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An initial exploration into what factors, both physiological and psychological, may affect the vocal health of adolescent singing students?

And an investigation into what steps can be taken to mitigate them and to educate adolescent singers around vocal health?

Part One: Project Portfolio

Introduction

Much of my work as a singing teacher is centred on teaching adolescents. Over many years of teaching this age group, I have concluded that they come with a complex set of needs. A singing teacher should be ready to address these needs from a vocal health viewpoint (Sweet, 2020).

During adolescence our bodies undergo many biological and psychological developments (Sawyer et al, 2018). These changes cause growth physically, and an influx of hormones which can cause physical and psychological issues to arise as the adolescent navigates through the complexity of what is happening to their body (Bourguignon, Carel, Christen, 2015). Physical growth will bring about voice change for both males and females, and this alone can be a challenge to navigate with a singing student (Sweet, 2020). Hormonal changes can bring about mental, social and physical health issues (Ausubel, 2002), many of which can directly or indirectly affect the singing voice.

In my teaching practice I have witnessed many adolescent vocal health issues. These have included, misuse of alcohol and drugs, smoking, chaotic life styles including a lack of sleep and inadequate hydration, eating disorders, peer pressure, perfectionism, music performance anxiety, misuse of voice, and quality of home life. These factors can affect the voice in many different ways, from a small solvable vocal issue to one that may be evident for the rest of the singer's life (Spiegel, Sataloff, Emerich, 1997).

I have recently experienced one of my adolescent singing pupils being diagnosed with anorexia. On reflection, it was clear for some months that there was something not right with this pupil's voice. A breathy tone had emerged, a loss of much of the upper vocal range and a chronic amount of anxiety developed about every sound produced. This pupil would enter my singing room and immediately look in the mirror to inspect their appearance, they would refuse to take off their coat, stating that they were cold even on a warm day. I had put these vocal symptoms down to voice change, and whilst indeed some of it may have been attributed to this, I now realise that some also was due to the anorexia and the under development of the larynx and surrounding muscles (Maciejewska et al, 2016). This experience made me reflect upon my own skills as a singing teacher. I concluded that whilst I had some knowledge in the area of voice change, other factors that adolescents may experience were not areas where I had much or any expertise.

Therefore, I feel this research will benefit my teaching practice. It will enable me to teach my pupils in a knowledgeable and appropriate way that will help safeguard their vocal health both now and in their futures. As adolescence is a time of learning habits that can affect our adult life, (Kansky,

Allen, Diener, 2016) it seems an opportune time to educate in correct vocal use and safeguarding for future vocal health (Gebhart, 2016).

Due to the limits of this module, I will aim to select the most appropriate topics for my current pupil population.

Planned Program of Study

Question One - *What physiological and psychological factors may affect the vocal health of adolescent singing students?*

Question Two - *What steps can be taken to mitigate them and to educate adolescent singers around vocal health?*

Context

There is much literature to show that adolescence is a time of risk-taking behaviour. It is a time during which education into the consequences of these behaviours is paramount (Steinberg, 2004). Research supports the fact that some of this risk-taking behaviour can affect the body, and therefore the voice (Krohling, Pereira de Paula, Behlau, 2016). While there is some research available that brings this information into a relevant viewpoint for singing teachers, there seems to be a lack of strategies to manage vocal health in an accessible way for singing teachers and their adolescent students.

My intention is to draw together some of the literature available into a useable and useful summary for singing teachers. I hope that singing teachers will then feel more equipped to pass this information on to their adolescent pupils.

Aims

- To establish the most common physiological and psychological factors that may affect adolescent singers' vocal health and the circumstances and statistics around them.
- To examine how/if these affect vocal health detrimentally and to learn in detail the effects and symptoms that a singing teacher should be looking for.
- To identify best practice for educating pupils on how to avoid damaging their vocal health.
- To identify the best strategies to guide adolescent singers through any vocal health issues that may arise.

Objectives

- To use literature to become more familiar with vocal health issues that may affect adolescent singers.
- To review literature written on these issues in order to broaden knowledge and gain further understanding on these topics.
- To find and analyse literature on educating adolescents in order to improve my teaching practice with this age group by broadening my knowledge of how they learn.
- To use the above to form strategies for my teaching that will help me better guide pupils through vocal health issues that may arise during this life stage.
- To be more knowledgeable about available literature, so I am able to direct students towards relevant vocal health information and mental or physical health providers if the vocal health or physical issues are beyond my remit.

Timeline

- February 2025 - Aim to read around topic and start to collect useful literature.
- March/April 2025 – Aim to write component 1.
- April/May 2025 – Aim to write component 2.
- June 2025 – Aim to have a complete draft to hand in, draft marked and any changes needed to be implemented.
- 1st July 2025 – Hand in final finished document for marking.

