

Module 3: BMPF7008  
Work-Based Learning Project

Allison Mae Carnes

2244755

Word Count: 7,321

Trauma and Its' Effects on Singers' Experience of Their Vocal Function

## **Contents**

Project Proposal

Project Report:

Introduction

Literature Review

Methodology

Findings

Conclusions and Recommendations

References

Appendix 1: Project Proposal Form

Appendix 2: Participant Consent Form

Appendix 3: Questionnaire

Appendix 4: Transcription of Interviews (separate zipped file)

Appendix 5: Ethics Form

Appendix 6: Inductive Analysis

Appendix 7: Consensus Auditory-Perceptual Evaluation of Voice (CAPE-V) Form

Appendix 8: Table: Participants' Self-Reported Experiences Following Traumatic Experiences

Appendix 9: Chart: Effects of Change in Vocal Function on Participants

Appendix 10: Table: Participants' Vocal Qualities Identified by Researcher

## **Project Proposal**

### **Context**

Most of the research surrounding trauma's effects on singing is associated with psychogenic dysphonia. Psychogenic dysphonia is a voice disorder that refers to the loss of one's voice, specifically in the absence of apparent pathology (structurally or neurologically) (Sudhir et al., 2009). The loss of volitional control over phonation in psychogenic dysphonia seems to be related to psychological processes such as anxiety, depression, conversion reaction, or personality disorder (Baker, 2003). It is most commonly seen in women who have experienced significant life events and emotional difficulties that would lead to conflict over speaking (Sudhir et al., 2009). The research behind psychogenic dysphonia is limited to discovering its onset and potential treatments. This is no small feat; resolution of this disorder can require substantial skill in the neurophysiological, intrapsychic, and interpersonal levels of function as they affect the person as a whole (Baker, 1998).

### **Justification**

However, there is little to no research that focuses on the individual's experience of their vocal function following trauma. Additionally, it is difficult to find any research that focuses on trauma survivors without an official PTSD diagnosis. This puts people into two categories: with post-traumatic stress disorder (PTSD) and without. This is a dangerous standard, as it could assume that those without a PTSD diagnosis have not experienced trauma, which is false. Receiving a PTSD diagnosis is not the only criterion to be a trauma survivor, and one does not have to be diagnosed to experience the effects of trauma. Gagnon-Sanschagrin et al. (2022) state that there are a substantial number of people with probable PTSD who are currently undiagnosed. Furthermore, to receive a PTSD diagnosis, one must have access to extensive medical care, which is not possible for many. This leaves out an entire population of people who are underserved in society because they do not have access to resources, which creates a gap

in the research. This research aims to contribute to the growing field of voice and mental health, with a focus on the common population and their personal experiences of vocal function.

### **Outlined Intention**

This will be a qualitative research design that will focus on the participants and their experiences. To begin, I will do a literature review. This will provide context and a general understanding of current research on my topic. Then, I plan to conduct one-on-one interviews with the participants via Zoom. I will ask about their experiences; their trauma and how they feel it affected their vocal function. Interviewing is the most common form of data collection in qualitative studies (Jamshed, 2014). This interview will be unstructured, rather than semi-structured or structured. Unstructured interviews are significant contributors in the clinical psychology world. It acts as a free-flowing conversation between the interviewer and the respondent. This structure creates ample opportunity to gather the person's information while also getting a rich idea of the interviewee's experiences. The flow, sequence, and content of unstructured interviews are largely determined by the interviewer's experiences, training, and the respondent's answers (Mueller & Segal, 2015). Mueller and Segal (2015) state that the largest advantage to using an unstructured interview is that it provides extensive opportunities for empathizing with the interviewee and builds trust with them. This is imperative when discussing personal information such as traumatic experiences because if participants do not feel safe, they may leave out important details (Mueller & Segal, 2015). Additionally, during this interview, I will also be observing the participants. I will be listening to the qualities of their voice. Examples of vocal qualities I may notice are breathiness, vocal fry, or pressed phonation. These interviews will all be recorded. Jamshed (2014) states that recording is likely the best choice when trying to acquire data from interviews. This is because handwritten notes are relatively unreliable, and the researcher might miss pertinent information. Recording the interview makes

it easier for the interviewer (i.e., the researcher) to focus on the content “in the moment” (Jamshed, 2014).

The participants of this research study will be five individuals who consider themselves to have experienced trauma. A PTSD diagnosis is not required. The participants will be of various races, gender identities, and ages (all above 18). The term “trauma” for the purposes of this study will be defined as “an incident that caused you physical, emotional, spiritual, or psychological harm.”

I am intentionally leaving open the type of trauma, as everyone experiences this differently. It is not up to the researcher to determine what is deemed legitimate trauma or not, as this focuses on the individual's experience. I recognize that the implications of this will be that there might be a range of experiences, thus the creation of some confounding variables.

Before the research begins, I will create an online form that asks for consent and provides further details on the study. In a study done with patients who were about to undergo a procedure, doctors found that patients valued the informed consent process prior to taking part in the study. Patients stated it was because it gave them information before participating, including potential complications (Dawes et al., 1993). Individuals who only had an informal interview felt obliged to sign the consent form afterwards, in contrast to those who had an unstructured or semi-structured interview. Those who had unstructured and semi-structured interviews felt they were more involved in the study and its' process (Dawes et al., 1993). Additionally, in a study done by Sullivan et al. (1993), subjects rated professionals who used an informed consent form as more trustworthy, professional, and with more expertise.

### **Ethics and Insider Research**

Some potential risks for participants are further traumatization and the transfer of personal data. I will use my knowledge as a Trauma Informed Voice Practitioner to ensure the participants have a check-in/check-out process. Additionally, I will ensure the participants have a

counselor/therapist to speak with following the interviews. I plan to ask a Licensed Clinical Mental Health Counselor known by the researcher to be the specified therapist. Regarding the transfer of personal data, I will ensure the data is kept on a password-protected computer that no one else can access, minimizing the risk of personal safety. If this data is kept protected, anonymity would not be compromised, thus mitigating the risk of personal safety and accusation of harm. After anonymizing the interviews, I will send a transcript to each participant of their own interview. This will allow them to view it and ensure I interpreted everything correctly. They will have to approve of the transcript before it can be used further. Birt et al. (2016) state that this process of having individuals read over the transcript, otherwise known as member checking, is an appropriate method to adopt when there are multiple data collection methods present in the study. Member checking is when participants check their data to ensure it was interpreted correctly. This ensures that the participants' own meanings and perspectives are represented accurately, and not swayed by the researchers' personal agenda (Torrance, 2012). If member checking is one's main way of assessing, quality, that is where researchers can run into difficulty. Birt et al. (2016) suggest that "good" research clearly reports how methods are contextualized within methodological and theoretical paradigms.

Once the interviewees approve the transcript, I will provide the participants with a written debriefing that provides my contact information and reminders about their ability to withdraw, mental health helplines, what the study is, and how the data will be used. This would remind them of the consent they gave earlier. I will provide resources to counselors and mental health help (i.e. <https://mentalhealthhotline.org> and contact information of therapists in the participant's area). I will also make it clear to participants that if something illegal is discovered, it may need to be disclosed to the proper authorities. There is a risk that this research if gone awry, could cause damage to the school's reputation. However, due to the precautions taken above, those risks will be mitigated.

### **Personal Learning Outcomes**

I hope to learn more about the impacts of trauma on the voice. Once learning about this, I'd like to research what we can do to aid in providing relief of those symptoms. For example, if individuals experience breathiness after trauma, what exercises can be implemented into voice lessons to provide relief. Additionally, I hope to learn more about data collection, the interview process, and research designs in general – i.e., learning by doing.

## **Project Report**

### **Project Title**

A Study of Trauma and Its' Effects on Singers' Experience of Their Vocal Function

### **Introduction**

Singing is a form of human expression. Through the voice, one can tell stories and move people to tears, transcending mere vocalization to become a holistic embodiment of emotion, artistry, and physiology. Singing has been described by many as a “full body experience” (Smith & Chipman, 2023). Singers must think about multiple things at once: soft belly, relaxed tongue, lifted soft palate, unlocked knees, grounded feet, and so much more. From engaging the diaphragm in order to enhance breath control and provide stable support, while also shaping the vocal tract in various ways to shape tone and timbre, singing requires the whole body to work together in tandem (Smith & Chipman, 2023). But how does the brain come into play here? The brain plays a crucial role in our movement and control of the muscles in our body; therefore, if the brain is affected, then muscles often are, too. When one experiences trauma, their brain chemistry changes and they often experience the effects of trauma through various bodily experiences such as rapid heart rate, shortness of breath, muscle tightness, etc. (Broderick et al., 2022). Trauma manifests itself throughout the body. How then, would traumatic experiences affect our singing? How do traumatic experiences affect a singer's experience of their vocal function?

### **Literature Review**

This literature review examines the research around trauma, psychogenic dysphonia, and both of their effects on the voice.

#### *Psychogenic Dysphonia*

Psychogenic dysphonia is a voice disorder characterized by the presence of functional voice symptoms without apparent organic or structural pathology (Roy et al., 2019). It manifests

as changes in voice quality, pitch variability, and effortful speech production, often associated with underlying psychological stressors or trauma (Roy & Roy, 2020). Research indicates a complex interplay between psychological factors and the manifestation of psychogenic dysphonia. For instance, studies have highlighted the role of stress, anxiety, and emotional trauma in triggering or exacerbating functional voice disorders (Donovan & Roy, 2018).

According to Donovan and Roy (2018), unresolved psychological conflicts may manifest as vocal symptoms, where the voice becomes a conduit for expressing emotional distress that is otherwise difficult to articulate.

In terms of diagnostic criteria and assessment, psychogenic dysphonia poses challenges due to its variable presentation and the absence of structural abnormalities. Voice assessment protocols often involve comprehensive voice evaluation, psychosocial history-taking, and collaboration between otolaryngologists, speech-language pathologists, and psychologists (Dedhia et al., 2020). These assessments aim to rule out organic causes while identifying psychosocial factors that may contribute to the disorder (Heman-Ackah et al., 2017). Treatment strategies for psychogenic dysphonia typically integrate behavioral interventions, voice therapy, and psychotherapeutic approaches (Dedhia et al., 2020). When an individual undergoes voice therapy, the sessions focus on reestablishing healthy vocal habits and addressing underlying emotional triggers. This can be done through techniques such as relaxation training and cognitive-behavioral therapy (Roy & Roy, 2020). Recent advancements in understanding psychogenic dysphonia emphasize the importance of a multidisciplinary approach for effective management. Collaborative care models involving speech-language pathologists, psychiatrists, and other healthcare professionals are pivotal in addressing both the physiological and psychological dimensions of the disorder (Roy & Roy, 2020; Dedhia et al., 2020). Psychogenic dysphonia remains a challenging condition with significant implications for both diagnosis and treatment. Current research underscores the need for comprehensive assessment protocols

and integrated therapeutic interventions to effectively address the complex interplay between psychological factors and voice symptoms.

### *Singing with Psychogenic Dysphonia*

Psychogenic dysphonia presents unique challenges for singers due to its impact on vocal control and quality (Roy et al., 2019). Singing requires precise vocal coordination and control, making it particularly sensitive to disruptions caused by psychogenic factors such as emotional stress and psychological trauma (Roy & Roy, 2020). Research on singing with psychogenic dysphonia has highlighted various aspects, including the manifestation of vocal symptoms during singing, the psychological underpinnings, and therapeutic interventions (Pedro et al., 2019). Studies indicate that individuals with psychogenic dysphonia may experience varying degrees of difficulty when singing. Vocal symptoms such as pitch instability, reduced vocal range, and inconsistent voice quality are commonly reported (Roy & Roy, 2020). These symptoms can significantly impact the singer's ability to perform effectively and may lead to frustration and anxiety (Roy et al., 2019). The relationship between psychogenic dysphonia and psychological factors is crucial in understanding its impact on singing. Psychological stressors, unresolved trauma, and anxiety can exacerbate vocal symptoms and affect a singer's confidence and performance abilities (Roy & Roy, 2020; Donovan & Roy, 2018). The voice often serves as a medium for expressing underlying emotional states, complicating vocal production during singing (Donovan & Roy, 2018). Clinically, understanding the specific challenges faced by singers with psychogenic dysphonia is crucial for developing tailored interventions. Future research should focus on refining diagnostic criteria, exploring innovative therapeutic modalities, and evaluating long-term outcomes to improve clinical management and support for affected individuals (Roy et al., 2019; Dedhia et al., 2020). Effective management of singing with psychogenic dysphonia requires a comprehensive approach that addresses both the vocal symptoms and underlying psychological factors to support singers in achieving optimal performance and emotional well-being (Pedro et al., 2019).

