Clinical Focus

Voice Treatment for the Male-to-Female Transgendered Client

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Male-to-female transsexuals are sometimes a part of a speech-language pathologist's voice caseload. This article is intended to provide information and a suggested treatment approach to speech-language pathologists who work with this small but fascinating population. Aspects of the transition process, interviewing strategies, selection of a target frequency, and suggested treatment techniques are presented.

Key Words: transsexual voice, voice treatment, rehabilitation, sex reassignment, transgendered voice

Among those clients seeking the services of speech-language pathologists for voice treatment, a small but fascinating population of male-to-female transsexuals, or transgendered individuals, exists. Transsexuals are individuals who believe their psychological or true gender is not congruent with their biological gender (Oates & Dacakis, 1983). Most attempt to conform to the social role specified by their biological gender (Brown & Rounsley, 1996) but eventually seek medical and surgical treatment, as well as other forms of counseling and treatment, to achieve an identity they feel is their true one. An important part of the process, especially for the male-to-female transsexual, is attaining an acceptable feminine voice. Since hormone treatment does not alter the adult male vocal mechanism, voice change for these individuals must be effected behaviorally (Andrews, 1999, p. 436).

The following paper details information and procedures we have found to be useful in working with transgendered clients in our clinic. Our clients have been generous in sharing their experiences and informational resources with us. This paper has grown out of our mutual efforts to educate each other and ourselves about the nature of the transgendered condition and successful practices for voice treatment.

The Transition Process

In working with a transgendered client, it is helpful for the speech-language pathologist to have an awareness of the transition process. According to Brown and Rounsley (1996), most therapists, physicians, and surgeons involved with the care of transsexuals follow the Standards of Care established in 1979 (and updated periodically) by the Harry Benjamin International Gender Dysphoria Association (HBIGDA). The HBIGDA, named after an early U.S. researcher and author on transsexualism, is the international professional association for gender specialists who work with those with gender dysphoria. Gender dysphoria, or gender identity disorder, is a condition in which an individual experiences a strong and persistent cross-gender identification, persistent discomfort with his or her body, and subsequent distress in social, occupational, and other areas of functioning (American Psychiatric Association, 1994).

According to HBIGDA standards, the gender-dysphoric individual who wishes to undergo gender change must begin the process with counseling, regardless of how strong their belief is that they are truly a member of the opposite sex. Three months of counseling is the minimum acceptable time period, according to Brown and Rounsley (1996), although this duration may be increased in order to give the individual time to explore all possible options to resolve their gender dysphoria. After 3 or more months of counseling, if the individual is still committed to a course of gender reassignment, hormone treatment may be initiated. The (biological) male seeking gender change would then begin taking some form of estrogen in order to stimulate the development of secondary female characteristics. The male-to-female transsexual may also begin electrolysis and other procedures to reduce secondary male characteristics. However, despite these changes, the transitioning individual still retains his male identity at home and at work.

When and if an individual feels ready to proceed to the next step of the gender-change process, a “real life test” is begun, during which the male-to-female transgendered individual dresses, socializes, and interacts as a woman full-time, both at home and at work (Brown & Rounsley,
Some transsexuals may put off this stage until, for example, a divorce from a previous spouse is finalized, a new living arrangement has been secured, or until the youngest child leaves home. Going “full-time” is a major step in the transition process, and one that may last for many years.

The real-life test is actually a prerequisite to sex reassignment surgery, as specified by HBIGDA. HBIGDA standards require that the male-to-female transgendered individual live as a member of the female sex in a “real life test” for a minimum of 12 months (Brown & Rounsley, 1996). After this time, if the individual so desires, surgery to alter his/her anatomy can be performed. At this point, some transgendered individuals elect to undergo surgery, whereas others, for a variety of personal, health-related, or financial reasons, decline but continue on in the role of a woman. Several of the transgendered clients in our clinic have stated that as long as they can live and be accepted in the gender role they feel is their true one, surgery for an actual physical transformation is not an absolute necessity.

