

TREATMENT METHODS FOR FUNCTIONAL VOICE DISORDERS

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INTRODUCTION

This study is a broad overview of the Functional Voice Disorder treatment literature. I am a speech language pathologist (SLP) currently working in the public school system in the United States, but my ultimate goal is to specialize in treating voice disorders, especially of this variety. Also important to note is that I am a singer with a Functional Voice Disorder that I have been dealing with since 2013. This experience, although personal, has given me a unique insight that is highly relevant to my professional practice. The genesis of this study was what Atkins and Murphy (1993, cited in Finlay 2008) call “uncomfortable feelings” over an apparent disconnect between commonly accepted truths about effective treatment for Functional Voice Disorders and my own personal experience, as well as those I have witnessed in other people with this type of voice disorder. I aim to learn what assumptions have sufficient evidence and where the gaps in the literature are for future research. My ultimate goal is to improve treatment effectiveness for patients with Functional Voice Disorders.

Throughout this study, I will be using the framework put forth by Jay and Johnson (2002, cited in Finlay, 2008), who identified three dimensions for reflective practice. In the Descriptive Dimension, I will identify commonly cited aspects of Functional Voice Disorder treatment, how trustworthy this evidence is, and how useful the available information is to practitioners and their patients. In the Comparative Dimension, I will identify alternative explanations for observed phenomena than those that are commonly accepted. Finally, in the Critical Dimension, I will identify the implications of the previous two dimensions and provide suggestions for further avenues of research and professional practice.

DESCRIPTIVE DIMENSION

The Question of Labels

Voice disorders that are not primarily due to organic causes are common in voice clinics (Roy, 2003). Patients with this type of voice disorder may report symptoms such as hoarseness, vocal fatigue, vocal strain, pain on or after phonation, tightness in the throat, voice loss, an inability to project, globus sensation, or a loss of pitch range (Altman, Atkinson, and Lazarus, 2005; Misono et al., 2018).

While this type of voice problem is common and its symptoms are well defined, its etiology is less clear (Morrison and Rammage, 1993). As such, throughout history researchers

and clinicians have given this disorder a variety of labels, outlined in Table 1 below. These labels may overlap while not being completely synonymous. They appear to reflect individual researchers' theories on the etiological factors of this type of voice problem (Roy, 2003). In addition, because of its unclear etiology, it is diagnosed by the exclusion of other voice problems and does not have clearly defined diagnostic criteria (Kollbrunner and Seifert, 2017).

Label	Source(s)
Bogart Bacall Syndrome	Koufman, 1988
Conversion Dysphonia	Matas, 1991, cited in Van Mersbergen, Patrick, and Glaze, 2008
Functional Aphonia, Functional Dysphonia, Functional Voice Disorder	Aronson, Peterson, and Litin, 1966; Bridger and Epstein, 1983; House and Andrews, 1987; House and Andrews, 1988; Koufman and Blalock, 1982; Morrison, Nichol, and Rammage, 1986; Roy, 2003; Roy and Bless, 1999; Roy and Bless, 2000; Roy, Bless, and Heisey, 2000a; Roy, Bless, and Heisey, 2000b; Roy et al., 1997; Van Mersbergen, Patrick, and Glaze, 2008
Habitual Hyperkinetic Dysphonia	Arnold, 1962, cited in Van Mersbergen, Patrick, and Glaze, 2008
Habituated Hoarseness	Koufman and Blalock, 1982
Hyperfunctional Dysphonia	Goldman et al., 1996, cited in Van Mersbergen, Patrick, and Glaze, 2008
Hysterical Dysphonia/Aphonia	Koufman and Blalock, 1982
Muscle Misuse Dysphonia	Angsuwarangsee and Morrison, 2002; Morrison, 1997; Morrison and Rammage, 1993
Muscle Tension Dysphonia	Altman, Atkinson, and Lazarus, 2005; Belsky et al., IP; Dabirmoghaddam et al., IP; Izadi