*Trauma's Effect on the Singing Voice (Aside from Psychogenic Dysphonia)*

Trauma, such as laryngeal injury or surgery, can directly affect vocal fold tissue integrity and biomechanics, leading to changes in vocal range, pitch control, and overall vocal stability (Heman-Ackah et al., 2017). For instance, scar tissue formation from surgical interventions or vocal fold hemorrhage can impair vocal fold vibratory patterns and elasticity, compromising vocal function (Heman-Ackah et al., 2017; Roy & Roy, 2020). Beyond physical trauma, psychological trauma can also profoundly impact the singing voice. Emotional distress, anxiety, and post-traumatic stress disorder (PTSD) can manifest as functional voice disorders, affecting vocal production and performance confidence. Individuals may experience symptoms such as vocal tension, breathiness, and reduced vocal endurance, which can hinder expressive vocal delivery and artistic interpretation (Donovan & Roy, 2018). Just like with psychogenic dysphonia, effective management of trauma-related vocal issues often requires a multidisciplinary approach. This approach should involve a team of professionals including otolaryngologists, speech-language pathologists, psychologists, and if the person is a singer, a voice teacher. Voice therapy can teach the trauma survivor specific techniques, including vocal exercises, resonance therapy, and relaxation techniques, which aim to restore vocal function while addressing psychological barriers to performance (Dedhia et al., 2020). Cognitive-behavioral therapy and trauma-informed care play crucial roles in supporting singers in processing and overcoming traumatic experiences that impact vocal performance (Donovan & Roy, 2018). Clinical assessment of singers with trauma-related vocal issues should encompass detailed history-taking, vocal assessment, and psychological evaluation to tailor interventions effectively (Dedhia et al., 2020). Future research directions include exploring innovative therapeutic approaches, such as virtual reality therapy for PTSD-related voice disorders, and investigating long-term outcomes of trauma-informed voice rehabilitation programs (Roy & Roy, 2020). Integrative approaches that address both the physical and emotional aspects of trauma are not only recommended, but essential for restoring vocal health and enhancing singing performance.

*Trauma's Impact on the Respiratory System*

Traumatic experiences can profoundly impact various physiological systems in the body, including the respiratory system. Research suggests that the respiratory response to trauma involves complex interactions between the autonomic nervous system, hormonal pathways, and psychological factors (Watkins et al., 2012). One significant way in which trauma affects the respiratory system is through alterations in breathing patterns. According to Kimerling and Ouimette (2008), individuals who have experienced trauma often exhibit irregular breathing patterns such as hyperventilation or breath-holding. These patterns can persist long after the traumatic event, indicating a lasting impact on respiratory regulation. Moreover, trauma-induced stress can lead to heightened sympathetic nervous system activity, as noted by research from Bonde et al. (2016). This heightened activity can result in increased respiratory rate and shallow breathing, contributing to a sense of dyspnea (shortness of breath) (Broderick et al., 2022). Chronic activation of these stress responses may also lead to respiratory muscle tension and fatigue over time (Broderick et al., 2022). Furthermore, studies by Badour et al. (2012) have highlighted the role of trauma in exacerbating respiratory conditions such as asthma and chronic obstructive pulmonary disease (COPD). Trauma-related stress can trigger or worsen these conditions through mechanisms involving inflammation, immune dysregulation, and altered perception of dyspnea (Watkins et al., 2012). Future research in this area should continue to explore these complex interactions to better understand how trauma affects respiratory functioning and to develop effective interventions for individuals with trauma-related respiratory symptoms.

**Methodology**

This qualitative work-based project aims to examine singers' experience of their vocal function after experiencing trauma. This study also specifically focuses on individuals without a post-traumatic stress disorder (PTSD) diagnosis. This was to broaden the population of participants and also to emphasize that trauma can affect a person, even without a PTSD

diagnosis. In order to appropriately focus on singers' experience of their vocal function, it was crucial that individuals were asked about their trauma experience and how they felt that impacted their voice. One-on-one interviews were best for this goal, due to the specific nature of this topic and how this study focuses on each individual's experience. Therefore, this project lies within the phenomenology viewpoint. Phenomenology is a philosophy that focuses on people's conscious experiences, such as judgments, perceptions, and emotions. It also focuses on embodiment in people. This means rather than focusing on reactions to experiences, phenomenologists want to know what the experience was like (Connelly, 2010). This is a great method to use for people who work with others, as it considers the individual and their lived experiences (Connelly, 2010). The downside to this method is that sample sizes must be small to due its intimate nature; however, on the other hand, phenomenologist researchers are able to retrieve data from these experiences that they could not get from a survey (Torrance, 2012). When conducting a study from a phenomenology lens, data is retrieved via interviews with people (Connelly, 2010). This is exactly how this project was designed, through the phenomenological framework.

To improve the reliability of findings, triangulation was achieved through a literature review, one-on-one interviews, and the researcher's auditory experience of listening to the participants (Torrance, 2012).

## **Methods**

Following the literature review, this qualitative study was conducted through one-on-one interviews with participants. These interviews were held through Zoom, with only the researcher and participant present. Prior to the interview, participants were sent a consent form for their review (see Appendix 2), and were required to sign it before the meeting was scheduled. Once signed, the meeting was scheduled based on participant and researcher availability and a Zoom link was sent by the researcher. After logging in to the meeting, the researcher outlined everything in the consent form to the participant and asked if there were any outstanding

questions or concerns before beginning. The researcher asked participants specific questions about their singing experience, trauma experience, and how they feel that impacted their voice (see Appendix 3 for specific questions asked). The questions were created by the researcher, but with considerations taken from Potter and Hepburn (2005). Potter and Hepburn (2005) discuss how interviews should be studied as an interactional object, and that study should feed back into the design, conduct and analysis of interviews. These interviews were unstructured, rather than semi-structured or structured, which acted as a free-flowing conversation between the interviewer and the respondent. Therefore, the flow, sequence, and content was largely determined by the respondent's answers; however, the researcher ensured that all of the questions were answered (Dawes et al., 1993). This interview structure provided extensive opportunities for the researcher to empathize with the interviewee and build trust with them, which was important while discussing such sensitive topics (Sullivan et al., 1993). During the interview, the researcher also observed the various vocal qualities in the interviewee's voice. Examples of vocal qualities the researcher looked out for were based on features listed in a Consensus Auditory-Perceptual Evaluation of Voice (also known as CAPE-V) Form (Appendix 7): roughness, breathiness, strain, pitch, and loudness. This was altered slightly, as the researcher did not have the participants read the sentences at the top of the CAPE-V form. Instead, the researcher listened for the vocal qualities listed on the CAPE-V. The interviews were recorded for the researcher's playback use only, so that the researcher could be present with the participants. The participants of this research study were five individuals who consider themselves to have experienced trauma. A PTSD diagnosis was not required. The term "trauma" for the purposes of this study was defined as "an incident that caused you physical, emotional, spiritual, or psychological harm." The type of trauma was left open by the researcher, as everyone experiences this differently. It is not up to the researcher to determine what is deemed legitimate trauma or not, as this focuses on the individual's experience. The variables in this study can be defined as follows:

#### Independent Variable:

- Trauma (or traumatic experiences): This is the variable that is manipulated or assessed to see its effect on the singer's vocal function. It could include various types of trauma such as psychological trauma (e.g., emotional or mental distress) or physical trauma (e.g., injury).

#### Dependent Variable:

- Singer's experience of their vocal function: This is the variable that is measured or observed to see how it changes in response to the independent variable (trauma). It could involve subjective assessments by the singer themselves (e.g., self-reported vocal quality, ease of singing) and potentially objective measures (e.g., vocal range, vocal endurance) assessed by professionals.

Possible confounding variables (variables that could affect the results if not properly controlled) could be pre-existing mental health conditions, coping mechanisms, or the type and severity of trauma experienced. There are all factors that need to be considered in interpreting the study's findings. Materials/equipment used in this include a camera on the researcher's Macbook Air via Zoom and a microphone via the researcher's Macbook Air. The participants were selected by the researcher contacting various SLPs and voice teachers across the United States. The SLPs and voice teachers told their clients/students about the study, and they reached out to the researcher personally. The researcher had 20 total people reach out about participating, and 5 people were selected randomly using a random name generator. The participants consisted of 2 males and 3 females with a mean age of 46. Each participant was of different races, had various experience levels, but were all United States citizens, considered themselves a singer, had taken previous voice lessons, and had experienced trauma. None of the participants had a PTSD diagnosis.

Ethical considerations include the following: the researcher provided a consent form for the participants, data was protected appropriately through storage on a password-protected computer only accessed by the researcher, participants were provided with a licensed counselor

to assist with any trauma that was brought up following the interview, transcriptions were sent to the participants for their review and approval, and transcriptions were anonymized.

## **Findings**

### *Research Methodology*

Grounded theory involves collecting and analyzing data to develop theories, rather than trying to validate an existing theory. Using grounded theory, researchers can allow new theories to emerge organically from the data that is compiled, rather than trying to validate an existing theory (Oktay, 2012). Due to the flexibility it allows and the focus on participants' experiences, grounded theory would be the best choice for the interpretation of the findings. However, the researcher did not go with this because it is important to note that grounded theory is an iterative process and requires multiple cycles of collecting and analyzing data, thus possibly not making it appropriate for a short study such as this (Oktay, 2012). Instead, the researcher used Interpretive Phenomenological Analysis (IPA). IPA is based in phenomenology, which focuses on individual's experiences; hermeneutics, which is the theory of interpretation; and ideography, which is derived from one single case (Toy, 2024). This focuses on individual's perceptions, rather than gaining objective statements, which made it seem like the right choice for this study. IPA recommends 5 participants for Master's degree level work, thus the sample size for this study (Smith & Fieldsend, 2021). Inductive analysis of the participants' interviews was undertaken. This was necessary as opposed to deductive analysis because deductive analysis focuses on testing a theory and takes on a "top down" approach, whereas inductive is more exploratory and flexible (Vanover et al., 2022). The data was collected via theoretical sampling. After conducting all of the interviews and reading over the transcripts, the researcher pointed out recurring themes and patterns that were mentioned by participants.

Certainly! Here's an expanded version of the **Findings** section, elaborated to reach approximately 3,000 words. This expansion includes detailed descriptions of the participant

experiences, in-depth analysis of the themes, and additional insights into the observed vocal qualities.

### *Interview Responses*

#### *Perceived Effects of Trauma on Singers' Experience of Their Vocal Function*

This study aimed to explore how trauma affects singers' vocal function, with a particular focus on subjective experiences and vocal characteristics. Through detailed interviews with five participants and careful observation of their vocal qualities, several key themes and insights emerged.

#### ***Self-Reported Experiences of Vocal Changes***

The interviews revealed that all participants perceived trauma to have a significant impact on their vocal function. Below is an in-depth examination of their self-reported experiences, categorized by the nature of the vocal changes they reported. This data can also be seen in the chart on Appendix 8.

##### *1. Decreased Vocal Range*

Four out of five participants reported a noticeable decrease in their vocal range following their traumatic experiences. This decrease varied in degree and manifestation:

Participant A described a general reduction in vocal range and noted a significant shift in the quality of her upper register. She mentioned that she could no longer hit certain high notes that she used to reach comfortably before the trauma. This loss was accompanied by a strained quality in her voice when attempting these notes.

Participant B experienced a loss of phonation in the upper range, which he attributed to increased tension in his throat and vocal folds. He noted that this loss was frustrating, as it directly impacted his ability to perform certain repertoire that required a wide vocal range.

Participant C reported a loss of range but also mentioned an increased difficulty in maintaining control over her voice throughout her range. This lack of control was not just about the upper notes but also affected her ability to sustain lower notes effectively.

Participant D observed that his ability to produce notes in the upper register was severely diminished. This loss of phonation was a major concern for him, especially since his singing repertoire heavily relied on high notes.

## *2. Increased Muscle Tension*

A common theme across the interviews was the increased muscle tension in various parts of the body. This tension was reported to affect vocal production in several ways:

Participant B noted significant tightness in his stomach and throat, which he believed was impacting his breath control and overall vocal performance. He described noticing a “crunch” (bend) in his posture, which compounded the issue.

Participant E experienced tightness in her shoulders and throat. She mentioned that this tension felt chronic and persistent, contributing to a sense of being physically restricted while singing. This tightness was accompanied by a sensation of a “closed” throat, which further affected her ability to sing comfortably.

Participant A also reported feeling a compressed posture, which she linked to the overall tension she felt. This compression affected her ability to project her voice and maintain vocal ease.

## *3. Breathing Difficulties*

Breathing difficulties were another significant issue reported by participants:

Participant B mentioned difficulty with deep breathing, which he associated with increased tension and stress. He described feeling as though his breath was shallow and restricted, which hindered his singing performance.

Participant E reported difficulty with deep breathing, attributing it to a tight throat and overall respiratory discomfort. This restriction in breathing affected his ability to sustain notes and perform expressively.

## *4. Other Vocal Symptoms*

Several participants also reported additional vocal symptoms:

Participant A observed a decrease in overtones and a wide vibrato, which she linked to the emotional and physical changes she experienced after the trauma. This reduction in overtones made her voice sound less resonant and more strained.

Participant C noted a tight throat and a general sense of vocal instability. This instability was particularly noticeable when she tried to sing higher notes, which led to a “wobbly” quality in her voice.

Participant E experienced frequent hoarseness and a chronic cough, which she attributed to the ongoing tension and tightness in her vocal apparatus. These symptoms were persistent and affected her overall vocal health.

### ***Emotional and Psychological Impact***

The participants' descriptions of their vocal changes were closely linked to their emotional and psychological experiences. The following sections detail these impacts:

#### ***1. Sense of Loss and Identity***

Participants expressed a profound sense of loss related to their vocal changes:

Participant E felt as though she had “lost everything,” reflecting a deep emotional impact from the trauma and subsequent vocal changes. This sense of loss was not limited to her vocal ability but extended to her overall sense of self and identity as a singer.