The Male-to-Female Transgendered Individual as a Client

The typical male-to-female transsexual seeking the services of a speech-language pathologist is likely to be middle-aged (Blanchard, 1994), married or previously married, and the father of one or more children (Brown & Rounsley, 1996). According to Blanchard (1994), the average age of his subjects’ initial search for professional guidance for their transsexualism was 30 years old. Blanchard also reported that for his subjects, each marriage delayed a patient’s decision to seek clinical services by an average of 4.1 years, and every child delayed presentation by an average of 2.1 years. For example, in his sample of subjects, the average age of first clinical presentation of a male-to-female transsexual who was married once and had two children was 39.2 years; the average age of the transgendered clients with two marriages and four or more children was 52.5 years. Speech-language pathologists should thus not be surprised if their transgendered clients are older and have been married one or more times.

It is also common for transgendered individuals to have (or have had) traditionally male-oriented occupations. Many have served in a branch of the military or have worked in law enforcement, construction, or some other stereotypically masculine field. According to Brown and Rounsley (1996), immersion in the masculine lifestyle represents the individual’s attempt to suppress his/her gender dysphoria. Brown and Rounsley also note that although such behavior may convince family and co-workers that the individual is comfortable in his gender role, the effort to maintain this role falsely eventually takes its toll. Stress-related medical conditions, depression, or even suicidal feelings may interfere with the individual’s ability to function in daily life. Many transgendered individuals finally realize that their gender dysphoria has become too strong to ignore, and professional help is sought (Brown & Rounsley, 1996).

The Interview

It is important when meeting the transgendered client for the first time to establish what name he/she prefers to be called by, and which pronoun, “he” or “she”, the potential client prefers. Most clients prefer to be called by their chosen feminine name, rather than their male given name, and want to be addressed using feminine pronouns. If the individual is in the early stages of the transition process, the physical appearance may be of a male; but out of courtesy, the clinician should try to address the client in the manner that the client prefers (Brown & Rounsley, 1996). In addition, it is also wise to ask how the client wishes to be addressed during telephone contacts. The client in the early stages of transition may request that you ask for “John” on the phone, particularly if you call at work, even though in treatment you would call her “Mary.”

In many respects, the initial interview carried out with a transgendered client is no different from any interview a speech-language pathologist might conduct. For example, the first step in working with the male-to-female transgender is obtaining a relevant case history. A critical question is where the individual is in the gender reassignment process (Andrews, 1999, p. 438). It is important to know such information as whether the client is receiving counseling for gender dysphoria, whether he/she has initiated hormone treatment, and at what point he/she plans to begin living as a member of the reassigned gender. The answers to these questions will have important implications for treatment. The individual who is receiving counseling, has begun hormone treatment, and has set a date for going “full time” is usually a motivated client who is serious about voice change and has specific targets in mind. A client who is already living in the role of a woman full-time may have an immediate and urgent need to develop a voice consistent with her new appearance. These clients are likely to make relatively rapid gains in attaining a feminine-sounding voice. In contrast, the individual who has just begun counseling and has not made any other plans for further treatment may still be in the “decision-making” process. Such clients may be more invested in sorting out their feelings and options for personal change than in making actual changes, and progress in treatment may be slow.

Other important questions relate to the individual’s communication with family members and co-workers regarding their transition. Have family members been told? Are they supportive? What about the employment setting? The answers to these questions can help the clinician understand the opportunities and limitations that the client has for practice and feedback in the environment. Some clients benefit tremendously from the support and encouragement of those around them as they attempt to habituate new vocal and other feminine behaviors. Others may be actively discouraged from the changes they are trying to make.

A health history is also an important component of the interview with the transgendered client, as well as the history of any previous communication disorders. Quite apart from their gender issues, the client may have a
history of neurological disorders, respiratory ailments, or hearing loss (particularly the older client) that can significantly affect progress in treatment. Clients who smoke, have frequent upper respiratory allergies, or a history of vocal hyperfunction also are likely to make slower progress in altering pitch and quality.

