

# Views on Alexander Technique among UK Higher Education Music Students: Understandings, Benefits, and Challenges

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## Abstract

Alexander Technique (AT) is a psychophysical educational practice aimed at bringing awareness to habitual patterns of movement and thought to restore optimal coordination, potentially leading to a number of psychophysical outcomes (Kinsey, Glover and Wade, 2021). Even though AT was not originally developed specifically for musicians, it is one of the practices used by some of them to deal with playing-related challenges, such as postural discomfort and repetitive strain injuries. A number of UK Higher Education music institutions (university music departments, music conservatoires, and independent HE music institutions) currently provide students with the opportunity to engage with AT sessions, both in one-to-one and group settings. While there is a growing number of studies in domains such as healthcare and neurophysiology investigating the effectiveness of AT and its mechanisms (Cacciatore, Johnson and Cohen, 2020; Little et al., 2022), music research is relatively sparse, with small-scale studies evaluating AT in relation to music performance anxiety, music performance, muscle tension, and posture (Davies, 2020a; Davies, 2020b; Wong et al., 2023). At present, no in-depth investigations have been undertaken to uncover the first-hand views on AT among UK HE music students in a real-life setting rather than under predetermined conditions (i.e. within the context of their degree studies). This study fills this gap by examining the views of 133 UK HE music students in various institutions through a qualitative survey study. Findings reveal diverse perspectives on AT among students with or without direct experience and/or knowledge of AT, particularly in terms of their understanding of AT, motivations for participating in AT sessions, perceived benefits and challenges. These findings have implications for the implementation of AT across diverse HE music institutions, as well as for the professionalisation of AT teachers not only in the UK but potentially worldwide.

## 1 Introduction

Professional musicians face a high level of physical and mental stress in their quest for musical excellence (Watson, 2009). Their commitment can result in a number of psychophysical challenges, which impact their lives both as performers and human beings (Rosset i Llobet and Odam, 2007). Over the past decades, studies have explored the nature and incidence of these issues, revealing that many musicians experience a wide range of psychophysical disorders, such as injuries to the musculoskeletal system, neurological conditions such as musicians' focal dystonia,

vocal problems, music performance anxiety, and sleep-related issues (Cammarota et al., 2007; Cruder et al., 2018; Détári and Egermann, 2022; Kenny, Driscoll and Achermann, 2014; Kok et al., 2016; Steinmetz et al., 2015; Zaza, 1998).

The incidence of psychophysical problems among professional musicians is mirrored among Higher Education (HE) music students (Baadjou et al., 2016). Studies have found that a large number of HE music students experience playing-related musculoskeletal disorders (Steinmetz et al., 2012; Williamon and Thompson, 2006), excessive fatigue, stress, depression (Hildebrandt, Nübling and Candia, 2012), and impeding music performance anxiety (Robson and Kenny, 2017), with musical practice being often a barrier to music students' healthy lifestyles (Perkins et al., 2017). Therefore, while findings related to the health and well-being of musicians need to be interpreted with caution to avoid sensationalism (Matei, 2019), they emphasize the potential prevalence of health-related issues among music students, with a continuous need for high-quality research investigating these concerns, their causes, and the potential solutions.

Health support for HE music students has received increased attention over the years (Zander, Voltmer and Spahn, 2010), and health and well-being programmes have been designed to increase health literacy mostly among music conservatories students (Matei et al., 2018; Norton, 2016). In addition, music students in the UK HE sector have been offered health support through health support services and somatic/psychophysical practices<sup>1</sup>; one of these is Alexander Technique (The Institute of Contemporary Music Performance, 2024; The Society of Teachers of the Alexander Technique [STAT], 2024c; Valentine, Kleinman and Buckocke, 2022).

Alexander Technique was developed in the late 19th and early 20th centuries by the Australian actor Frederick Mathias Alexander to heal from recurrent vocal problems (Alexander, 1932). In his last book, Alexander (1941) defined his system as 'primarily a technique for the development of the control of human reaction' (p. 129), with verbal cues and hands-on guidance enhancing awareness and obtaining conscious control over habitual patterns of movement and thought (Alexander, 1923). After Alexander's death, his legacy has been maintained through various accredited organisations offering AT professional training and certification<sup>2</sup>. In the UK, however, 'there aren't currently any laws or regulations stating what training someone must have to teach the Alexander technique' (NHS, 2021). Indeed, Cole (2022) claimed that 'there is considerable confusion about [AT] aims, principles and value' (p. xix). While some definitions on AT describe its psychophysical nature (Kleinman and Buckocke, 2013; Saunderson and Woodman, 2015), others mostly focus on its bodily characteristics (Little et al., 2008); this seems to contradict the unified concept of body and mind that is central to Alexander's philosophy (for example, Alexander, 1932). It is thus for these reasons that this study refers to AT without the definite article "the", inferring the existence of various ATs.