Methodology

I will be undertaking my research as a narrative review. I feel this method best suits my paper in order to gain a broad overview and understanding of a number of factors that singing teachers of adolescents may experience with their students. There is much literature written on the topic, so a narrative review will allow me to find and highlight the key points on each section of my paper in a flexible manner. It will also enable me to find any gaps in the literature for future research.

I will also include elements of autoethnography into my paper. This will be particularly useful as I am a teacher of the age group in question and so am able to bring some of my own experiences and insight into the paper.

As an insider researcher, I will ensure that my work is within ethical guidelines and will not disclose any information about a pupil that could lead to them being identified.

As there is much research on the topic I will cover, it will be necessary to be selective on which sources I choose due to my assignment limitations in and order to ensure all literature used is relevant. In the first instance the aim will be to use peer reviewed literature from journals. However, many of these will be medical journals and some may use medical terms that I am unfamiliar with. Therefore, I may need to look to further sources to simplify the language. Some of these may require the use of grey literature. There are many books written on my topic that will add helpful insight into my research. These will be included where relevant, trying to ensure that where possible I am using the most recent revision of the book and authors that are well known in the vocal adolescent health circle. I may also look to include PHD or Masters work. Some of this research will be helpful as it comes from other singing teachers in an autoethnographically situation such as mine. However, I will have to be mindful that this work is not peer reviewed and may contain errors or bias.

A pragmatic approach will be useful in this research. The pragmatic paradigm is often referred to as a mixed method paradigm. It works outside of a ridged framework and functions to work in the best way to find answers and solutions to research questions (Revez, Borges 2019). Allemang et al. (2022) state that the pragmatic approach is most helpful in dealing with complicated social issues that need a multifactor approach in order to reach solutions or conclusions. This is helpful for my topic which will deal with social and physical issues that adolescents may become involved in which may damage their vocal health. Allemang et al. (2022) continues to state, that this paradigm allows solutions and conclusions to be reached by using multiple source's and either quantitative or qualitative data collections. Flexibility is at its core and the researcher will seek to use human experience to further understand knowledge rather than relying on any absolute truths. This will be useful for my paper as I expect to use both quantitative and qualitative data, as well as my own experience and that of my singing pupils and potentially that of other singing teachers.

Part Two: Written Assignment

Question- What physiological and psychological factors may affect the vocal health of adolescent singing students? What steps can be taken to mitigate them and to educate adolescent singers around vocal health?

Introduction

The word 'Adolescence' is described by the Britannica Dictionary (2025) as a transitional phase that occurs between childhood and adulthood (roughly between the ages 11-19). It is a time of complex physical growth, that occurs as a young person develops into adulthood (Salmela-Aro, 2011). It is also a time of physiological growth, where young people begin to explore their personalities, and challenge how they fit into society and the world around them (Ozdemir, Utkualp, Pallos, 2016).

As young people develop into adults there is much for them to learn about how to look after themselves both mentally and physically. As such, it is a time when it is vital that adolescence's receive support from parents, teachers, carers etc. (UNICEF, 2002) so they are able to develop into a responsible adult. This is no different when it comes to voice use and vocal training during this developmental stage. It is imperative that a young person is educated in correct vocal use and good vocal health so they are able to form good habits that will last into adulthood. (Chapman, 2021).

This paper seeks to provide a brief overview of some common physiological and psychological behaviours formed during adolescence that may affect vocal use. It will focus on how these behaviours can affect the voice, but will also summarise general information on the topic that may be of use to a singing teacher who may be looking for the cause of a new vocal issue in one of their students. This general information will include the physical symptoms and effects on the body. This information is included so that singing teachers can be aware of what to look for physically, as well as vocally. It will also be of use and interest to inform teachers about the extent of the issue globally. The paper will also endeavour to briefly educate singing teachers on how to best educate and advise students how to avoid vocal misuse and damage.

Due to the constraints of this paper, the following factors will be briefly explored.

1. Smoking or vaping.
2. Use of recreational drugs
3. Sleep deprivation
4. Eating disorders
5. Perfectionism
6. Peer pressure

These topics have been divided into physiological and psychological factors for ease of answering my research question. However, it must be acknowledged some of these topics cross both the physiological and psychological. For example, eating disorders and substance abuse will affect the adolescent physiologically, their body will be changed and maybe damaged by these factors. However, eating disorders and substance abuse are also widely linked to mental illness and therefore will have psychological effects on the adolescent also (Blakemore, 2019).

Physiological Factors

During adolescence a young person will on average gain around 50% of their adult weight and 20% of their adult height so the need for the body to be well looked after and nurtured is great (Norris et al, 2022).

Adolescence is also a time of major changes vocally for both males and females (Gackle, 2020). It is during this life stage that the onset of puberty brings about voice change and the maturing of the voice (Williams, 2019). Williams explains that during the period of adolescence the lungs will grow to their adult capacity and the larynx, and all its surrounding muscles, will descend into their adult position. As this growth occurs the muscles concerned will not be a full strength and therefore must be carefully looked after to avoid strain or damage (Friddle, 2005).

