The Development of a Broadcast Mass Screening Test of Hearing*

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It was felt that no suitable hearing screening test was available, which could be made use of in screening the whole population of India, with the available personnel equipment and the other resources at hand.

The individual screening tests were not feasible because of their time consuming nature, and the large number of trained personnel, and equipment needed for the test. Even with the group screening tests, the condition was only slightly better in terms of the time and the number of personnel required. Moreover, the group testing required special audiometers and large audiometric rooms.

Mass communication media have been used very effectively in various fields of life, in India as well as abroad. The purpose of this study was, to develop and try out a mass screening test, which could be broadcast or telecast, and thus, administered to all the people listening to the broadcast. The intension was that if such a test of hearing is broadcast, in one administration of it, it would test a very large number of people. Such a test was developed by conducting some experiment and a pilot study. The test was finally broadcast from the All India Radio, Bangalore. One hundred and ninty-five persons responded to the test by sending in their score sheets. For the validation part of the study, seventy of the 195 subjects were given individual screening tests. The results obtained for the two tests were compared for the same subjects. Statistical analysis of the data was done to find out the significance of the obtained results. It was found that the broadcast mass screening test is a valid and efficient test.

The mass screening test can be used to test an almost infinite number of groups of subjects at a time. It does not make use of any special equipment for administration. The test environment need not be controlled for the administration of this test, as it relies on intra-group comparison of the responses, for interpretation where these variables are common for all the subjects in one particular group. The test is administered in a sound-field condition. In brief, the method consists of presentation of tones of frequencies 500 Hz, 1000 Hz, 2000 Hz and 4000 Hz. Each tone is presented several times and for each subsequent presentation, the intensity of the stimuli is reduced till the tone becomes too weak to be heard. The subjects sit in a group in front of the speaker of a radio receiver, in the form of a semicircle. Thus the distance of the speaker, from each subject is kept same for a particular

* Master's Dissertation, University of Mysore, 1974.

group. The subjects are asked to count and write down the number of times they hear each tone.

There is no need for a trained personnel for the administration of the test. Only a few professionals may be required to analyse the responses of the whole population in India. Moreover, the test will serve as a very useful means for public education regarding the communication disorders.

Recommendations

1. A few more decrements can be added to the test tones as used in this study.

2. The number of presentations of each tone should be made different from that of the other tones. However, the last presentation of all the test tones should be made equally intense.

3. The test may be adopted for regular hearing screening. A high official from the Social Welfare Department, Government of India, has shown interest in the test. It may be decided to broadcast the test from the various stations of the All India Radio and Television, every week or at least, once a month, on a fixed day and time.

4. If the test is taken for routine administration, a considerably larger number of responses can be expected to each broadcast of it.

5. When that happens the test can be standardised on larger population.

6. The test should be administered in different regional languages, in order to reach more number of people.

However, the broadcast mass screening test, so developed, is a valid screening test. The test can be usefully employed in conducting hearing screening in India. The program can be undertaken rightaway, without incurring any appreciable expenses.