	and Salehi, 2013; Kryshpava et al., 2017; Misono et al., 2018; Roy et al., 2019; Van Houtte, Van Lierde, and Claeys, 2011; Zheng et al., 2012
Nonorganic Habitual Dysphonia	Demmink-Geertman and Dejonckere, 2002, cited in Van Mersbergen, Patrick, and Glaze, 2008
Nonorganic Voice Disorder	Seifert and Kollbrunner, 2005
Phonasthenia	Andersson and Schalén, 1998
Phononeurosis	Milutinovic, 1991, cited in Van Mersbergen, Patrick, and Glaze, 2008
Psychogenic Aphonia, Psychogenic Dysphonia, Psychogenic Voice Disorder	Andersson and Schalén, 1998; Butcher, 1995; Gerritsma, 1991
Tension Fatigue Syndrome	Koufman and Blalock, 1982
Ventricular Dysphonia	Aronson, Peterson, and Litin, 1966

Table 1: Historical Labels for Muscle Tension-Based Voice Problems

For this study, I will be using the broad label of Functional Voice Disorder (FVD), as proposed by Baker et al. (2007), cited in Baker (2017). Under this label, FVD “refers broadly to an aphonia/dysphonia where there is no organic pathology, or if there is, it is either insufficient to account for the nature and severity of the voice disorder or is considered secondary to the functional problem” (Baker, 2017, pg 13). While some people take issue with the “functional” label because of its ambiguity (Roy et al., 1997), I have chosen this label because it allows for some flexibility in the underlying etiology for this type of voice problem. This is important because, while it is sometimes useful to have a label reflect a specific etiology, “Any classification that points a finger at one cause tends to ignore or undervalue the contribution of others” (Morrison, 1997, 109).

Baker et al. (2007), cited in Baker (2017), further divide FVD into two groups: Muscle Tension Voice Disorders (MTVD) and Psychogenic Voice Disorders (PVD). While this classification system divides MTVD and PVD into two discrete groups, others have proposed

that this type of voice problem exists on a spectrum between a chiefly psychogenic etiology on one end and a primarily muscular etiology on the other (Altman, Atkinson and Lazarus, 2005; Seifert and Kollbrunner, 2005). In addition, “Clear thresholds or discrete boundaries to separate these various diagnostic categories are lacking” (Roy et al., 1997, pg 322).

While there is debate on how to label this type of voice problem, commonly accepted treatment practices broadly fall into the categories of patient education, behavioral voice therapy, manual therapy, and psychosocial therapy.

Patient Education

Patient education, also labelled vocal hygiene (Van Houtte, Van Lierde and Claeys, 2011) or indirect therapy (Carding, Horsley and Docherty, 1999) is often cited as an important component in treating FVD. Its goal is to help the patient figure out what types of internal and external factors can impact the voice’s functioning so the patient can make modifications that may help resolve the issue (Van Houtte, Van Lierde and Claeys, 2011). While some patients are able to manage their vocal challenges with vocal hygiene alone, others need more direct treatment methods.

Behavioral Voice Therapy

The goal of behavioral voice therapy, or therapy that involves the patient making some kind of modification to their vocal behaviors, “is to maximize vocal effectiveness given the existing disorder and to reduce the handicapping effect of the voice problem” (Ramig and Verdolini, 1998 pg s101). While there are several specific behavioral voice therapy techniques, such as Accent Method, Confidential Voice, Resonant Voice Therapy, Vocal Function Exercises, and Yawn-Sigh (Pannbacker, 1998), among many others, they all tend to modify phonation, breathing, muscle tension, articulation, posture, and/or vocal proprioceptive awareness (Andersson Schalén, 1998; Goffi-Fynn and Carroll, 2013; Koufman and Blalock, 1988; Lucchini et al., 2018; Roy, 2003; Seifert and Kollbrunner, 2005; Sielska-Badurek et al., 2017; Van Houtte, Van Lierde, and Claeys, 2011). Each one of these elements is quite complex and rife with debates and thus specific descriptions of them are out of the scope of this particular study.

