Research Article

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Suggested Citation

Umberger, F. G., & van Reenen, J. S. (1993). Speech-language pathologists: Knowledge of, exposure to, and attitudes toward oral myofunctional phenomena. *International Journal of Orofacial Myology*, 19(1), 4-10.

DOI: <https://doi.org/10.52010/ijom.1993.19.1.1>

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Speech-Language Pathologists' Knowledge of, Exposure to, and Attitudes toward Oral Myofunctional Phenomena

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A questionnaire developed by the authors was completed by 75 experienced speech-language pathologists from varied work settings. Questions dealt with knowledge, attitudes and experience in the area of oral myofunctional disorders. Only 18 respondents listed their classroom instruction in this area as adequate; only six rated their practicum experience as adequate. In spite of the limited training reported by the clinicians, 32% were actively providing treatment for clients with oral myofunctional disorders. There was general agreement concerning the importance of training in this area.

In 1975 the American Speech and Hearing Association (ASHA) published a position statement by the Joint Committee on Dentistry and Speech Pathology and Audiology regarding "tongue thrust" which basically stated that insufficient scientific evidence was available to differentiate between normal and abnormal swallowing patterns. The committee also reported the lack of objective data to demonstrate efficacy of therapy in modifying patterns of deglutition or oral structure. What was overlooked by many in the profession was the committee's recommendation of increased research efforts in this area. Unfortunately, the position paper had just the opposite effect. Many individuals lost interest in the area, research did not increase, and many speech-language pathologists erroneously thought they would be in violation of the American Speech-Language-Hearing Association's Code of Ethics if they pursued oral myofunctional (tongue thrust) therapy. According to Hanson (1988), "The shadow cast on the treatment of tongue thrust by the Statement resulted in an arrest, if not reversal, of the proliferation of training programs. In addition, there was a marked diminution of research activity on the topic."

Training and research in the area of oral myofunctional disorders has received renewed attention recently in a report by the Ad Hoc Committee on Labial-Lingual Posturing Function (Asha, 1989) and a subsequent Position Statement, The Role of the Speech-Language Pathologist in Assessment and Management of Oral Myofunctional Disorders (Asha, 1991). It seems reasonable to assume that these publications will encourage

increased numbers of speech-language pathologists to consider treating disorders of oral myofunction. Speech-language pathologists by nature of their basic training and knowledge of the oral mechanism are clearly a natural choice for treating this population. What is not clear at this point in time is where this training will or should take place. While it would appear encumbent upon speech-language pathology training programs to see that practitioners are provided with the appropriate instruction and exposure regarding this special population, lack of interest regarding the area may contraindicate instructional implementation.

The purpose of this study was to determine if deficiencies exist in speech-language pathologists' knowledge of, exposure to, and attitudes toward oral myofunctional phenomena.

METHOD

A questionnaire (see Appendix) was developed containing questions on speech-language pathologists' exposure to oral myofunctional phenomena, knowledge of evaluation and treatment of oral myofunctional disorders, and attitudes toward this clinical entity. Demographic information was also elicited on the respondents' employment setting, and years of professional experience. Multiple choice and true-false questions were employed to assess knowledge and exposure regarding oral myofunctional disorders. Attitudes toward oral myofunctional phenomena were sampled using multiple choice and fill-in-the-blank items.

RESULTS

The following is a summary of the major findings of the survey.

Demographic Information

Experience: The majority of speech-language pathologists (75) had between 6 and 20 years of experience. Those having less than six years of experience or more than 20 years of experience were evenly divided.

Work Setting: Employment settings indicated by the respondents were divided with 68% working in urban areas and 32% practicing in rural locations. Most of the

speech-language pathologists were employed by the public schools (39), followed by hospitals (19), rehabilitation centers (12), universities (8), and other (11). Some respondents indicated more than one professional setting.

Exposure to Oral Myofunctional Phenomena

1. Less than half of the respondents had read the American Speech-Language Hearing Association publications related to oral myofunctional disorders.

- a. The 1975 Position Statement on Tongue Thrust was read by 42% of the speech-language pathologists.
- b. The 1989 ASHA Report: Ad Hoc Committee on Labial-Lingual Posturing Functions was read by 12%.
- c. The 1991 Position Statement: The Role of the Speech-Language Pathologist in Assessment and Management of Oral Myofunctional Disorders was read by 31%.

