International Journal of Orofacial Myology and Myofunctional Therapy
Official Journal of the International Association of Orofacial Myology
50th ANNIVERSARY

Volume 27 | Number 1 | pp. 24-32 2001

Research Article

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Suggested Citation
Pierce, R., & Taylor, P. (2001). Rationale for including orofacial myofunctional therapy in university training programs. *International Journal of Orofacial Myology, 27(1)*, 24-32.
DOI: https://doi.org/10.52010/ijom.2001.27.1.3

RATIONALE FOR INCLUDING OROFACIAL MYOFUNCTIONAL THERAPY IN UNIVERSITY TRAINING PROGRAMS

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ABSTRACT
This article provides information on the need felt by speech-language pathologists for training in orofacial myofunctional phenomena. Results of a survey indicate 97.7% of respondents felt training is necessary, while only 7.9% felt their training was adequate. ASHA position statements regarding orofacial myology are reviewed. ASHA and IAOM suggested competencies are also included.

KEY WORDS:

INTRODUCTION

Many individuals and organizations are providing continuing education training on topics related to orofacial myology. In the *Advance* periodicals for October 1, and October 8, 2001, there were 83 video and on-site seminars listed. 43% of the available courses provide training in oral motor therapy techniques, oral sensory integration, and orofacial myology. Traditionally, practicing clinicians choose continuing education courses for one of two reasons: (1) to address specific needs of patients they treat daily in their work setting and (2) to develop expertise in areas which were not adequately covered in their university training programs.

What has happened to create this need for information and training related to orofacial structures and functions? Numerous studies were beginning to be published in the early 1960s which addressed the relationship between abnormal swallowing and articulation (Fletcher, Casteel, & Bradley 1961; Bell & Hale, 1963; Ronson, 1965) and the relationship between abnormal swallowing, articulation and dental abnormalities (Blythe, 1959; Straub, 1960; D'Asaro, Shapiro, Baum & Jacoby, 1961; Ward, Malone, Jann & Jann, 1961; Subtelney & Subtelney, 1962; Jann, Ward, & Jann, 1964).

Then in 1974, the Joint Committee on Dentistry and Speech Pathology – Audiology formulated an ASHA Position Statement, which indicated that, after reviewing the available studies "… neither the validity of the diagnostic label tongue thrust nor the contention that myofunctional therapy produces significant consistent changes in oral form or function has been documented adequately." This Position Statement continues that "…the Committee urges increased research efforts but cannot recommend that speech pathologists engage in clinical management procedures with the intent of altering functional patterns of deglutition."

While the intended purpose of this Position Statement was to encourage more research, the effects were devastating. Sources for the funding of the additional research that was recommended dried-up. In addition, many practicing speech-language pathologists and university professors immediately ceased investigating, developing, and providing diagnostic and treatment techniques directed toward establishing or restoring normal patterns of deglutition.

The International Association of Orofacial Myology (IAOM) was established in 1972 as a professional organization of speech pathologists and dental professionals dedicated to exploring this new specialty area. Even after the ASHA Position

Statement of 1974 was issued, IAOM members continued to practice, to refine techniques, to hold educational conferences each year, and to publish a journal – *International Journal of Orofacial Myology* (*IJOM*) – now in its 27th year of publication. Many efficacy studies were conducted which demonstrated the effectiveness of Orofacial Myofunctional Therapy on tongue thrust and articulation disorders (Goda, 1968; Overstake, 1975; Toronto, 1975; Baskervill, 1976; Pierce, 1980; Christensen & Hanson, 1981; Hahn & Hahn, 1992; Landis, 1994; Gommerman & Hodge, 1995; Pierce, 1996; Umberger & Johnson, 1997).

