Clinical Perspective

Motivational considerations in orofacial myofunctional therapy

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MOTIVATIONAL CONSIDERATIONS
IN OROFACIAL MYOFUNCTIONAL THERAPY

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Motivation is comprised of factors that contribute to the strength of behavior and give it direction (Bolles, 1970). In the fields of speech pathology and orofacial myology, the clinician learns quickly the importance of this definition. It does not take long to discover that the actions which stimulated interest and motivation for one patient may not produce the same desired effect with another. Indeed, the success or failure of the therapeutic intervention ultimately rests with the clinician's ability to incite and maintain this very necessary ingredient to the learning process.

The neophyte clinician soon learns to collect useful data and information and begins early to construct a professional tool box that contains the methods, experiences, techniques and other pertinent information useful in inciting and maintaining patient motivation. This tool box then assists the clinician in modifying and individualizing future treatment, which ultimately enhances the chances for its success. The objective of this article is to describe one such tool box and detail a variety of motivational approaches available to the clinician.

In discussing the dynamics of motivation, it is important to understand that motivation fluctuates on a continuum. Motivation is a moving, constantly changing phenomenon that is influenced by all external and internal stimulation of a living organism. The clinician must be able to sustain patient motivation at a high level for a long period of time in order to help the patient habituate the desired neuromuscular patterns. Yet, the orofacial myologist must be flexible and tolerant of the motivational fluctuations which naturally occur.

MOTIVATIONAL CONSIDERATIONS IN THE INITIAL EVALUATION

Patient motivation begins with the initial consultation and evaluation. Motivational roots are established when the patient meets the clinician. It is imperative that the clinician exude a professional confidence in setting that initial impression. An important part of feeling comfortable and confident is being well-schooled in the disorders to be treated. Acquiring as much education as possible regarding orofacial myology assists with this aspect of professional confidence.

One of the primary objectives of an evaluation is to determine exactly the reasons for referral. Usually, a dentist or an orthodontist refers a patient to an orofacial myologist because of concerns regarding the relationship of the orofacial musculature and the teeth. Most patients referred have some form of malocclusion. It is important that the orofacial myologist be familiar with the implications of malocclusion. If the orofacial myologist understands these implications, this knowledge can be used to educate and motivate the patient.

MOTIVATION AND COSMESIS

It is no secret that teeth have a profound impact on esthetics. This factor alone may be instrumental in providing a catalyst for motivation, particularly with the adolescent and the adult populations. Most patients believe that nice teeth enhance overall appearance (see the companion article by Case).

Studies have been conducted to determine if the alignment of teeth can influence attitudes of other people. A photograph of a woman's face with normal anterior teeth was ranked higher for attractiveness than the same photograph with anterior tooth discrepancies (Sergl and Schmidt, 1973; Sergl and Stodd, 1970). A study by Shaw et al (1985) explored the influence of dentofacial appearances on the social attractiveness of young adults. Based on a review of available literature, these investigators stated, "By way of summary, it seems reasonable to conclude that subjects with an attractive facial appearance are judged, on first impressions, to possess more socially desirable personality traits than their less attractive counterparts" (p.21). In the Shaw et al study (1985) the hypothesis that young adults with normal dental appearance would be considered more socially attractive was upheld.

People want to feel good about themselves. An important part of feeling good about oneself is feeling visually appealing. In our society having a pleasant and attractive smile is most desirable. This is a part of a character stereotype that is considered "good." Character stereotypes are important parts of legends of any culture (London and Rosenhan, 1968, p. 254). The personality attributes that define good character in a society are commonly lumped together in the legendary personalities and characteristics of our cultural heroes. These cultural heroes may be real or fictitious and may be transmitted from one generation to another in stories, songs, television or movies (London and Rosenhan, 1968). Generally, the physical appearance of the hero/heroine will be quite attractive, while the physical appearance of the villain is much more likely to reflect characteristics of disfigurement and deformity.