It is often acknowledged that education into wellness and nutrition given in adolescence can affect the health and habits of a person into adulthood (Hargreaves et al, 2022). However, adolescence can also be the time where negative risk-taking behaviour is at its greatest (Duell, Steinberg, 2018). Sanci, Webb and Hocking (2018) state that one in four adolescents will engage in risk taking behaviour that can affect their physical development. Dhal (2006) says that mortality rates in adolescence increase 200% to that of childhood. Dhal states that this rise in the mortality rate is not largely due to physical illness, such a cancer or disease developing. Rather Dhal attributes the rise to a lack of controlled, or immature behaviour leading to instances of suicide, depression, substance abuse and other risky behaviours.

It is important that these risks and their effects on the singing voice particularly, are relayed to singing students in this age group in a manner that they will understand and respond to.

Tobacco Use Effects - Smoking or Vaping*General Information and Statistics –*

WHO states that, “The tobacco epidemic is one of the biggest public health threats the world has ever faced, killing over 8 million people a year around the world. More than 7 million of those deaths are the result of direct tobacco use” (2023). WHO show, that statistics state that around 90% of adult smokers started smoking in their adolescent years (2025). Smoking, and exposure to second-hand smoke, can cause numerous health conditions (Dai et al, 2022). Some of these are minor such as nasal irritation or middle ear disease, some are more serious and potentially fatal such as oral, lung or larynx cancer, stroke and coronary heart disease (U.S Department of Health and Human Services, 2010). Many of the above listed health conditions will affect the use of the voice in some way.

The use of e-cigarettes, or vaping as it is more commonly known, was on the rise in the adolescent population until more recent years where the numbers involved seem to have stabilised or dropped. In 2023 around 20% of 11–17-year-olds in Great Britain were said to have tried vaping, by 2024 this has dropped slightly to 18%. However, this 18% represents 980,000 adolescents. (The Ash Smokefree GB Youth Survey, 2024).

Vocal Effects –

Anticaglia, Hawkshaw and Sataloff (2004) explain that tobacco use can impair many of the organs and systems that control voice use and production, including the vocal tract, lungs and larynx. Byeon and Cha (2020) further expand this in their research. After compiling studies from 2000-2018 they used meta-analysis to find baseline data for preventing voice disorders related to smoking. They found that studies using rats and pigs confirmed that smoking causes anatomical changes to the larynx and changes to vocal characteristics and quality of the voice. Their research clearly showed that smoking can irritate the vocal folds and dry up its mucus as well as causing inflammation and weakening many of the muscles that surround the larynx.

This study also showed that the use of e-cigarettes (or vaping), often thought to be a less harmful form of smoking, can considerably affect the sound quality of the voice. The research into the effects of vaping on the voice is still limited. However, Tuhanioglu et al. (2019) were able to undertake some interesting research. They monitored the voice quality of 81 males, some of whom smoked traditional cigarettes, some vaped and some of whom were non-smokers. They compared various vocal factors such as jitter and shimmer voice qualities and used the voice handicap index

to score the results. They found that the smokers of traditional cigarettes had the most effected voices, and that in comparison the effects on the vaper's voices were mild. However, they do conclude that research in this area is in its infancy and much more must be undertaken before the e-cigarette can be officially branded as less damaging to the voice.

Due to the large numbers of reported adolescent smokers and vapers, it is very likely that singing teachers will encounter this issue with some of their singing pupils. Singing teachers should be vigilant for voice changes that develop suddenly and don't seem to resolve, such as a changing adolescent voice would. Guimaraes and Abberton, (2009) undertook research on 32 adults, 20 of whom were smokers, in order to record the changes to the speaking voice that smoking caused. They found changes to the larynx in all the smokers. This change resulted in a lower speaking and singing pitch and higher levels of vocal jitter and stress. Of these results the drop in pitch could be a sign for a singing teacher that perhaps the student has become involved in some form of smoking. Although a drop in pitch could also be attributed to adolescent voice change so the singing teacher should proceed with caution.

Teachers who find pupils involved in any form of smoking may wish to use visual aids of lungs and the larynx of smokers in order to show the damage that is caused. There is no doubt that smoking in any form can cause serious vocal issues (Gonzalez & Carpi, 2004) it seems imperative that adolescent singers are educated on these details before detrimental habits are formed.

Use of Recreational Drugs

General Information and Statics' –

Ignaszewski (2021) reports that the use of recreational (non-prescription) drugs such as cannabis and opioids, is on the increase in the USA amongst the adolescent population. The National Survey of Drug Use and Health USA (2023) found that 11.2% of the adolescent population (or 2.9 million adolescents) were using cannabis. In fact, research in Australia by Victoria Department of Health (2022), showed that Cannabis was the illegal drug most commonly used by adolescents. Therefore, it is likely that a singing teacher with a large number of adolescent pupils will at some point encounter a student with a drug misuse problem.