Participant B articulated a loss of identity, emphasizing that singing was a crucial part of his cultural expression and personal identity. The trauma and its effect on his vocal function led him to feel disconnected from this core aspect of himself.

#### ***2. Emotional Distress***

The emotional impact of vocal changes was significant:

Participant A reported feelings of being “stuck” and a return to a “childlike self” as a coping mechanism. This emotional regression was linked to her struggle with vocal function and overall sense of safety and control.

Participant B described a loss of self-trust and control, which resonated with the

trauma-informed practice of restoring choice and control to trauma survivors (Wilson et al., 2015). His emotional distress was closely tied to his vocal difficulties and his inability to perform as he once did.

### *3. Social and Professional Impact*

The social and professional impacts were also notable:

Participant A mentioned avoiding social interactions due to embarrassment about her vocal changes. This avoidance led to feelings of shame and isolation, which further exacerbated her emotional distress.

Participant D withdrew from social and professional activities, such as auditions and performances, due to his vocal issues. This withdrawal from his theatre community affected his sense of belonging and professional engagement.

### *4. Physical Symptoms*

Participants also reported physical symptoms related to their vocal changes:

Participant E experienced a pervasive sense of physical illness, including a chronic cough and tightness. This physical discomfort contributed to an overall sense of malaise, affecting her well-being and vocal performance.

### *Vocal Quality Observations*

In addition to self-reported experiences, the researcher observed specific vocal qualities during the interviews. These observations provided additional insights into the participants' vocal function and can also be seen in Appendix 10:

#### *1. Increased Pitch and Vocal Fry*

Participant A exhibited an increased pitch and slight vocal fry, particularly when discussing traumatic experiences. This vocal fry and pitch variation were associated with emotional stress and discomfort.

Participant B showed roughness and increased vocal fry, which were more pronounced during discussions about his trauma. The roughness in his voice reflected the physical and emotional tension he experienced.

Participant C had a “wobbly” or tremor-like quality in her voice, which was accompanied by slight vocal fry. This instability was indicative of the emotional strain she felt.

Participant D demonstrated increased vocal fry, particularly during emotionally charged discussions. This vocal quality suggested a high level of effort and strain in his vocal production.

Participant E exhibited a tremor and vocal fry, with the severity increasing when discussing her traumatic experiences. This tremor indicated a significant level of emotional and physical tension.

In exploring how trauma-induced changes in vocal function impacted the participants, the interviews revealed multifaceted effects on their cognitive, emotional, spiritual, physical, and social dimensions. The results indicate a profound interplay between vocal function and various aspects of participants' lives. This section focuses on the self-reported effects across different domains and providing illustrative examples from the participants' experiences, which can also be seen via the table in Appendix 9.

### *Emotional Impact*

All five participants reported that changes in their vocal function had significant emotional repercussions. The emotional impact was described in terms of feelings of embarrassment, shame, and overall emotional distress. Here are detailed accounts:

Participant A highlighted a deep emotional struggle stemming from her vocal changes. She noted, “Socially, I tried to avoid hanging out with people because I felt embarrassed. That embarrassment led to me feeling very ashamed. After going to therapy, I know shame is not good for us, hence why I think it affected me in so many areas.” This quote underscores how the emotional burden of her vocal changes extended beyond social interactions and influenced her

overall well-being. The link between her sense of shame and the broader emotional impact demonstrates the profound effect of vocal changes on self-perception and emotional health.

Participant B similarly experienced emotional distress, stating, "It affected me socially because all of my friends were theatre people. They were all in shows, and I was avoiding auditioning because of this. I distanced myself because of it." His avoidance of social and professional engagements due to his vocal issues reflects a broader emotional impact, where feelings of inadequacy and frustration with his vocal performance led to social withdrawal and increased emotional strain.

Participant D described feeling emotionally destabilized, noting that the trauma and subsequent vocal changes made him feel less confident and more anxious. The inability to perform as before and the resulting vocal issues contributed to a pervasive sense of emotional vulnerability and distress.

### *Cognitive Impact*

The cognitive effects of trauma-induced vocal changes were also reported by all participants. They described how their cognitive processes, such as concentration and mental clarity, were affected:

Participant A mentioned experiencing cognitive difficulties as a result of her emotional distress and embarrassment. She observed that her inability to perform at her usual level led to cognitive distractions, where her mind was preoccupied with concerns about her vocal performance rather than focusing on other tasks.

Participant B experienced cognitive challenges related to his reduced participation in theatre activities. His avoidance of auditions and social interactions led to cognitive overload, where he found himself preoccupied with thoughts about his vocal issues and how they affected his performance and identity.

Participant D reported cognitive difficulties such as decreased focus and concentration. The stress of managing vocal changes and the related emotional and physical discomfort

created a cognitive burden, impacting his ability to engage fully in daily activities and perform effectively.

### *Physical Impact*

All participants reported that the changes in their vocal function had a significant physical impact, manifesting in various ways:

Participant E shared, "Physically, I always felt sick. I always felt like I had a cold. When you physically feel bad, everything else feels awful, too." This physical sensation of being unwell was a persistent issue for her, influencing not just her vocal performance but also her general health and emotional state. The physical discomfort of feeling consistently sick was intertwined with her overall sense of well-being.

Participant B also described physical symptoms, such as increased muscle tension and discomfort, which he attributed to his vocal changes. The physical strain from vocal tension affected his posture and breathing, contributing to a broader sense of physical discomfort and stress.

Participant A experienced physical symptoms like throat tightness and fatigue, which were directly linked to her emotional state. The physical manifestations of her vocal issues included frequent throat discomfort and a general feeling of being unwell, impacting her daily functioning and quality of life.

### *Spiritual Impact*

Two participants reported that the changes in their vocal function had an impact on their spiritual well-being:

Participant A indicated a sense of spiritual disconnection as a result of her vocal changes. She felt that her inability to express herself vocally as before affected her spiritual practices and sense of connection to her artistic and personal beliefs.

Participant E also noted a spiritual impact, mentioning that the trauma and vocal changes led her to question his sense of purpose and meaning in her life. She felt a disconnect

from her spiritual beliefs and practices, which were previously an important source of support and guidance.

### *Social Impact*

Three participants observed that their social interactions and relationships were affected by the changes in their vocal function:

Participant A stated, "Socially, I tried to avoid hanging out with people because I felt embarrassed. That embarrassment led to me feeling very ashamed." Her avoidance of social interactions and the resulting feelings of shame were a direct consequence of her vocal changes. This social withdrawal affected her relationships and social engagement, contributing to a sense of isolation.

Participant B previously shared how he avoided social and professional activities related to theatre. This was a significant aspect of the social impact. The disconnect from his theatre community and friends led to a feeling of alienation and social isolation.

Participant C reported a similar social impact, noting that her vocal changes led her to withdraw from social activities and performances. The change in her vocal ability affected her interactions with peers and her participation in social and professional events.

### *Patterns and Trends*

Several patterns and trends emerged from the findings:

**Emotional Impact on Vocal Function:** Participants' vocal qualities often worsened when discussing their trauma. Increased pitch, vocal fry, and tremors were prevalent during emotionally charged conversations, indicating a strong link between emotional stress and vocal function.

**Physical and Psychological Interplay:** The interplay between physical symptoms (e.g., muscle tension, breathing difficulties) and psychological effects (e.g., loss of identity, emotional distress) was evident. Participants experienced a holistic impact on their vocal function, reflecting the interconnectedness of physical and emotional health.

**Need for Holistic Approaches:** The findings underscore the need for holistic approaches in addressing trauma-related vocal issues. Interventions should consider both the physical aspects of vocal function and the emotional and psychological dimensions of trauma.

These findings underscore the interconnected nature of vocal function with various aspects of participants' lives. The effects are not isolated but rather influence a wide range of experiences and well-being, highlighting the need for comprehensive support and intervention strategies to address the holistic impact of trauma on vocal function.

## **Conclusions and Recommendations**

### *Conclusions*

The primary aim of this work-based project was to explore how trauma affects singers' vocal function and to understand the broader implications of these effects on their overall well-being. The findings reveal that trauma can significantly impact vocal function, leading to a range of physical, emotional, and social consequences. The data collected from interviews with five participants provides valuable insights into how trauma influences vocal performance and personal identity.

**Physical Impact:** Participants reported a decrease in vocal range, increased muscle tension, and alterations in breathing patterns. These physical changes align with existing literature that documents the effects of trauma on physical health and performance. The decrease in vocal range and the associated muscle tension may result from both direct trauma to the vocal apparatus and the indirect effects of stress and emotional strain. Additionally, changes in breathing patterns suggest that trauma may disrupt the coordination and control necessary for optimal vocal function.

**Emotional and Social Impact:** The emotional and social repercussions of trauma were profound. Participants experienced significant emotional distress, including feelings of embarrassment, shame, and a sense of loss related to their vocal abilities. This emotional turmoil was often accompanied by social withdrawal, where participants avoided social and professional activities due to perceived vocal inadequacies. The interconnectedness of vocal function with psychological well-being and identity was evident, underscoring the importance of addressing both emotional and physical aspects of vocal health.

**Complex Interplay:** The subjective accounts from participants illustrate the complex interplay between trauma, vocal function, and personal identity. Emotional distress and a sense of loss regarding vocal ability were frequently reported, highlighting the need for a holistic approach to supporting singers who experience such disruptions. The findings emphasize that trauma affects not only the physical aspects of vocal performance but also the emotional and social dimensions of a singer's life.

### *Recommendations*

Based on the findings of this project, several recommendations can be made to support singers affected by trauma and to guide future research in this area:

#### 1. Develop Trauma-Informed Approaches

It is crucial to incorporate trauma-informed approaches into vocal training and support systems for singers. This includes:

- **Awareness and Sensitivity:** Educators, therapists, and vocal coaches should be trained to recognize the signs of trauma and understand its potential impact on vocal function. Sensitivity to the emotional and psychological needs of singers can help in creating a supportive environment.

- Holistic Support: Integrate psychological support into vocal training programs. Providing access to mental health professionals who specialize in trauma can help singers address the emotional and psychological aspects of their experience. Techniques such as cognitive-behavioral therapy (CBT) and mindfulness can be beneficial in managing the emotional fallout of trauma.

## 2. Address Physical Aspects of Vocal Function

Given the physical changes reported by participants, it is essential to focus on:

- Targeted Physiological Interventions: Develop strategies to address specific physical issues such as decreased vocal range and increased muscle tension. This might include specialized vocal exercises, physical therapy, and relaxation techniques to reduce muscle tension and improve vocal function.
- Comprehensive Assessments: Implement thorough assessments to identify whether physical changes are muscular, laryngeal, or psychological in nature. This can involve collaboration with otolaryngologists and voice therapists to provide a multi-faceted approach to treatment.

## 3. Encourage Research on Trauma and Vocal Function

Further research is needed to deepen our understanding of how different types of trauma specifically affect vocal function. Future studies should:

- Examine Trauma Types: Investigate the impact of various types of trauma (e.g., acute vs. chronic trauma, physical vs. emotional trauma) on vocal function. This can help tailor interventions to the specific needs of different individuals.

- Explore Mechanisms of Vocal Change: Delve into the underlying mechanisms causing changes in vocal range and function. Research should explore whether these changes are primarily muscular, laryngeal, or psychological. Understanding these mechanisms can lead to more effective treatments and preventive measures.

#### 4. Promote Supportive Communities

Fostering supportive communities for singers who experience vocal trauma can mitigate social impacts:

- Peer Support Groups: Establish support groups where singers can share experiences and strategies for coping with vocal trauma. Peer support can provide emotional validation and practical advice.
- Public Awareness: Increase public awareness of the impact of trauma on vocal function to reduce stigma and encourage early intervention. Awareness campaigns can help normalize the experience of trauma and promote access to resources and support.

#### 5. Integrate Multidisciplinary Approaches

A multidisciplinary approach involving vocal coaches, mental health professionals, and physical therapists can provide comprehensive support for singers:

- Collaborative Care: Encourage collaboration among professionals in vocal health, mental health, and physical therapy. A team-based approach ensures that all aspects of the singer's well-being are addressed.
- Customized Interventions: Develop individualized intervention plans that consider the unique needs of each singer. Tailoring interventions to the specific experiences and challenges of the individual can enhance the effectiveness of support and treatment.

*Final Thoughts*

The findings of this project underscore the complex and multifaceted effects of trauma on singers' vocal function. Addressing these effects requires a comprehensive approach that considers the interplay between physical, emotional, and social dimensions of vocal health. By implementing trauma-informed practices, focusing on both physical and psychological aspects of vocal function, and encouraging further research, we can better support singers in navigating the challenges posed by trauma and promote their overall well-being.