If the clinician can educate the patient as to the importance of the teeth relative to appearance, in most cases, the motivation level will be positively influenced. This is
no doubt the reason that the patient with a severe problem is sometimes easier to motivate. That patient has paid-the-price more severely than one with a less noticeable problem. This may be one of the reasons why unilateral and bilateral tongue thrusts are reported to be more difficult to correct as their malaligned teeth usually are less visible.

**MOTIVATION AND POSTURING**

The orofacial myologist finds that a great majority of patients referred for tongue thrust also exhibit an open-lips rest posture. One assumption is that the patient is a mouth breather. Many times this is not the case. The patient may be resting with the lips open and be breathing through the nose at the same time (see article by Riski). To label this person a “mouth breather” would be inaccurate and inappropriate. This patient would best be described as having “lip incompetence” or an “open-lips rest posture problem.” An unfortunate stereotype has become symbolic of the person who habitually sits with the lips parted (whether breathing through the nose or not). We generally associate “dull intelligence” with the open-lips rest posture. This unfair association may have developed because this was the mouth posture commonly associated with mentally retarded persons. Hence, society has equated the open-lips rest posture with reduced intelligence. This may have been done viciously at first (London and Rosenhan, 1968), but has evolved into a stereotypic characteristic that is still with us. Overall, an open-lips rest posture and mouth breathing posture can detract from appearance. Bringing this to the attention of the patient is often useful in developing the motivation to correct this posture. Correction should only be attempted if the nasal passages are adequate.

In addition to the negative impact on appearance, the patient should be educated about other detrimental consequences of mouth breathing and open-lips rest posture. When a person habitually breathes through the mouth, the nose (a very necessary filtering system) is bypassed. Breathing through the nose filters airborne foreign particles before they reach the lungs. Explaining this and that the nose humidifies and warms the air for the lungs can prove motivational (Graber, 1967).

The anterior gingival tissue of the true mouth breather is habitually dried. The gingiva frequently becomes hypertrophied and inflamed in the anterior segment. Calculus formation on teeth is augmented which, if left unchecked, could lead to more severe periodontal problems later in life (Pritchard, 1966). Educating the mouth breather to these facts can increase motivation.

After educating the patient and the parents to these implications, it is important to inform them that it is not easy to correct this open-lips rest posture problem. The lips of a person who has spent the major portion of life with an open posture, may not close comfortably. The upper lip may become short and elevated from the upper incisors, whereas the lower lip may appear heavy, hypotonic and everted (Maasler and Schour, 1975). The lips have not had a chance to develop normally. Many times they are flaccid, hypotonic and dry (see Figure 1A & 2A).

It is important to enlist the assistance of parents in correcting this problem. When they notice the lips together, they should compliment the child for this correct posture, rather than bringing negative attention to the problem when the mouth is open. After sensitizing a patient to the importance of a lips-together resting posture, the patient may struggle to keep the lips together however difficult. It is during these moments that the clinician can become a role model for the parents. The clinician might comment, “I have noticed since we discussed the importance of keeping the lips together that you have really been trying! Keep up the good work!” Educate the patient that by doing lip exercises the task of keeping the lips together will become easier as therapy progresses.
Let the patient know that by improving the tonicity of the lips and through structural changes (if the patient is in orthodontic treatment) the overall appearance of the lips may be improved.

**AGE, MATURATION AND MOTIVATION**

Some researchers have advocated waiting until a certain age before commencing with therapy (Proffit and Mason, 1975); this is sometimes prudent. It may be advantageous for the clinician to wait for structural changes and emotional maturation. The oral structures may not allow the muscles to operate properly, or the patient may not be able to accept the responsibilities of therapy. If, on the other hand, the function of the musculature appears to be interfering with the normal growth and development, and if the patient appears receptive to treatment, it might be advantageous to bring the
ENEMIES TO THERAPY

In the therapeutic process, lack of motivation is one of many "enemies" that can undermine progress (Zimmerman, 1975; 1976). If a patient lacks motivation, it becomes the responsibility of the clinician to generate or renew this very necessary ingredient. If the clinician's "tool box" is depleted and lack of motivation is still prevalent, therapy should be discontinued or postponed until a time when the patient can be successfully motivated.