Finally, it is important to gain an understanding of what the client hopes to accomplish in treatment and what he/she has already done to try to effect vocal change. Many clients have unrealistic expectations about what their feminine voice will sound like. “I’d like to sound like you,” some of our clients have told their 23- to 25-year-old female clinicians. It is important to note that a 40- to 50-year-old individual, transgendered or biological female, is not going to sound like a female in her 20s, a fact which may be difficult for a client who wants the “perfect” voice to accept. It may be necessary to address the issue of expectations directly during treatment. Further, some clients are very successful in developing more feminine vocal behaviors on their own. These clients may be more in need of pointers and suggestions for how to optimize their skills rather than a protracted course of treatment. By the end of the interview, the speech-language pathologist should have a good idea of the client’s level of motivation, the environmental supports or hindrances the client is likely to encounter, potential health-related complications to voice change, and the probable amount of treatment required to achieve an acceptable-sounding female voice.

**Voice Treatment**

**Selecting a Target Pitch**

For most clients, the most important initial treatment goal is to raise speaking fundamental frequency (SFF), and to raise it quite markedly. The typical transgendered client must raise his/her pitch to a much more extreme degree than must the vocal abuse client, for example, who needs to come up a few semitones to avoid glottal fry. Thus, the pitch selection and raising process with the transgendered client must be undertaken in a much more systematic way than is usually done. Further, as the client raises pitch toward the target level, quality may initially be poor and intensity weak. The clinician must be prepared to address a variety of vocal parameters that temporarily become problematic as a result of raising pitch.

Early clinicians and researchers in gender/voice change reported selecting target SFFs for their male-to-female clients approximating 200 Hz (Kalra, 1977; Bralley, Bull, Gore, & Edgerton, 1978; Mount and Salmon, 1988). It should be noted that most of this literature was based on single subjects engaged in treatment programs. More extensive research on transsexual voice (Gelfer & Schofield, in press; Spencer, 1988; Wolfe, Ratusnik, Smith, & Northrop, 1990) consistently has indicated that an individual’s SFF must be at least at 160–165 Hz or higher for the voice to be identified as belonging to a female. For Wolfe et al. (1990) and Gelfer and Schofield (in press), the mean SFFs of female-perceived transsexuals were 172 Hz and 187 Hz, respectively, with the higher SFFs in both studies approaching 200 Hz. Lower SFFs were consistently identified as male voices.

It should be noted that in all of the studies cited above, listener judgments of gender were made from auditory information alone. If visual information is also present (i.e., the speaker is visible to the listener and, presumably, appears to be female), it might be possible for a speaker to use a somewhat lower SFF and still be perceived as a female, on the strength of the visual impression. However, most transgendered clients are anxious to avoid a perceived mismatch between the gender of their physical appearance and the gender of their voice. With no data to support the selection of a lower target, it seems prudent to set an SFF level of no lower than 160–165 Hz, at least initially, as a treatment goal.

Another important consideration in the selection of a target pitch for a transgendered client is potential for variability, particularly in an upward direction. The target pitch should not be so high that upward inflections are impossible. However, we have found that many transsexual clients are initially uncomfortable with upward inflections, and unsure of how to accomplish them, so that during initial testing, ability to inflect pitch upward from any given level may appear to be poor. Our experience suggests that if the client shows any ability at all to move pitch upward by several semitones from a given target level, adequate pitch flexibility at that level will probably occur during the course of treatment.

With a beginning client who has not been successful with informal and personal attempts to change voice, our procedure has been to establish a target vocal pitch during the first session. Given a pitch pipe and vocal cue from the clinician, and visual feedback from a Visi-Pitch unit (or any pitch feedback program or device), we ask the client to produce various frequencies on the syllable /ma/. Use of a “light” and clear vocal quality are modeled by the clinician and emphasized in client productions. A voice quality that is excessively breathy or tense is pointed out as being incorrect. Depending on client abilities, a pitch as low as D3 (147 Hz) may be selected initially. When the client can produce a good, clear /ma/ at that pitch (as evidenced by a relatively smooth line on the Visi-Pitch monitor), a slightly higher pitch is attempted. The client is taken up the musical scale until voice quality becomes unacceptable. Since the lack of familiarity with this task may affect a client’s performance, we generally repeat this procedure over several trials.