Recent studies on AT have examined its effectiveness in different areas, such as health-related research (Becker et al., 2018; Little et al., 2008; MacPherson et al., 2015) and biomechanics (Cacciatore et al., 2011). Findings, for example, demonstrated AT benefits in relieving back pain (Little et al., 2008; Little et al., 2022) and neck pain

<sup>1</sup> For clarity, the term "somatic/psychophysical practice" is used to include disciplines that are reported to have physical and/or psychological benefits. This classification seems open to debate (Rosenberg, 2008).

<sup>2</sup> Among these organisations, there are the Society of Teachers of the Alexander Technique, the Interactive Teaching Method Association, the Professional Association of Alexander Teachers, and the Alexander Technique International (NHS, 2021).

(Becker et al., 2018) through one-to-one or group AT sessions. Recently, Cacciatore, Johnson and Cohen (2020) provided a preliminary model explaining the mechanisms of AT, whereas Kinsey, Glover and Wadephul (2021) explained the ways in which the 'long-term application of the AT' can result in outcomes of non-physical nature, such as 'self-acceptance, positive relationships, and personal growth' (p. 8). Although more evidence is needed to support benefits for asthma, insomnia, and stress (NHS, 2021), AT is generally considered a risk-free practice (Little et al., 2008).

Although AT was not originally designed specifically for musicians, it has been used by them, with limited evidence in the music field demonstrating the effectiveness of AT in relation to reducing tension, improving music performance, and reducing performance anxiety (Klein, Bayard and Wolf, 2014; Loo et al., 2015; Valentine et al., 1995; Valentine et al. 2022). The body of research has slowly grown over the years. Davies (2020a; 2020b) showed that AT classes may be beneficial in reducing pain, improving posture and releasing muscle tension, with improvements in music performance and benefits for non-playing related pain, stress and performance anxiety. Furthermore, the small-scale study by Wong et al. (2022) demonstrated the positive effects of AT sessions to alter posture in piano players, whereas Kvammen and Hagen (2024) reported positive outcomes of multi-disciplinary AT sessions in terms of increased awareness and embodiment experiences among musical theatre students.

In spite of the increasing research in recent years, most investigations into AT within the music field have focused on its effectiveness in *controlled* situations. For example, Valentine et al. (1995) unveiled participants' views of AT sessions in an imposed situation in which participants were purposefully recruited to take AT sessions. In addition, Lee (2019) compared the provision of AT in five institutions in three different countries (United States of America, Canada and the UK) by exploring the views of five AT teachers and analyzing students' perspectives through existing course evaluations, rather than collecting first-hand feedback directly from students. The current study, part of a larger unpublished doctoral project (Pendenza, 2023)<sup>3</sup>, builds on Lee's (2019) research and investigates UK HE music students' views on AT by unveiling their current, first-hand perspectives on AT. These include insights from music students who have directly experienced AT sessions as well as of those who may have not. Therefore, the following research questions guide this investigation:

- How do UK HE music students, with or without direct experience of AT, understand the nature of AT?
- What factors influence UK HE music students' decisions to participate or not in AT sessions?
- What are UK HE music students' experiences with AT sessions?

Understanding current trends on AT in the UK HE music sector is paramount, particularly in light of the lack of consensus highlighted above regarding the nature of AT. Such variability has implications for the provision of AT and health support for HE music students; specifically, illuminating music students' understanding of AT, their uptake of AT sessions, potential benefits, unhelpful experiences, and AT limitations supports growing understanding of the value of AT in the HE sector.

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<sup>3</sup> This article draws upon Pendenza (2023), incorporating updated literature, discussions, and considerations.

## 2 Methodology and Methods

### 2.1 *Philosophical Underpinning*

This research is guided by a humanistic approach to social reality (Newby, 2014). Considering that this study aims to *describe* and *understand* HE music students' views on AT and their unique experiences, individuals are at the heart of this research. Therefore, a humanistic approach to research best served the purpose of this study, which intended to uncover music students' personal interpretations of AT and their potentially multiple and diverse perspectives on it.

