

A CHAINING PROCEDURE TO TEACH A RETARDED DEAF GIRL TO WEAR HER HEARING AID

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Introduction

A recent survey (Murphy, 1978) suggests that about 6% of educationally subnormal (Mild) school children, E.S.N.(M), have a known hearing deficit, with a further 2½% having a suspect hearing loss. This is well above the national average of .1% of all school children with a known hearing loss (Statistics of Education, 1976).

It is not known how many deaf children with normal intelligence refuse to wear their hearing-aids and Pollack (1975) claims that "approached authoritatively most children will accept amplification much in the same way they accept being changed, fed, dressed and so on." This may be true for the normal deaf but it is not uncommon to find that the retarded deaf present difficulties when required to wear a hearing aid. Murphy (op.cit) says 464 educationally subnormal children in his survey were issued with a hearing aid but only 314 aids were worn, i.e., some 32% of children did not wear their aids for some reason or another. This paper describes one procedure for teaching a mildly handicapped girl with a severe hearing loss, to wear her hearing aid.

Method

The child Carol is a five year old girl with a M.A. approximately 15 months behind her C.A. on both the Merrill-Palmer and Leiter Scales. Deafness has been suspected since she was two years of age. The most recent assessment of her hearing indicated a 90 dB bilateral hearing loss. At 4 years of age Carol was admitted to a special unit for retarded children with additional problems. Carol presented numerous problems, notably temper tantrums, double incontinence and extreme fear of headphones, but the main cause for concern was her refusal to wear her hearing aid. Several unsuccessful attempts had been made to persuade Carol to wear her aid but each time she reacted with panic and severe distress.

Procedure

A chaining procedure was used to teach Carol to accept the aid. During the first stage, she was required to wear the ear mould alone - at first for five minutes twice a day - and then for increasingly longer periods. This was achieved in three ways:—

Firstly, the nurse working with Carol (P.M.) made sure that Carol was busy with an activity she really enjoyed before placing the ear mould.

Secondly, Carol's hands were held while the ear mould was being put in. After it had been placed any attempts to touch her ears were prevented and she was prompted to continue with the task in hand.

Thirdly, Carol was reinforced with sweets and/or adult attention every 30 seconds or so if she kept her hands from her head.

Once she accepted the mould for five minutes without needing to be restrained at all, the interval was slowly increased.

In the second stage, the head receiver was attached to the ear-mould; when Carol tolerated this without anxiety, a hearing-aid harness was put on over her dress. The cord was attached to the head receiver in stage four and the aid itself, in stage five. Just over two months from the start of the programme, the aid was switched on to the lowest setting for a few minutes. This period was gradually extended to twenty minutes and finally, amplification was increased slowly from a number one to a number three setting. In summary the steps of the chain were as follows:—

1. Ear mould only.
2. Head receiver attached.
3. Harness in position.
4. Cord attached to head receiver.
5. Hearing aid attached to cord.
6. Hearing aid switched on.
7. Amplification increased slowly.

Results

Three months after the programme began, Carol was wearing the aid for seven hours a day at a number three setting. It took 16 sessions to complete the first, and longest, stage with 4-11 sessions being spent on each of the other stages - totalling 54 sessions in all (see Graphs I and II).

Discussion

Although slow, there can be no doubt that the method was successful. For most children it will not be necessary to go to such elaborate procedures, but Carol's fear of the hearing aid was intense and the usual procedures had been tried and failed. Each step of the procedure was introduced by one of the authors (P.M.) and as Carol accepted each stage, other adults were involved. This was necessary to ensure that Carol would tolerate the aid in varied situations and with several people. This presented no problem.

Why did the chaining programme work when other approaches had failed? It seems likely that Carol's fear was intensified by seeing and wearing the complete hearing aid equipment. The component parts of the equipment did not, apparently, engender such intense anxiety. In addition, the chaining procedure results in a longer treatment time and Carol may have needed this extra time to become desensitised to the hearing aid.

Carol has now left the special unit and is awaiting a place at a school for the hearing impaired. She is still wearing her aid throughout the day and an additional one, eight months after treatment ceased.

Summary

A five-year old mildly retarded girl with severe hearing loss and extreme fear of her hearing aid was successfully taught to wear the aid by means of a chaining procedure. This involved introducing the component parts of the equipment separately and teaching her to accept one part before introducing another.

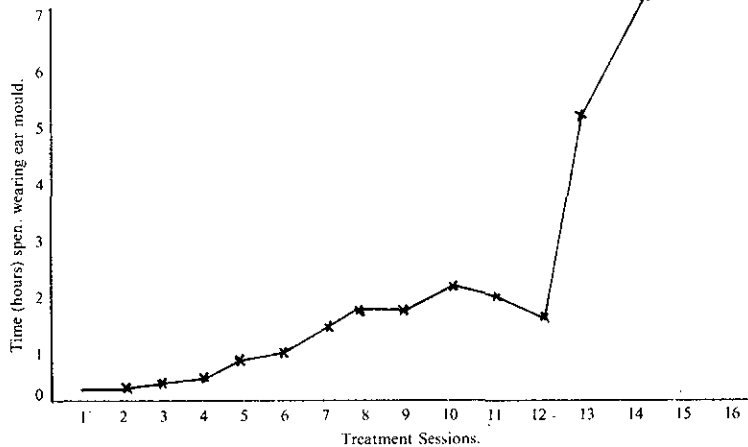
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GRAPH 1. Length of time spent in Stage one (wearing the ear mould alone)



GRAPH 2. Number of sessions spent in each stage (cumulative)

