) Miscarriages iii) Still births

Accidents the mother had during pregnancy	Type of Injury & which month	Any complications

Did the mother take any drugs during pregnancy -

i) NO ii) YES

4. NATAL HISTORY:

Delivery :-

i) At home ii) At Hospital

(Whether professional assistance was available)

Type of Delivery -

i) Normal ii) Breech iii) Ceasarean

iv) Forceps v) Precipitate vi) Other

Duration of labour:

Whether mother was anesthetized during delivery -

Any blood transfusion for the baby:

Whether baby is premature -

1) By birth weight 2) By period of Gestation

Any Congenital anomalies:

5. NEONATAL HISTORY:

Did the new born have any of the following problems -

i) Convulsions :

ii) Jaundice (Yellow baby):

(on which day)

iii) Anoxia (Blue baby);

iv) Syphilis ;

v) High Fever;

vi) Excessive Vomitting ;

vii) Feeding problem ;

Whether child was given any injectable antibiotics -

6. DEVELOPMENTAL HISTORY:

Milestones of Motor Development	Normative data	Age at which the child achieved
i) Head held errect	3-4 months	
ii) Roll over	6 months	
iii) Sit without support	6-8 months	

Milestones of Motor Development	Normative data	Age at which the child achieved
iv) Creep	8-9 months	
v) Grasp objects	9 months	
vi) Stand without support	10 months	
vii) Walk with support	12 months	
viii) Walk alone	14-16 months	
ix) Toilet control established	3 years	
x) Button his dress himself	33 years	
xi) Laterality established.		

7. MEDICAL HISTORY

Did the child have any of the following deseases.

i) Ear aches :

ii) Ear discharge :

iii) Chronic colds:

iv) Allergic Rhinitis:

v) Tonsillitis:

vi) Adenoids :

vii) Whooping caugh:

viii) Cleft palate :
(Nasal regurgitation)

ix) Tuberculosis :

x) Encephalitis :

(Headache, high fever, Vomitting)

xi) Poliomyelitis:

xii) Convulsions :

i) With high fever ii) without high fever

xiii) Measles :

xiv) Mumps :

xv) Chicken pox :

xvi) Typhoid :

xviii Rickets :

Did the child undergo any of the following operations

Operations	Age	Improvement	Complication
Tonsillectomy Adenoidectomy Mastoidectomy Tympanoplasty Palate/lip repair Other			

Accidents	Type of injury	Bleeding through Ear and/or Nose	Less of consciousness	Any change in child following accident

Did the child to take any drugs:

8. FAMILY HISTORY

Condition	Yes	No	Relation to child	Treated or untreated
i) Hearing loss ii) Speech & language problems iii) Mental retardation iv) Convulsions v) Congenital anamolies vi) Other				

9. AUDITORY BEHAVIOR

0-4 months

i) Does the child startle to loud sounds

ii) Will the child stop crying if somebody speaks to him out of his vision or if there is a sudden loud noise.

iii) Does the child attempt to search for sound with eye and / or head movement.

4-9 months

i) Does the child enjoy shaking a rattle - ringing a bell.

ii) Does the child respond to familiar environmental sounds.

iii) Does the child turn toward sound even when they are soft.

iv) Does the child respond differently to different sounds example: Frowns when scolded, babbles in response to human voice etc.

9 - 12 months

i) Does the child look at familiar persons or objects when asked to do so.

ii) Does the child respond to his name.

2 years

i) Does the child respond to simple directions or questions without visual clues example: Pointing to pictures, pointing to his body parts, etc.

ii) Does the child follow simple commands told at whispered voice Level.

5 years

i) Is the child inattentive to speech at home or school.

ii) Does the child misunderstand directions while not facing the speaker.

iii) Is the child strained while listening to others.

Whether hearing evaluation has been done before - If Yes.

Age	Name & Address of clinic	Findings

10. AMPLIFICATION:

If the child is wearing Hearing aid,

Name of company:

Model of the aid:

Monaural or binaural

Body level or Ear level

Age of the child when aid was bought:

Aid was recommended by:

Hours of use per day:

Child's reaction to hearing aid:

Any improvement in child with the use of aid:

Type of Barmould being used:

Fitting of mould:

If the hearing aid has been prescribed and not being bought, reasons for doing so:

Condition of Hearing aid at present:

11. SPEECH & LANGUAGE BEHAVIOR:

At what age did the child show following speech and language behavior -

i) Making cooing sounds.
ii) Babbling - making 'ba ba' sounds and vocalizing for pleasure.
iii) Jargon speech consisting of combination of syllables without any particular meaning.
iv) Echolalia or imitating other's speech.
v) Saying first meaningful word.
vi) Using simple words meaningfully.
vii) Speaking in simple sentences.

Did the child acquire full speech and then stop talking -
If Yes, when:
Any reasons :

If the child has not acquired speech, he communicate through :

i) Gestures ii) Facial expression iii) Both.

