NEUROTICISM AND EXTRAVERSION AMONG AURALLY HANDICAPPED ADULTS

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Summary

There are many studies in the literature on the personality characteristics of the hearing impaired. This study compares the adventitiously aurally rehabilitated with the normal hearing on two dimensions of personality, viz., Neuroticism and Extraversion. The Eysenck Personality Inventory was administered to 100 subjects of normal hearing and 78 subjects of adventitious aural rehabilitation.

The aurally rehabilitated group differs significantly from the normal hearing, in the positive direction of lesser neuroticism. It does not differ significantly on the extraversion dimension, both the groups being nearly equal.

This study does not indicate negative dimensions **in the** personality of **those** who underwent **aural rehabilitation, adventitiously.**

Introduction

There have been innumerable studies on the personality characteristics of individuals with hearing loss. Stephens (1973) described the interactions of hearing loss and related clinical conditions with personality by dividing them into four main headings. The personality changes found in adventitious hearing losses were studied by researchers in terms of specific disease entities (Hinchcliffe, 1965, 1970; Gildston and Gildston 1972). Hearing loss occurring among adults, after their acquisition of language functions may be due to different pathology. But they can be covered under the general rubric of the term 'adventitious hearing loss'.

The adult who has developed communication skills in life, if faced with hearing loss, is likely to suffer psychologically. Oyer (1966) has described in detail the factors which influence the adjustment pattern of individuals with hearing loss. A person with hearing loss, who could not be treated surgically or medically, is usually rehabilitated through hearing aids and related procedures. The mode of rehabilitation one receives, largely influences his adjustment pattern in life. O'Neill (1964) believes that no major psychological differences exist between the hearing and the hearing impaired.

The present study hypothesized that persons wearing hearing aids in life, do not differ negatively from normal hearing persons on the two dimensions of personality, viz., Neuroticism and Extraversion which measures both these dimensions with fairly high reliability and validity indices, was used. Further, the efficacy of the instrument was found to be satisfactory by several researchers (Bharath Raj and Pranesha Rao, 1970; Cattell, 1973).

Method

Subjects

Employees and relatives of clients attending the Hospital in Odense, formed the normal hearing group of 100 subjects. Their age range was, 20 to 75 years, and the mean age was 58.4 years. The aurally rehabilitated group with hearing aids, had 78 subjects from the clinical population of the State Hearing Centre. They ranged in age between 30 to 71 years and their mean age was 54.5. They varied in the period of use of hearing aids from a duration of minimum one year to maximum twenty years. 67 subjects had bilateral hearing losses, eleven had unilateral hearing loss. Five subjects had binaurally fitting hearing aids. Their distribution in terms of SRT and DL parameters is represented in Table 1.

Both the groups had an equal sex ratio.

TABLE 1. Degrees of hearing loss distribution in the hearing aid using group

Degree of hearing loss	*SRT range*	*DL range*	*Frequency of subjects*
Slight 1.	11-30 dB.	11-30%	10
Moderate 2.	31-60 dB.	31-60%	39
Severe 3.	61-80 dB.	61-80%	18
Profound 4.	81-100 dB,	81-99%	11

Procedure

After checking the hearing audiometrically, the normal hearing subjects were administered with the Danish translation of the Eysenck Personality Inventory (EPI), individually. The same was administered personally to every Subject of the adventitiously hearing aid using group, after routine audiological evaluation and other follow-up procedures.

The Lie score distributions were drawn for both the normal hearing and the rehabilitated groups. The criterion limit of M+I. S. D. on the lie scale for the normal group was adopted to eliminate individuals showing a 'Desirability response set'. The normal and rehabilitated groups were compared on the E and N scales, after that.

Results and Discussion

The criterion limit was calculated to be 6 and above on the Lie scale score of the EPI. Eliminating on this basis, there were 85 subjects of normal hearing and 53 subjects of the rehabilitated groups. They were compared on the Neuroticism and Extraversion scales of the inventory. The means and standard deviations scored by the two groups on these dimensions of personality, are represented in Table 2.

TABLE 2. Analysis of the scores of the normal hearing and aurally rehabilitated groups on the N and E scales of EPI.

Group	*Neuroticism scale* Mean	S.D.	*Extroversion scale* Mean	S.D.
Normal hearing (N=85)	8.50	4.60	10.00	3.87
Aurally-rehabilitated (N=S3)	6.00	5.56	10.27	3.46

Applying the test of significance between the two group means, the critical ratio (C R) was found. On the Neuroticism scale, the CR was 2.74, suggesting a significant difference between the two groups at the 0.01 level. On the extraversion scale, the CR was 0.42, suggesting no significant difference at 0.01 level.

The aurally rehabilitated group differs significantly from the normal hearing, in the positive direction of lesser neuroticism while it does not differ significantly on the extraversion scale. Both the groups are nearly equal on the extraversion dimension.

, To identify the neurotic and extravert-introvert, criteria may vary in the Danish context and hence they were established from the normal hearing subjects in this study. As per this criterion, a person whose score on Neuroticism exceeds 13 (Mean+1 SD) and above was identified as neurotic and a person whose extraversion score exceeded 14 (Mean+ISD) and above was identified as an extravert. Subjects scoring 6 (Mean—1 SD) and below were considered as introverts.

Neuroticism was identified in 17:64 per cent of the normal hearing group and 15 per cent in the rehabilitated group. Extraversion was found in 15 per cent of the normals, while it was 20 per cent in the rehabilitated. In both aurally and handicapped groups 14 per cent identified as introverts.

The results indicate support for the hypothesis. The aural rehabilitation services play an effective role in shaping or maintaining an individual's adjustment, though he may be confronted with hearing loss. In Denmark, every domicile is entitled for free aural rehabilitation including related otological and audiological services. Hearing aids of various categories

are all given free and about 140,000 clients are under continuous hearing aid treatment. The consumption rate of 7 per 1000, is the highest in the world. Besides vocational guidance and placement, any deaf or hard of hearing adult is entitled for a disablement pension (Rojskjser, 1973). These factors vouchsafe for an effective aural rehabilitation service prevalent in the country. The findings of this study, indicate no negative differences in the personality of the adventitiously hearing impaired adults. It will be relevant to consider the role of aural rehabilitation in behavioural studies of individuals suffering adventitious hearing loss.

Persons with disabilities scoring higher on personality traits testing, than their 'normal' controls, is not unprecedented in the literature (Arluck, 1941; Siedenfeld, 1948).

It may be worth comparing with similar studies on personality characteristics of the aurally rehabilitated individuals in other countries.

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