Assuming that the client has been successful in producing frequencies higher than 165 Hz with an appropriately light and clear quality, the second step we use in selecting a target pitch begins with a pitch cue at E3 (165 Hz), lower if necessary. The clinician, beginning on that pitch, models a five-note ascending scale (do, re, mi, fa, sol) on /ma/ for the client to follow. If the client can successfully move upward even several semitones from the beginning pitch, the same procedure is followed at F3 (175 Hz), or whatever the next semitone is. If the client continues to be successful, a third semitone might then be tried. The semitone on which the client has the greatest upward movement with good voice quality is then selected as the target pitch.
Habituating the Target Pitch in Syllables

Once a target pitch has been selected, we have the client practice producing it on a variety of /m/-initiated CV syllables, using a light and clear voice quality. Most work at the syllable level in our clinic is done with the initial consonant /m/. We have found that /m/ facilitates good oral resonance (that is, the client can feel vibration in the lip and cheek areas) and provides an opportunity for the client to locate the correct pitch before opening into the following vowel. Pitch during production of /m/ is also easily tracked on the Visi-Pitch.

Initially, the clinician gives both a pitch-pipe cue and a vocal model of each syllable. The clinician may even produce the syllable chorally with the client, if necessary. Syllables are prolonged for 2 to 3 seconds each, and the client is reminded to take a good breath between each syllable production. As this task becomes easy for the client, strings of two to five /m/-initiated syllables are practiced. Breath support and correct breathing patterns are emphasized to maintain the best possible voice quality with the least strain.

In addition to syllables produced at the target pitch, we typically continue vocal flexibility exercises as well. As done during selection of the target pitch, the client is asked to produce ascending scales of five notes on the syllable /ma/, beginning on the target pitch level. As the client gains confidence with this task, better voice quality should be demanded. A combination ascending-descending scale (da, re, mi, fa, sol, fa, mi, re, do) might also be tried.

We have found these activities to be instructive and appropriate for the first session with the client. They can also be used at subsequent sessions as warm-up activities, and can be assigned as homework between treatment sessions.

Words: Chanting and Speech Intonation

As soon as possible—at the end of the first or beginning of the second session—we attempt to introduce more functional voice use at the word level. This represents a substantial challenge for the transgendersed client, however, because the intonation patterns used on even single words are much more complex than the fixed pitch of a prolonged syllable. Although most clients can match and produce their target pitch during syllable production, pitch in fact varies markedly during the production of spoken words, and it is more difficult to be certain one is “on target.” To bridge this gap, we find it helpful to introduce “chanted” words first, followed by words produced with speech intonation. Again, this is a procedure somewhat outside the realm of what would be done in a conventional case of pitch raising for a non-gender-change client. However, because of the degree to which most transgendersed clients are raising their pitch, the chanting-speech intonation progression can be extremely helpful.

As with syllables, /m/-initiations appear to be most facilitative at the word level. The clinician presents a pitch pipe and vocal model, and then chants a stimulus word, such as “mine,” at the client’s target pitch, using the Visi-Pitch for visual feedback. It is pointed out to the client that the clinician’s Visi-Pitch trace is flat, and that this activity is exactly the same as the previous activity of prolonging syllables. When the client is successful chanting a list of words at the target pitch, the clinician then models the same words using a slightly exaggerated rising-falling intonation pattern. The clinician prolongs the initial “m” just slightly, to show the client that the target pitch is indeed the starting point. The clinician then raises her pitch approximately one semitone above the starting point as she moves into the word, and drops her pitch approximately one semitone below the target as she ends the word. The Visi-Pitch trace should reflect this upward-downward movement.