Does the child have difficulty in finding word(s) he wants to say -

Does he have difficulty in pronouncing certain sounds -
If yes, which sounds:

How do the parents and / or other family members communicate with the child -

i) Speech ii) Gestures

With whom does the child relate to most at home:

How much does this person talk to the child:

How is the child reinforced when the child attempts to speak:

Are the child's needs met by family members even if he does not express them:

Speech comprehension level of the child:

i) Does the child fallow simple commands spoken to him:

ii) Does the child understand complex commands and follow them:

Reading :

Writing :

If speech evaluation has been done earlier.

Date	Name & Address of clinic	Findings	Recommendations

12. EDUCATIONAL HISTORY:

Does the child attend

i) Regular school

ii) Special School

iii) Individual tutoring

If special school , is it

i) Residential School

ii) Day school

Name and address of the School:

Class in which the child is studying :

Child's academic performance :

Difficulty in any subject :

Any failures :

13. SOCIAL HISTORY:

Is the child

i) Hyperactive:

ii) Withdrawn:

iii) Behaviorally inconsistent:

iv) Aggressive;

v) Anxious :

Does the child have

i) habit of thumbsucking:

ii) habit of bedwetting:

iii) Unusual fears :

Does the child play

i) alone

ii) With siblings

iii) With other children (specify age)

Favorite play activities of the child:

Did he experience any emotional traumatic incidence:-

If yes. Describe:

How, it has affected the child:

Relation of child with

i) Parents

ii) Siblings

iii) Other members in family

How much of domestic help the child renders:

Interviewer's comments (If any):

Interviewer's name
& Signature.

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Chapter - 6

JUSTIFICATION OF THE CONTENTS OF THE PRESENT CASE HISTORY

1. Identifying Information:

This starts with the basic information about the child like name, age, address, Socio-economic background of parents with which the child is identified. Information regarding presence or absence of consanguinous marriage in parents is included because consanguinity increases the probability of bringing recessive defects to the surface. Whether the child is living in nuclear or joint family indicate child's social environment and to some extent, amount of language stimulation the child is exposed to* Mother tongue and other languages to which the child is exposed to - this information is useful for selecting language for testing and therapy and for counseling about bilinguilism. Information about presence or absence of of Speech, Hearing or Medical problems in siblings enables the clinician to know about type of inheritance and hence aids in genetic counseling. The item 'referred by' reflects public awareness about availability of Speech & Hearing services.

2. Statement of the Problem:

This involves description of the problem in the words of parents or informant. Item 'When the hearing problem was first suspected?' indicates parent's alertness or age of onset of the problem. Information regarding

duration of the problem, whether it is progressive or constant indicates severity and prognosis of the hearing problem. It is essential to know whether both the ears have been affected or only one and whether child has recieved any medical attention before. Any earlier evidence of hearing indicates whether the hearing loss is acquired and whether the child was exposed to speech and language before.

3. Prenatal History:

' Here, condition of mother during pregnancy is explored. As Ehrlich(1978) points out prenatal, natal and medical history provide information which 'trigger red flags' for problems. If the pregnant mother had any of the listed problems, it affects the developing embryo or fetus. Rh incompatability in the mother causes hyperbilurubinaemia in the fetus resulting in brain damage. Second child will get affected more than the first. Toxemia in the pregnant mother causes mental retardation and convulsions in the child being born. Maternal Rubella or German Measles if encountered by the mother within first trimister of pregnancy is definite to result in hearing loss, Mental Retardation, visual handicap and heart trouble in the child. Tuberculosis in the pregnant mother can be inherited by the child. Syphilis in the pregnant mother might result in miscarriage or deformity in the baby born. Heart problem and Renal problem can be inherited by the

child. Thyroid condition of the pregnant mother is important because hypothyroidism results in Myxaedema. Here because of reduced metabolic rate in the pregnant mother, fetus gets affected. Diabetes in the mother during pregnancy causes circulatory and respiratory anamolies in the child. Anesthesia given to mother might induce anoxia in the fetus. If an abortion has been attempted, although fetus might not die, it will develop anoxia, deformities. If psychiatric treatment was given to mother during pregnancy has to be noted. Emotional state of the mother is directly linked with autonomic nervous system. The endocrine system secretes various harmones into blood stream. So prolonged emotional reactions will lead to abnormal blood harmone levels which may induce changes in fetal system crossing the placental barrier. If pregnant mother is exposed to noise, the baby bora might develop hearing loss.. If maternal diet is deficient, then there is higher incidence of prematurity and mental retardation in the child.

Accident the mother had during pregnancy might injure the fetus. Child born might be crippled. History of miscarriages and still births indicate possibility of Rh incompatibility or some abnormality in the reproductive system of the mother. Drugs taken by pregnant mother may overload the bloodstream resulting in permanent brain damage in the baby.

4. Natal History:

Place of delivery. Type of delivery and whether any professional assistance was available at the time of delivery are important because delivery is a process during which the child comes a long way from protected uterus to new environment. Forceps & Ceasarean delivery can cause brain damage. Precipitate and breech delivery may lead to anoxia. Premature babies are high risk babies who are susceptible to infections. Prolonged labour may lead to anoxia. If mother is anesthetized during delivery, it might cause anoxia and brain damage in the child.