2. Responses indicated 34% had no instruction in oral myofunctional disorders and 63% had no practicum experience.

3. Of the 65 reporting having had classroom instruction 57 (87%) viewed their instruction as inadequate. Of the 35 individuals who received practicum experience in oral myofunctional disorders 29 (87%) rated their experience as inadequate.

4. The majority (92%) believed that academic and clinical training in oral myology is necessary.

5. Of the 58% having clients with oral myofunctional disorders in their caseloads, 32% were providing treatment.

6. Over half (57%) have referred clients with oral myofunctional disorders to other professionals. Clients were most often referred to orthodontists, dentists and otolaryngologists. The most common reason for referral was evaluation of the dental occlusion.

Knowledge of Oral Myofunctional Phenomena

Questions used to evaluate the respondents' knowledge of oral myofunctional phenomena were based on information contained in the Ad Hoc Committee Report on Labial-Lingual Posturing Function, (Asha, November, 1989) and the position statement, The Role of the Speech-Language Pathologist in Assessment and Management of Oral Myofunctional Disorders, (Asha, 33 Suppl. 5., 7).

1. The percentage of correct responses ranged from 30 to 100 with a mean of 80%.

2. The most frequently missed questions related to variables that influence tongue posture, diagnosis and relationships between oral myofunctional phenomena and dental occlusion.

Attitudes Toward Oral Myofunctional Phenomena

1. The majority of respondents (over 90%) were in

agreement that academic and clinical training in oral myofunctional phenomena is necessary.

2. Approximately half (55%) of them indicated that 6 or more hours of academic course work would be adequate in the area of oral myofunctional phenomena. It is interesting to note that in spite of the limited training reported and the dissatisfaction with the adequacy of that training, 32% of the respondents were actively providing treatment for oral myofunctional disorders.

3. About half felt that 1-10 hours of clinical practicum would be adequate with the remainder selecting 10-20 hours (38%), more than 20 hours (11%).

4. The preferred method of training in the area of oral myofunctional phenomena was fairly evenly distributed between graduate course work, clinical practicum and continuing education.

5. While many of the respondents were sensitive to the use of labels that have a negative connotation, their lack of familiarity with current terminology was reflected in their preference for terms such as tongue thrust, mouthbreathing and reverse swallow.

DISCUSSION

The results of the present study reflect deficiencies in exposure and knowledge of speech-language pathologists and their attitudes relevant to oral myofunctional phenomena. With over 90% of the respondents expressing a need for academic and clinical training in the area of oral myofunctional disorders, one could logically assume that approximately the same proportion of members within the profession hold similar views. If this is the case, it would be advisable that those individuals charged with training practitioners in the field adopt the following recommendation of the ASHA Ad Hoc Committee on Labial-Lingual Posturing Function:

We recommend development of continuing education activities designed to promote competency in the treatment of oral myofunctional disorders. We also encourage developments in university curricula to reflect basic and applied information pertinent to the following:

1. *Oral-facial-pharyngeal structure, development and function;*

2. *Interrelationships among oral-vegetative functions and adaptations, speech, and dental occlusion, using interdisciplinary approaches;*

3. *Nature of atypical oral-facial patterns and their relationship to speech, dentition, airway competency, and facial appearance;*

4. *Relevant theories such as those involving oral-motor control and dental malocclusion;*

5. *Rationale and procedures for assessment of oral myofunctional patterns, and observation and participation in the evaluation and treatment of patients with oral myofunctional disorders;*

6. *Application of current instrumental technologies to document clinical processes and phenomena associated with oral myofunctions and disorders; and*

7. Treatment options.

Summary

This survey of speech-language pathologists, working in a variety of professional settings, about their attitudes toward oral myofunctional phenomena revealed a general paucity of information about the recent change in ASHA policy about oral myofunctional disorders. The clinicians were uninformed about the training

expectations for speech-language pathologists in this area of clinical endeavor and had not received academic or clinical instruction for oral myofunctional disorders. More than half of the respondents had referred clients elsewhere for evaluation and treatment of oral myofunctional disorders which were felt to be related to occlusal status. The vast majority of respondents agreed that academic and clinical training is important in the area of oral myofunctional disorders.