After 16 years of documentation and concerted effort by members of IAOM, ASHA reversed its position. The ASHA Position Statement of 1990 rescinded its former Position Statement of 1974. The 1990 Position Statement clearly indicates that Orofacial Myofunctional Disorders "…can be identified reliably…co-occur with speech misarticulations in some patients; …is effective in modifying disorders of tongue and lip posture and movement…." This Position Statement indicates not only that "Investigation, assessment and treatment of oral myofunctional disorders are within the purview of speech-language pathology;" but also emphasizes the need for speech-language pathologists to "have the required knowledge and skills…." The competencies that speech-language pathologists should have were defined in "The Role of the Speech-Language Pathologist in Assessment and Management of Oral Myofunctional Disorders" (*ASHA*, 1991) which was adopted as an official statement by the ASHA Legislative Council in November 1990. This document was developed by the Ad Hoc Committee on Labial-Lingual Posturing Function, which included two prominent members of IAOM – Dr. Robert Mason, a former editor of *IJOM* and currently an Associate Editor and Dr. Marvin Hanson, a founder and former president. This Ad Hoc Committee recommended the development of continuing education programs for speech-language pathologists and that universities modify their curricula to include information related to orofacial myofunctional disorders and treatment. These recommendations specified the necessary information to include:

1. Oral-facial-pharyngeal structure, development and functions;
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.

The IAOM (2000) also recommends that the orofacial myologist be knowledgeable in evaluating and treating:

- Abnormal non-nutritive sucking habits (thumb, finger, pacifier, etc. sucking habits)
- Other detrimental orofacial habits
- Abnormal orofacial rest posture problems
- Abnormal neuromuscular muscle patterns associated with inappropriate mastication, bolus formation and deglutition
- Abnormal functional breathing patterns

- Abnormal swallowing patterns
- Abnormal speech problems (only if the COM has the speech-language pathology credential required by his/her State, Province or Country)

According to IAOM (2000), the goal for orofacial myofunctional therapy is "…the creation, the restoration and maintenance of a normal and harmonious muscle environment."

In addition to a yearly Clinical Conference and Convention, IAOM sponsors Level 1 and Level 2 courses, which train clinicians to provide diagnostic and therapeutic services to patients. IAOM also provides specialized certification in orofacial myology, which requires a written proficiency examination and an on-site evaluation. Active and Certified members are required to meet continuing education requirements. IAOM is fulfilling all of the recommendations of the Ad Hoc Committee.

The purpose of this study was to assess the perceptions of speech-language pathologists regarding their university preparation in orofacial myology and to obtain information from colleges and universities regarding the course work and clinical experience they provide for their students.

METHODS

Questionnaires were developed to collect information from speech-language pathologists and from universities. Each questionnaire was designed to obtain information which could be compiled in a straight-forward manner using percentages to identify variability.

The questionnaires relating to training of speech-language pathologists were completed at four different locations: ASHA Convention, 1999 (San Francisco)at IAOM booth in Exhibit Hall; South Carolina Speech and Hearing Convention, February, 2000; IAOM Clinical Conference (Las Vegas) February, 2000; and the Maryland Speech and Hearing Association Conference, April 2000. Information was collected from 128 respondents.

San Francisco 1999	55
South Carolina 2000	50
Las Vegas 2000	20
April 2000	3
Total	128

In September of 2000, questionnaires relating to training provided in the area of orofacial myology were sent to 236 colleges and universities with ASHA accredited speech-language pathology programs. The response rate was 37.7%, with 89 colleges and universities returning the survey.

RESULTS

Speech-Language Pathologists

The 128 speech pathologists completing the questionnaire were from a variety of work settings (Table 1). The largest group responding had from 1-5 years of experience (Table 2). A summary of responses to specific questions related to their training in orofacial myofunctional disorders is included in Table 3.

Colleges and Universities

Results obtained from the questionnaires returned by colleges and universities are presented in Table 4.

TABLE 1

WORK SETTING	**# REC'D**	**% RESPONSE**
Public School	67	52.3
Rehab. Center	20	15.6
Hospital	8	6.3
University	5	3.9
Private Practice	34	26.6
Student	10	7.8
Other	15	11.7
(Several reported dual work settings.)		

TABLE 2

SLP EXPERIENCE	# REC'D	% RESPONSE
None	12	9.3
1 - 5 yrs	39	30.2
6 - 10 yrs	13	10.1
11 - 15 yrs	14	10.9
16 - 20 yrs	21	16.3
21 - 25 yrs	13	10.1
Greater than 25 yrs	14	10.9
Unknown	2	1.6

DISCUSSION AND RECOMMENDATIONS

In general, these results are consistent with two other surveys, which utilized a very similar questionnaire. Umberger and van Reenen (1993) sampled 75 "experienced speech-language pathologists from varied work settings". Their results indicated that:

- 34% reported having no classroom instruction.
- 63% reported having no practicum experience.
- Of the 65 who had received some classroom instruction, 57 (87%) rated it as inadequate.
- Of the 35 who had received some practicum experience, 29 (87%) rated it as inadequate.
- 92% of the total sample believed that academic and clinical training in oral myofunctional phenomena is necessary.

