Tutorial

Orofacial myofunctional therapy for adult patients

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OROFACIAL MYOFUNCTIONAL THERAPY
FOR ADULT PATIENTS

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Literature Review
There are relatively few references to adult therapy in the literature. Goldberger (1978) described several case histories of adults with orofacial myofunctional disorders. She noted the value of therapy for the prosthodontic patient who continually dislodges the lower denture, causing both inconvenience and a risk of bone loss. As an adaptation to this problem, she related that some patients begin to clenched their teeth, placing strain on the temporomandibular joints. She also described adult cases where a tongue thrust seemed to be causing shifting of the teeth after the completion of orthodontic treatment. She reported that after therapy the occlusion of these individuals stabilized and in some cases improved. With case histories, she illustrated the relevance of orofacial myofunctional disorders to periodontics and indicated that the results of equilibration could be temporary if the tongue continued to rest between some of the teeth disrupting the patterns of occlusion. There were indications that gingival recession was present on only those teeth that received pressure during the tongue thrust behavior. However in this article she did not detail therapy adaptations to these adult needs.

More recently Altmann (1987), described specific therapy methods developed for individuals undergoing orthognathic surgery for correction of prognathic or retrognathic jaw relationships. It can be assumed that most patients receiving these procedures are adults. However many of these innovative methods could be used or adapted for the non-surgical patient to improve lip competence, tongue posture, swallowing and speech function. Hanson (1988) described modification of orofacial myofunctional procedures to suit the needs of an older adult with the primary complaint of air swallowing associated with tongue thrust behavior and atypical chewing patterns.

Adults have formed a large portion of my orofacial myology practice over the last 17 years. The following is a collection of my observations, opinions and suggestions regarding adult therapy based on my experiences.

Increasing Demand for Adult Therapy
Several trends predict an increasing demand from the adult population for orofacial myology services. More adults are seeking orthodontic treatment for functional or aesthetic reasons. Some of these adults have long standing problems of oral muscle posture and function. It seems likely that these automatized muscle patterns will persist despite correction of the occlusion through orthodontic or combined orthodontic/surgical approaches (Bruce & Hanson, 1987). Orthodontists who use lingual spurs for children with tongue thrust, typically encounter less success with this method with adults. In addition, I would surmise that most adults, if given a choice, would prefer not to have sharp appliances placed in their mouths. A further limitation is that appliances to control the tongue do not address the aesthetic problem of lip incompetency, which may also be a factor in long term orthodontic stability.

In an aging society we can anticipate more referrals from prosthodontists and periodontists as they become more aware of the benefits to their patients of appropriate muscle posture and function. We can also anticipate increasing demand for therapy services to help individuals control or eliminate damaging parafunctonal habits (especially jaw clenching and bruxing behaviors).

Reasons Adults Seek Treatment
Many adults seek therapy to increase the chance of a stable orthodontic result. Some are frustrated at delays in their orthodontic treatment and are eager to do something to get “done.”

In addition to stability concerns, adults will pursue therapy for the cosmetic benefits. To illustrate: Bill M., 55 years of age, Class II, had been fully banded for two years. His orthodontist referred him for orofacial myofunctional therapy to improve his orthodontic treatment response and eventual stability. He had an anterior tongue thrust, accompanied by strong circumoral contraction. His lips rested apart. Deep lines were apparent around his mouth. When discussing goals, I discovered that the orthodontic treatment and therapy were really just the first step in a program of self improvement. He informed me that he was scheduled for a full surgical face lift following completion of his orthodontic treatment and therapy.

The following patients had one common goal: To improve their appearance. But they sought treatment for many reasons. The patient who couldn’t control saliva and was constantly worried about spraying and drooling. The patient who had difficulty controlling food in her mouth and wanted to “eat in the closet.” The patient who felt his tongue was too large. When he talked he felt
people watched his tongue rather than listened to his conversation. The patient whose spouse said she looked "dumb" because her mouth was open all the time.

Evaluation: Special Considerations

It is important to discover the adult's primary motivation(s) for seeking treatment. The patient may not have the same priorities as the referring specialist or the orofacial myologist. It is the clinician's responsibility to communicate the nature of the problem and the potential benefits of therapy. However, it is also essential to listen carefully as the patient describes the problems and expectations from therapy. A critical outcome of the evaluation session is that the patient and clinician agree on a set of mutually acceptable and realistic goals and formulate a plan of action.