Vocal Effects –

Research shows that different drugs, and the way they are administered (i.e., smoked, vaped, ingested, injected), can affect the voice in different ways.

Balouch et al (2022) conducted research into the use of drugs derived from the cannabis plant. They approached people who smoked, vaped or used edible marijuana and monitored their voice. They found that all participants reported immediate and long-term effects on the voice. The most common symptoms listed were hoarseness, weakening and a breathiness of the voice that had not been evident before drug use. They concluded that this is a much under researched area and more research is needed due to the prevalence of the use of this drug and the fact that many countries have legalised its use. Meehan-Atrash, Korzun and Ziegler (2019) explored a little further, and performed a laryngoscopy on 6 cannabis smokers. The results showed a darkening (or bruising) of the vocal folds as well as negative lung function and respiratory system symptoms. They also concluded that more research is needed into the effects of this drug on the voice. Meanwhile Raev, Matveev and Goloshchapova (2012) report that a long-term use of heroin can decrease the voices fundamental frequency (meaning the vocal folds work slower) by up to 3% per year.

It is reported that Ecstasy use in adolescents is strongly associated with peer pressure and attention seeking (Martins et al, 2008). A case study undertaken by Moorchilot, Orr and Prescott (2008) followed the symptoms of a 23-year-old male who had taken 8 ecstasy tablets. Amongst the physical symptoms reported it was recorded that his voice took on a nasal tone and he had a shortness of breath.

Many of these reported symptoms such as a breathy and weaker voice, are symptoms also synonymous with adolescent changing voices (Brunsen, 2018). Therefore, the singing teacher may be confused at this developmental stage as to the cause of the vocal symptoms. A singing teacher should be vigilant, questioning an adolescent voice that seems to be changing over the course of a longer time than normal and a student that has erratic vocal symptoms that are sometimes present and other times not. There also may be physical signs of drug misuse that a singing teacher may be able to notice such as erratic behaviour, anxiety, loss of concentration or a new secretive change in behaviour (Mayo Clinic, 2025) and this may alert them that something further may need addressing.

The statistics and symptoms clearly show the use of recreational drugs can be detrimental to the speaking and singing voice. It is also clear that we do not yet have a full picture of how these drugs effect the singing voice and that more research is needed, especially when considered that in some counties drugs such as cannabis are being legalised thus making them more readily available to the adolescent population (Hopfer, 2015).

Sleep Deprivation*General Informational and Statistics –*

Brand and Kirov (2011) explain that sleep can become complex during adolescent years as hormones, physical and psychosocial changes occur. But they continue to state that poor or insufficient sleep-in adolescence may lead to physical or psychiatric conditions that may be carried into adult life.

There is much ongoing research into adolescent sleeping habits and the effects of sleep deprivation. Adolescence is a period of development where sleep is particularly important, (Louca & Short, 2014) and adolescents often live hectic lives that can lead to sleep deprivation. A busy education schedule of exams, deadlines, social life, extra-curricular activities, and participation in family/house hold events and chores (Marshall, 2007), can all lead to a tight schedule that does not leave adequate room for sleep.

Vocal Effects –

Literature indicates that total or part sleep deprivation leads to fatigue, and that this in turn leads to changes in the voice (Icht et al, 2020). A lack of sleep has been found to cause voice dysphonia and hoarseness and weakness of the voice (Cho et al, 2017). Also reported are a lowering of the fundamental frequency and the speed of speech is reduced (Bagnall, Dorrian, Fletcher, 2011). Pitch variations and volume may be reduced and changes in the depth of a breath (Icht et al, 2020). All of the above are troublesome for a singer who is trying to produce a free and bright tone, whilst controlling their voice in order to follow the notes of the song.

There are also some more unusual effects of sleep deprivation on the voice. Franzen, Siegle, and Buysse (2008) reported a link between sleep loss and negative emotion and mood. This is a very interesting point to observe when considered much of what a singer does in a performance is linked to expression and emotion. In order to further research this McGlinchey, et al (2011) undertook a study of 38 adolescents. They allowed their participants only 2 hours sleep and then undertook a series of recorded interviews in order to analyse the change in pitch, jitter and shimmer in the voice. All participants reported a decrease in positive emotion, and during this decrease the pitch of the voice lowered and vocal energy levels decreased. They found that adolescents were particularly sensitive to these voice changes when compared to the adults they also analysed. This is concerning for adolescent singers. Many adolescent singing students struggle to achieve adequate expression and emotion in their singing. Much of this may be due to lack of self-confidence, issues

of perfectionism, and embarrassment. However, some of this may also be attributed to lack of sleep causing inhibition of vocal expression and energy.