### 2.2 *Research Context*

In this study, AT is investigated in the context of three types of UK HE music institutions: university music departments (UMDs), music conservatories (MCs), and independent higher education music institutions (IHEMIs). The rationale for focussing on the three types of institutions, rather than solely on one, was to explore potential differences in how music students may view and engage with AT based on their specific educational environments. For example, the balance between academic coursework and performance opportunities varies between these institutions, potentially influencing music students' diverse career prospects and aspirations (UCAS, 2024). These diverse perspectives, therefore, can shed light on the varied roles that AT might play within the broader context of HE music education.

### 2.3 *Survey Study Design and Questionnaire Distribution*

Qualitative data were collected through an online anonymous questionnaire to address the challenge of delayed data collection due to COVID-19 restrictions; this approach allowed me to reach a larger number of music students within the research timeframe. I designed an online questionnaire on Qualtrics considering two broad categories of HE music students: those with or without knowledge of AT. With regard to the former category, I considered further variables, such as whether music students had had AT sessions (never, discontinued, or ongoing), the presence or not of AT in their HE UK music institutions, the possibility for music students to compare AT sessions across multiple institutions, diverse teaching contexts (one-to-one and group) and mode of delivery (face-to-face and online). The questionnaire contained a total number of 69 close-ended, open-ended, and multiple-choice questions, with different routes considering the variables identified above.

After a short piloting process, the distribution of the questionnaire started on 25th April 2021 until 31st May 2021. The questionnaire was sent to all of the 79 institutions contained in The Guardian's 2020 music ranking league table<sup>4</sup>, except for a few UK music conservatoires due to ethical approval challenges. The questionnaire was also distributed in an independent UK HE music institution<sup>5</sup> in which it was possible to collect data after a bespoke ethical approval process.

<sup>4</sup> The Guardian (2020) 'Best UK universities for music – League table'. Retrieved from: <https://www.theguardian.com/education/ng-interactive/2020/sep/05/best-uk-universities-for-music-league-table>

<sup>5</sup> To respect the principle of anonymity, the name of the institution cannot be revealed.

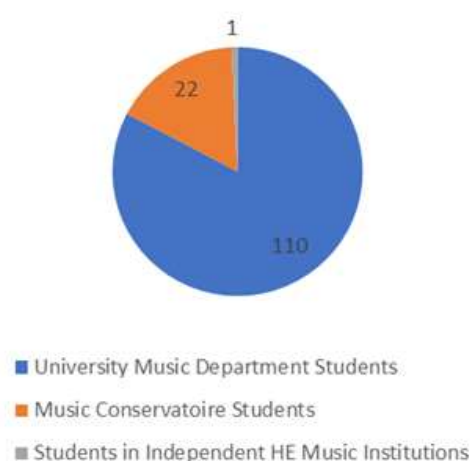
## 2.4 Data Analysis

I imported the questionnaire responses into the data analysis software MAXQDA and analyzed the dataset inductively following the six steps identified by Braun et al. (2019). Codes, subthemes, and themes were generated through an iterative process involving external validation by an academic supervisor to enhance their appropriateness throughout the analysis and writing stages.

## 2.5 Participants

A total number of 133 HE music students responded to the anonymous online questionnaire. While Figure 1 below illustrates the number of music student respondents in relation to the institution they were attending at the time of the questionnaire distribution, Figure 2 displays the proportion of music students with or without knowledge of AT, and with/without experience of AT.

Figure 1. *Number of respondents in relation to the institutions they were attending.*