It is often possible to interest a patient in achieving solutions to problems of which s/he was not aware until the evaluation session. For example, it may be the first time that the patient notices the behavior of pursing the lips that seems to be causing lines to develop around the mouth or perhaps that the muscles of the chin (mentalis) puckers/tense when the lips are closed.

We can expect that many adults will not have heard of orofacial myofunctional therapy. We should not therefore react defensively if questioned about efficacy of therapy. We can use photographic documentation of our own successfully treated patients. Reference can also be made to published reports of efficacy studies (Andrianopoulos & Hanson, 1987).

Adults are typically in a position to make their own decision about therapy. However, we may encounter situations in which a spouse will persuade the patient that therapy is not worthwhile or cannot be afforded. We can help our patients choose the therapy they want and need if we examine our own attitudes apout spending. The patient may be more accepting of an appropriate therapy plan if the clinician addresses the perceived "wants" rather than emphasizing the problems and focusing on "needs." It is always easier to decide we can afford what we truly want. But we tend to begrudge spending more than the minimum money on necessities. When as adults we are pursuing our wants, price is often a feature that helps us to make decisions about quality. An adult may even doubt the effectiveness of therapy that appears too cheap.

It is essential that the patient understands that although therapy can influence muscle tone, posture and movement patterns, it does not move teeth. A common goal of therapy is to create a more favorable muscle environment for the teeth. In response to these more adaptive muscle pressures, natural processes may produce some improvements in some types of malocclusion. The patient must realize that therapy is not a substitute for orthodontic treatment or retreatment. Before making even tentative suggestions to a patient that the occlusion may improve or stop worsening, it would be wise to consult the orthodontist. I also check that the referring specialist has not given the patient unrealistic expectations.

However, when there is a dental open bite, I explain the natural tendency for each tooth to erupt until it contacts the opposing tooth. Unfortunately, teeth do not have a very sensitive feedback mechanism, so they cannot discriminate the difference between tooth, muscle or any other structure that is interposed between the teeth. When this interposition occurs for sufficient periods of time, it may be contributing to the observed open bite. Once the tongue posture and functions become more appropriate, away from the area of open bite, the teeth may begin to erupt. When this occurs, I compliment the patient and nature, not myself.

In addition to the usual case history data, find out details of the adult patient's work and leisure activities. This information proves invaluable in developing individualized treatment and using familiar topics for analogies to explain the learning process.

Referrals

When adults refer themselves for treatment, it may be necessary to make referrals to other specialists. If the teeth have shifted after orthodontic treatment, the patient is encouraged to return to the orthodontist for a consultation. I send a report detailing my findings and recommendations from the orofacial myofunctional examination. I frequently talk with the orthodontist to discuss how we might coordinate a plan of action. The orthodontist may defer treatment until the outcomes of therapy become established.

It is essential that the orofacial myologist who treats adults has the appropriate training and experience before treating those with temporomandibular involvement or myofacial pain dysfunction. When there are signs of pain and/or temporomandibular joint dysfunction, it is essential to obtain a diagnosis and recommendations regarding any exercise or range of movement limitations before planning any active therapy. Consultation with the referring doctor will typically reveal this information. Unless the pain is a direct result of parafunctional habits, it should be effectively controlled before the patient begins a therapy program. If the patient is self-referred, I refer to an appropriate medical or dental specialist for a diagnosis and recommendations. However, if no active medical or dental pathologies are found, therapy may be initiated to improve oral posture and reduce parafunctional habits. Muscle tension headaches or myofacial pain often resolve with an effective program to eliminate parafunctional habits (especially bruxing and clenching) and to establish relaxed oral posture (Moss, 1987). It may not be possible to eliminate the stress in the lives of adult patients, but a motivated individual can usually learn more adaptive ways to respond to that stress. There is nothing inherently stress relieving in teeth clenching, and yet many patients believe it is an inevitable and uncontrollable result of their stress. A common patient report is that it is much easier to control a clenching habit once a tongue up, teeth apart, lips together resting posture has been established. However many patients cannot immediately adopt this new rest posture. Therapy sessions are typically necessary to develop appropriate muscle awareness, to increase muscle tone in those that are weak, and to inhibit muscles that are excessively tensed and preventing appropriate posturing.
A stable oral resting posture is facilitated, and appearance is enhanced when head posture is appropriate. The orofacial myologist can often help the patient to correct mild problems of forward head posture. Evaluation by a physical therapist is recommended, if simple intervention tactics are not successful (Saboya, 1985).