Therefore, it is clear for adolescents who regularly use their singing voice there are some alarming consequences of sleep deprivation. Singing teachers must be aware of these and be watchful for pupils who seem to be displaying symptoms of sleep deprivation. Teachers may need to be ready to adjust their expectations of sleep deprived pupils, for example singing a long passage of opera which requires an agile voice may be beyond what a sleep deprived voice can manage, and may indeed cause further vocal dysphonia (National Institute on Deafness and other Communication Disorders, 2025).

Eating Disorders

General Information and Statistics -

Eating disorders can be described as a psychiatric impairment of normal eating behaviour (Treasure, Duarte, Schmidt, 2020). It is thought that by the age of 20 around 13% of adolescents will have developed an eating disorder that could include anorexia nervosa, bulimia nervosa or an unspecified eating disorder that does not match a particular criterion (Rienecke, 2017). Statistics suggest that the prevalence of these disorders seem to be on the rise across the world (Filipponi et al, 2022.) Those who suffer from any eating disorder have substantially raised risk of mortality, but those who suffer from Anorexia nervosa are thought to be at the highest risk (Arcelus, et al, 2011). Eating disorders starve the body of its needed nutrients and therefore cause an impact on the physical development of an adolescent (Ruuska, 2006).

Physical complications can occur to all areas of the body as the result of an eating disorder, these include dental erosion, heart conditions, disturbed hormone levels, osteoporosis, skin conditions and decreased concentration (Winston, 2008. Zam, Saijari, Saijari, 2018).

Vocal Effects –

As voice and singing production requires many physical factors, it is unsurprising that eating disorders can greatly affect the voice (Maciejewska et al, 2023). Maciejewska et al, (2023) explain that the self-induced and repeated vomiting associated with bulimia, for example, can cause irritation of the vocal folds and sinuses. Dehydration and imbalances and deficiencies of nutrients within the body can cause abnormalities of the larynx that significantly affect the quality and timbre of the voice (Ferreria, 2010). Maciejewska et al's, (2016) case study recorded the effects of anorexia on 41 adolescent girls, all of whom were receiving treatment for the condition. They

undertook the same research on control group of 25 girls of the same age who were not suffering from any eating disorders, in order to compare the vocal ability and physicality. Both physical and audio assessments were undertaken on both groups of girls, and the results were stark. All the girls suffering from anorexia had underdeveloped external larynx muscles, with 55% of them displaying an immature larynx for their age. Some had shorter than normal vocal folds, most had a limited vocal range when compared to the control group, and all subjects had a shallow breath range. Research into this area is currently limited, most authors have stated that more work needs to be done to further explore the impact of eating disorders on the voice.

Singing teachers may once again confuse the vocal signs of an eating disorder, such as a reduction of range or weakening of the voice, for an adolescent changing voice. Therefore, the teacher may find other physical symptoms easier to notice, such as a rapid loss of weight or general poor health. A singing student suffering from an eating disorder will benefit from gentle singing in a supportive environment, avoiding vagarious passages that may cause vocal fatigue (Pavlaou, 2009). The teacher should be very positive in their feedback, avoiding negative comments.

Psychological Factors

Just as the body physically grows and changes during adolescent years, the brain and mental health also grow and develop (Blakemore, 2019). In 2018 it was reported that nearly one in five adolescents living in America had a mental health disorder (Roach, 2018). In early 2022 there were 420,314 referrals in the UK to the child and adolescent mental health services (NHS digital services, 2022). This is concerning as Eyre and Thapar (2014) state that mental health disorders experienced during adolescence increase the risk of mental health disorders occurring in adulthood. Mental disorders during adolescence can be attributed to many factors, these include genetics, the recent COVID-19 pandemic, the environment in which the adolescent dwells and increasing demands from teachers and families (Evans & Seligman, 2005. Meneguzzo, et al. 2024. Wisnusakti, Kumala, Hidayat, 2022. Herpertz-Dahhlmann, Buhren, Remschmidt, 2013). However, research shows that some mental health disorders can be prevented in adolescence by educating teachers and the adolescents themselves on how to keep their mental health well (Cho, Shin, 2013). Therefore, it seems to follow that a singing teacher of this age group will be well placed to help educate and promote good mental health in their students by providing them with adequate education on mental health issues that may affect their singing voice.

