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LITERARY REVIEW

Review of *New Trends in Myofunctional Therapy: Occlusion, Muscles and Posture,* by Saccomanno and Paskay (2020)

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Abstract. The field of myofunctional therapy (MT) is complex, as it covers theoretical and practical information on many topics to effectively assess and treat orofacial myofunctional disorders, also known as myofunctional disorders, including tongue thrust, tongue posture, tongue-tie, orthodontic concepts, oral habits, and more. This review summarizes the strengths and usefulness of the book *New Trends in Myofunctional Therapy: Occlusion, Muscles and Posture* (Saccomanno & Paskay, 2020). The review informs the audience about various important features of the book, chapter materials, and the overall usefulness of the content for professionals working in MT. Providing cutting-edge information, the book draws substantive support from various interdisciplinary journal articles and clinical textbooks. Overall, the book is beneficial to leading professionals in MT as a resource for assessing and treating orofacial myofunctional disorders.

Keywords: *orofacial myofunctional disorders, myofunctional therapy, orofacial myology, book review*

New Trends in Myofunctional Therapy, authored and edited by Dr. Sabina Saccomanno and Ms. Licia Coceani Paskay, serves as a unique source of knowledge for professionals in orofacial myology and MT. Twenty coauthors from various disciplines such as, neuroscience, otolaryngology, speech therapy, human sciences, surgical sciences, sleep medicine, osteopathy, physiology, dentistry, and orthodontics contributed to the book. Along with the coauthors, ten collaborators representing various disciplines are listed as well. Unifying orthodontists, dentists, myofunctional therapists, and speech-language pathologists in the theoretical frameworks and clinical strategies for assessing and treating orofacial myofunctional disorders (OMD), the authors present a complete guide to the realm of evidence-based treatment. They also emphasize current developments in the profession, such as orthodontic exercises, sleep-disordered breathing, and osteopathic approaches to treating OMD.

This 330-page book (including glossary and reference list) consists of 15 chapters. It offers a holistic focus on normal and disordered aspects of orofacial and supporting systems such as dental occlusion, muscle functioning, and posture, thus informing readers about a comprehensive approach to myofunctional assessment and therapy. With a detailed glossary and an extensive reference list of over 450 citations, the book may clearly serve as a reference for practicing professionals in orofacial myology. It could also serve as a reference book for graduate students in health professions, especially in dentistry, orthodontics, dental hygiene, and speech-language pathology. Two exercise manuals – *Tongue Diary* and *Myofunctional Therapy Diary* – are included with the book for use by patients. There are 60 online videos supporting various myofunctional exercises and habits that can be accessed with a code provided by the therapist. The videos illustrate breathing, lip, cheek, and tongue exercises.

Chapter 1 provides an overview of OMD that can interfere with typical growth, development, or function of orofacial structures, causing speech and swallowing disorders. The chapter includes information on tongue thrust, tongue posture, tongue tie, orthodontic concepts, oral habits, and clinical assessments of occlusion, posture, oral habits, breathing, swallowing, and chewing using multidisciplinary approaches. Throughout the chapter, the authors discuss the interactions of complex physical systems that facilitate the growth of the mandible and other facial structures. A form provided for collecting a detailed medical history will be useful for professionals. The information presented in this chapter is thorough and is accompanied by orthodontic documentation based on oral photographs and corresponding study models. Orthodontic documentation is presented in detail with radiographs and schematic diagrams. At the end of chapter, the authors present a case report that highlights the

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importance of motivation, empathy, sensitivity, and determination in therapy. Detailed clinical cases with radiographs and photographs of the oral cavity enhance readers' engagement with the chapter. An appendix is included with an interdisciplinary orofacial examination facilitation protocol. This highlights history, breathing, occlusal profile, nostrils, lingual frenulum, tonsils, lips, malocclusion, bite occlusion, jaw alignment, swallowing, posture alterations, and adenoids.