We, as clinicians, tend to be compassionate and empathetic, and thus invite trust and inspire confidence. Listening actively and with compassion can often help patients resolve their own problems. However, the orofacial myologist also needs to recognize that significant psychological problems require referral for professional help.

Adult Reactions to Therapy

My own experience suggests that adult reactions to therapy are not predictable. Some will be fascinated by the process and delight in telling their friends and coworkers about their therapy program. Still others will maintain a desire to keep the issue completely private. Control of the therapy program can be a problem, especially when dealing with clients in executive positions. They may wish to dictate treatment, exercise periods, appointment scheduling and fee payments. The program is doomed if you are fighting for control and acceptance of your expertise. Although flexibility is essential in adult programming, it must be made clear that directions must be followed precisely to achieve treatment goals.

Many adults structure their lives to avoid activities that they cannot do well. Discovering lack of competence in oral motor skills can be an embarrassing experience, especially in such a personal area of function. When attempting new oral motor tasks, many adults experience frustration and seem more easily discouraged than children. They often have the notion that children make mistakes and adults don’t. A consistent reassuring, accepting approach and careful selection of activities that challenge but do not overwhelm the adult can reduce this problem.

Adults, especially men, often have the mistaken notion that when it comes to exercises, more is always better. We must counsel them that it is not helpful to “go for the burn” and that it is important to adhere precisely to the therapy plan. Pain is typically a warning signal that they should stop the activity immediately.

Therapy Environment

Look at the reception area and therapy room as if you were a nervous or skeptical adult. An environment that may be ideal for children may make an adult feel uncomfortable. An adult looks for signs that the orofacial myologist regularly treats adults and will treat them with sensitivity and dignity. A nervous and somewhat embarrassed adult may not be ready to encounter comical depictions of this intensely personal problem (pictures of tongues protruding, etc.), especially on the first visit. It is not unusual for an adult to be completely unaware of the orofacial myofunctional disorder until it is diagnosed. When attending for the evaluation appointment s/he may still be in a state of mild “shock” and denial, or at best, puzzled acquiescence.

Ideally, adult patients should be seen in a separate room from that used for children. When this is not possible, it helps to seat the adult patient facing away from the child’s table and equipment. Orofacial myologists can gain ideas for solving this problem by visiting suites of related professionals. I have noticed a trend towards rather sophisticated decor, even in pediatric environments.

Is Adult Therapy Really Different?

For the most part, the basic exercises to establish appropriate oral rest posture and swallowing are utilized regardless of the age of the client. The age of an adult does not necessarily relate to the severity of the orofacial myofunctional disorder. A personal observation is that adults with skeletal jaw deformities and a long history of lip incompetence tend to require more intensive therapy and exercise practice to improve muscle tone and function.

If the patient has temporomandibular joint dysfunction, the clinician should consult with the treating physician or dental professional for exercise or dietary limitations. Many of these patients will tend to clenched their teeth. When teaching oral rest posture, we may increase this tendency if we encourage a teeth together resting posture. It is important to explain that the teeth should touch lightly every minute or so, but then drift apart. They should find that with the tongue lightly postured against the hard palate that the mandible will typically find a relaxed resting position. Jaw opening for oral exercises, speech and deglutition may need to be limited to the width of the first two fingers on the dominant hand, or less if simple opening causes discomfort for the patient. Opening the jaw with the tongue sealed against the hard palate may also keep the opening within a safe range for exercises. Some of these patients contribute to their problems by frequently over opening, or deliberately popping their temporomandibular joints or by advancing the mandible on opening rather than hinging open in a down and back direction. The therapist should help the patient reduce or eliminate these parafunctional movement patterns.

Exercises which involve advancing the mandible (this often occurs unintentionally in the "lip massage" exercise) should be avoided. Ensure that the prescribed exercises can be performed without pain or undue strain before allowing home practice. It is important to ask how an exercise feels. Not all patients will complain when an activity hurts or produces symptoms of joint dysfunction. If they have received physical therapy previously, they may expect a certain degree of discomfort. We should make it clear that discomfort is often a warning sign and should be avoided in orofacial exercise programs.

Therapeutic Strategies

Published therapy programs tend to feature language and illustrations that are best suited to children. Teenaged or adult patients may be less than ideally motivated if they feel patronized. Instructions for these patients should be printed or handwritten to meet their expectations and
cognitive abilities. This method allows for the essential personalized care of each individual.