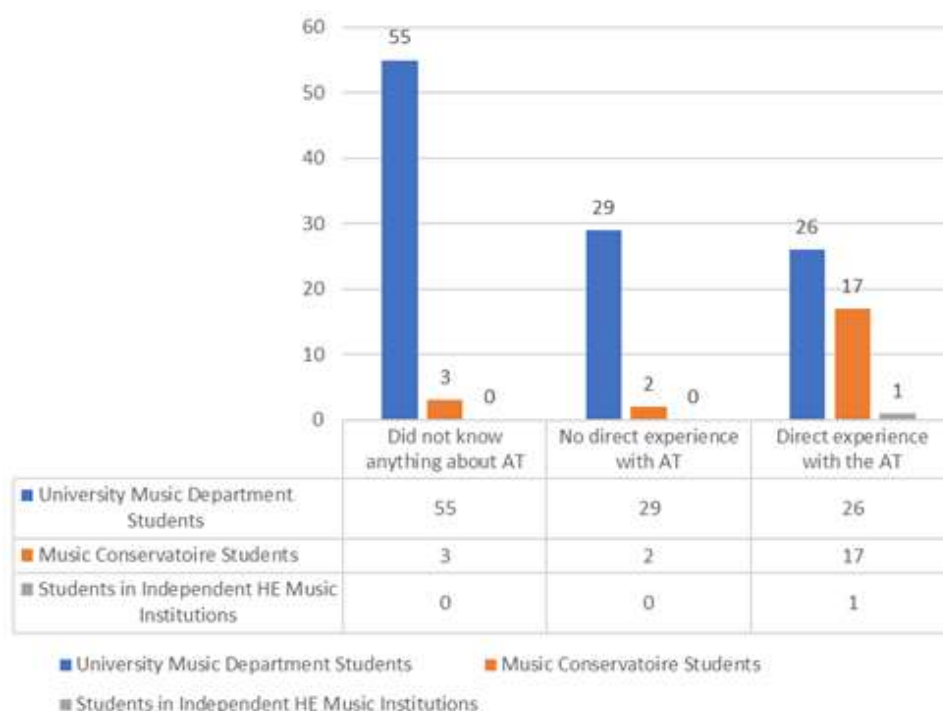
A complete overview of the demographic characteristics is available in Pendenza (2023), Chapter 10, which provides detailed demographic information on respondents' ages, plus the distribution of instruments, the teaching format (individual, group, or both), the mode of delivery (face-to-face, online, or both), the frequency of sessions, and the number of sessions.

## 2.6 Ethics and Reflexivity

This research was granted ethical approval by the Arts and Humanities Ethics Committee at a UK University in November 2019. Ethical approval was received from other UK HE music institutions for data collection, but to maintain anonymity, the names of these institutions cannot be disclosed.

Reflexivity refers to the processes in which researchers 'consider their assumptions about their topic ... and to question how these assumptions have an impact on how data are collected and analyzed' (Williamon et al., 2021, p. 233). Before undertaking

Figure 2. *Proportion of music students (n=133) with/without knowledge of AT, and with/without experience.*



this research, I had taken AT sessions in both institutional and private settings and, therefore, my successful experience with AT created a bias that I needed to manage carefully to achieve an impartial analysis of AT. To address this, I read Alexander's original texts to develop a fresher perspective on AT and designed the different research projects to allow for contrasting views to emerge, making sure to report any unhelpful experiences. My assumptions as a learner of AT were also mitigated through discussions with colleagues and academic supervisors. In addition, I did not undertake any AT sessions during the time of the research, with the intention to portray current views on AT as objectively as possible.

### 3 Findings

This section examines the findings of this study in relation to the following themes: understanding of AT, motivations for taking AT sessions, experienced benefits of AT, and challenges (unhelpful experiences; limitations of AT; risks). Illustrative quotations will exemplify the themes and subthemes identified in the data analysis.<sup>6</sup> Quasi-statistics and semi-quantification are employed to explore the distribution of themes across respondents, ensuring alignment with the nuanced characteristics of qualitative investigations and enabling a thorough interpretation of the data (Maxwell, 2010; Neale, Miller and West, 2014).

<sup>6</sup> The following labelling system will be used to refer to survey respondents: *Type-of-Institution-Student*(UMDS/MCS/IHEMIS)-*Course-Level*(UG/MA/PhD)-*Number-of-the-Respondent*(Rnumber). The meanings of the acronyms for the type of institution are as follows: UMD=University Music Department; MC=Music Conservatoire; IHEMI=Independent Higher Education Music Institution. An example of this labelling system is: UMDS-UG-R01.



### 3.1 *Understanding of AT*

Music students who were familiar with AT, whether or not they had direct experience with AT sessions, were invited to define it to probe into their understanding. In their definitions, respondents made reference to diverse characteristics of AT, which made it challenging to distinguish these qualities as separate or distinct aspects. Students described AT in various ways, ranging from a technique or a method to a set of exercises. While many definitions were tailored to the music field, others related to general physical practices.

Many students *without* direct experience of AT referred to it as a postural technique. UMDS-MA-R68 wrote that AT is ‘some kind of advice given to improve the posture of musicians’. Similarly, MCS-MA-R115 stated: AT is ‘using postural techniques to relieve and minimise strain and excess stress on the body’. Conversely, many students *with* direct experience of AT addressed both the bodily and mental characteristics of AT. UMDS-UG-R91 saw it as ‘technique that is used to help a musician recognise the importance of the connection to their body, mind and the quality of their playing’, whereas MCS-MA-R130 highlighted AT role in dealing with habits: ‘[AT is] letting go of habitual tensions by using the mind to inhibit these reactions and release the muscles’. Other two respondents with direct experience of AT provided more general definitions, addressing AT integration of postural and cognitive elements. UMDS-PhD-R103, for example, wrote: ‘the AT is a somatic method with the goal of creating effortless movement and a flexible and healthy posture. It also has cognitive elements acknowledging the connection between thought being movement’.