Chapter 2 is geared toward identification of malocclusion, classification of malocclusions, and diagrams of facial and skeletal discrepancies. Information is based on the premise that malocclusions and their acquired craniofacial dysmorphology result from chronic oral dysfunction and OMD. To achieve long-term facial stability and growth, the authors contend that it is critical to understand the underlying pathologies contributing to malocclusion, open bite, and hard palate collapse. This chapter is especially important for OMTs because information on the classification of malocclusions is provided along with other clinical information on skeletal deformities. The authors discuss how dentists and orthodontists play a critical role in preventing acquired craniofacial disorders by supporting optimal craniofacial growth.

Chapter 3 provides detailed anatomical information of the orofacial system. The examination of the oropharyngeal system is complemented by various instrumental tests such as electromyography, rhinomanometry, tongue function measurements, and CT scans. Schematic diagrams pertaining to clinical and instrumental diagnoses along with oral habits add value to the chapter. The chapter's appendix includes a protocol on breathing assessment, which includes a section on current medical history and respiratory health along with assessments of the orofacial regions.

In Chapter 4, the authors provide a cursory overview of myofunctional therapy exercises for improving neuromuscular coordination for swallowing. This chapter provides information on speech therapy and myofunctional therapy exercises. Though the authors explain the principles of OMT, inclusion of specific treatment rationales would have strengthened this section. The chapter also includes myofunctional therapy and swallowing reeducation exercises that relate to various aspects of malocclusion. Though the chapter covers key concepts in speech therapy and myofunctional therapy exercises, elaboration of the principles underlying speech therapy would have been beneficial. Based on the information in this chapter, OMT serves as a complement to orthodontic treatment in individuals with OMD.

Chapter 5 addresses home-based myofunctional therapy. The information is patient-centered and emphasizes the importance of seeking patients' collaboration on the daily performance of exercises by maintaining a diary of myofunctional therapy. A myofunctional diary is attached to the book in a front jacket. It is highly beneficial to the client seeking structured exercises. It also includes exercises that are directed toward breathing, chewing, and swallowing. Clinicians can assign the exercises, which are accompanied by fun concepts and detailed illustrations. All 60 exercises are available online and accessible with a password provided to the clients by the clinician.

The focus of Chapter 6 is on the tongue frenulum. Various exercises and strategies are included to increase accuracy and coordination of tongue movements. While using photographs of real patients, the authors discuss a detailed interprofessional approach to identify various conditions resulting from pathological lingual and labial frenula. The lingual frenulum protocols in the chapters are designed to provide clinicians with clear information about the impact of the lingual frenulum and adjacent structures when lingual anatomy is altered. A significant highlight of this chapter is an integrated rehabilitation treatment that includes lingual stretching exercises to enhance tongue mobility after surgical revision. Additionally, the chapter contains assessment protocols for the lingual frenulum, tongue function in children and adults, a neonatal tongue sucking test, and a speech test (used by speech-language pathologists) geared towards articulation of various phonemes and blends. An appendix includes a picture table for eliciting different phonemes as well as a form for lingual frenulum history with major complaints affecting various orofacial structures (lips, temporomandibular joint, mouth opening, tongue, lingual frenulum, neck posture, chewing, swallowing, head and neck pain, headaches, voice, occlusion).

Chapter 7 highlights the importance of the use of orthodontic appliances in myofunctional therapy and informs the myofunctional therapists when to combine orthodontic treatment with appliance use. While discussing various treatment-related devices, the authors provide detailed information on how the devices serve as adjunctive tools for myofunctional therapy to achieve long-term success. The chapter also includes detailed photographs of orthodontic appliances and myofunctional therapy tools.

In Chapter 8, readers will learn about etiologies of pain, triggers, signs and symptoms, and pain management principles. Covering the content on neurological pain and muscle-referred pain, the authors describe various pain symptoms and

recommend a team of professionals, including a myofascial therapist, physician specializing in osteopathy, and otorhinolaryngologist. Other psychosocial factors affecting pain are also considered.