Emily H. Moran, Michelle G. Harmon, PhD, Leah Montgomery, and David T. Morse presented a Poster Session at the 1999 ASHA Convention in San Francisco entitled "Training and Competence in Oral Myofacial Disorders". They gathered information from public school therapists. Their study "…examines the public school clinicians' training, confidence and attitudes toward working with students who have myofunctional disorders". Surveys were sent to 78 randomly chosen school districts in the state of Mississippi. 210 questionnaires were sent; 121 were returned. Results from this study indicated that:

- 15% - 18% of the participants felt they had received adequate training to evaluate and treat students with myofacial disorders. However, approximately 88% reported treating students with articulation impairments that appeared to be directly related to an oral myofunctional disorder. 85% reported serving students with apparent oral myofunctional disorders.
- 59% said their coursework did not adequately prepare them to evaluate and 63% did not feel adequately prepared to treat students with oral myofacial disorders.
- 97% believed that more coursework on oral myofunctional disorders is needed in training programs.

For the current study, assuming that all respondents with experience began their careers upon graduation, approximately 49.6% of the speech pathologists responding attended/graduated from college since ASHA issued the 1990 Position Statement. Based on the same assumption, approximately 37.3% of respondents graduated from college during the period of time between the 1974 ASHA Position Statement and the 1990 ASHA Position Statement. Based on the effects of the 1974 Position Statement on college and university curricula, it would be expected that 37.3% of the respondents might feel that their classroom training and clinical practicum had been inadequate.

TABLE 3
Speech Pathologist Survey Results

1. Approximately how much classroom instruction did you have on oral myofunctional phenomena?

None: --	86	(67.2 %)
Approximately 1 - 5 hours: --	24	(18.8 %)
1 Day Continuing Education Workshop: --	11	(8.6 %)
1 Week Continuing Education Workshop: --	4	(3.1 %)
1 College Course: --	6	(4.7 %)
No Response: --	1	(0.8 %)

2. What level was your classroom instruction?

None: --	72	(56.3 %)
Undergraduate: --	12	(9.4 %)
Graduate: --	40	(31.3 %)
Doctoral: --	1	(0.8 %)
Post Doctoral: --	0	(0.0 %)
No Response: --	8	(6.3 %)

3. Approximately how much clinical practicum did you have in your training program involving oral myofunctional disorders?

a. Approximate number of clients:

None: --	102	(79.7 %)
1 - 3 Clients: --	14	(10.9 %)
4 - 8 Clients: --	4	(3.1 %)
More than 8 Clients: --	4	(3.1 %)
No Response: --	4	(3.1 %)

b. Approximate number of clinical practicum hours:

None: --	102	(79.7 %)
1 - 3 Hours: --	4	(3.1 %)
4 - 8 Hours: --	3	(2.3 %)
More than 8 Hours: --	13	(10.2 %)
No Response: --	6	(4.7 %)

4. Do you think that your classroom preparation in the area of oral myofunctional phenomena has been:

Good: --	2	(1.6 %)
Adequate: --	8	(6.3 %)
Inadequate: --	112	(87.5 %)
No Response: --	6	(4.7 %)

5. Do you think that your clinical practicum in the area of oral myofunctional disorders has been:

Good: --	3	(2.3 %)
Adequate: --	7	(5.5 %)
Inadequate: --	111	(86.7 %)
No Response: --	7	(5.5 %)

6. Do you think that academic and clinical training in oral myofunctional phenomena is necessary?

Yes: --	125	(97.7 %)
No: --	1	(0.8 %)
No Response: --	2	(1.6 %)

TABLE 4
College and University Survey

1. Are you aware that the 1974 ASHA Position Statement (negative) has been replaced by the 1990 ASHA Position Statement (positive)?

YES – 71.9% NO – 25.0%

2. Are you aware that the Scope of Practice for Speech-Language Pathologists includes "orofacial myofunctional disorders" among the types of disorders, which can be diagnosed and treated by the Speech-Language Pathologist?