As the client begins to practice, she follows the same procedure that the clinician demonstrated: chanting the word first, then holding the initial “m” of the second production just slightly, and then going into a rising-falling intonation contour for the remainder of the word. If the client has difficulty, the clinician models repeatedly. Visi-Pitch feedback is used to determine how successfully the client was able to complete the task in terms of pitch. The clinician, meanwhile, listens carefully to the quality of the word produced with speech intonation. It is not unusual for a client to demonstrate poor voice quality—excessive breathiness, strain, or harshness—on the upward part of the intonation contour. If that occurs, the client is reminded to take a good breath before saying the word, to use a full voice quality at the initiation of the word, and to allow the very highest part of the intonation contour to become more breathy. The need for using breathiness as a tool for achieving upward inflections generally diminishes as the client gains confidence and practice producing higher frequencies.

If quality continues to be poor, we have occasionally tried a somewhat paradoxical technique: raising the client’s target pitch by a semitone or two, particularly for clients using a 165-Hz target frequency. Although this action might seem counterintuitive, we have observed that for some clients, 165 Hz can be produced using the uppermost limit of the masculine vocal “set” or speaking register. The resultant vocal quality is somewhat strained when the voice is produced this way. Raising the target pitch a semitone or two higher appears to force the client to adopt a different vocal production style and a lighter, more musical voice quality.

As the client becomes used to the laryngeal adjustments necessary for speech intonation, the slow and exaggerated pitch contours used during early attempts at words is quickly replaced by more rapid and natural-sounding word productions. To make treatment tasks at the word level more functional, a variety of steps are taken. First, use of phonemic contexts other than /m/-initiation are introduced. In general, /m/ is followed by words beginning with /n, w, j, l, r/; then with voiced fricatives, affricates, and stops; and finally with unvoiced fricatives, affricates, and Stops. Second, level of propositionality is altered. The client may start by reading word lists but then moves on to activities requiring more linguistic formulation, such as filling in the missing word of a sentence, or answering questions with single-word responses. We find that it is also beneficial to...
practice single words that the client reports using frequently, such as *hi* or *hello*, *bye*, *OK*, *yes*, *no*, and other vocabulary items, to facilitate carryover of the target pitch into daily activities.

Phrases

Once the client has moved to the phrase level, speech intonation is used exclusively. We initially continue with a restricted phonemic context, in particular using /m/-initiated words at the beginning of each phrase. The use of a voiced continuant sound to initiate a phrase seems to aid a client in locating and maintaining the target pitch over the duration of the utterance. As the client becomes more successful with producing the target pitch with a smooth and light voice quality, other voiced continuants such as /n, w, j, l, r/ are used to initiate phrases during treatment activities, with the eventual goal of using unrestricted phonemic contexts. However, if a client is having difficulty during a particular session in maintaining target pitch at the phrase level, she is asked to chant a phrase or two loaded with /m/-onset words. Similarly to the word level, Visi-Pitch feedback is important in monitoring the client’s success at maintaining her target pitch.

The clinician typically starts out at the phrase level with reading, although once the client is able to maintain both target pitch and acceptable voice quality, propositionality is increased. This is accomplished by giving the client a partial phrase she is to repeat and complete, or, at a higher level, by asking the client questions that can be answered with a phrase. Although they can be somewhat difficult to control, short role-playing activities might also be attempted at this level. It is often tempting for the client engaged in such activities to begin to respond in sentences, or even groups of sentences, to the scenario the clinician has set, but if kept short, the activity can be very instructive to the client regarding future needs.

Along with increased propositionality comes a new focus on *intonation*. At this level, we introduce the concept that phrases should be said in a natural-sounding way. At one extreme, the monotone pattern is to be avoided; at the other extreme, artificial variability patterns involving an excessive number of pitch shifts are discouraged. There is considerable disagreement in the literature as to whether males and females differ significantly in terms of the variability in frequency they use during connected speech. The issue has been reviewed by several authors, with inconclusive results (Gunzburger, 1995; Oates & Dacakis, 1983, 1986). Of those who have empirically tested pitch variability in the transgendered population, one study found more variability in transsexuals perceived as female compared to those perceived as male (Wolfe et al., 1990), whereas the other found no significant differences (Gelfer & Schofield, in press). Thus, concentrating on the naturalness of variability rather than on the number of directional changes seems to be more clinically useful.