Exploring the other "enemies" to therapy can assist in keeping motivation high. The speech pathologist and the orofacial myologist are familiar with these culprits: Discouragement, frustration, forgetting, boredom, over-confidence, and dishonesty. When these enemies appear in the therapy process, the clinician should be skilled in their identification and removal.

When discouragement is expressed by the patient, the clinician should focus energies on therapy gains. By the time discouragement enters in, there is usually some kind of "track record" of past success from which the clinician can draw. It is usually true that the performance of the assigned tasks has suffered. It is important to call attention to the positive steps that have been taken, rather than focusing attention on more recent declining performances that the patient has experienced. It is pertinent that the clinician not dwell on this poor performance. Sometimes reiterating the original information and comparing current information is helpful.

Intraoral photographs can assist the clinician in demonstrating gains (see article by Case). Comparing intraoral photographs allows the patient and the parent(s) to witness the subtle changes that have occurred (see Figures 1 through 4). This is an extremely quick, efficient and positive way of turning discouraging moments into encouraging ones. By activating encouragement, discouragement is suppressed and motivation is reinstated. The clinician should be cautioned from taking credit for such changes. It is patient cooperation, coupled with the orthodontic influences, that has brought about the changes whenever orthodontic appliances are involved. If spontaneous changes occur and there is no active orthodontic appliance therapy, it is the patient's growth and development, coupled with patient cooperation, that are responsible for these changes (see Figure 3). If spontaneous changes take place in adult dentition without any orthodontic intervention (or post-orthodontic patients), the credit for the changes goes to the patient. Many clinicians have observed that the spontaneous changes in adult dentition do not occur as dramatically as with children. This is probably due to the fact that the improved muscle function may have a more positive influence during the growth and development years (Rubin, 1979). Many adults report that the reason they wanted
FIGURE 4 (part two)

Figure 4C. Same patient five months into therapy. Marked changes were brought about through patient cooperation in wearing her elastic and cooperation in orofacial myofunctional therapy. These picture sequences were instrumental in motivating her to continue to be cooperative about wearing the elastics and following her therapy assignments.

Figure 4D. Same patient taken approximately 45 days later (six and one-half months into therapy). The orofacial myologist should be cautious about taking credit for the structural changes taking place.

to pursue orthodontics and orofacial myofunctional therapy is that their mouth has noticeably deteriorated over a period of time. "My bite is getting worse," is a frequent comment. With that patient, to show stability may be enough to keep discouragement at a minimum. The clinician does deserve the credit for guiding and educating the patient to the new neuromuscular functions; the patient deserves the credit for the work.

In summary, the patient must understand that it is imperative to share discouragement at any time with the clinician. By informing the clinician early about discouragement, appropriate steps to address this problem can be taken. If left unchecked, discouragement can grow and undermine the motivational process.

Too much frustration can also undermine that process. One must keep in mind that some frustration is necessary for any learning to take place. The reason the patient made contact with the clinician was awareness of a problem. This problem bothered someone enough to make an appointment, either the parent(s), the patient or both. This "bother" is a positive frustration in this example. If the problem is not bothersome, the patient is not going to want to do anything about it. Educating the patient to the concerns of the malocclusion and the muscle disharmony can bring about this positive frustration needed for motivation. However, too much frustration can be detrimental to therapy. Each person is unique and should be treated as such. Therefore, therapy programs must incorporate flexibility. Therapy must be molded to each patient's needs. Higher frustration levels may be brought about by events unrelated to treatment, such as school finals, visiting relatives, trips out of town or family tragedies. It is imperative that the patient feel comfortable sharing these "times of high frustration" with the clinician. The clinician must be aware that these major changes involve adjustments in routine which may create additional stress on the patient. The treatment plan can then be adjusted with less demanding assignments. Easy therapy assignments is not a sign of failure, but rather a way of molding a program to the unique needs of each person. To attempt to push a patient into someone else's mold is likely to lead to failure. If treatment assignments are too difficult time after time, the patient will become discouraged and lose motivational intensity due to increased frustration.