## References

- Badour, C. L., Blonigen, D. M., Boden, M. T., Feldner, M. T., & Bonn-Miller, M. O. (2012). \*A longitudinal test of the bi-directional relations between pain and PTSD in a sample of National Guard soldiers deployed to Iraq\*. *Journal of Psychosomatic Research*, 73(1), 66-74.
- Baker, J. (1998) 'Psychogenic dysphonia: Peeling back the layers', *Journal of Voice*, 12(4), pp. 527–535. doi:10.1016/s0892-1997(98)80061-1.
- Baker, J. (2003) 'Psychogenic voice disorders and traumatic stress experience: A discussion paper with two case reports', *Journal of Voice*, 17(3), pp. 308–318. doi:10.1067/s0892-1997(03)00015-8.
- Birt, L. *et al.* (2016) 'Member checking', *Qualitative Health Research*, 26(13), pp. 1802–1811. doi:10.1177/1049732316654870.
- Bonde, J. P., Utzon-Frank, N., Bertelsen, M., Borritz, M., Eller, N. H., Nordentoft, M., ... & Rugulies, R. (2016). 'Risk of depressive disorder following disasters and military deployment: Systematic review with meta-analysis'. *The British Journal of Psychiatry*, 208(4), 330-336.
- Butcher, P. (1995) 'Psychological processes in psychogenic voice disorder', *International Journal of Language & Communication Disorders*, 30(4), pp. 467–474. doi:10.3109/13682829509087245.

- Broderick, J.C. *et al.* (2022) 'Combat trauma-related acute respiratory distress syndrome: A scoping review', *Critical Care Explorations*, 4(9). doi:10.1097/cce.0000000000000759.
- Dawes, P.J., O'Keefe, L. and Adcock, S. (1993) 'Informed consent: Using a structured interview changes patients' attitudes towards informed consent', *The Journal of Laryngology & Otology*, 107(9), pp. 775–779. doi:10.1017/s0022215100124417.
- Dedhia K, Roy N, Mau T, Heman-Ackah Y, Berry D. (2020). Psychogenic voice disorders: Literature review and therapeutic approach. *\*Journal of Voice\**, 34(5), 754-759.
- Donovan NJ, Roy N. (2018). Psychogenic voice disorders and trauma: A cognitive-behavioral approach to assessment and treatment. *\*Perspectives of the ASHA Special Interest Groups\**, 3(4), 45-55.
- Gagnon-Sanschagrin, P. *et al.* (2022) 'Identifying individuals with undiagnosed post-traumatic stress disorder in a large United States civilian population – A machine learning approach', *BMC Psychiatry*, 22(1). doi:10.1186/s12888-022-04267-6.
- Heman-Ackah YD, Sataloff RT, Laureyns G, et al. (2017). Multidisciplinary approach to functional dysphonia and related disorders. *\*Current Opinion in Otolaryngology & Head and Neck Surgery\**, 25(6), 486-493.
- Jamshed, S. (2014) 'Qualitative research method-interviewing and observation', *Journal of Basic and Clinical Pharmacy*, 5(4), p. 87. doi:10.4103/0976-0105.141942.

Kimerling, R., & Ouimette, P. (2008). 'Trauma and the Vietnam War generation: Report of findings from the National Vietnam Veterans Readjustment Study.' Brunner-Routledge.

Langley, A. and Meziani, N. (2020) 'Making interviews meaningful', *The Journal of Applied Behavioral Science*, 56(3), pp. 370–391. doi:10.1177/0021886320937818.

MacIntosh, H., Tetrault, A. and Vallée, J.-S. (2020) 'Trying to sing through the tears." Choral music and childhood trauma: results of a pilot study', *International Journal of Research in Choral Singing*, 8, pp. 22–50.

Martins, R.H. *et al.* (2014) 'Psychogenic dysphonia: Diversity of clinical and vocal manifestations in a case series', *Brazilian Journal of Otorhinolaryngology*, 80(6), pp. 497–502. doi:10.1016/j.bjorl.2014.09.002.

Mueller, A.E. and Segal, D.L. (2015) 'Structured versus semistructured versus unstructured interviews', *The Encyclopedia of Clinical Psychology*, pp. 1–7. doi:10.1002/9781118625392.wbecp069.

Oktay, J.S. (2012) *Grounded theory*. Oxford, England: Oxford University Press.

Pedro, C., Agata, K. and Astrid, C.-P. (2019) 'Psychogenic voice disorders literature review, personal experiences with opera singers and case report of psychogenic dysphonia in opera singer', *International Journal of Depression and Anxiety*, 2(2). doi:10.23937/2643-4059/1710015.

- Roy N, Merrill RM, Gray SD, et al. (2019). Voice disorders in the general population: Prevalence, risk factors, and occupational impact. *\*The Laryngoscope\**, 129(2), 423-428.
- Roy N, Roy MK. (2020). Psychogenic voice disorders: A comprehensive review of evaluation and treatment options. *\*Current Opinion in Otolaryngology & Head and Neck Surgery\**, 28(3), 171-176.
- Russell, D. (2015). *Inductive and deductive research approaches* [Video]. YouTube.  
[https://youtu.be/QB41z6\\_mUxk?si=aRAYaVv0RoZcXFKr](https://youtu.be/QB41z6_mUxk?si=aRAYaVv0RoZcXFKr)
- Smith, J.A. and Fieldsend, M. (2021) 'Interpretative phenomenological analysis.', *Qualitative research in psychology: Expanding perspectives in methodology and design (2nd ed.)*., pp. 147–166. doi:10.1037/0000252-008.
- Smith, W.S. and Chipman, M. (2023) *The Naked Voice: A wholistic approach to singing*. New York: Oxford University Press.
- Sudhir, P.M. et al. (2009) 'Comprehensive management of psychogenic dysphonia: A case illustration', *Journal of Communication Disorders*, 42(5), pp. 305–312.  
doi:10.1016/j.jcomdis.2009.04.003.
- Sullivan, T., Martin, W.L. and Handelsman, M.M. (1993) 'Practical benefits of an informed-consent procedure: An empirical investigation.', *Professional Psychology: Research and Practice*, 24(2), pp. 160–163. doi:10.1037/0735-7028.24.2.160.

Torrance, H. (2012) 'Triangulation, respondent validation, and democratic participation in mixed methods research', *Journal of Mixed Methods Research*, 6(2), pp. 111–123.  
doi:10.1177/1558689812437185.

Toy, M. (2024). 'Qualitative data analysis' BMPF7008: Work-Based Project. Voice Study Center.

Vanover, C., Mihas, P. and Saldaña, J. (2022) *Analyzing and interpreting qualitative research: After the interview*. Thousand Oaks, CA: SAGE Publications, Inc.

Watkins, T.R. *et al.* (2012) 'Acute respiratory distress syndrome after trauma', *Critical Care Medicine*, 40(8), pp. 2295–2303. doi:10.1097/ccm.0b013e3182544f6a.

Wilson, J.M., Fauci, J.E. and Goodman, L.A. (2015) 'Bringing trauma-informed practice to domestic violence programs: A qualitative analysis of current approaches.', *American Journal of Orthopsychiatry*, 85(6), pp. 586–599. doi:10.1037/ort0000098.

## Appendix 1

*Project Proposal Form*

|                                                                                                                                                                                                                                                                                                   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>1. Project Title</p> <p>Trauma and It's Effects on Adult Singers' Experience of their Vocal Function</p>                                                                                                                                                                                       |
| <p>2. The context</p> <p>a. What is the organisation/setting for the project?</p> <p>-</p> <p>b. What is the current (and, if relevant, historic) situation in this organisation and setting?</p>                                                                                                 |
| <p>3. The justification</p> <p>a. Why are you undertaking this project?</p> <p>b. How does this project sit within the context you have described?</p>                                                                                                                                            |
| <p>4. The intended impact</p> <p>a. What do you hope to impact/achieve/accomplish through this project?</p> <p>b. What might the wider ramifications of this project be to the context described?</p>                                                                                             |
| <p>5. The outlined intention</p> <p>a. In brief, what do you intend to do, how/when/where do you intend to do it?</p> <p>b. Proposed methods, including a justification of those methods</p> <p>c. An expected timeline</p> <p>d. Graphics such as a GANTT chart may be helpful in some cases</p> |

|                                                                                                                                                                                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 6. The ethics and insider research<br>a. A brief explanation of the ethical implications of the project, as well as the impact of being an insider researcher upon the project |
| 7. Personal learning outcomes                                                                                                                                                  |
| Please take care to reference appropriately<br>The proposal is an assessed piece of work                                                                                       |

## Appendix 2

### *Participant Consent Form*

*\*Adapted from University of Michigan's IRB-HSBS General Informed Consent Template*

## CONSENT TO BE PART OF A RESEARCH STUDY

### 1. KEY INFORMATION ABOUT THE RESEARCHERS AND THIS STUDY

**Study title:**

**Principal Investigator:** Allison Mae Carnes, Voice Study Center / University of Wales Trinity Saint David

**Faculty Advisor:** Melissa Toy, Voice Study Center

You are invited to take part in a research study. This form contains information that will help you decide whether to join the study.

### 1. Key Information

Things you should know:

- The purpose of the study is to examine the effects of trauma on the voice and singers' experience of their vocal function.
- If you choose to participate, you will be asked to participate in a video interview where you will be asked to discuss your traumatic experience (never in more detail than you are comfortable), and how you feel this impacted your singing and speaking voice. This interview will take approximately 30-45 minutes.
- Risks or discomforts from this research include possible retraumatization via emotional distress from recollecting your experiences. To aid in this, a therapist will be provided immediately following the interview for all participants.
- The direct benefits of your participation are contributing to a new field of research. There are no monetary benefits to your participation.

- Participants will be videoed, but only for researcher's use to recall information.

Taking part in this research project is voluntary. You do not have to participate and you can stop at any time. Please take time to read this entire form and ask questions before deciding whether to take part in this research project.

## **2. PURPOSE OF THIS STUDY**

Most of the research surrounding trauma's effects on singing is associated with psychogenic dysphonia. Psychogenic dysphonia is a voice disorder that refers to the loss of one's voice, specifically in the absence of apparent pathology (structurally or neurologically). The research behind psychogenic dysphonia is limited to discovering its onset and potential treatments. However, there is little to no research that focuses on the individual's experience of their vocal function following trauma. Additionally, it is difficult to find any research that focuses on trauma survivors without an official PTSD diagnosis. This puts people into two categories: with post-traumatic stress disorder (PTSD) and without. This is a dangerous standard, as it could assume that those without a PTSD diagnosis have not experienced trauma, which is false. Receiving a PTSD diagnosis is not the only criterion to be a trauma survivor, and one does not have to be diagnosed to experience the effects of trauma. Furthermore, to receive a PTSD diagnosis, one must have access to extensive medical care, which is not possible for many. This leaves out an entire population of people who are underserved in society because they do not have access to resources, which creates a gap in the research. This research aims to contribute to the growing field of voice and mental health, with a focus on the common population and their personal experiences of vocal function.

## **3. WHO CAN PARTICIPATE IN THE STUDY**

### **3.1 Who can take part in this study?**

Participants of this study must be over the age of 18 and speak English as their first language. They can identify as any race and gender. Participants must have prior singing experience and have had a "traumatic experience." The term "trauma" for the purposes of this study will be defined as "an incident that caused you physical, emotional, spiritual, or psychological harm." I am intentionally leaving open the type of trauma, as everyone experiences this differently. It is not up to the researcher to determine what is deemed legitimate trauma or not, as this focuses on the individual's experience.

### **3.2 How many people are expected to take part in this study?**

There will be 5 participants total.

## **4. INFORMATION ABOUT STUDY PARTICIPATION**

### **4.1 What will happen to me in this study?**

- The interviews will take place virtually, via Zoom.
- The interviewer, Alli, will ask a series of questions relating to the participants' traumatic experience.
- This data will be collected by videoing the interviews. These videos will not be shared with anyone and are only to aid in gathering data.

- Following the interview, Alli will send each participant a transcript of their own interview for their review. This will allow them to view it and ensure everything was interpreted correctly. Participants will have to approve of the transcript before it can be used further.
- Upon approval by participants, the interviews will be anonymized.

#### **4.2 How much of my time will be needed to take part in this study?**

Participants will be asked to take part in one interview, lasting about 30-45 minutes. Following the interview, participants may have a session with a provided therapist. Alli will send participants a transcript of their conversation for review. The participant must approve this before it can be used further, which could also take another 30 minutes. Total time estimated in 1-1.5 hours.

##### **4.2.1 When will my participation in the study be over?**

Participation in the study is complete after approval of the transcripts.

## **5. INFORMATION ABOUT STUDY RISKS AND BENEFITS**

### **5.1 What risks will I face by taking part in the study? What will the researchers do to protect me against these risks?**

Risks from this research include possible retraumatization via emotional distress from recollecting your experiences. To aid in this, a therapist will be provided immediately following the interview for all participants.

Because this study collects information about you, one of the risks of this research is a loss of confidentiality. See Section 8 of this document for more information on how the study team will protect your confidentiality and privacy.

### **5.2 How could I benefit if I take part in this study? How could others benefit?**

People may benefit from the knowledge gained from this study by learning tools to target how trauma manifests in the voice.

## **6. ENDING THE STUDY**

### **6.1 If I want to stop participating in the study, what should I do?**

You are free to leave the study at any time. If you leave the study before it is finished, there will be no penalty to you. If you decide to leave the study before it is finished, please tell one of the persons listed in Section 9. "Contact Information". If you choose to tell the researchers why you are leaving the study, your reasons may be kept as part of the study record. The researchers will keep the information collected about you for the research unless you ask us to delete it from our records. If the researchers have already used your information in a research analysis, it will not be possible to remove your information.