Manual Therapy

FVD, especially ones given labels such as Muscle Tension Dysphonia or Muscle Misuse Dysphonia, are presumed to have some element that is due to musculoskeletal tension. Because of these supposed muscular tension issues, manual therapy (MT), or therapy in which the clinician or the patient in some way physically manipulates the laryngeal musculature, is often recommended. The goal of MT is “to relax the excessively tense musculature which inhibits normal phonatory function” (Mathieson et al., 2009, pg 353). Effects of MT include a lowered larynx, less stiffness, and more mobility (Roy, 2003; Mathieson et al., 2009). This may be

especially important in cases where the patient does not respond well to behavioral voice therapy alone. While behavioral voice therapy also seeks to address muscle tension, it may not be aggressive enough to combat the “powerfully resistive force of musculoskeletal tension” (Roy and Leeper, 1993, pg 243, citing Aronson, 1990). MT is often performed by SLPs with sufficient training. The two primary forms of manual therapy used to treat FVD are Manual Circumlaryngeal Therapy (Aghadoost et al., IP; Dehqan and Scherer, 2019; Roy et al., 1997) and Laryngeal Manual Therapy (Mathieson et al., 2009).

Psychosocial Therapy

Patients with FVD may be more prone to personality and psychological traits such as introversion (Gerritsma, 1991; Roy et al., 1997; Roy, Bless, and Heisey 2000a; Roy, Bless, and Heisey, 2000b; Roy, 2003), neuroticism (emotional reactivity) (Roy and Bless, 2000; Roy, Bless and Heisey, 2000b), anxiety (Gerritsma 1991; Misono et al., 2018; Roy et al., 1997; Roy, Bless, and Heisey, 2000a; Roy, Bless, and Heisey, 2000b), depression (Gerritsma, 1991; Roy et al., 1997; Roy, Bless, and Heisey, 2000a; Roy, Bless, and Heisey, 2000b), and constraint (Andersson and Schalén, 1998; House and Andrews, 1988; Van Mersbergen, Patrick, and Glaze, 2008). In addition, all voice disorders have an emotional or psychological component (Baker, 2017) and behavioral voice therapy often leads to emotional responses that necessitate skillful counseling (Aronson, 1969). As such, psychological counseling is often an important treatment component for FVD that may be done in addition to, or in certain cases instead of, behavioral voice therapy.

Psychosocial therapy for FVD may include elements of patient education on the relationship between emotions and the voice (Aronson, 1969; Duncan, 1947), voicing one’s true thoughts and opinions in times of conflict (Andersson and Schalén, 1998; Aronson, 1969; Duncan, 1947; Pannbacker, 1998), and cognitive behavioral therapy (CBT). CBT components that can be incorporated into FVD treatment include helping the patient figure out predisposing, precipitating, and maintaining factors for their voice difficulties and helping them develop strategies to prevent relapse (Dandiilidou et al., 2007). This may include training the patient on anxiety management techniques, healthy ways of asserting themselves, positive self talk, reducing life stressors such as family conflicts, and desensitization to fear of losing their voice again (Butcher et al., 1987).

Unanswered Questions

There are many improvements that need to be made in future studies on FVD treatment. Many studies have small sample sizes and so their results should be interpreted with caution. In addition, several studies have no control groups, so effects of placebo or the patient’s relationship with the therapist cannot be ruled out. When studies do have control groups, participants are not

always randomly assigned. There are inconsistent methodologies and outcome measures, making study replication and comparison difficult.

Another issue is that many of the outcomes of interest, such as muscle tension and psychological change, are difficult to measure objectively. Because of this, “...the preponderance of the literature is anecdotal in nature and relies on clinical impression rather than on more objective or reliable forms of data collection and analysis” (Roy and Leeper, 1993, pg 242). When objective measures, such as electromyography (EMG), are included, they are not always reliable (Van Houtte et al., 2013).