The need to address appropriate intonation is another way in which voice treatment for transgendered individuals differs from conventional voice treatment. The typical voice client who needs to raise his or her voice a few semitones already knows gender-appropriate ways of modulating pitch, or so we would assume. The transgendered client may not.

We have found that the best way to facilitate natural-sounding intonation is for the clinician to provide enough context for the client to understand the motivation behind an utterance. This method helps the client determine which words in the phrase should be stressed, as well as the appropriate overall tone. The clinician also models a variety of alternative intonation patterns from which the client may select one deemed most desirable, if necessary. In many cases, the client does not yet know what sounds natural for her and needs the opportunity treatment provides to “try out” different possibilities.

As with the word level, an important goal at the phrase level is to move on to functional communication skills as rapidly as possible. At this stage, it is often helpful to sit down with the client and prepare a list of phrases used in the work setting or at home. These phrases can be practiced during treatment until the client can say them easily and naturally in her feminine voice, with good quality and acceptable intonation patterns. They then can be used at home or work for carryover.

Sentences

When the client reaches the sentence level, *pitch, quality, intonation, and pitch range* are all addressed simultaneously. The client is expected to control, and the clinician to monitor, all four parameters. Initially, the Visi-Pitch is used for feedback on pitch. Voice quality is evaluated perceptually for a light, clear (or musical) quality with no strain or roughness in the same way that perceptual judgments were made at earlier levels.

The client’s intonation during sentence production is also judged perceptually for naturalness. Many of our transgendered clients have been told that female speakers tend to raise their pitch at the end of sentences instead of dropping it. The empirical basis for this speculation appears to be a study done in England by Pellowe and Jones (1978). These researchers reported that the men they studied used a greater proportion of falling tones, whereas the women used a higher proportion of rising tones. Unfortunately, it is not known whether these results can be generalized to the speakers of American English in the late 1990s; thus, we recommend caution in the matter of upward pitch inflections. Consistent use of such an intonation pattern gives us the impression of a very hesitant and insecure speaker, an image that our clients typically do not want to project. Clients are monitored carefully to ensure that their declarative sentences are concluded with falling intonations more often than rising intonations.

Falling intonation patterns bring with them the danger that the client will fall too far at the ends of sentences, bringing pitch back down into a masculine range. At the same time, emphasized words in a sentence must reach adequately high frequencies. According to Gelfer and Schofield (in press), the average lower limit of frequency used during speech by a group of transgendered clients

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perceived as female was 138 Hz. The same authors found that the average upper limit of frequency in connected speech for female-perceived transgendered subjects was 301 Hz. Thus, in addition to her target pitch, the client must also be conscious of staying within an appropriate pitch range of approximately 140–300 Hz. In the early stages of work at the sentence level, we have found feedback from the Visi-Pitch to be important in aiding the client in developing an auditory referent for a feminine speech range.

As the client becomes more confident and capable at the sentence level, we then attempt to fade use of the Visi-Pitch. In our experience, clients can become dependent on visual and numerical cues, to the detriment of their development of auditory monitoring skills. The clinician too can become overly dependent on Visi-Pitch feedback and must also develop auditory monitoring skills. As a transition stage, we have found it useful to have the client and clinician evaluate pitch together from a tape recording of a client’s connected speech sample. The tape can be replayed as many times as needed for a consistent judgment to be made, and, if necessary, can be analyzed on the Visi-Pitch using the line input function (instead of microphone input). For “live” productions, the clinician can assess the client’s SFF accuracy by using a pitch pipe combined with “humming along” with the client as she produces connected speech. Subjective pitch evaluation is difficult to learn, but it is an important step in the client’s treatment.