Perfectionism*General Information and Statistics –*

Damian, et al (2013) state that it is during adolescence our individual views of perfectionism are formed. Stoeber and Rambow (2006) develop this further by adding that adolescents can have a positive view of perfectionism, where they strive for it and their work and attitude is affected in a positive way. However, they also state adolescents can also have a negative view of perfectionism, where they strive for it but never feel that it is achieved, leading to depression and a fear of failure. Given the growing concern around the mental health of adolescents, many research studies have recently been conducted into the effects of perfectionism on this age group. One such study was conducted by Molnar et al, (2023) in Canada. In their study 46 adolescents who were deemed to be perfectionist were asked details of how they viewed perfectionism and how they felt it affected them. Most reported perfectionism as being a moving goal. They felt no matter how hard they tried or how well they did they could always do better. This is a concerning trait for the mental health of adolescents, especially when around one in four are thought to be perfectionists (Molnar et al, 2023. Flett et al, 2022).

Vocal Effects –

For singing students perfectionism can be a huge hinderance (Kenny, Davis and Oats's, 2004) Their research delved into perfectionism and Music Performance Anxiety (MPA) and the possible links between the two. They found that participants who had high levels of perfectionism tended to want to take part in less recreational activities, such as singing. Alongside this Sandgren (2002) found that singers who have high levels of perfectionism needed more constant reassurance from those around them concerning their vocal skills, and this sometimes affected them developing their voices in other areas such as expression. This will affect the way such students are taught by their singing teachers, allowances for more encouragement and positive feedback should be included in each lesson, with negative feedback given in a careful manner.

Perfectionism can also cause an anxiety and tension when using the voice. Research has shown that singers who sing in a state of anxiety can reduce their vocal accuracy, and anxiety may also cause vocal fold tension (Larrouy-Maestri & Morsomme, 2012). Over practice could also cause vocal fatigue and strain in such students as they strive to obtain perfection and whose vocal technique may not be yet adequately trained (The Musicians Union, 2025). The singing teacher must make allowances in their lessons for pupils who are affected in this way. The student singer

must be allowed to take vocal rest and be well educated in how to warm up and down before practice in order to avoid any further strain.

In some areas of music education and performance there are environments that push young people towards unrealistic performing and musical expectations thus enforcing an attitude of perfectionism at an early age (Ryan, 2004). This must be avoided if we are to raise a new generation of well-rounded singers that have a healthy attitude towards perfection in music (Curran & Hill, 2019).

Peer Pressure

General Information and Statistics-

Adolescence is the period of life within which a person may be most influenced by their peers (Wolf, 2015). As adolescents try to establish their personalities, likes and dislikes and how they fit into the world, friends and social groups become a very important influence (Helseth, Misvaer, 2009). Helseth and Misvaer (2009) undertook a study to explore what adolescents felt gave them a good quality of life. They interviewed 31 adolescents asking them questions about their family life, self-image and many other factors. According to their research results, friendship and fitting into a friendship group, was found to be the most significant factor to a good lifestyle in an adolescent's opinion. Those interviewed stated time and again that good, close friends were very important to their overall happiness. These friendships can be positive and can help guide an adolescent through this period of life change (Berndt, 1982). However, McCoy et al. (2017) argue that they can also become a negative influence and lead to risk taking behaviour that would not be engaged in normally. Interestingly Ungar's study (2020) concluded that peer pressure was in fact a myth! He concludes his research on high-risk adolescents, by stating that peer pressure is something invented by adults to help describe troubling behaviour in this age group. His research implies that those adolescents that are involved in high risk-taking behaviour (such as drug abuse for example) consciously engage in these activities to enhance their personal and social standing rather than due to any pressure by friends.

Vocal Effects-

In my own research in module 3 (Tickle, 2025) the adolescent pupils I interviewed mentioned peer pressure in regards to performing. One participant noted that they compared their voice to that of their peers. They felt that their peers could all sing well and had the ability to sing great high notes, where as they did not. This participant also showed signs of adolescent egocentrism (Harter, 2012).

This is where adolescents may develop a self-centred mindset with an altered sense of reality in relation to themselves and their peers. Harter explains, an adolescent may become very uncertain about their own abilities which can lead to intense self-reflection and negative thoughts about one's own abilities when compared to others. In this case peer pressure was causing this participant to not want to sing in public, it was also causing them anxiety which was in turn affecting the quality of their voice. As they approached a performance, they would become so tense vocally that their range would be limited by trying too hard to reach high notes. Emotions would be so high that sobbing and crying would also affect the voice in a negative way (Campbell, 1987).

It is clear that by the time a person reaches adolescence performing, be it in music, drama, dance or any other genre, becomes a very different experience than that of childhood where there are typically few inhibitions (Kenny & Osborne 2006). This change in attitude can be attributed to many factors which may include peer pressure, an increase in self-reflective abilities or perception of skill or lack thereof (Kenny & Osborne 2006, Paul & Juncos & Winter 2024). White & White (2001) explain how male adolescents particularly like to blend in with their peer group's opinion. So, if for example a boys friendship group think singing is not 'cool' then regardless of his own opinion the boy will move away from any involvement in choirs or voice lessons, and would most certainly not want to be found performing a solo in a concert. White and White suggest that voice teachers should work to help boys to find a peer group within their school choirs and music departments, that allows them to be accepted by boys with similar interests.