However, while subjective measures may need to be interpreted with more caution, they should not necessarily be valued less than objective measures. Clinical judgement is a crucial component of evidence based practice (Sackett et al., 1996, cited in Dollaghan, 2016). Just because treatment outcomes such as acoustics are more easily measured objectively does not mean that they are the most important clinically. Conversely, just because muscle tension and psychological state are difficult to measure objectively does not mean that they should be valued less when planning treatment.

Questions about Patient Education and Behavioral Voice Therapy

Indirect and direct treatment techniques have been shown to improve mucosal wave, aerodynamic measures, vocal range, GRBAS scores (Dejonckere et al., 2001, cited in Lucchini et al., 2018), VHI-10 scores (Jacobson et al., 1997, cited in Wenke et al., 2014), V-RQOL scores (Hogikyan and Sethuraman, 1999, cited in Pedrosa et al., 2016), and performance on perceptual and palpatory rating scales (Lucchini et al., 2018; Pedrosa et al., 2016; Sielska-Badurek et al., 2017; Wenke et al., 2014; Wrycza Sabol, Lee and Stemple, 1995). However, as an SLP with a FVD, I have several misgivings about how research on voice therapy is often conducted.

Few studies contain follow-up data or information on how well patients carry over their voice changes into their day-to-day lives. In addition, there is little consensus on treatment duration and frequency or on protocols for dismissal from therapy. While De Bodt, Patteeuw and Versele (2015) state that this variability may be due to protocols and insurance policies in different countries, I think that some of this variability may also be due to a lack of emphasis on carryover. While a skilled clinician can help a patient produce a “better quality” voice in just a few treatment sessions, I am not convinced that this is always enough for a patient to really manage FVD symptoms, such as vocal fatigue and pain, long term. Anecdotally, I have encountered SLPs who assert that if therapy takes too long it is either because the patient is not properly complying with treatment recommendations or because the treating clinician is not experienced enough. While these factors may certainly play a role in some cases, they do not hold true to my experience as someone with a FVD or to the experiences I have heard from many other people with FVD. In addition, I have noticed that many clinicians zealously adhere to and

promote certain behavioral voice therapy techniques, such as Resonant Voice Therapy and semi-occluded vocal tract exercises. While these techniques are useful and often highly effective, I think that this over-commitment may lead some voice therapists to avoid questioning when a patient's lack of progress is due to the techniques used themselves instead of patient compliance.

Questions about Manual Therapy and Muscle Tension

While “It is assumed that laryngeal musculoskeletal tension plays a major role” in FVD (Roy and Leeper, 1993, pg 242), it is difficult to say if this is always the case. While people have reported a possible association between increased larynx height and FVD (Aronson, 1990, cited in Mathieson et al., 2009), some patients may hold the larynx in an abnormally low position (Mathieson et al., 2009). As described above, FVD are generally diagnosed by exclusion of other more visible factors (Kollbrunner and Seifert, 2017). It is possible that some patients, while they may have symptoms that appear to be due to muscle tension, may not actually have an abnormally tight laryngeal musculature.

In addition, while muscular tension issues have been posited, many of these supposedly pathological muscular patterns can be found in the normal population without FVD. Dabirmoghaddam et al. (IP), after studying laryngeal patterns in people both with and without the Muscle Tension Dysphonia (MTD) label, found that the MTD 2 muscle pattern (ventricular compression) occurred at similar rates in both groups. In addition, 14% of the normal subjects had the MTD 1 muscle pattern (tight posterior cricoarytenoid with post-glottal chink). MTD 4 patterns (severe anterior posterior squeeze) were only found in 2.7% of the MTD subjects.

Further, while anterior/posterior constriction is typical of an MTD 3 muscle pattern, epilaryngeal narrowing has been shown to be helpful in supporting vocal fold oscillation and producing the singer's formant (Titze and Story, 1997). Similar narrowing patterns have been found across singing styles (Yanagisawa et al., 1989), and may be especially crucial for the “twang” quality necessary in contemporary singing styles (Perta, Bae and Obert, 2020).