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**SPEECH-LANGUAGE PATHOLOGISTS' EXPOSURE TO, KNOWLEDGE OF, AND ATTITUDES
TOWARD
ORAL MYOFUNCTIONAL PHENOMENA
QUESTIONNAIRE**

Educational Background

Master's Degree: school _____ year graduated _____
 Doctoral Degree: school _____ year graduated _____

Professional Experience

Total Number of Years Experience as a SLP _____ Location of Present Employment: State _____
 (Check One) Rural _____ Urban _____
 Setting of Present Employment: (Check One)
 public school _____ rehabilitation center _____ hospital _____ university _____ private practice _____ other _____ (please specify) _____

Exposure to Oral Myofunctional Phenomena

1. Have you read the 1975 ASHA Position Statement on Tongue Thrust?
 yes _____ no _____
2. Have you read the 1989 ASHA Report: Ad Hoc Committee on Labial-Lingual Posturing Function?
 yes _____ no _____
3. Have you read the 1991 ASHA Position Statement: The Role of the Speech-Language Pathologist in Assessment and Management of Oral Myofunctional Disorders?
 yes _____ no _____
4. Approximately how much classroom instruction have you had on oral myofunctional phenomena ?
 None _____ 1 Week Continuing Education Workshop _____
 Approximately 1-5 hours _____ 1 College Course _____ (# of semester/quarter hours _____)
 1 Day Continuing Education Workshop _____ 2 College Courses _____ (# of semester/quarter hours _____)
 2 Day Continuing Education Workshop _____ 3 College Courses _____ (# of semester/quarter hours _____)
5. What level was your classroom instruction?
 None _____ Doctoral _____
 Undergraduate _____ Post Doctoral _____
 Graduate _____
6. Approximately how much clinical practicum have you had in your training program involving oral myofunctional disorders?
 a. Approximate number of clients:
 None _____ 4-8 Clients _____
 1-3 Clients _____ More than 8 Clients _____
 b. Approximate number of clinical practicum hours:
 None _____ 4-8 Hours _____
 1-3 Hours _____ More than 8 Hours _____
7. Do you think that your classroom preparation in the area of oral myofunctional phenomena has been:
 Good _____
 Adequate _____
 Inadequate _____
8. Do you think that your clinical practicum in the area of oral myofunctional disorders has been:
 Good _____
 Adequate _____
 Inadequate _____
9. Do you think that academic and clinical training in oral myofunctional phenomena is necessary?
 yes _____ no _____

10. Do any of your clients have an oral myofunctional disorder?

yes___ no___

If yes, who diagnosed?

Self___ Orthodontist___ Dentist___ Other (specify)_____

11. Are you treating any of your clients for an oral myofunctional disorder?

yes___ no___

a. If yes, please estimate the number.____

b. Approximately what percentage of your overall caseload is being treated for an oral myofunctional disorder?____

12. Have you ever referred an oral myofunctional client to another professional?

yes___ no___

a. If yes, which professional?

Allergist___

Dentist___

Oral Surgeon___

Orofacial Myologist___

Orthodontist___

Otolaryngologist___

Pediatrician___

Other (specify)_____

b. Why?

Diagnosis of the oral myofunctional disorder___

Treatment of the oral myofunctional disorder___

Evaluation of the dental occlusion___

Evaluation of the structure and form___

Evaluation of the adequacy of the airway___

Other (specify)_____

Knowledge of Oral Myofunctional Phenomena

(True/False please circle one)

1. All infants exhibit a tongue thrust swallow as a normal performance.	True	False
2. A tongue protrusion swallow is the norm for most adults.	True	False
3. A forward resting posture of the tongue has nothing to do with malocclusion.	True	False
4. There is descriptive evidence that during the course of oral myofunctional therapy, some individuals have corrected or controlled a tongue thrust swallow and an anterior resting posture.	True	False
5. Diagnostic attention should be directed toward determining whether a tongue thrust swallow and a forward tongue resting posture coexist in a given patient.	True	False
6. There is no evidence that lip exercises can be successful in facilitating a closed lip posture.	True	False
7. Sucking habits (e.g. finger, thumb, tongue, lips) do not influence dental development.	True	False
8. Variables in addition to learning influence tongue posture. They include:	True	False
a. posterior airway obstruction	True	False
b. high posterior tongue position with a short mandibular ramus	True	False
c. short soft palate	True	False
9. A diagnosis is needed that distinguishes learned behavior from obligatory function due to physical deviation.	True	False
10. Obligatory tongue forward posture clients would seem unlikely candidates for oral myofunctional therapy in the absence of medical treatment.	True	False
11. Typically patients are seen between birth and five years of age.	True	False
12. The speech-language pathologist evaluates the structure and function as the first step in treatment planning.	True	False
13. Oral myofunctional phenomena, including abnormal fronting (tongue thrust) of the tongue at rest and during swallowing, lip incompetency, and sucking habits, can be identified reliably.	True	False