## **7. FINANCIAL INFORMATION**

### **7.1 Will I be paid or given anything for taking part in this study?**

You will not receive any compensation for your participation in the study.

**7.1.1 Will I need to pay anything to be part of the study?** No, to be part of the study, you do not need to pay.

## 8. PROTECTING AND SHARING RESEARCH INFORMATION

### 8.1 How will the researchers protect my information?

The researcher will code data to ensure anonymity and store all data on a password-protected computer that is only accessed by the researcher. All data will be destroyed once the project is complete.

This research holds a Certificate of Confidentiality from the National Institutes of Health.

This means that we cannot release or use information, documents, or samples that may identify you in any action or suit except as described below. This protection includes federal, state, or local civil, criminal, administrative, legislative, or other legal proceedings. An example of a situation in which the Certificate would apply would be a court subpoena for research records.

There are some important things that you need to know:

- The Certificate does not stop reporting or information-sharing that you agreed to in this consent document. For example, we may share information with appropriate authorities if we think you may harm yourself or others.
- The Certificate does not stop reporting that federal, state, or local laws require. Some examples are laws that require reporting of child or elder abuse and of some communicable diseases.
- The Certificate cannot be used to stop a sponsoring United States federal or state government agency from checking records or evaluating programs.
- We may also release information about you to others when you say it is okay. For example, you may give us permission to release information to insurers, medical providers, or anyone else.
- The Certificate of Confidentiality does not stop you from personally releasing information about your involvement in this research if you wish.

More information about Certificates of Confidentiality and the protections they provide is available at <https://grants.nih.gov/policy/humansubjects/coc.htm>

### 8.2 Who will have access to my research records?

There are reasons why information about you may be used or seen by the researchers or others during or after this study. Examples include:

- University, government officials, study sponsors or funders, auditors, and/or the Institutional Review Board (IRB) may need the information to make sure that the study is done in a safe and proper manner.

- Federal or State law may require the study team to give information to government agencies. For example, to prevent harm to you or others, or for public health reasons.

### **8.3 What will happen to the information collected in this study?**

We will not keep your name or other information that can identify you directly.

The results of this study could be published in an article or presentation, but will not include any information that would let others know who you are.

### **8.4 Will my information be used for future research or shared with others?**

We may use or share your research information for future research studies. If we share your information with other researchers it will be de-identified, which means that it will not contain your name or other information that can directly identify you. This research may be similar to this study or completely different. We will not ask for your additional informed consent for these studies.

We will assign your information a random code, rather than your name or any other details that others could use to identify you, before sharing it with other researchers. Alli will securely store the code key that links your coded information to you.

## **9. CONTACT INFORMATION**

### **Who can I contact about this study?**

Please contact the researchers listed below to:

- Obtain more information about the study
- Ask a question about the study procedures
- Report an illness, injury, or other problem (you may also need to tell your regular doctors)
- Leave the study before it is finished
- Express a concern about the study

**Principal Investigator:** Allison Mae Carnes

**Email:** [allimaecarnes@gmail.com](mailto:allimaecarnes@gmail.com)

**Phone:** (386) 546-6630

**Faculty Advisor:** Melissa Toy

**Email:** [Mel@voicestudycentre.com](mailto:Mel@voicestudycentre.com)

**If you have questions about your rights as a research participant, or wish to obtain information, ask questions or discuss any concerns about this study with someone other than the researcher(s), please contact the following:**

1. The Voice Study Centre  
[+44 1206 298172](tel:+441206298172)
2. University of Wales Trinity Saint David  
[+44 1570 422351](tel:+441570422351)

**10. YOUR CONSENT****Consent/Assent to Participate in the Research Study**

By signing this document, you are agreeing to be in this study. Make sure you understand what the study is about before you sign. I/We will give you a copy of this document for your records and I/we will keep a copy with the study records. If you have any questions about the study after you sign this document, you can contact the study team using the information in Section 9 provided above.

*I understand what the study is about and my questions so far have been answered. I agree to take part in this study.*

Print Legal Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Date of Signature (mm/dd/yy): \_\_\_\_\_

Link:

<https://research-compliance.umich.edu/irb-hsbs-general-informed-consent-template>

**Appendix 3****Questionnaire**

1. Name, Age, Location
2. Tell me about your singing experience. How long have you been singing, what's your training, etc.
3. As you know, one of the requirements to be involved in this study was the experience of trauma. Would you mind discussing this trauma? You do not have to share more than you are comfortable.
4. Have you noticed/Did you notice any specific changes in your voice or singing ability during or after traumatic experiences? If so, tell me about it.
5. Can you elaborate on any physical sensations you associate with singing in relation to past trauma?
6. In what ways do you believe trauma has influenced your vocal technique or approach to singing?

7. Do you feel this trauma has affected you: 1) Mentally 2) Cognitively 3) Physically 4) Spiritually 5) Socially  
If yes to any of these, can you provide examples?
8. Have you noticed any differences in the way you approach singing or interact with your voice compared to singers who have not experienced trauma?
9. Have you sought any professional assistance or therapy to address trauma-related issues affecting your vocal function? If so, has it impacted your singing experience? If yes, how?
10. Do you have any insights or lessons learned from your experiences as a singer dealing with trauma that you believe could benefit other singers facing similar challenges?

#### Appendix 4

*Transcription of Interviews* (separate zipped file)

#### Appendix 5

*Ethics Form*

### APPLICATION FOR ETHICAL APPROVAL

**In order for research to result in benefit and minimise risk of harm, it must be conducted ethically. A researcher may not be covered by the University's insurance if ethical approval has not been obtained prior to commencement.**

The University follows the OECD Frascati manual definition of **research activity**: "creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of man, culture and society, and the use of this stock of knowledge to devise new applications". As such this covers activities undertaken by members of staff, postgraduate research students, and both taught postgraduate and undergraduate students working on dissertations/projects.

The individual undertaking the research activity is known as the "principal researcher".

Ethical approval is not required for routine audits, performance reviews, quality assurance studies, testing within normal educational requirements, and literary or artistic criticism.

**Please read the notes for guidance before completing ALL sections of the form.**

**This form must be completed and approved prior to undertaking any research activity.**  
Please see Checklist for details of process for different categories of application.

**Delete the Guidance Notes at the end of the form BEFORE submitting your application**

**SECTION A: About You (Principal Researcher)**

|   |                             |                          |                             |                                     |                               |
|---|-----------------------------|--------------------------|-----------------------------|-------------------------------------|-------------------------------|
| 1 | Full Name:                  | Allison Mae Carnes       |                             |                                     |                               |
| 2 | Tick all boxes which apply: | Member of staff:         | <input type="checkbox"/>    | Honorary research fellow:           | <input type="checkbox"/>      |
| 3 | Undergraduate Student       | <input type="checkbox"/> | Taught Postgraduate Student | <input checked="" type="checkbox"/> | Postgraduate Research Student |

|                             |                                       |                                                                      |
|-----------------------------|---------------------------------------|----------------------------------------------------------------------|
| 4                           | Institute/Academic Discipline/Centre: | Institute of Management and Health                                   |
| 5                           | Campus:                               | Carmarthen                                                           |
| 6                           | E-mail address:                       | <a href="mailto:allimaecarnes@gmail.com">allimaecarnes@gmail.com</a> |
| 7                           | Contact Telephone Number:             | 386-546-6630                                                         |
| <b><i>For students:</i></b> |                                       |                                                                      |
| 8                           | Student Number:                       | 2244755                                                              |
| 9                           | Programme of Study:                   | MA in Professional Practice (Voice Pedagogy)                         |
| 10                          | Director of Studies/Supervisor:       | Julie Crossman/ Debbie Winter                                        |

**SECTION B: Approval for Research Activity**

|   |                                                                                                                                                                                                              |                                                        |                                     |             |                          |
|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|-------------------------------------|-------------|--------------------------|
| 1 | Has the research activity received approval in principle?<br>(please check the Guidance Notes as to the appropriate approval process for different levels of research by different categories of individual) | YES                                                    | <input checked="" type="checkbox"/> | NO          | <input type="checkbox"/> |
|   |                                                                                                                                                                                                              |                                                        |                                     | <b>Date</b> |                          |
| 2 | If Yes, please indicate source of approval (and date where known):<br><b>Approval in principle must be obtained from the relevant source prior to seeking ethical approval</b>                               | Research Degrees Committee                             | <input type="checkbox"/>            |             |                          |
| 3 |                                                                                                                                                                                                              | Institute Research Committee                           | <input type="checkbox"/>            |             |                          |
| 4 |                                                                                                                                                                                                              | Other (write in)<br>WAPPAR Ethics Board Representative | <input checked="" type="checkbox"/> |             |                          |

**SECTION C: Internal and External Ethical Guidance Materials**

|   |                                                                                                                                                                                                                                                                                                                                                    |                                     |
|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
|   | Please list the core ethical guidance documents that have been referred to during the completion of this form (including any discipline-specific codes of research ethics, and also any specific ethical guidance relating to the proposed methodology). Please tick to confirm that your research proposal adheres to these codes and guidelines. |                                     |
| 1 | <b>UWTSD Research Ethics &amp; Integrity Code of Practice</b>                                                                                                                                                                                                                                                                                      | <input checked="" type="checkbox"/> |
| 2 | <b>UWTSD Research Data Management Policy</b>                                                                                                                                                                                                                                                                                                       | <input checked="" type="checkbox"/> |
| 3 | <b>This may include codes of conduct of professional bodies or overseas laws (particularly for data protection).</b>                                                                                                                                                                                                                               | <input type="checkbox"/>            |

**SECTION D: External Collaborative Research Activity**

|   |                                                                                                                                                                                                                                     |     |                          |    |                                     |
|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|--------------------------|----|-------------------------------------|
| 1 | Does the research activity involve collaborators outside of the University?                                                                                                                                                         | YES | <input type="checkbox"/> | NO | <input checked="" type="checkbox"/> |
| 2 | If Yes, please provide the name of the external organisation and name and contact details for the main contact person and confirmation this person has consented to their personal data being shared as part of this collaboration. |     |                          |    |                                     |
| 3 | Institution                                                                                                                                                                                                                         |     |                          |    |                                     |
| 4 | Contact person name                                                                                                                                                                                                                 |     |                          |    |                                     |

|    |                                                                                                            |                                                                         |                          |                          |                          |                          |
|----|------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 5  | Contact person e-mail address                                                                              |                                                                         |                          |                          |                          |                          |
| 6  | Has this individual consented to sharing their details on this form?                                       | YES                                                                     | <input type="checkbox"/> | NO                       | <input type="checkbox"/> |                          |
| 7  | Are you in receipt of a KESS scholarship?                                                                  | YES                                                                     | <input type="checkbox"/> | NO                       | <input type="checkbox"/> |                          |
| 8  | Is your research externally funded                                                                         | YES                                                                     | <input type="checkbox"/> | NO                       | <input type="checkbox"/> |                          |
| 9  | Are you specifically employed to undertake this research in either a paid or voluntary capacity?           | Voluntary                                                               | YES                      | <input type="checkbox"/> | NO                       | <input type="checkbox"/> |
| 10 |                                                                                                            | Employed                                                                | YES                      | <input type="checkbox"/> | NO                       | <input type="checkbox"/> |
| 11 | Is the research being undertaken within an existing UWTSD Athrofa Professional Learning Partnership (APLP) | If YES then the permission question below does not need to be answered. | YES                      | <input type="checkbox"/> | NO                       | <input type="checkbox"/> |
| 12 | Permission to undertake the research has been provided by the partner organisation                         | (If YES attach copy)<br>If NO the application cannot continue           | YES                      | <input type="checkbox"/> | NO                       | <input type="checkbox"/> |

**Where research activity is carried out in collaboration with an external organisation**

|    |                                                                                                                         |     |                          |    |   |
|----|-------------------------------------------------------------------------------------------------------------------------|-----|--------------------------|----|---|
| 13 | Does this organisation have its own ethics approval system?                                                             | YES | <input type="checkbox"/> | NO | X |
| 14 | If Yes, please attach a copy of any final approval (or interim approval) from the organisation<br><b>Not applicable</b> |     |                          |    |   |