In addition, extrinsic laryngeal muscle tension is difficult to quantify. Studies have shown that surface EMG is not sensitive enough to measure the activity of the small muscles of the larynx and also cannot distinguish between MTD and control groups (Khoddami et al., 2017; Van Houtte et al., 2013). Palpatory scales are also subjective and have not yet been shown to reliably discriminate between people with and without FVD (Stepp et al., 2011).

Questions about Psychosocial Therapy

While psychosocial approaches to FVD treatment are important, there are some issues concerning exactly who should be allowed to administer this treatment. In cases where the patient has significant past traumas to resolve or severe mental health concerns, they should be

referred to a licensed psychologist (Aronson, 1969; Brodnitz, 1981; Kollbrunner and Seifert, 2017).

However, while there is reason to believe that there is often a psychological component to FVD, this component is often not severe enough to qualify as a true psychological disorder (Koufman and Blaylock, 1988; Roy et al., 1997). Kollbrunner and Seifert (2017) state, “For these patients, an SLP experienced in voice pathology, voice therapy, and the psychosocial techniques of assistance, is the most appropriate professional” (Kollbrunner and Seifert, 2017, pg 132e5). While psychologists are experts on a variety of mental health concerns, they are generally not experts in voice and communication, while SLPs are. Therefore, Butcher et al. (1987), Daniilidou et al., (2007), and Kollbrunner and Seifert (2017) argue that SLPs who work with voice patients should be trained in CBT techniques. If an SLP seeks out the appropriate training in CBT, they can incorporate psychosocial elements into FVD treatment, provided they are mindful of not stepping outside of their scope of practice. Further, SLPs already use CBT techniques when treating people who stutter (Nnamani et al., 2019), among other patient groups. Kollbrunner and Seifert (2017) also suggest that the SLP who incorporates CBT into FVD treatment should find a psychologist to consult with and help determine when a referral needs to be made.

One issue that is especially relevant in the United States is the cost of treatment. While a patient’s condition may necessitate treatment from both an SLP and a psychotherapist, there are often issues with insurance coverage. Because of this, an SLP trained in CBT may be the more cost-effective treatment option, provided the patient does not have a severe psychological disorder.

Questions about Follow-Up Data

As already mentioned, one major weakness in the existing literature on FVD treatment is that follow-up measures are often not included in the study design. Because of this, while we know a certain amount about immediate treatment effects, little is known about long term treatment effects, how frequently FVD patients experience relapse, and why. This is an especially interesting question for myself as an FVD sufferer who has never really been able to “cure” my FVD, despite my best efforts. I have also heard similar stories from other people with FVD who share their experiences in online support groups.

Although there is a lot of heterogeneity of follow up times and systems of measurement, in most of the studies included in this review the majority of FVD patients maintained at least some level of improvement at follow up, while fewer numbers experienced relapse or constant voice problems (Andersson and Schalén, 1998; Carding, Horseley, and Docherty, 1999; Dehqan and Scherer, 2019; Koufman and Blalock, 1988; Roy and Leeper, 1993; Roy et al., 2019). However, I found one finding to be particularly interesting. In a study on the effects of one MT

treatment session, Roy et al. (1997) reported that 13/19 (68%) of patients had experienced some kind of recurrence since treatment. There was a lot of variability, with some patients only experiencing problems for a short period of time and others experiencing daily recurrence. However, “In spite of a high rate of reported recurrence, only two patients contacted the attending physician for additional consultation/treatment” (pg 329). As an SLP, this makes me wonder how frequently this happens in this population, because if patients never tell clinicians that they are still experiencing difficulties, how are the clinicians supposed to know if their treatment is effective? There do not appear to be many studies on why, for a (potentially small) percentage of people with FVD, treatment effects are not maintained at follow-up.