The fourth common enemy to treatment success is forgetting. The clinician must realize that every patient will forget from time to time. This is not the type of forgetting to be discussed. Forgetting is a universal quality of mankind. However, too much forgetting can interfere with therapy.

It is recommended that the clinician not dwell on the "forgets" that occur in therapy, but rather focus attention toward the "remembers." If the "remembers" are insufficient, then forgetting must be addressed. If too much forgetting does occur, it is easy to assume that it is the patient who is at fault. The clinician should inquire to see if the assigned tasks were reasonable. Perhaps the patient was required to perform tasks that were unreasonable at that particular time. It is important to analyze the treatment plan and attempt to modify it before blaming the patient. Be sure that the patient understands the specific objectives of each assigned task. If the patient returns and reports forgetting again, further modifications of the treatment plan may be indicated. If the patient returns and again is not remembering enough, motivation must be discussed. Lack of motivation frequently surfaces under the guise of too much forgetting.

The treatment plan must be varied as frequently as possible to minimize development of the fifth therapeutic enemy, boredom. To ask a patient to repeat the same exercise over and over quickly brings this enemy to the surface. To help alleviate patient boredom, the clinician can also participate in continuing education. New tools are added to the professional "tool box" by sustained professional growth. Boredom in the treatment assignments can undermine the motivation of the patient.

Overconfidence is the sixth therapeutic enemy. This
usually occurs in the habituation stage of treatment, surfacing after the new neuromuscular patterns have been learned. The patient may utter, "I think I am doing everything properly all the time! I don’t think that I have to do this anymore!" It is important to emphasize that the patient has been utilizing a particular neuromuscular pattern for an entire lifetime before therapy. There is no easy physical way of excising neuromuscular patterns from the brain. Even months of "practicing" a new neuromuscular pattern does not erase the old pattern. If therapy is terminated too early, there is a strong possibility that regression will occur. It is important to make sure that the new pattern is well ingrained in order to prevent regression. Most therapists of yesteryear probably did an acceptable job of teaching the skills of normal deglutition but did little to habituate the newly learned neuromuscular patterns. The failures that ensued fueled the flames of the controversies that still exist today.

Although confidence is a virtue that the clinician tries to instill within each patient, overconfidence can undermine motivation. A way to defuse false security is to reiterate the complexities of the therapeutic goals; the tongue is one of the most movable and adaptable of the muscle groups in the human body.

The last therapeutic enemy can be the most devastating. If left unchecked, this enemy can destroy motivation with cunning swiftness, for when it surfaces the clinician is likely to be unaware of its presence. The entire treatment program should hinge on one word, honesty. The killer to any therapeutic program is dishonesty. It is of utmost importance that the patient understand and accept this concept. The entire program depends on the patient’s ability to be honest with the clinician and with oneself! If a patient distorts the truth about therapy performance, the clinician is misled. The clinician is unaware of problems, and, therefore, does not seek solutions. Further distortions may become easier to report. Problems unknown to the clinician cannot be addressed in treatment. The clinician must know the true performance level so that appropriate adjustments can be made for future assignments. From the initial evaluation throughout therapy, it is important that the patient feel comfortable sharing both the "good news" and the "bad news." If the performance suddenly drops, one or a combination of the previously discussed enemies is present.