Chapter 9 covers the important interdisciplinary topic on sleep-disordered breathing or obstructive sleep apnea (OSA). Using a comprehensive figure, the authors cover epidemiology, etiology, pathogenesis, symptomatology, diagnosis, and management options for OSA, despite the limited availability of psychometrically sound OSA assessment protocols. The chapter also includes a useful table that lists myriad diagnostic methods for OSA. Therapeutic protocols that consider clinical features of OSA include ventilation, surgery, sleep hygiene, and myofunctional therapy. The chapter ends with a series of detailed clinical case studies that span clinical examination, diagnosis, and treatment.

Chapter 10 addresses otitis media and effusion along with diagnostic procedures and treatment protocols. The authors discuss how the Eustachian tube (ET) can be rehabilitated behaviorally to prevent ET blockage and subsequent otitis media. Patient education is a desirable approach to facilitate nasal breathing while reducing mouth breathing. Specific exercises on tongue, jaw, and soft palate are mentioned along with self-insufflation maneuvers to help maintain ET patency.

In Chapter 11, the authors state that posture and occlusion are related, and a multidisciplinary team is needed to evaluate oral functions, head posture, and vision. The authors discuss how postural evaluations are performed with spinometry, scoliosometer, and other instruments. They also emphasize the importance of postural rehabilitation in the early years to facilitate appropriate vision and oral functions.

Chapter 12 presents information on tongue position and postural balance through an osteopathic approach. Atypical tongue resting and swallowing behaviors can be found when the body is not aligned. The chapter has numerous illustrations to substantiate this clinical information.

Chapter 13 includes the basic principles of osteopathy while discussing how the cranium and body are functionally and structurally related. With many excellent diagrams and photographs of skull bones, the authors clearly explain various cranial characteristics in an osteopathic evaluation. The field of osteopathy informs respiratory movements, occlusion patterns, along with chewing and swallowing behaviors. Hence, osteopathy-based therapy is needed to facilitate complete body alignment for treating malocclusion-based symptoms. The chapter ends with four clinical case scenarios that cover osteopathic evaluation in detail.

Chapter 14 is dedicated to clinical case studies based on children's malocclusion status, diagnostic features, along with myofunctional treatment outcomes. The first part of the chapter features seven cases, each of which is accompanied by high-quality photographs that clearly demonstrate occlusal and dental anomalies. The second part of the chapter highlights clinical cases that underwent osteopathic treatment. Twelve cases are accompanied by photographs, diagnostic features, and treatment outcomes. These cases promote understanding of therapy outcomes pertaining to improvements in dental arches, occlusion, swallowing, facial tone, and oral habits (e.g., thumb sucking).

Chapter 15 is dedicated to children with Down syndrome who exhibit occlusal and postural issues that could lead to speech and swallowing disorders. The authors present myofunctional exercises that address atypical swallowing, oral breathing, temporomandibular issues, obstructive sleep apnea, and open-mouth postures in children with Down syndrome. The authors present practical information about establishing treatment goals to address oral postures, swallowing, and speech while suggesting the need for an interdisciplinary team to work on the cranio-mandibular-occlusal complex. Promoting nasal breathing, tongue positioning at rest, lip strength, tongue strength, intraoral breath pressure, mastication, and swallowing, the authors present a series of nine case studies featuring professional photographs, diagnostic information, and therapy outcomes. The before-and-after pictures of myofunctional treatment are pertinent to the case discussions and enhance the existing knowledge of occlusal and postural issues in children with Down syndrome.

The concepts presented in this text are fundamental to any assessment or treatment of OMD. Overall, the book draws from various clinical disciplines and theoretical concepts to emphasize the relationship among oral functions, posture, occlusions, swallowing, chewing, and speech abilities in individuals with OMD. Based on substantive support from published studies, the book provides a solid basis as well as information about newer trends in orofacial myology, with a heavy emphasis on interdisciplinary management of orofacial myofunctional disorders.

REFERENCE

Saccomanno, S., & Paskay, L.C. (2020). *New Trends in Myofunctional Therapy: Occlusion, Muscles and Posture.* Edi-Ermes s.r.l., Milano, Italy. *ISBN 978-88-7051-629-6 (print); 978-88-7051-630-2 (digital)*