14. Lingual and labial resting postures are not important in treatment.	True	False
15. The speech-language pathologist's treatment plan should avoid statements about outcomes of treatment based on dental occlusal changes.	True	False
16. Speech-language pathologists providing oral myofunctional therapy are required to have appropriate preparation and to maintain currency in this area.	True	False
17. Oral myofunctional therapy is effective in modifying disorders of tongue and lip posture and movement.	True	False
18. Oral myofunctional therapy is an appropriate activity and within the purview of speech-language pathology.	True	False

Attitudes Toward Oral Myofunctional Phenomena

- How much academic course work on oral myofunctional phenomena do you feel would be adequate?
 None____ 6-10 Hours____
 1-5 Hours____ 11 or More Hours____
 What information should course work cover?
 Basic anatomy and physiology____ Treatment of an oral myofunctional disorder____
 Normal function of the oral mechanism____ Dental photography____
 Diagnosis of an oral myofunctional disorder____ Other (specify)____
- How much clinical practicum training in oral myofunctional disorders do you feel would be adequate?
 None____ 10-20 Hours____
 1-10 Hours____ More than 20 Hours____
- How should training in the area of oral myofunctional phenomena be obtained? **(may select more than one)**
 Clinical Practicum____ Undergraduate Course Work____
 Continuing Education____ Video Tape Training____
 Graduate Course Work____ Tutorial/Mentorship____
 Required College Reading____ Other (specify)____
Explain:
- Which of the following statements best represents your current thinking concerning the effects of an oral myofunctional disorder on developing dentition?
 ___ It has little or no detrimental effects in most cases.
 ___ The effects, when they do occur, are easily corrected and therapeutic intervention is rarely warranted.
 ___ Therapeutic intervention is desirable in some cases to prevent severe occlusal problems.
 ___ A tongue thrust swallow should be treated whenever it persists beyond the loss of primary dentition.
 ___ A tongue thrust swallow should receive appropriate therapy as soon as the client is old enough to follow therapeutic procedures reliably, regardless of age or state of dentition.
- The terms that I use most often in regard to oral myofunctional phenomena are: **(check all that you use)**

Deviant swallow____	Perverted swallow____
Infantile swallow____	Reverse swallow____
Lip incompetency____	Tongue thrust____
Mouth breathing____	Tongue thrust swallow____
Oral myofunctional disorder____	Visceral swallow____
Other (specify)_____	
- Terms that I do not recommend using are: **(please list and explain why)**

7. Factors to consider in determining the appropriateness of providing oral myofunctional therapy include:

(check all that apply)

After school activity schedule___

Age___

Airway___

Client commitment___

Educational background___

Grades in school___

Height___

Malocclusion___

Maturity___

Parental commitment___

Severity___

Sex___

Sucking habits___

Other (specify)_____

8. Children presenting dental malocclusions in addition to an oral myofunctional disorder should receive therapy:

Never___

Prior to orthodontic treatment___

In conjunction with orthodontic treatment___

Following orthodontic treatment___

Other (specify)_____

9. If intervention for an oral myofunctional disorder were indicated, I would:

Provide the patient with self-help suggestions___

Provide oral myofunctional therapy myself___

Make a therapeutic referral to a certified orofacial myologist___

Explore the possibility of an oral appliance___

Other (specify)_____

10. Evaluation and treatment should be interdisciplinary and tailored to the individual.

yes___ no___

11. The speech-language pathologist performing oral myofunctional therapy should collaborate with an orthodontist, pediatric dentist, or other dentists, and with medical specialists such as an otolaryngologist, pediatrician, or allergist, as needed.

yes___ no___

12. Basic and applied research is needed regarding the nature and evaluation of oral phenomena and the treatment of oral myofunctional disorders.

yes___ no___