As the clinician expects the patient to be honest, so must the clinician be honest with the patient. To inform a patient that performance is adequate when performance is poor is not constructive to therapy. The clinician must confront the patient in an attempt to identify the enemies disrupting the treatment process. Once identified, it becomes the clinician’s and the patient’s responsibility to rectify the situation. The clinician should be skilled at removing these enemies. It is important to realize that seldom does one find any one of these factors in an isolated form. Usually, they overlap to some degree. One may surface as the primary culprit. On further investigation, the clinician frequently finds others involved. For example, too much frustration can lead to discouragement and lack of motivation. Boredom can lead to too much forgetting. Too much discouragement can lead to forgetting and frustration, which ultimately surfaces with lack of motivation being involved. If the orofacial myologist learns to identify and minimize the previously mentioned factors, motivation is enhanced.

**ROLES IN MOTIVATION**

In determining the appropriateness of therapy, the clinician must involve the patient in decision-making. The patient must feel that the final decision to pursue, or not to pursue, treatment is his or her choice. Too many times, parents and clinicians make decisions for children. Parental attitudes can be a positive influence on the child, but it is the child who needs to make the commitment.

Once therapy commences, the clinician should involve the patient in determining the direction of the treatment program. The patient should accept responsibility for reaching the therapeutic goals. These goals, and the methods of obtaining them, should be the combined decision of the clinician and the patient and, parents if appropriate. A team approach strengthens motivation.

Family involvement is essential. “Without any doubt, the primary family is the most important agent of character formation in our culture, and within the family, the parents are the most important members” (London and Rosenhan, 1968, p. 279). With the great majority of children and adolescents, it is desirable to have parents involved. Supportive, cooperative, educated and involved parents strengthen patient motivation.

Successful treatment requires a positive outlook by the clinician and the patient. The concept of the placebo effect becomes most important. If a patient believes that a goal is attainable, and can see logical progression in the steps to achieve that goal, the therapy process, itself, becomes motivational. By actively involving the patient and by setting a series of attainable subgoals, the therapeutic process becomes rewarding. Conversely, if the goal direction is disorganized and unclear, the energies and the motivation required to reach the goal will subside. The patient should understand the broad goals of treatment in addition to the more specific objectives of each exercise. The design of the treatment is to develop an awareness of the orofacial musculature, to tone the musculature involved, to gradually introduce the skills of normal neuromuscular function, to establish a routine and, finally, to make the new neuromuscular patterns habitual. Habituating the skills is by far the most difficult goal to achieve and therefore requires most energy. As retention is the problem in orthodontics, habituation is the problem in orofacial myology. The clinician should educate the patient to the specific objectives of each therapeutic task and relate the tasks to these objectives.

The clinician’s personality can also influence the patient’s motivation. The clinician must be a “helping person”—one who is able to communicate genuinely, who is a good listener, and who understands the feelings of the patient. Empathy is a quality that helps the motivation process when performance is poor.

Many orofacial myologists use charting as a motivational means. First, the chart gets the patient organized.
by starting specific assigned tasks. Second, a chart can be psychologically rewarding. It provides the patient with an opportunity to visualize progress as it occurs. Third, a chart can become a reminder sign. Visual reminders can help prevent the problem of forgetting. Fourth, and most importantly, it helps the clinician know the patient’s exact performance levels. Used properly, charting can be a very constructive tool.

**CLINICAL PHOTOGRAPHY IN MOTIVATION**

Another valuable “tool” for heightening motivation is the clinical camera. A quality clinical camera gives a clinician the means for sustaining and maintaining motivation throughout treatment (see Figure 5). Intraoral photographs, plus photographs of the lips, can provide a valuable point of reference. Picture comparisons not only motivate the patient, but the parents, the referral source(s) and the clinician.

**FIGURE 5**

![Figure 5. A clinical photograph system (Washington Scientific Camera Company, P.O. Box 88681, Tukwila, WA 98188).](image)

When taking intraoral photographs, the clinician should be sure that the patient is bringing the teeth together in a consistent manner. Changes in the jaw position can distort and invalidate comparisons. Sometimes photographic comparison may demonstrate that the malocclusion is getting worse. Disharmonies of growth and development of the jaws may exacerbate the malocclusion. A consultation with the referral source can often reveal information about these abnormal growth patterns. If there is no apparent growth discrepancy, and if the teeth are occluding in the same jaw position, the effect of the orofacial muscles should be assessed.