COMPARATIVE DIMENSION

Alternative Etiological Explanations

As explained above, when laryngeal or neurological pathology cannot be identified and a patient reports voice problems, muscle tension is often the assumed etiology. It is well documented that many people with FVD experience symptoms such as laryngeal pain and vocal fatigue, which both can result from excessive muscle tension. However, as Mathieson et al. (2009) state, “It is... understood that such discomfort does not necessarily represent a symptom of tissue damage but... is an essential feature of a disorder of function of the pain system as a whole, involving both peripheral and central mechanisms of the nervous system” (pg 356). It is possible, then, in some cases, that either from the beginning or after muscular tension has been resolved, that FVD symptoms are actually due to malfunctioning of the pain system. If this is true, manual therapy may not work by decreasing muscular tension, but instead by enacting neuropsychological changes that influence a patient’s perception of pain.

At this time, few studies exist within the voice literature on these alternative theories. However, more ample information exists in the physical therapy, osteotherapy, and massage therapy literature. Bialosky et al. (2009) theorize that “...a mechanical force from MT initiates a cascade of neurophysiological responses from the peripheral and central nervous system which are then responsible for clinical outcomes” (Bialosky et al., 2009, pg 1). Bialosky et al. (2018) have proposed a system to explain this response, combining elements of patient experiences and beliefs, potential placebo effects, areas of the brain involved with modulating pain signals, and positive emotional responses.

This is important to remember as a voice therapist because it can help inform the course of treatment. If one assumes that FVD symptoms are always due to muscle tension, this may lead a therapist to continually tell the patient to speak in a “relaxed tone.” In some cases, this may lead to a patient speaking in an unsupported manner and to be so afraid of any type of muscular engagement at all that healthy vocalizing is almost impossible. In addition, an overemphasis on reducing and avoiding muscle tension may lead a patient to be hypervigilant in regards to their

laryngeal musculature. This may lead the patient to create muscular tension when there was little to begin with. This hypervigilance can also further irritate an already overactive pain system, unintentionally increasing FVD symptoms. More research needs to be done on FVD treatment from a pain system perspective instead of from a purely or primarily muscular tension perspective.

Alternative Views on Labels

Prior to this study, I have almost always used the label MTD to describe my voice problem, as this was the label I was first given when I was diagnosed in 2013 and this is the label used by most of the clinicians I know. As I reviewed the literature, I was surprised at just how many labels there are to describe seemingly similar conditions and how poorly defined the differences between these labels are. For this study I elected to use the FVD label because of its flexibility. As already stated, FVD symptoms are well defined while FVD etiology is more uncertain. I found that MTD placed too much of an emphasis on muscle tension and that it may lead clinicians and patients to assume muscle tension is the primary factor when it may in fact be an overactive pain system or other psychological factors.

In addition, while some may divide FVD into discrete muscle tension and psychogenic groups, I agree with others who have proposed that this type of voice problem exists on a spectrum (Altman, Atkinson and Lazarus, 2005; Seifert and Kollbrunner, 2005). Further, based on my own experience with this type of voice problem, I theorize that some people's position on this spectrum may change over the course of treatment. As Roy and Leeper (1993) state, "For each subgroup, the mechanism that underlies the onset of the voice problem may be different than the mechanism that is maintaining it" (pg 247-248). It is reasonable to theorize that what begins as a primarily behavioral problem may over time morph into a psychological problem, and vice versa, maintaining the voice dysfunction even after the initial issues have been resolved. This is important to keep in mind when tailoring treatment methods to specific patients, because the voice therapist must constantly assess the patient's current position and be willing to provide or recommend multiple treatment options.

CRITICAL DIMENSION

After having examined commonly-held beliefs about the origins and treatment of FVD, as well as some alternative explanations, I have come to several conclusions. First of all, while MTD is the most commonly used label currently, one must take care to not assume that a patient's symptoms are always primarily due to muscle tension. A voice therapist must consider how multiple etiological paths can lead to the same presentation. One must also remember that different factors may contribute to the voice problem with varying degrees over time and tailor treatment accordingly.