This is an interesting area of study in which much research has been undertaken. It is important that voice teachers are aware of the literature available and use it to help ensure that adolescents continue to sing through this stage. Singing teachers must be aware of the stress that peer pressure can place on their students emotionally and vocally. It should be noted that this stress could cause singing students to avoid performances, and affect the abilities and sound of the voice.

How Can This Information Best be Imparted by Singing Teachers?

Steinberg (2015) boldly states classroom-based health education for this age group has limited use. Instead, he suggests that more effort should be put into limiting the chances where adolescences, in their immaturity, can form bad habits or risky behaviours. Steinberg recommends for example, that the legal age for being able to purchase tobacco products be increased to 21, thus removing the accessibility of tobacco products to adolescents. Whilst this action by a government may help deter underage smoking habits being formed, how can a singing teacher best educate an adolescent pupil if Steinberg is correct and classroom health education has limited use? Kamberk-Kilicci (2019) suggests a number of ways adolescents may be taught in a useful way. She proposes that supportive, empathic, informed adults can help adolescents remain teachable, and advocates that teachers must take the time to get to know their pupils, forming a relationship of trust and respect. When this relationship is formed then open dialogue and learning can proceed.

Approaching some of the above factors with an adolescent singing pupil needs to be done with sensitivity and caution. For example, it may not be wise for a singing teacher to directly approach a pupil whom they think may have an eating disorder. This may be best done via a school or parent and should always be done ethically, following any guidelines that may be present (Yager & O'Dea, 2005). However, it certainly is the place of a singing teacher to advise on the vocal effects of smoking or drug taking or to speak to a clearly exhausted pupil about the effects of sleep deprivation (Broadus-Lawrence et al, 2000). Research has suggested that voice issues experienced by professional singers may stem back to their early days as a singing student, (Ziegler et al. 2012) thus proving the grave responsibility of singing teachers to educate their students. Some research in this area raises a cause of concern. Braun-Janzen and Zeine (2009) undertook research to assess the knowledge professional and amateur singers had concerning their voice and vocal health. They found that many of those interviewed were interested in this area. However, when asked 50 questions to assess their current knowledge of the voice and its health, they found a lack of knowledge that could only be corrected by intensive vocal hygiene training for all student singers. Ziegler et al. (2012) state that knowledge is power and every effort should be made to educate student singers about their vocal apparatus and the possibility of lifestyle choices causing it injury. They acknowledge that a singing lesson alone may not be a sufficient place for all of this education to take place, and agree with Braun-Jenzen that some form of additional intensive training may be required. However, this may not be something that the average adolescent singer may be able to or indeed wish to access. Thus, the emphasis on vocal knowledge and hygiene remains firmly with the singing teacher within the pupils' lesson.

Some excellent resources have been produced to help singing teachers in this plight. Books such as 'A Young Person's Guide to Vocal Health' (Sparkhall, 2022) are written in a manner that will be informative and accessible to adolescents. YouTube videos showing vocal anatomy will be accessible to almost all adolescent pupils, and Sweet (2020) advocates the use of diagrams, posters and a model of the larynx in vocal education.

Conclusion

It is clear that working with adolescents can bring its challenges, but also opportunities to help and guide a young person on their path to adulthood and vocal maturity (Urdan & Pajares, 2004). It is also clear from the literature that singing teachers of this age group must understand the dynamics of adolescents, including the many needs and risks that it may raise, that could affect the student vocally (Milosevitic, 2019). In fact, some of the literature above evidences that a singing teacher could indeed cause or prevent vocal issues that will last into adulthood (Ziegler et al. 2012). This is a stark reminder to all singing teachers that it is vital they have a full and up to date knowledge of the voice and its workings. Doscher (2021) supports this by stating that an uninformed understanding of how the voice works will rarely produce a well-rounded and healthy technique, which must surely be what all singing teachers are striving to achieve with their pupils.

There are many risk taking or lifestyle choices available to adolescents, many of which are often preventable with education (Lindberg et al, 2000). And so, it must fall to the singing teacher to be well informed in the implications of smoking or sleep deprivation for example, in order that they can educate their student in how to best protect their voice.

Medical research and available literature on areas such as eating disorders and the effects they have on the voice, are constantly developing with further medical advances and research. It is a challenge for singing teachers to keep their knowledge current on these topics, especially as most teachers are busy professionals with little time to spare. A subscription to a voice or music journal, attendance at conferences or on courses and local networking meetups can all be invaluable resources in ensuring that vocal education is current and applicable. This is a wide-ranging topic with many strands to it. Each adolescent is different and may bring their own set of vocal and lifestyle challenges and the job of the singing teacher will be to flexibility adapt to each and every student and their needs.

