Research Note

Age and Articulation Characteristics: A Survey of Patient Records on 100 Patients Referred for "Tongue Thrust Therapy"

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Suggested Citation

Pierce, R. B. (1996). Age and Articulation Characteristics: A Survey of Patient Records on 100 Patients Referred for "Tongue Thrust Therapy". *International Journal of Orofacial Myology*, 22(1), 32-33.

DOI: <https://doi.org/10.52010/ijom.1996.22.1.6>

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Age and Articulation Characteristics: A Survey of Patient Records on 100 Patients Referred for "Tongue Thrust Therapy" January 1990 - June 1996

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In preparation for this presentation, my secretary and I pulled the charts for the last 100 patients who were referred to my office for "tongue thrust therapy". My caseload at any given time is approximately half tongue thrust patients and approximately half speech/language patients. The speech/language patients are all ages and all types of communication disorders, with a steady increase in adult neurological, both stroke and head injury, in the past few years. The information in this survey relates only to those patients who were referred by dentists or orthodontists for oral myofunctional disorders. Figure 1 reports the age of the patient at the time of referral. Patients referred ranged from age 4 to age 63, with the greatest number of patients, 64 (64%) being between the ages of 7 and 12. When the 13, 14, and 15

year olds are added into this number, the percentage of patients referred becomes 80%. It is important to know that the five patients under age 7 all had Class III malocclusions with a low, forward resting posture and with the tongue pushing the mandible forward and the mouth hanging open. In these cases, it was clearly the unattractive resting posture and the developing malocclusion which had triggered the parent or the dentist to make the referral. The four oldest patients, ages 35, 44, 55, and 63 all were referred by an orthodontist or an oral maxillofacial surgeon for severe TMJ problems.

PATIENT AGE DISTRIBUTION

Figure 1 K-3 AGE

If this survey had been done ten or twenty years ago, the patient demographics would have been quite different. Traditionally, children were not seen by an orthodontist until they reached the early teen-age years, when the damage to occlusion had been done. The present study indicates a trend toward more interceptive dentistry, with oral myofunctional problems being identified and treated at a younger age. Ten or twenty years ago, almost all of our referrals came from orthodontists. At the present time, approximately half of my referrals come from pediatric dentists and half come from orthodontists.

ARTICULATION CHARACTERISTICS

- NO PROBLEMS 49
- ACOUSTICALLY CORRECT BUT COSMETICALLY INCORRECT 19
 - Incorrect placement for all lingua-alveolar sounds / t d l n s z sh ch / 11
 - Low and forward placement for all sibilant sounds / s z sh ch / 8
- ARTICULATION ERRORS 32
 - Frontal lisp 24
 - Lateral lisp (left) 1
 - Mandibular shift on sibilants 1
 - Distorted / r / 4
 - Numerous errors 2
 - poor intelligibility

Figure 2

Figure 2 shows the Articulation Characteristics of the population studied, based on the information noted in the patient chart at the time of the initial evaluation. Three distinct groupings emerged: No Problems, Acoustically Correct But Cosmetically Incorrect, and Articulation Errors. Forty-nine patients (49%) had no speech articulation problems, although three of these patients reported having had speech therapy in the past. The second group of nineteen patients (19%) were using incorrect placement of the tongue either for /t,d,l,n,s,z,sh, and ch/ - 11% or /s,z,sh, and ch/ - 8%. This group did not distort the production of these phonemes; they just "looked funny". They probably would not be identified by the general population as having "speech problems". None of these nineteen had ever been enrolled in speech therapy. The third group of thirty-two patients had very noticeable articulation errors. Their errors were not only cosmetically incorrect but also acoustically incorrect.

They "looked funny" and "sounded funny". The largest proportion, twenty-four patients, had what would be classified as a frontal lisp. Of the thirty-two patients in the "Articulation Errors" group, thirty had been enrolled in speech therapy either through the public schools or through a private facility. The girl who shifted her mandible forward and produced a "tongue tip down /s/" and one of the four "distorted /r/" patients had never been identified as having speech problems or enrolled in speech therapy. All 100 patients included in this survey were enrolled in a "traditional" tongue thrust therapy program: SWALLOW RIGHT (Pierce, 1993) with emphasis on rest posture and swallowing pattern. Only those patients in Group 3 "Articulation Errors" received instruction and exercises to improve their speech. These articulation activities were superimposed on the standard treatment program for rest posture and swallowing and did not require additional lessons, with the exception of one frontal lisp and three of the four distorted /r/s. These four patients needed to be seen for up to four "articulation therapy" sessions.

All of the patients were successful in correcting the resting posture of the tongue and lips and in correcting the swallowing pattern within ten to twelve treatment sessions. This survey confirms that MANY "speech problems" self-correct as a direct result of "tongue thrust therapy"; SOMETIMES it is helpful to include articulation exercises in the treatment regimen; and RARELY it will be necessary to schedule additional sessions to work on articulation. In particular, those patients whose speech is "Acoustically Correct But Cosmetically Incorrect" will improve significantly just by changing the rest posture and the swallowing pattern.

REFERENCE

Pierce, Roberta (1993). *Swallow Right*. Tucson: Communication Skill Builders.