For future research, there is a need for studies with a more rigorous focus on follow-up data and carryover, as well as studies examining the possibility that FVD may sometimes be due to pain system functioning. In addition, while quantitative studies are useful, there is a need for qualitative studies asking about FVD patients' experiences before, during, and after treatment.

On a larger scale, there is a need for more education on FVD within SLP graduate programs, with a focus on treating it as a multifactorial condition. We as practitioners need to continue advocating for greater access to health care so that patients can access multidisciplinary therapy for as long as necessary without having to worry about insurance coverage. Continued interprofessional collaboration between SLP, vocal pedagogy, psychology, and manual therapy is also crucial.

SUMMARY

After undertaking this study, I hope to incorporate the following information into my professional practice:

- FVD may exist on a spectrum, and a patient's position on that spectrum may change over time. I intend to constantly assess where future FVD patients are on this spectrum. I would also like to develop tools to help determine where on this spectrum a patient is at any given time.
- Patient education, behavioral voice therapy, MT, and psychosocial therapy are all important treatment components, but their importance will likely vary depending on the patient. In the past, my therapy approach for FVD patients has been largely based on patient education and on behavioral voice therapy. I will seek out additional education and training so that I can incorporate MT and psychosocial therapy techniques into my practice.
- Assertions that FVD are due to excess muscle tension may not always be correct. In the future, even if I use the term MTD with a patient, I will be careful to not place too much emphasis on the muscular tension aspect without sufficient proof that this is in fact the primary problem.
- MT may work by enacting neuropsychological changes more so than tissue changes. I plan to do further research on applying the chronic pain literature to FVD.

Questions for further study include:

- Are positive treatment effects from voice therapy maintained long term?
- Why do some people respond well to treatment while others chronically suffer from FVD?
- How often do patients follow-up with clinicians if they experience relapse?
- What can be done to improve professional training and collaboration?

PERSONAL LEARNING AND DEVELOPMENT PLAN

Why am I doing this course?	I am doing this course for two main reasons: 1. To increase my knowledge of singing pedagogy, an area that I lack formalized training in. 2. To undertake preliminary studies on FVD-related research questions in preparation for pursuing a PhD sometime in the future.
What is the direct benefit to me?	This course benefits me because it is increasing my knowledge and flexibility as a clinician. It will hopefully make me more marketable as I attempt to break into the sometimes competitive field of voice therapy. Additionally, I hope it will equip me with knowledge to better understand my own voice problem in order to increase my vocal functionality after a very long time struggling with vocal issues.
What other qualifications have I done that are relevant to the course?	B.A. Music, Linguistics M.A. Speech Language Pathology Certificate in Vocology
Developmental areas:	
1. Refine my formative and module 1 assignments for publication	Action • Incorporate feedback from PG Cert reviewers into drafts • Seek out additional feedback from other qualified researchers • Research potential journals for submission • Submit articles, further incorporate feedback Deadline: End of 2021
2. Qualitative study comparing SLPs' and FVD sufferers' perceptions on what constitutes effective therapy <i>or</i> qualitative study on the experiences	Action • Conduct relevant desktop research (may incorporate findings from formative and module 1 assignments)

of <u>chronic</u> FVD sufferers	• Undergo ethics review • Devise interview questions • Recruit and interview subjects • Analyze and write findings Deadline: To be done for module 3 assignment (July 2021)
3. Research and apply for PhD programs	Action • Research programs and identify potential advisors (ongoing) • Contact potential advisors (ongoing) • Refine research questions to better identify program fit (ongoing) • Submit application materials Deadline: End of 2022
4. Undergo MT training with Walt Fritz	Action • Get trained in providing MT to voice patients Deadline: End of 2022, COVID permitting
5. CBT training	Action • Research CBT training options for SLPs • Get training • Identify how to apply it in my treatment Deadline: End of 2021
6. Devise a multifactorial system for treating FVD to share with other clinicians	Action • Incorporate previous research into a clinically applicable system • Identify platform with which to train clinicians Deadline: End of 2022

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