The sentence level also provides the opportunity to try out different emotional styles and intensity levels. Here again our treatment program for transgendered clients differs from programs designed for the needs of more typical voice clients. Because of the extreme upward pitch change the client is attempting to implement (given their laryngeal anatomy), maintenance of acceptable voice quality has been a challenge. Up to this point, we have focused on a light, breathy, clear quality as the goal. However, many clients complain that this vocal style is appropriate to some situations but not when strong emotions and/or higher intensities are involved. At the sentence level, sentences expressing happiness, sorrow, annoyance, anger, and other emotions are presented, so that the transgendered client can experiment with such expressions using their feminine voice. As usual, the clinician needs to be prepared to model each emotion, and to encourage the client in her exploration of functional speaking styles at higher pitch and with acceptable voice quality, for a variety of situations. We have found that higher intensity levels especially can be difficult for the transgendered client, but if pitch and quality have been well-established, intensities up to 90 dB (at a 12-inch mouth-to-microphone distance) should be possible.

Increased propositional structure at the sentence level can take many of the forms previously discussed at the phrase level. The clinician may present partial sentences for the client to repeat in complete form, several related words for the client to make up a sentence about, single or unrelated words to serve as the topic of a sentence, picture descriptions, responses to questions, and role-playing activities. We prefer to move the client into activities that require increasing formulation responsibilities as proficiency with sentences increases. It is difficult for many clients to maintain feminine pitch and quality when they must attend to what they are saying as well as how they are saying it. The clinician can expect to spend a substantial amount of time at this level.

Multiple Sentences

At the completion of the sentence level, the clinician typically introduces tasks involving multiple sentences at various levels of propositional structure. For example, at the lowest level of propositional structure, paragraph reading may be presented. At higher levels, descriptions of pictures, picture sequence cards, or more extensive role-playing activities may be tried. The goal of such activities is to establish a feminine voice in speaking situations as similar as possible to those the client will encounter in everyday life.

Generalization and carryover are sometimes more challenging with a transgendered client than with more conventional voice patients. Voice treatment for the non-gender-change client usually involves introducing and habituating behaviors that make it easier and, in some cases, less painful or tiring, to produce voice. For the gender-change client, the new voice is more difficult to produce and may be hard to accept psychologically since it is not “perfect.” Further, carryover activities are sometimes impeded in the treatment room by the comfort the client feels with the clinician. Unlike everyday situations, there is no penalty in treatment for dropping out of feminine voice and into a masculine range. In real life, such behavior would elicit stares at the very least, if not more negative comments and behaviors from listeners. The client should be encouraged to use her feminine voice at all times in treatment, for casual conversation as well as treatment activities, so that it becomes more effectively habituated.

In addition to the conventional voice treatment concerns of carryover and generalization to realistic tasks and situations, it is often beneficial to introduce a variety of nonverbal and paralinguistic behaviors at this level that are specific to the transgendered client. The clinician might monitor the client for gestures and mannerisms at this point, to ensure that a feminine impression is being created in face-to-face communication situations. Feminine word choices and language structures, such as those described in Andrews (1999), may also be targeted. Finally, specific strategies to promote being recognized as a woman, such as identifying oneself on the phone as a female (“Hello, this is Mary Smith. May I please speak to…”.) can be discussed.

The End of Treatment

Ideally, treatment for transgendered clients is terminated when the client and clinician agree that the client has achieved her goals for pitch, quality, intensity, variability, and natural-sounding intonation patterns in spontaneous speech. Additional criteria might include the client’s report
of successful use of the feminine voice in home, work, and recreational settings, and positive listener reaction to the client as a female speaker. However, in our experience, the typical expectation of client and clinician agreement on dismissal criteria does not always occur in the case of the transgendered individual. Some clients are satisfied with the soft and breathy voice that is initially used at the word and phrase level. Regardless of the clinician’s beliefs, such clients may wish to be dismissed when they feel they are consistently able to use that “first stage” voice. In contrast, others are concerned with their resonance and wish to continue treatment until a “full” and non-breathy feminine voice is finally achieved. Some clients have an idealized female voice as their eventual goal, which may not be a physiological possibility. The latter clients often leave treatment with some frustration at not attaining this ideal. In general, our transgendered clients have been more assertive than the average voice client typically is in participating in the termination decision. If they feel their personal goals have been met, or perhaps are unlikely to be met, it is difficult to convince them to remain in treatment.