5. Neonatal History:

First month of child's life is very impor-tant because the child is prone to infections in this stage. If there is Rh incompatability child might develop neonatal jaundice on first day. If the jaundice occurs on second day then it is conventional. Anoxia, high fever, convulsions. Syphilis may lead to brain damage, hearing loss, deformities. Injectable antibiotics given to the child might lead to ototoxicity.

6. Developmental History:

The milestones of motor development of the child have to be explored in terms of the age at which they were achieved. Delay in motor development indicates mental retardation. So auditory behavior development and Speech and Language development may be delayed.

7. Medical History:

This explores the diseases, operations, accidents and medication the child might have been exposed to. The diseases may be those affecting Ear, Nose & Throat leading to hearing loss. Example: Earaches, Tonsillitis, Allergic Rhinitis. They may be those affecting central nervous system like encephalitis, poliomyelitis, convulsions causing brain damage, motor problem, hearing loss. Vital infections like mumps, measles can result in hearing loss in the child. During accidents, the child might have had bleeding through ear and/or nose because of skull fractures and damage to the respective part. Whether the child had undergone operations like Tonsillectomy, Mastoidectomy, etc and if there was improvement or complication is very important because it indicates severity and prognosis of existing conductive problem. Drugs given might cause ototoxicity. Medical history helps the Audiologist to direct the child to other specialists for the treatment of medical problems.

8. Family History:

This finds out whether any member related to the child has hearing loss, mental retardation or other heriditary problems listed. This helps the audiologist to know whether child's problem is because of inheritance.

9. Auditory Behavior:

Here auditory behavior shown by a normal child is arranged in developmental sequence. This part enables

the audiologist to know the level of auditory behavior of the child in question which indicates severity of his hearing loss. This can aid the audiologist in planning testing procedure.

10. Amplification:

If a child is wearing a hearing aid or if he has been prescribed one, then details about the hearing aid are essential. If the aid is not satisfactory, then a a new aid can be prescribed after hearing aid trial. Information regarding hours of use of aid per day is important. If the child is refusing to wear the aid, parents should be counselled regarding 'conditioning the child to use the hearing aid'. Even if the aid has been prescribed, it might not have been bought because of financial & social problems. If the earmold is not fitting properly, new earmolds have to be got. If hearing aid is not working properly, it has to be repaired.

11. Speech and Language Behavior:

Here the developmental sequence of speech and language behavior is included. It is essential to know how far the child with hearing loss has progressed in speech acquisition, If it is adventitious hearing loss, he might have progressed till one stage and then moved no further, Child's way of communication is also important. Child with hearing loss tends to use gestures for communication. Parents & family members also use same for communication with the child.

Amount of stimulation available at home can be tapped, to some extent, by finding out how much the person closest to the child talks to him and how child is reinforced when he attempts to speak. Level of speech comprehension, reading and writing help the Audiologist in testing & counseling.

12. Educational History:

This is very essential to plan the rehabilitation program of the child. Information regarding hisschool, whether regular or special, class in which he is studying, his academic performance are to be collected.

13. Social History:

Last but not the least is the social & emotional development of the child. A child with hearing loss might have associated emotional problems. He might be hyperactive because of associated brain damage. He might be withdrawn because parents are negligent. Because of psychological problems, he might have unusual fears, playing habits. Information regarding these help the audiologist to refer the case to treatment. It is necessary to know how much domestic help the child can give. This helps the audiologist in devising support programs(Psychological & socio-economical) for rehabilitation.

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Chapter - 7

SUMMARY

A case history forms an essential part of clinical examination. It gives the present portrait of the problem in question against adequate background information.

Case history plays an important role in audiological diagnosis and counseling. It enables the audiologist to build rapport with the case and to plan appropriate test procedure. To some extent case history indicates etiology, type and severity of the problem. Rosenberg (1978) calls case history the first test.

Children are special and need special care,'case history' comes under this special case. Case history form used for an adult has different items, different areas and a child cannot fit into them. A separate casehistory form is needed for a child. This holds good for a child with a problem: hearing loss.

In Indian setup a common case history form is being used for both adults and children. So an attempt was made to develop a 'Casehistory form for children with hearing loss'.

Procedure involved collecting samples of children's casehistory forms from different speech and hearing clinics in U.S.A. Pooling the information gathered from these samples and with the aid of some children's casehistory

forms given in textbooks, a tentative casehistory form was constructed.

This was given to members of teaching staff and post graduate students in order to find out the items of the form that can be of use in our set up. Their suggestions regarding omissions, modifications and additions of items were considered with the addition of some more items, rearrangement of certain items and substitution of some points by relevant ones, the final case history form for children with hearing loss was constructed.

Items of this casehistory form come under following categories:

1. Identifying Information
2. Statement of the problem
3. Prenatal History
4. Natal History
5. Neonatal History
6. Developmental History
7. Medical History
8. Family History
9. Auditory Behavior
10. Amplification
11. Speech and language behavior.
12. Educational History and

13. Social History

An attempt has been made to justify the contents of the form.

The compiler sincerely hopes that this casehistory will be of use.

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A P P E N D I X

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