Knowing that a client plays a particular sport, for example tennis, can guide the clinician to use appropriate analogies to clarify the learning process in therapy. The orofacial myologist can describe how it was necessary to drill the backhand stroke perfectly and rapidly until it became a sequence that could be produced without thinking of the individual movements.

Developing self-monitoring skills can be a difficult task for some adults. It has been my experience that males are frequently less adept at physically monitoring themselves, and may need to be taught specific procedures. Females seem to be more aware of their bodies and often become aware of mouth posture easily. I ask my adult patients to keep a daily diary of progress and problems.

Knowing how the patient spends the day at work can help the clinician to suggest realistic practice or self-monitoring activities. As an example, a computer operator can check tongue and lip posture whenever pressing the "enter" key. An office worker could be asked to tally the "new" rest posture for part of the work day or at preset time intervals.

Some adults may enjoy cute or funny reminder labels to cue correct resting posture or swallowing; others may prefer a small colored "dot" that can be used in the office as a more subtle reminder. Reminder stickers may be placed on computer screens, phones, desks, typewriters and on car dashboards. The reminders will be more influential if their color is changed frequently. Letters can be written on the stickers to cue appropriate behaviors (e.g., T.U.L.C.T.A.I.E. Tongue up, lips closed, teeth apart). Others may be more responsive to auditory cues (phone ring, wristwatch beeper tones set at regular time intervals, spelling error beeps from a computer).

Most adults spend time commuting by car which can provide an excellent opportunity to practice correct oral resting posture. Once an exercise has been mastered, it is often possible for it to be repeated when stopped at an intersection (for example: tongue pops, seal and stretch).

The process of therapy is shaped by feedback from the adult patient. New ideas for successful intervention may come from a client’s observations, questions and creative solutions. I have made major changes in my therapy program for adults based on responses from these patients.

When the therapy sessions have been interesting, informative and successful, some patients will want to continue indefinitely. The trust that was essential at the outset of the program may have created a dependency that makes "letting go" difficult. In the beginning, you might have struggled to establish control of the therapy program. As the patient gains competence and confidence, they must begin to take over control. This may be difficult, but it is essential for the ultimate success of any therapeutic intervention. The process can be helped by gradually phasing out therapy contacts. By the final stages of active therapy the patient will be skilled in self-observation and monitoring of appropriate patterns of oral posture and function. The clinician can contribute to the patient’s growing confidence in his/her ability to maintain progress and solve problems. The patient can be prepared for independence from the clinician by the posing of “what if” types of questions during the therapy sessions. It is important to reassure clients that they can call between appointments, or after the completion of therapy, if they have questions or concerns.

Developing an Adult Orofacial Myology Practice

Many dentists and orthodontists think of therapy only in relation to children. Preparing detailed case studies to discuss with referral sources can help correct this misperception. The periodontist may find the orofacial myologist an essential resource for selected patients. It appears that severe tongue thrust can impede healing after periodontal surgery. I have been asked by a periodontist to treat these post-surgical patients.

Orthodontists are treating increasing numbers of adults. It is important to listen to the orthodontist describe the particular treatment or retention problems that these adult patients present. For example, adults often seek orthodontic treatment to close anterior spacing. If the tongue continues to posture against these teeth and thrust during swallowing, orofacial myofunctional therapy could improve orthodontic treatment response and stability. Orthodontists may be more likely to refer patients for therapy as we provide evidence of the value of therapy in resolving particular problems of adult patients.

Many dental professionals use splint therapy to position the condyle more favorably and/or to stop parafunctional clenching habits. They may be interested in therapy as a resource for those patients who continue to clench despite the presence of the appliance. Therapy can also be helpful if it seems that the patient has become dependent on the appliance to stop the bruxing and clenching. Once therapy has improved the daytime oral posture, and diurnal parafunctional behaviors are under control, it is typically possible to use methods of self suggestion and relaxation to inhibit nocturnal bruxing and clenching. I expect many patients would welcome a behavioral alternative to long term wearing of an appliance.

I have found working with my adult patients to be challenging, rewarding and stimulating. I think it is our responsibility as orofacial myologists to continue to research and develop appropriate treatment rationales and methods for adult patients with orofacial myofunctional disorders. As well, we should inform referral sources of the benefits we can provide for them and their adult patients.
REFERENCES