**SECTION E: Details of Research Activity**

|   |                      |                                                        |                    |              |
|---|----------------------|--------------------------------------------------------|--------------------|--------------|
| 1 | Indicative title:    | Trauma and Effects on Singers and their Vocal Function |                    |              |
| 2 | Proposed start date: | March 18, 2024                                         | Proposed end date: | July 1, 2024 |

|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3 | <p><b>Introduction to the Research (maximum 300 words)</b></p> <p><b>Ensure that you write for a <u>Non-Specialist Audience</u> when outlining your response to the three points below:</b></p> <ul style="list-style-type: none"> <li>• <i>Purpose of Research Activity</i></li> <li>• <i>Proposed Research Question</i></li> <li>• <i>Aims of Research Activity</i></li> <li>• <i>Objectives of Research Activity</i></li> </ul> <p>Demonstrate, briefly, how <b><u>Existing Research</u></b> has informed the proposed activity and explain</p> <ul style="list-style-type: none"> <li>• <i>What the research activity will add to the body of knowledge</i></li> <li>• <i>How it addresses an area of importance.</i></li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                |
| 4 | <p><b>Purpose of Research Activity</b></p> <p>I would like to research how trauma affects singers and their experience of their vocal function. The purpose of this would be to add more insight to my area of interest as a Trauma Informed Voice Professional. If I know how trauma affects the voice, then I can research ways to target that.</p> <p>Proposed Research Question: How does trauma affect a singer's experience of their vocal function? The goal in studying this is to see the effects, if any, and if there are, what we can do to improve singers' vocal function after experiencing trauma. Current research shows that singing can help in times of trauma. Additionally, the research around trauma-informed care discusses the importance of creating a supportive environment such as noticing physical and emotional sensations and engaging in co-regulation. Other than this, I cannot find research around how trauma affects the voice in an audible and physical way. There is no research around the singer's experience. My aim is to fill this gap in research.</p> <p>(this box should expand as you type)</p> |
| 5 | <p><b>Research Question</b></p> <p>How does trauma affect a singer's experience of their vocal function?</p> <p>(this box should expand as you type)</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 6 | <p><b>Aims of Research Activity</b></p> <p>The goal of studying this is to see the effects, if any, and if there are, what we can do to improve singers' vocal function after experiencing trauma.</p> <p>(this box should expand as you type)</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 7 | <p><b>Objectives of Research Activity</b></p> <ul style="list-style-type: none"> <li>- Discover the effects of trauma on vocal function</li> <li>- Learn about how traumatic experiences affect us emotionally and physically</li> <li>- How can we target the effects of trauma on the voice by improving vocal function?</li> <li>- How do we improve vocal function?</li> </ul> <p>(this box should expand as you type)</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8 | <p><b>Proposed methods (maximum 600 words)</b></p> <p>Provide a brief summary of all the methods that <b>may</b> be used in the research activity, making it clear what specific techniques may be used. If methods other than those listed in this section are deemed appropriate later, additional ethical approval for those methods will be needed.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 9 | <ul style="list-style-type: none"> <li>- Case studies</li> <li>- Observation</li> <li>- One-on-one interviews (Video)</li> <li>- Literature review</li> </ul> <p>This will be a qualitative study that will focus on the experience of the participants.</p> <p>To begin, I will be delving into case studies around psychogenic dysphonia. Psychogenic dysphonia refers to loss of voice where there is insufficient structural or neurological pathology to account for the nature and severity of the dysphonia, and where loss of volitional control over phonation seems to be related to psychological processes such as anxiety, depression, conversion reaction, or personality disorder (Baker, 2003).</p> <p>This will inform my understanding before conducting interviews.</p> <p>I plan to then conduct one-on-one interviews with the participants. I will ask about their experiences; their trauma and how they feel it affected their vocal function. Additionally, during this interview, I will also be observing the participants. I will be listening to the qualities of their voice. For example, is their voice “breathy” or do they have increased vocal fry? I will use the CAPE-V form for an analysis of their voice.</p> <p>Following the interviews, I will do a literature review.</p> <p>(this box should expand as you type)</p> |

|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |     |                                     |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-------------------------------------|
| 10 | <b>Location of research activity</b><br>Identify all locations where research activity will take place.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |     |                                     |
| 11 | Zoom - within the United States.<br><br>(this box should expand as you type)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |     |                                     |
| 12 | <b>Research activity outside of the UK</b><br>If research activity will take place overseas, you are responsible for ensuring that local ethical considerations are complied with and that the relevant permissions are sought. Specify any local guidelines (e.g. from local professional associations/learned societies/universities) that exist and whether these involve any ethical stipulations beyond those usual in the UK (provide details of any licenses or permissions required). Also specify whether there are any specific ethical issues raised by the local context in which the research activity is taking place, for example, particular cultural and/or legal sensitivities or vulnerabilities of participants.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |     |                                     |
| 13 | <p>Some of the influential codes of ethics and regulations that guide ethical clinical research in the United States clude:</p> <ul style="list-style-type: none"> <li>• Nuremberg Code (1947)</li> <li>• Declaration of Helsinki (2000)</li> <li>• Belmont Report (1979)</li> <li>• CIOMS (2002)</li> <li>• U.S. Common Rule (1991)</li> </ul> <p>Using these sources of guidance and others, seven main principles have been described as guiding the conduct of ethical research:</p> <ul style="list-style-type: none"> <li>• Social and clinical value</li> <li>• Scientific validity</li> <li>• Fair subject selection</li> <li>• Favorable risk-benefit ratio</li> <li>• Independent review</li> <li>• Informed consent</li> <li>• Respect for potential and enrolled subjects</li> </ul> <p>Ezekiel J. Emanuel, MD, PhD; David Wendler, PhD, and Christine Grady, PhD. "<a href="#">What Makes Clinical Research Ethical?</a>" Journal of the American Medical Association, Vol. 283, No. 20, May 24, 2000, pp. 2701-2711.</p> <p>*It's also important to note that the subjects will be vulnerable due to their trauma experiences. This is a sensitive topic that will be handled as such. See below for more information regarding specific practices.</p> |     |                                     |
| 14 | Use of documentation not in the public domain: Are any documents <b>NOT</b> publicly available?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | NO  | <input checked="" type="checkbox"/> |
|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | YES | <input type="checkbox"/>            |

|    |                                                                                                                                                                                                                                                                                                           |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 15 | <p>If Yes, please provide details here of how you will gain access to specific documentation that is not in the public domain and that this is in accordance with prevailing data protection law of the country in question and England and Wales.</p> <p><i>(this box should expand as you type)</i></p> |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**SECTION F: Scope of Research Activity**

| 1  | Will the research activity include:                                                                                                                                                             | YES                      | NO                       |
|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|
| 2  | Use of a questionnaire or similar research instrument?                                                                                                                                          | <b>X</b>                 | <input type="checkbox"/> |
| 3  | Use of interviews?                                                                                                                                                                              | <b>X</b>                 | <input type="checkbox"/> |
| 4  | Use of diaries?                                                                                                                                                                                 | <input type="checkbox"/> | <b>X</b>                 |
| 5  | Participant observation with their knowledge?                                                                                                                                                   | <b>X</b>                 | <input type="checkbox"/> |
| 6  | Participant observation without their knowledge?                                                                                                                                                | <input type="checkbox"/> | <b>X</b>                 |
| 7  | Use of video or audio recording?                                                                                                                                                                | <b>X</b>                 | <input type="checkbox"/> |
| 8  | Access to personal or confidential information without the participants' specific consent?                                                                                                      | <input type="checkbox"/> | <b>X</b>                 |
| 9  | Administration of any questions, test stimuli, presentation that may be experienced as physically, mentally or emotionally harmful / offensive?                                                 | <input type="checkbox"/> | <b>X</b>                 |
| 10 | Performance of any acts which may cause embarrassment or affect self-esteem?                                                                                                                    | <input type="checkbox"/> | <b>X</b>                 |
| 11 | Investigation of participants involved in illegal activities?                                                                                                                                   | <input type="checkbox"/> | <b>X</b>                 |
| 12 | Use of procedures that involve deception?                                                                                                                                                       | <input type="checkbox"/> | <b>X</b>                 |
| 13 | Administration of any substance, agent or placebo?                                                                                                                                              | <input type="checkbox"/> | <b>X</b>                 |
| 14 | Working with live vertebrate animals?                                                                                                                                                           | <input type="checkbox"/> | <b>X</b>                 |
| 15 | Other primary data collection methods, please explain in this box<br>For example, 'focus groups'. Please indicate the type of data collection method(s) in this box and tick the accompany box. | <input type="checkbox"/> | <input type="checkbox"/> |
| 16 | Details of any other primary data collection method:<br><br><i>(this box should expand as you type)</i>                                                                                         |                          |                          |

If NO to every question, then the research activity is (ethically) low risk and **may** be exempt from **some** of the following sections (please refer to Guidance Notes).

If YES to any question, then no research activity should be undertaken until full ethical approval has been obtained.

### SECTION G: Intended Participants

| 1  | Who are the intended participants:                                                                                                   | YES                      | NO                       |
|----|--------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|
| 2  | Students or staff at the University?                                                                                                 | <input type="checkbox"/> | <b>X</b>                 |
| 3  | Adults (over the age of 18 and competent to give consent)?                                                                           | <b>X</b>                 | <input type="checkbox"/> |
| 4  | Vulnerable adults?                                                                                                                   | <input type="checkbox"/> | <b>X</b>                 |
| 5  | Children and Young People under the age of 18? (Consent from Parent, Carer or Guardian will be required)                             | <input type="checkbox"/> | <b>X</b>                 |
| 6  | Prisoners?                                                                                                                           | <input type="checkbox"/> | <b>X</b>                 |
| 7  | Young offenders?                                                                                                                     | <input type="checkbox"/> | <b>X</b>                 |
| 8  | Those who could be considered to have a particularly dependent relationship with the investigator or a gatekeeper?                   | <input type="checkbox"/> | <b>X</b>                 |
| 9  | People engaged in illegal activities?                                                                                                | <input type="checkbox"/> | <b>X</b>                 |
| 10 | Others (please identify specifically any group who may be unable to give consent) please indicate here and tick the appropriate box. | <input type="checkbox"/> | <input type="checkbox"/> |
| 11 | Other – please indicate here:<br>(this box should expand as you type)                                                                |                          |                          |

|    |                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 12 | <b>Participant numbers and source</b><br>Provide an estimate of the expected number of participants. How will you identify participants and how will they be recruited? |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 13 | How many participants are expected?                                                                                                                                     | 5 participants.<br><br><i>(this box should expand as you type)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 14 | Who will the participants be?                                                                                                                                           | The participants will be 5 individuals who have experienced trauma. The participants will be of various races, gender identities, and ages (all above 18). The term “trauma” for the purposes of this study will be defined as “an incident that caused you physical, emotional, spiritual, or psychological harm.”<br>I am intentionally leaving open the type of trauma, as everyone experiences this differently. It is not up to the researcher to determine what is deemed legitimate trauma or not, as this focuses on the individual’s experience. |

|    |                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|----|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    |                                         | <p>I recognize that the implications of this will be that there might be a range of experiences, thus the creation of some confounding variables.</p> <p><i>(this box should expand as you type)</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 15 | How will you identify the participants? | <ul style="list-style-type: none"> <li>- Participants 1-5</li> <li>- I will find them through contacting various SLPs/Laryngologists and giving them my information to pass along.</li> </ul> <p>I will contact the following SLPs or Laryngologists:</p> <ul style="list-style-type: none"> <li>- Kerrie Obert, MS, CCC-SLP</li> <li>- Sarah Brown, MS, CCC-SLP</li> <li>- Dr. Rupali Shah, MD</li> <li>- Leanne Goldberg, MS, CCC-SLP</li> </ul> <p>I will give the industry professionals listed above my contact information. They will be asked to pass it along to their patients/people who they feel would be interested.</p> <ul style="list-style-type: none"> <li>- The interested parties would need to then reach out to me directly, as the SLPs/Laryngologists cannot disclose patient information.</li> <li>- The SLPs/Laryngologists will be in various locations across the U.S.</li> </ul> <p><i>(this box should expand as you type)</i></p> |

|    |                                                                                                                                                     |                                     |                          |                          |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|--------------------------|--------------------------|
| 16 | <b>Information for participants:</b>                                                                                                                | <b>YES</b>                          | <b>NO</b>                | <b>N/A</b>               |
| 17 | Will you describe the main research procedures to participants in advance, so that they are informed about what to expect?                          | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 18 | Will you tell participants that their participation is voluntary?                                                                                   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 19 | Will you obtain written consent for participation?                                                                                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 20 | Will you explain to participants that refusal to participate in the research will not affect their treatment or education (if relevant)?            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 21 | If the research is observational, will you ask participants for their consent to being observed?                                                    | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 22 | Will you tell participants that they may withdraw from the research at any time and for any reason?                                                 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 23 | With questionnaires, will you give participants the option of omitting questions they do not want to answer?                                        | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 24 | Will you tell participants that their data will be treated with full confidentiality and that, if published, it will not be identifiable as theirs? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 25 | Will you debrief participants at the end of their participation, in a way appropriate to the type of research undertaken?                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 26 | If NO to any of above questions, please give an explanation                                                                                         |                                     |                          |                          |
| 27 | (this box should expand as you type)                                                                                                                |                                     |                          |                          |

|    |                                                                                                                                                    |                          |                                     |                          |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-------------------------------------|--------------------------|
| 28 | <b>Information for participants:</b>                                                                                                               | <b>YES</b>               | <b>NO</b>                           | <b>N/A</b>               |
| 29 | Will participants be paid?                                                                                                                         | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 30 | Is specialist electrical or other equipment to be used with participants?                                                                          | <b>X</b>                 | <input type="checkbox"/>            | <input type="checkbox"/> |
| 31 | Are there any financial or other interests to the investigator or University arising from this study?                                              | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 32 | Will the research activity involve deliberately misleading participants in any way, or the partial or full concealment of the specific study aims? | <input type="checkbox"/> | <b>X</b>                            | <input type="checkbox"/> |
| 33 | If YES to any question, please provide full details                                                                                                |                          |                                     |                          |
| 34 | I plan to record interviews that are conducted via Zoom. The equipment required is my computer.<br>(this box should expand as you type)            |                          |                                     |                          |