YES – 90.8% NO – 8.0%

3. Are you aware of studies which identify the correlations between orofacial myofunctional disorders and articulation disorders?

YES – 64.4% NO – 33.3%

4. Are you aware of studies showing the efficacy of orofacial myofunctional therapy?

YES – 54.0% NO – 43.7%

5. Approximately how much classroom instruction do your students receive on orofacial myofunctional phenomena?

None	**--**	**18.4%**
1 - 3 Hrs	**--**	**71.3%**
1 Semester/Quarter	**--**	**8.0%**
No Response	**--**	**2.3%**

6. If orofacial myofunctional diagnosis and treatment are covered as a segment of another course, which course?

Articulation	**--**	**32.2%**
Dysphagia	**--**	**13.0%**
Motor Speech Disorders	**--**	**17.4%**
Survey/Introduction	**--**	**7.8%**
Not applicable	**--**	**8.7%**
No Response	**--**	**7.8%**
Other *	**--**	**13.0%**

* Other includes: Craniofacial Abnormalities, Organic Speech Disorders, Advanced Diagnostic Procedures, Diagnostics, Oral Motor Seminar, Practicum, Neurology, Voice Disorders, Orofacial Anomalies, Phonology, Clinical Methods

7. Approximately how much Clinical Practicum do your students receive in orofacial myofunctional diagnosis and treatment? Average number of clinical practicum hours:

None	**--**	**31.0%**
1 - 5 Hrs	**--**	**55.2%**
6 - 10 Hrs	**--**	**4.6%**
More Than 10 Hrs	**--**	**5.7%**
No Response	**--**	**3.4%**

Other responses: Varies with client population, varies with practica site, none to a lot.

However, as the results indicate, the overwhelming majority of all speech pathologists who responded to this survey rated their classroom preparation as inadequate (87.5%) and their clinical practicum as inadequate (86.7%). Almost every respondent, 125 out of 128, or 97.7% think that academic and clinical training in oral myofunctional phenomena is necessary. Results of the survey sent to colleges and universities indicate that the majority of ASHA accredited programs which responded provide only 1 to 3 hours of classroom instruction (71.3%) and only 1 to 5 hours of clinical practicum (55.2%).

The official ASHA Scope of Practice document includes "orofacial myofunctional disorders" among the types of problems speech-language pathologists should be able to identify, assess, diagnose, and treat; however, the ASHA Code of Ethics states "II.B. Individuals shall engage in only those aspects of the profession that are within the scope of their competence, considering their level of education, training, and experience."

Alarmingly, the critical question that must be posed is: "Who is providing treatment to the population in need of orofacial myofunctional therapy?" Are speech pathologists attempting to correct misarticulation problems without addressing the possibility of an underlying myofunctional disorders? Are speech pathologists providing orofacial myofunctional services, even though they rate their classroom preparation and clinical practicum as inadequate? Only 11.7% of the respondents indicated gaining information and receiving training through continuing education workshops.

Additional questions must also be considered. Are children with orofacial myofunctional disorders under-diagnosed? Is the difficulty with successful carryover of articulation skills related to an underlying orofacial myofunctional disorder? Wadsworth, Maul, and Stevens (1998) found that 50% of the 200 kindergarten through sixth grade children enrolled in public school speech therapy in Fresno, CA had a tongue thrust swallow and an incorrect resting posture of the tongue and lips.

What percentage of the population who have both orofacial myofunctional disorders and articulation difficulties spontaneously self-correct their articulation errors without any 'direct articulation therapy' when their tongue and lip resting postures and swallowing patterns are corrected? What is the relationship between orofacial myofunctional development and phonological processes? Pierce (1996) reports on a rather small but random sample of 100 patients referred to her by dentists for "tongue thrust" therapy. 51% had articulation errors at the time of evaluation. All but four had corrected their articulation errors by the time they completed the twelve lessons in the *Swallow Right* program (Pierce, 1993). These four patients, one with a frontal lisp and three with /r/ distortions, were able to correct the misarticulations in less than four additional articulation therapy sessions.

SUMMARY

Speech pathologists, orofacial myologists, ASHA, IAOM, colleges and universities need to work together to improve undergraduate and graduate training programs so that practicing clinicians are adequately trained to provide assessment and treatment of orofacial myofunctional disorders.

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