Critical Reflection

As I first approached this topic, I felt unclear how to best order my work. I questioned whether I should order my writing around vocal disorders that could be experienced in adolescence. I initially looked at using themes such as vocal strain, larynx and vocal fold development and tension in the voice. However, I felt that this led to a disordered piece of work that could be hard to follow. I eventually settled upon splitting my topics into physiological and psychological factors, and whilst there was some overlap between the two, I felt this gave a much more reader friendly and accessible paper.

There was also the temptation to use too many general statistics and information on my topics. I quickly had to readdress this and ensure that my main writing was about how these factors affected the voice rather than general health.

I have chosen to use Gibbs' Reflective Cycle (1988) as a model to aid my reflection on my assignment. I felt this model gave me the chance to reflect in more detail than Boud's model for example (Boud, 1985).

Gibbs' model allows the researchers personal thoughts and feelings to be acknowledged. I felt this was important as my research topic was one that I had personal involvement in, as an insider researcher teaching students who are currently experiencing some of the issues raised.

Gibbs' cycle follows the following 6 points, which I have followed in order to reflect upon my research.

Description – Earlier in the year I had an adolescent pupil who was diagnosed with an eating disorder. Upon their diagnosis they had to spend much time in hospital, thus singing lessons were suspended for some months. During these months I thought about how I would proceed to teach this student on their return to lessons. I came to the realisation that I knew very little about how the voice was affected by eating disorders. I felt I needed to quickly resolve this knowledge gap in order to help this student continue to sing in a healthy manner. Alongside this, another pupil admitted to me that they had been smoking, whilst others in the midst of exams, were clearly sleep deprived. On reflection I concluded that my knowledge in these areas was also not at the level required for me to successfully navigate my students through any vocal issues that may arise. Thus, I felt further research on key issues that may affect adolescent voices was an excellent topic for this module.

Feelings – I came to realise I had limited knowledge in many areas that affected my pupils' voices. I felt initially disappointed that it had taken me so long to acknowledge my lack of skills in this area. I

then felt inspired to delve into the literature available to increase and broaden my teaching skills. I was encouraged there was so much literature available at first glance and felt encouraged that my singing lessons with this age group would be much improved with my deeper knowledge. I also acknowledged that whilst I as a singing teacher could help and guide my adolescent pupils through some of the topics researched, I would need to point them towards more professional help at times. I needed to find out who and where these contacts were.

Evaluation – As there was much literature available on the subject of adolescents, their lifestyle choices, risk taking, and how to best teach this age group, I found it easy to find initial information. However, when endeavouring to relate the literature to vocal and singing teaching, there was not always as much information available which was frustrating. For example, there was much in-depth literature concerning the effects of eating disorders on the body in general. However, the data available on the effects of eating disorders on the vocal apparatus was much more limited. I found that most studies in this area concluded with a statement about how more research was needed in this area. This was frustrating and made some parts of my research slow as I searched for the relevant information. I was also hampered on occasion by medical language and terms that I was unfamiliar with which made reading some papers impossible. However, with each topic covered I felt that I was enhancing my knowledge and this made my research a positive experience.

Analysis – The common theme of the need for a singing teacher to be educated in these aspects of adolescent vocal issues, ran through the whole of my research. Without singing teachers adequate education, their students can develop vocal issues that could span into adult life. I reflected that this could have serious consequences for all adolescents, but particularly those who aspire to use their voice as their profession in later life. Another theme was that adolescents relate well to educators who are supportive, knowledgeable, empathic and relatable. Both of these themes were very relevant to my teaching and inspired me to further deepen my knowledge.

Conclusions – At times I felt the literature into adolescents and their lifestyle, risk-taking behaviour and education was over whelming. It was sometimes difficult to sort what was relevant to my paper. I reflected that maybe my topic was too wide in nature and it may have been more prudent to look into fewer areas in more depth, thus allowing me to use more of the literature available. In future projects I will endeavour to limit my areas of study more stringently so I am able to cover each topic in more detail. I have been made aware in this research, that in depth analytical knowledge and study is more beneficial to my teaching than lots of brief, shallow knowledge where the main facts are simply skimmed over. I am also now acutely aware, that as there is such a breath

of knowledge required in this topic alone, that my learning and developing as a singing teacher will never be complete and must be ongoing at all times.

Action Plan – At the conclusion of my research I have found a particular interest in the effects of eating disorders and sleep deprivation on adolescent voices. In future topics I may delve deeper into these in order to gain a more detailed knowledge. I would like to look in more detail into the effects on the voice and its development and how to instruct and help vocal healing when dealing with their after effects.

I would also like to look further into the best way to educate adolescents. Much of the literature written on this subject is about general education, I would like to look further into this matter from a vocal teaching point of view.

I would like to be able to share some of the information I have acquired with other singing teachers, this would require it being put into a readable and easy to access form.

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