**SECTION H: Anticipated Risks**

|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                     |
|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| 1 | <b>Outline any anticipated risks that may adversely affect any of the participants, the researchers and/or the University, and the steps that will be taken to address them.</b><br><br>If you have completed a full risk assessment (for example as required by a laboratory, or external research collaborator) you may append that to this form.                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                     |
| 2 | <b>Full risk assessment completed and appended?</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>Yes</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <input type="checkbox"/>            |
|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>No</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <input checked="" type="checkbox"/> |
| 3 | <b>Risks to participants</b><br>For example: emotional distress, financial disclosure, physical harm, transfer of personal data, sensitive organisational information                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                     |
| 4 | Risk to Participant:<br>Further traumatization via emotional distress, transfer of personal data, risk of accusation of harm, personal safety if anonymity was compromised.<br><br><i>(this box should expand as you type)</i>                                                                                                                                                                                                                                                                                                                                                | <b>How will you mitigate the Risk to Participant</b><br>I will use my knowledge as a Trauma Informed Voice Practitioner to ensure the participants have a check-in/check-out process. Additionally, I will ensure the participants have a counselor/therapist to speak with following the interviews.<br>I plan to ask therapist Kelly Lynn to be the specified therapist.<br>Re: transfer of personal data, I will ensure the data is kept on a password-protected computer that no one else can access. If this data is kept protected, anonymity would not be compromised, thus mitigating the risk of personal safety and accusation of harm.<br><i>(this box should expand as you type)</i> |                                     |
| 5 | If research activity may include sensitive, embarrassing or upsetting topics (e.g. sexual activity, drug use) or issues likely to disclose information requiring further action (e.g. criminal activity), give details of the procedures to deal with these issues, including any support/advice (e.g. helpline numbers) to be offered to participants. Note that where applicable, consent procedures should make it clear that if something potentially or actually illegal is discovered in the course of a project, it may need to be disclosed to the proper authorities |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                     |
|   | I will provide resources to counselors and mental health help (i.e. <a href="https://mentalhealthhotline.org">https://mentalhealthhotline.org</a> and contact information of therapists in the participant's area). I will also make it clear to participants that if something illegal is discovered, it may need to be disclosed to the proper authorities.<br><br>Kelly Lynn, Therapist, LMCHC - her email will be listed.<br><i>(this box should expand as you type)</i>                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                     |
| 6 | <b>Risks to investigator</b><br>For example: personal safety, physical harm, emotional distress, risk of accusation of harm/impropriety, conflict of interest                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                     |

|          |                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|          | <p><b>Risk to Investigator:</b><br/>There may be a risk of emotional distress while recalling my own personal trauma. Others may raise a flag about the risk of accusation of harm, with a concern that I am trying to harm these participants.</p> <p><i>(this box should expand as you type)</i></p> | <p><b>How will you mitigate the Risk to Investigator:</b><br/>For emotional distress: Check in/out, self-care/boundaries, therapy<br/>For accusation of harm: I have therapists and other resources for the participants in order to try to mitigate the risk of further traumatization for them, thus mitigating the risk of accusation of harm.</p> <p><i>(this box should expand as you type)</i></p>             |
| <b>7</b> | <p><b>University/institutional risks</b><br/>For example: adverse publicity, financial loss, data protection</p>                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                      |
|          | <p><b>Risk to University:</b><br/>There is a risk that this research, if gone awry, could cause damage to the school's reputation. Additionally, the risk would be data protection.</p> <p><i>(this box should expand as you type)</i></p>                                                             | <p><b>How will you mitigate the Risk to University:</b><br/>We will need to ensure responsible use of the findings and protecting the data accordingly. This will be mitigated by coding data to ensure anonymity and storing data on a password protected computer that is only accessed by myself. All data will be destroyed once the project is complete.</p> <p><i>(this box should expand as you type)</i></p> |

|           |                                                                                                                                                                                 |                          |                                     |                          |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-------------------------------------|--------------------------|
| <b>8</b>  | <b>Disclosure and Barring Service</b>                                                                                                                                           |                          |                                     |                          |
| <b>9</b>  | If the research activity involves children or vulnerable adults, a Disclosure and Barring Service (DBS) certificate must be obtained before any contact with such participants. | <b>YES</b>               | <b>NO</b>                           | <b>N/A</b>               |
| <b>10</b> | Does your research require you to hold a current DBS Certificate?                                                                                                               | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

### SECTION I: Feedback, Consent and Confidentiality

|          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1</b> | <p><b>Feedback</b><br/>What de-briefing and feedback will be provided to participants, how will this be done and when?</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|          | <p>After anonymizing the interviews, I will send a transcript to each participant of their own interview. This will allow them to view it and ensure I interpreted everything correctly. They will have to approve of the transcript before it can be used further. Once they approve of the transcript, I will provide the participants with a written debriefing that provides my contact information and reminders about their ability to withdraw, mental health helplines, what the study is, and how the data will be used. This would remind them of the consent they gave earlier.</p> <p><i>(this box should expand as you type)</i></p> |

|   |                                                                                                                                                                                                                                                                                                                                                                                                                        |
|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2 | <b>Informed consent</b><br>Describe the arrangements to inform potential participants, before providing consent, of what is involved in participating. Describe the arrangements for participants to provide full consent before data collection begins. If gaining consent in this way is inappropriate, explain how consent will be obtained and recorded in accordance with prevailing data protection legislation. |
|   | Before the research begins, I will create an online form that asks for consent and provides further details on the study.<br><br><i>(this box should expand as you type)</i>                                                                                                                                                                                                                                           |
| 3 | <b>Confidentiality / Anonymity</b><br>Set out how anonymity of participants and confidentiality will be ensured in any outputs. If anonymity is not being offered, explain why this is the case.                                                                                                                                                                                                                       |
|   | I will either number the participants or provide an alias.<br><br><i>(this box should expand as you type)</i>                                                                                                                                                                                                                                                                                                          |

## SECTION J: Data Protection and Storage

In completing this section refer to the University's Research Data Management Policy and the extensive resources on the University's Research Data Management web pages (<http://uwtsd.ac.uk/library/research-data-management/>).

|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |     |                          |
|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|--------------------------|
| 1 | Does the research activity involve personal data (as defined by the General Data Protection Regulation 2016 "GDPR" and the Data Protection Act 2018 "DPA")?                                                                                                                                                                                                                                                                                                                                     | YES | NO                       |
|   | <p><b>"Personal data"</b> means any information relating to an identified or identifiable natural person ('data subject'). An identifiable natural person is one who can be identified, directly or indirectly, in particular by reference to an identifier such as a name, an identification number, location data, an online identifier or to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural or social identity of that natural person.</p> | X   | <input type="checkbox"/> |
| 2 | If YES, provide a description of the data and explain why this data needs to be collected:                                                                                                                                                                                                                                                                                                                                                                                                      |     |                          |
|   | Names, personal data, videos of interviews, consent forms, etc. I will keep this data digitally, on a password-protected computer. I will also delete it afterward. This data must be collected because it is integral to the study; the study requires personal stories.<br><br><i>(this box should expand as you type)</i>                                                                                                                                                                    |     |                          |

|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |     |                          |
|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|--------------------------|
| 3 | Does it involve special category data (as defined by the GDPR)?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | YES | NO                       |
|   | <p><b><i>“Special category data” means sensitive personal data consisting of information as to the data subjects’ –</i></b></p> <p><i>(a) racial or ethnic origin,</i></p> <p><i>(b) political opinions,</i></p> <p><i>(c ) religious beliefs or other beliefs of a similar nature,</i></p> <p><i>(d) membership of a trade union (within the meaning of the Trade Union and Labour Relations (Consolidation) Act 1992),</i></p> <p><i>(e) physical or mental health or condition,</i></p> <p><i>(f) sexual life,</i></p> <p><i>(g) genetics,</i></p> <p><i>(h) biometric data (as used for ID purposes),</i></p> | X   | <input type="checkbox"/> |
| 4 | If YES, provide a description of the special category data and explain why this data needs to be collected:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |     |                          |
|   | <p>Mental health conditions; this will assist with the trauma discussion to know where the participant is at now in their journey.</p> <p><i>(this box should expand as you type)</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                         |     |                          |

|    |                                                                                                                                                                                                                  |                          |                          |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|
| 5  | Will the research activity involve storing personal data and/or special category data on one of the following:                                                                                                   | YES                      | NO                       |
| 6  | Manual files (i.e. in paper form)?                                                                                                                                                                               | <input type="checkbox"/> | X                        |
| 7  | University computers?                                                                                                                                                                                            | <input type="checkbox"/> | X                        |
| 8  | Private company computers?                                                                                                                                                                                       | <input type="checkbox"/> | X                        |
| 9  | Home or other personal computers?                                                                                                                                                                                | X                        | <input type="checkbox"/> |
| 10 | Laptop computers/ CDs/ Portable disk-drives/ memory sticks?                                                                                                                                                      | X                        | <input type="checkbox"/> |
| 11 | “Cloud” storage or websites?                                                                                                                                                                                     | <input type="checkbox"/> | X                        |
| 12 | Other – specify:                                                                                                                                                                                                 | <input type="checkbox"/> | <input type="checkbox"/> |
| 13 | For all stored data, explain the measures in place to ensure the security of the data collected, data confidentiality, including details of password protection, encryption, anonymisation and pseudonymisation: |                          |                          |

|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |                          |
|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|
|    | <p>All data will be kept on a memory stick. This memory stick will be password-protected and stored in a safe when not used. Audio/visual data will be transcribed and would be shown to participants to check accuracy of the reporting. All participants will be given a unique identifier (either number or alias) to ensure confidentiality and this list will be kept securely in the password-protected folder.</p> <p><i>(this box should expand as you type)</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                          |                          |
| 14 | <b>All Data Storage</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                          |                          |
| 15 | Will the research activity involve any of the following activities:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>YES</b>               | <b>NO</b>                |
| 16 | Electronic transfer of data in any form?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>X</b>                 | <input type="checkbox"/> |
| 17 | Sharing of data with others at the University?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>X</b>                 | <input type="checkbox"/> |
| 18 | Sharing of data with other organisations?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>X</b>                 | <input type="checkbox"/> |
| 19 | Export of data outside the European Union or importing of data from outside the UK?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>X</b>                 | <input type="checkbox"/> |
| 20 | Use of personal addresses, postcodes, faxes, emails or telephone numbers?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>X</b>                 | <input type="checkbox"/> |
| 21 | Publication of data that might allow identification of individuals?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <input type="checkbox"/> | <b>X</b>                 |
| 22 | Use of data management system?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <input type="checkbox"/> | <b>X</b>                 |
| 23 | Data archiving?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <input type="checkbox"/> | <b>X</b>                 |
| 24 | <p>If YES to any question, please provide full details, explaining how this will be conducted in accordance with the GDPR and DPA (and/or any international equivalent):</p> <p>All data will be encrypted and kept in password protected cloud storage on my password protected computer. Any USB sticks used to store or transfer data will be password protected. All data transfers will be encrypted and password protected. All participants will be given a unique identifier to ensure confidentiality and this list will be kept securely in the password protected folder. The data will be stored until the completion of the project and then deleted. In accordance with the DPA2018, participants will have the right to ask to see what data is held relating to them, and this data will be deleted immediately if the participant requests this, in which case the data will not be used in the project.</p> |                          |                          |
|    | <p>This research will be shared with University of Wales Trinity Saint David and Voice Study Center. Because I am in the United States, I will be exporting this data within the U.S.</p> <p><i>(this box should expand as you type)</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                          |                          |
| 25 | List all who will have access to the data generated by the research activity:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                          |                          |
|    | The principal researcher, Allison Mae Carnes, + Voice Study Center leadership team, specifically Mel Toy.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                          |                          |

|    |                                                                                                                                                                                                                                                                                                                                                                                                                              |            |                          |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------|
|    | <i>(this box should expand as you type)</i>                                                                                                                                                                                                                                                                                                                                                                                  |            |                          |
| 26 | List who will have control of, and act as custodian(s) for, data generated by the research activity:                                                                                                                                                                                                                                                                                                                         |            |                          |
|    | The principal researcher, Allison Mae Carnes.<br><br><i>(this box should expand as you type)</i>                                                                                                                                                                                                                                                                                                                             |            |                          |
| 27 | Give details of data storage arrangements, including security measures in place to protect the data, where data will be stored, how long for, and in what form. Will data be archived – if so how and if not why not.                                                                                                                                                                                                        |            |                          |
|    | All data will be encrypted and kept in password protected cloud storage on the Alli's Office 365 system which will not be shared. Any USB sticks used to store or transfer data will be password protected, and will be reformatted at the end of the project in order to destroy the data. The data will be stored until the completion of the project and then deleted.<br><br><i>(this box should expand as you type)</i> |            |                          |
| 28 | Please indicate if your data will be stored in the UWTSD Research Data Repository (see <a href="https://researchdata.uwtsd.ac.uk/">https://researchdata.uwtsd.ac.uk/</a> ). If so please explain. <i>(Most relevant to academic staff)</i>                                                                                                                                                                                   |            |                          |
|    | <i>(this box should expand as you type)</i>                                                                                                                                                                                                                                                                                                                                                                                  |            |                          |
| 29 | Confirm that you have read the UWTSD guidance on data management (see <a href="https://www.uwtsd.ac.uk/library/research-data-management/">https://www.uwtsd.ac.uk/library/research-data-management/</a> )                                                                                                                                                                                                                    | <b>YES</b> | <b>X</b>                 |
|    |                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>NO</b>  | <input type="checkbox"/> |
| 30 | Confirm that you are aware that you need to keep all data until after your research has completed or the end of your funding                                                                                                                                                                                                                                                                                                 | <b>YES</b> | <b>X</b>                 |
|    |                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>NO</b>  | <input type="checkbox"/> |