Sometimes, re-evaluation photographs (or case review) reveal that the same basic architecture of the primary dentition is maintaining itself in the erupting permanent dentition (see Figures 6 & 7 part one). Visualization of a maintained malformation may be useful in motivating a patient at a later date (see Figure 7 part two). If the patient sees a deteriorating condition, this may provide the motivation required to initiate therapy. The camera allows objective collection and storage of information far beyond the capabilities of memory.

**FIGURE 6**

![Figure 6A. A six-year-old male with anterior tongue thrust and an active digital sucking habit. An unsuccessful attempt was made to help him stop the digital sucking habit.](image)

![Figure 6B. Same patient at age nine years. Note same basic architecture of deciduous dentition evidenced in the erupting permanent dentition.](image)

**FIGURE 7 (part one)**

![Figure 7A. A five-year-old female with no history of a digit sucking habit. She did have an anterior tongue thrust that was not addressed due to the maturation level.](image)
The same patient three years and four months later (age eight years, eight months). Note the same basic architecture evident in the erupting secondary dentition. Comparison of pictures proved to be motivational to the patient and the parent. Therapy commenced shortly after this photograph was taken. Influences: Serial extractions, growth and development, unaddressed tongue thrust.

Figure 7B.

The same patient after one year of orofacial myofunctional therapy (age nine years, eight months). Influences: Growth and development, orofacial myofunctional therapy, serial extractions.

Figure 7C.

Two years and ten months after orofacial myofunctional therapy was completed (age twelve years, six months). The neuromuscular patterns appear to be habitual. Influences: Growth and development, normal neuromuscular functions, serial extractions. No orthodontic appliances were used throughout this sequence. Orthodontic treatment was scheduled to commence shortly after this photograph was taken.

Figure 7D.

The camera can also enhance the clinician's motivation. The "enemies" that surface in patient treatment can also confront the orofacial myologist. There are moments of professional frustration and discouragement that the clinician must overcome. The clinician must experience success along with the patient! Quality photographic sequences can be extremely motivating to the clinician.

The clinical camera may appear complicated, but in reality the system is quite easy to use. Clinical standardization should be attempted at all costs. Many speech and dental publications show "before" and "after" photographs of patients. Different camera distances and angles between photographs diminishes and weakens the arguments they were intended to support. If the "before" photographs show an open bite with the head tilted back, and the "after" photograph shows the same patient with the head tilted forward, even though there may be no attempt to distort the findings the comparison loses credibility.

With a camera system that utilizes a bellows (see Figure 5), the distance standardization is quite simple. Record the bellows' setting so that the identical setting may be duplicated at later picture appointments. The camera is then moved until the subject is in focus. Unless the vision of the photographer has changed, the distance for the photograph and the size of the photograph will be the same.

To help standardize head posture, attempt to have the subject's occlusal plane parallel with the bottom of the picture frame. The photographer should try to "shoot" the picture through that plane. Looking at the previous photographs of the patient before taking another set can also help standardize the camera angle. Comparisons can be made with the image viewed through the camera and compared mentally with the last photograph. Another technique for photographing patients is mentioned in the article by Case in this issue.

Similar to the clinical camera is the video camera. Orofacial myologists throughout the United States and Japan are beginning to use videotaping as a means of storing the "function" of the musculature. The videotape provides an excellent tool for assisting in the motivational process. The value of videography is that the clinician captures the actual patterns of muscle function to be viewed at a later date.

CONCLUSIONS

The variety of motivational approaches available to the orofacial myologist and speech pathologist is multifaceted. Motivational concepts are modified by clinical experiences and the continuing education that follows initial formal education. Since motivation is a constantly changing phenomenon, the approaches to motivation must also undergo change or risk stagnation and lose effectiveness. It is my hope that the concepts presented in this article will help the clinician develop and maintain the high level of patient motivation needed to effect and maintain successful behavior change.
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