

Oral Sensory and Motor Skills in Normals and a Clinical Population*

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A review of literature indicated controversial findings regarding the possible relationship between oral sensory-motor efficiency and speech proficiency. Hence the present study aimed at evaluating oral sensory and motor abilities on 64 subjects (30 normals, 24 stutterers and 10 subjects with misarticulations) within the age range of 13-25 years.

The two chosen tasks were : Oral form discrimination test and Lingual alternate articulatory motion rate.

The oral form discrimination test consisted of 32 stimulus pairs of 8 plastic forms belonging to 4 geometric categories. The subjects were required to indicate whether the two forms of the pair were 'same' or 'different' when the pairs of stimuli were presented successively in the mouth. The number of errors committed were scored.

The alternate articulatory motion rate (AMR) test required the rapid alternate repetition of the trisyllabic combination [b Λ 4 Λ ga] for 5-seconds durations of 3 breath groups. The averaged number of syllables repeated for 5 seconds in each of the 3 breath groups recorded were analysed statistically.

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The findings of the study were :

- (1) There was no sex difference on the sensory task of **OFD** among normals.
- (2) The motor task of **AMR** revealed sex differences. The normal females were superior performers on **AMR** than male subjects.
- (3) The normals and subjects with speech problems differed remarkably in terms of **OFD**. The subjects with speech problems were less efficient than normals in the sensory ability.
- (4) The normals and subjects with speech problems differed significantly in terms of **AMR**. The subjects with speech problems demonstrated a reduced **AMR** and hence deficient oral motor ability.
- (5) The stutterers and speakers with misarticulations did not differ in terms of oral sensory ability as evaluated on **OFD** test.
- (6) The stutterers and speakers with misarticulations did not differ from each other in terms of oral motor ability as evaluated by **AMR**.
- (7) There was a negative correlation between the two sets of scores

obtained among normals, i.e., lesser the number of errors on OFD, the greater the AMR and *vice versa*.

- (8) No significant correlation was found between error scores on OFD task and AMRs among the subjects with speech problems. However, both of them were related to speech proficiency.

Recommendations for Further Research

- (1) The same study can be conducted on a larger population.
- (2) The effect of different variables like linguistic factors, intelligence, socio-economic status, learning abilities and others can be studied.

- (3) The complexity of the OFD test can be increased by varying the shapes of the forms, so as to make it more sensitive in evaluating the adult age group.
- (4) The other clinical populations can be studied using the two tests employed in the present study.
- (5) The use of these two tests as prognostic indicators for the clinical populations to decide whether they need speech therapy or not, can be evaluated.
- (6) The normative data for these two tests can be established.