**SECTION K: Declaration**

|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                    |                       |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-----------------------|
| 31 | <p>The information which I have provided is correct and complete to the best of my knowledge. I have attempted to identify any risks and issues related to the research activity and acknowledge my obligations and the rights of the participants.</p> <p>In submitting this application I hereby confirm that I undertake to ensure that the above named research activity will meet the University's Research Ethics and Integrity Code of Practice which is published on the website: <a href="https://www.uwtsd.ac.uk/research/research-ethics/">https://www.uwtsd.ac.uk/research/research-ethics/</a></p> |                    |                       |
|    | <b>Signature of applicant:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Allison Mae Carnes | <b>Date: 2/9/2024</b> |

**For STUDENT Submissions:**

|    |                                 |  |              |
|----|---------------------------------|--|--------------|
| 32 | Director of Studies/Supervisor: |  | <b>Date:</b> |
| 33 | Signature:                      |  |              |

**For STAFF Submissions:**

|    |                                    |  |              |
|----|------------------------------------|--|--------------|
| 34 | Academic Director/ Assistant Dean: |  | <b>Date:</b> |
| 35 | Signature:                         |  |              |

**Checklist:** Please complete the checklist below to ensure that you have completed the form according to the guidelines and attached any required documentation:

|                                     |                                                                                                                                                                                                                                                            |
|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> | I have read the guidance notes supplied before completing the form.                                                                                                                                                                                        |
| <input checked="" type="checkbox"/> | I have completed <b>ALL RELEVANT</b> sections of the form in full.                                                                                                                                                                                         |
| <input checked="" type="checkbox"/> | I confirm that the research activity has received approval in principle                                                                                                                                                                                    |
| <input type="checkbox"/>            | I have attached a copy of final/interim approval from external organisation ( <b>where appropriate</b> )                                                                                                                                                   |
| <input type="checkbox"/>            | I have attached a full risk assessment (and have NOT completed Section H of this form) (where appropriate) <b>ONLY TICK IF YOU HAVE ATTACHED A FULL RISK ASSESSMENT</b>                                                                                    |
| <input checked="" type="checkbox"/> | I understand that it is my responsibility to ensure that the above named research activity will meet the University's Research Ethics and Integrity Code of Practice.                                                                                      |
| <input checked="" type="checkbox"/> | I understand that before commencing data collection all documents aimed at respondents (including information sheets, consent forms, questionnaires, interview schedules etc.) must be confirmed by the DoS/Supervisor, module tutor or Academic Director. |
| <input checked="" type="checkbox"/> | I have deleted the guidance notes before submitting the PG2 for consideration                                                                                                                                                                              |

**RESEARCH STUDENTS AND STAFF ONLY**

All communications relating to this application during its processing must be in writing and emailed to [pgresearch@uwtsd.ac.uk](mailto:pgresearch@uwtsd.ac.uk), with the title 'Ethical Approval' followed by your name.

You will be informed of the outcome of your claim by email; therefore it is important that you check your University and personal email accounts regularly.

**STUDENTS ON UNDERGRADUATE OR TAUGHT MASTERS PROGRAMMES** should submit this form (and receive the outcome) via systems explained to you by the supervisor/module leader.

**This form is available electronically from the Academic Office web pages:**

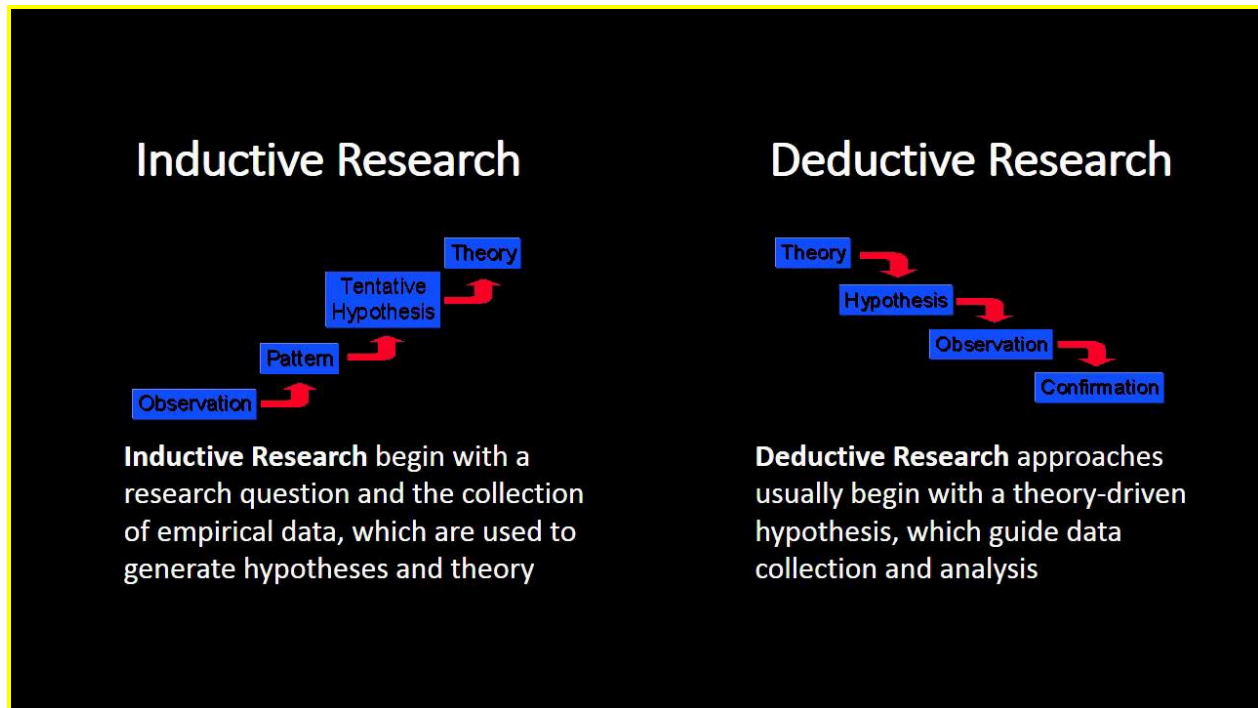
<https://www.uwtsd.ac.uk/academic-office/appendices-and-forms/>

### **Application Process**

**All staff research projects and all research students** must submit the Ethical Approval Form to the **University Research Ethics Committee** via the Academic Office ([pgresearch@uwtsd.ac.uk](mailto:pgresearch@uwtsd.ac.uk)). Staff research directly in relation to personal study for taught undergraduate or Masters programmes should be submitted via the Institute procedures explained below.

**Taught masters and taught undergraduate research Ethical Approval Forms** are considered **within Institutes**. Institutes will provide details of the specific processes for this. Where the Ethical issues within any single ethical application are of particular concern the Institute will refer these to the University Research Ethics Committee. Any student activity that involves the collection of primary data needs to undergo Ethical approval, this includes assignment work as well as dissertations.

Appendix 6  
*Inductive Analysis*



(Russell, 2015)

## Appendix 7

### CAPE-V Form

#### Consensus Auditory-Perceptual Evaluation of Voice (CAPE-V)

Voice Sample #: \_\_\_\_\_

The following parameters of voice quality will be rated upon completion of the following tasks:

1. Sustained vowels, /a/ and /i/ for 3-5 seconds duration each.
2. Sentence production:
  - a. The blue spot is on the key again.
  - b. How hard did he hit him?
  - c. We were away a year ago.
  - d. We eat eggs every Easter.
  - e. My mama makes lemon muffins.
  - f. Peter will keep at the peak.
3. Spontaneous speech in response to: "Tell me about your voice problem." or "Tell me how your voice is functioning."

**Legend:** C = Consistent I = Intermittent  
 MI = Mildly Deviant  
 MO = Moderately Deviant  
 SE = Severely Deviant

SCORE

|                  |                                                             |   |   |           |
|------------------|-------------------------------------------------------------|---|---|-----------|
| Overall Severity | _____<br>MI                      MO                      SE | C | I | _____/100 |
| Roughness        | _____<br>MI                      MO                      SE | C | I | _____/100 |
| Breathiness      | _____<br>MI                      MO                      SE | C | I | _____/100 |
| Strain           | _____<br>MI                      MO                      SE | C | I | _____/100 |
| Pitch            | (Indicate the nature of the abnormality): _____             |   |   |           |
|                  | _____<br>MI                      MO                      SE | C | I | _____/100 |
| Loudness         | (Indicate the nature of the abnormality): _____             |   |   |           |
|                  | _____<br>MI                      MO                      SE | C | I | _____/100 |
| _____            | _____<br>MI                      MO                      SE | C | I | _____/100 |
| _____            | _____<br>MI                      MO                      SE | C | I | _____/100 |

COMMENTS ABOUT RESONANCE:    NORMAL    OTHER (Provide description): \_\_\_\_\_

ADDITIONAL FEATURES (for example, diplophonia, fry, falsetto, asthenia, aphonia, pitch instability, tremor, wet/gurgly, or other relevant terms): \_\_\_\_\_

Clinician: \_\_\_\_\_

## Appendix 8

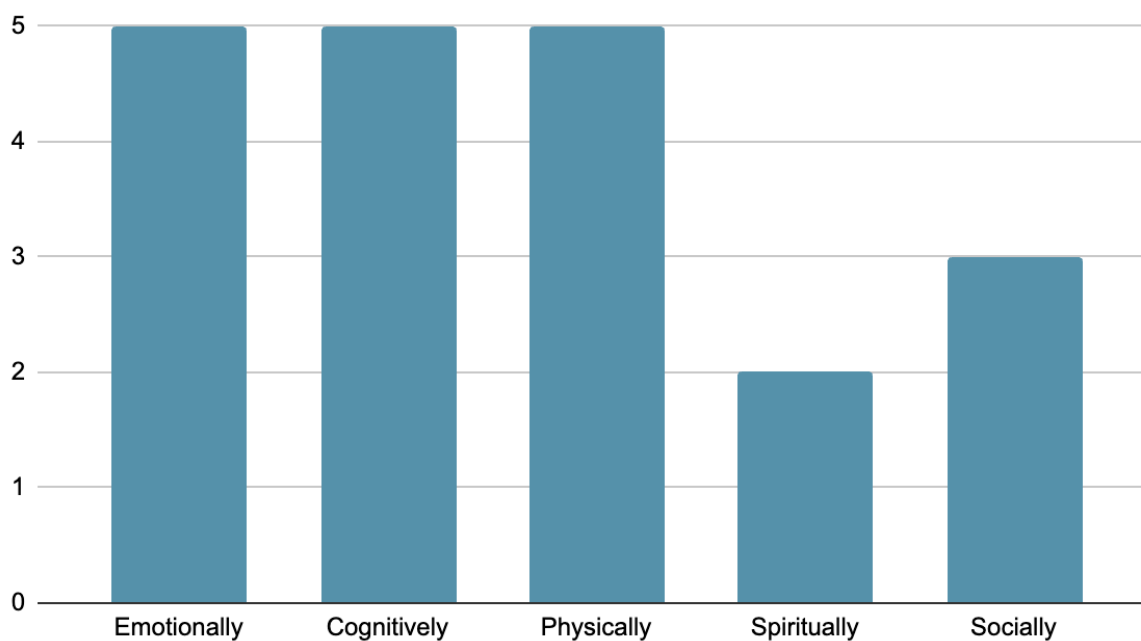
*Participants' self-reported experiences following traumatic experiences*

| Identification | Experiences                                                                                                                                          |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| Participant A  | Strained voice, inconsistent breath, wide vibrato, decrease in overtones, compressed posture                                                         |
| Participant B  | Tight stomach and throat, tension in head and neck, loss of phonation in upper range, "crunch in posture", difficulty breathing                      |
| Participant C  | Loss of range, tight throat                                                                                                                          |
| Participant D  | Loss of phonation while singing, loss of upper notes                                                                                                 |
| Participant E  | Tight shoulders, tense throat, chronic cough, "closed" throat, frequent hoarseness, loss of phonation in upper range, difficulty with deep breathing |

## Appendix 9

*Effects of change in vocal function on participants*

## How Singers' Change in Vocal Function Affected Them



## Appendix 10

*Participants' vocal qualities identified by researcher*

| Identification | Vocal Quality                                 |
|----------------|-----------------------------------------------|
| Participant A  | Increased pitch, slight vocal fry             |
| Participant B  | Roughness, increased vocal fry                |
| Participant C  | "Wobbly" (very tremor like), slight vocal fry |
| Participant D  | Increased vocal fry                           |
| Participant E  | Tremor, vocal fry                             |