How successful can a speech-language pathologist be in changing an individual’s voice from one that is perceived as belonging to a male speaker to one perceived as belonging to a female speaker? Based on our experience, it is certainly possible to alter the voice from one that is perceived as being very inappropriate for a female-appearing person to one that is accepted for a female-appearing person. In other words, given the male-to-female transsexual’s feminine appearance, we have found we can be successful in most cases in shaping a voice that is not inconsistent with visually perceived gender. The client’s success at being perceived as female over the phone, without the visual cue for gender, is more difficult to predict. Some clients achieve a voice that truly sounds feminine in the absence of visual cues; others do not. Transgendered clients may have to maintain a slightly higher pitch than biological females to be correctly perceived, and they may have to exaggerate vocal variabil-

ity (Gelfer & Schofield, in press) and articulatory precision. Even if we are not able to help the client reach her ideal feminine-sounding voice, our clients report that voice treatment helps alleviate many of the day-to-day difficulties previously encountered when their physical appearance and vocal image were of different genders.

Context: The Development of This Program

The voice treatment program presented above was developed in a university training clinic that serves approximately two to three transgendered clients per semester. Over the past 8 years, we have seen a total of 15 clients. Most have been in the 35- to 45-year age range on initiation of treatment. Our youngest transgendered client was 22 years old when she first came to see us; our oldest began voice treatment and her reassignment journey at the age of 68. Moreover, our transgendered clients have been at a variety of stages in their gender reassignment process when they first started voice treatment with us. Most commonly, we see clients who have begun hormone treatment but are still interacting in their daily lives in their masculine identity. Four of our clients began treatment at the same time as initiating their real-life test in their feminine identity. One client was 13 years post-reassign-

ment surgery at the time of her first contact. Only three of our clients have been smokers at the time of initiating voice treatment.

Clients are typically seen twice per week for hour-long sessions during the 12 weeks per semester that the clinic is in session. Our average transgendered client remains in treatment for two to three semesters, with a range of one to five semesters. Most of our clients continue treatment until both they and their clinician feel that their long-term goals have been met. The majority of our transgendered clients report feelings of satisfaction with the outcome of their voice treatment and terminate at a mutually agreed-on point, although several have unilaterally ended treatment for a variety of personal reasons that can only be respected.

Since ours is a training clinic associated with a university, transgendered clients typically are seen by graduate student clinicians. It is the philosophy of our clinic that students should be prepared to work with a diverse clientele upon graduation, and we consider our transsexual clients to be part of that diversity. Students are introduced to the concept of transsexualism in their graduate voice disorders class, where treatment approaches and techniques are discussed. Opportunities for observation of these clients in clinical sessions are made available as part of the voice treatment observation requirement of the course. If a student is assigned a transgendered client as part of his or her clinical practicum, additional readings and videotapes are suggested. All supervisors stress the need for professionalism in behavior and attitude. We have found this type of preparation to be effective in creating a positive experience for both the client and the clinician.

Finally, we are fortunate that our clients have excellent counseling services available to them at a local center that specializes in gender issues. In addition, the clients we serve are usually affiliated with a large local support group for transgendered individuals that draws people from several states for their monthly meetings. Because of the counseling and support services available in our geographic location, most of our clients are already receiving help with feminine nonverbal behaviors and mannerisms, in contrast to the situation in other locations throughout the country. Although many speech-language pathologists that work with the transgendered population must address these behavioral issues, our program has typically not needed such an emphasis.

Conclusion

Behavioral change is not an easy process, but it does offer possibilities for the male-to-female transgendered client. We have found that by carefully selecting and habituating a target pitch, by moving from chanting to speech intonation at the word level, by targeting natural-sounding intonation at the phrase level, by practicing different styles of emotional expression and intensity levels.
at the sentence level, and by monitoring nonverbal and paralinguistic behaviors in connected speech, good results can be obtained. At this point, additional research into vocal cues for gender and treatment outcome for trans-gendered individuals is needed to guide speech-language pathologists in helping this population reach their vocal goals. Until then, speech clinicians with expertise in voice will need to modify and adapt their techniques for this special and challenging group of individuals.

References

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