However, other students with direct experience of AT referred to AT as a solely body awareness practice, such as MCS-UG-R119: AT is ‘a method of building awareness of the body’. Interestingly, another student, who *had* taken AT sessions, defined AT as ‘a way of improving postural problems’ (MCS-MA-R128), which suggests that generalising views on AT may prove challenging. In fact, UMDS-UG-R61 noticed how their understanding of AT had been affected by other people’s descriptions of AT: ‘From how I have heard others talk of Alexander technique, it is not simply having good posture, it is also a set of ideas that can be made into a lifestyle’. Therefore, understanding of AT depends on multiple factors, such as personal interpretations, individual experiences, and word of mouth, leading to a wide range of perspectives on what AT involves and the potential for discrepancies in its nature.

### 3.2 *Motivations for Taking AT Sessions*

Music students with direct experience of AT reflected on the reasons to take AT sessions. One of the most common reasons for having AT sessions was to increase postural comfort whilst playing. This interconnected with a need for reducing/solving musculoskeletal pain and muscular tension. MCS-PhD-R132 noted: ‘I am always looking for the best way to hold my instrument and to play without pain. I had pinched nerves from playing and reoccurring frozen shoulder which is why I took [AT] lessons originally’. For UMDS-MA-R98, pain was believed to be the result of both academic studies and playing-related factors:

[I started having AT lessons because] I was experiencing back pain from academic study — sitting down and using a laptop for many hours on end; and shoulder and arm pain on my left side from practising the flute every day due to the awkward cross-body posture that flute-playing requires.

Another common reason for having AT sessions was curiosity. MCS-UG-R121 recalled that ‘these lessons were offered by my conservatoire, and I was mostly very curious to try it out’; likewise, UMDS-UG-R85 described that ‘the first lesson I had was out of curiosity as I had never heard of [AT], and I thought I’d check it out’. In some cases, curiosity was sparked by a natural interest in the health and well-being of musicians. MCS-UG-R117, for example, observed: ‘I have always been curious about gaining a better understanding of how our musicianship affects our health (both physical and mental), so I was also intrigued by AT for that reason’.

Many respondents indicated enhancing music performance as a reason for having AT sessions; however, only a few of them provided extensive comments on this. MCS-MA-R130 wrote that they ‘had heard about improvements to playing/singing’ on the Internet, which influenced their decision to take AT sessions. In one case, music performance appeared to be an indirect effect of AT sessions to reduce pain rather than a primary motivation for having them: UMDS-PhD-R102, although they had indicated music performance enhancement as the sole reason for taking AT sessions, wrote that they had started AT lessons because they ‘had tension in [their] playing’. Furthermore, UMDS-UG-R87 mentioned that they had started taking AT sessions to ‘improve [their] scores’.<sup>7</sup>

Prevention of injuries and developing good postural habits were another reason for taking AT sessions according to a few respondents. UMDS-PhD-R104 mentioned:

I was interested and thought it had potential to help me become even more comfortable when playing and also improve my technique and prevent future physical issues, so I attended the introductory sessions at [name of a university music department].

This tied in with MCS-MA-R129 who explained that they ‘had never experienced any [playing-related issues] in any serious form’ but ‘nevertheless felt [AT] could be a useful tool to either prevent or use in case those symptoms did appear’.

Other reasons related to AT as a compulsory component within and outside HE institutional settings. UMDS-UG-R90 wrote that an introductory AT session was a ‘compulsory course for summer school’, whereas MCS-UG-R124 wrote that AT ‘classes were part of [an] undergraduate course’. The student in the IHEMI, on the other hand, said that they had not had ‘a health reason for exploring AT *per se* [emphasis added]’ but that AT had been ‘offered as a continuing professional development opportunity’ (IHEMI-PhD-R133), which highlights the role of HE music institutions in promoting AT and the recognition they may give to it.

Lastly, a few respondents mentioned that they had started having lessons to reduce or solve music performance anxiety. For example, UMDS-UG-R87 had taken AT lessons because of ‘anxiety closing up throat [and] anxiety attacks in performances’. Similarly, MCS-UG-R119 explained that ‘one main reason [to take AT lessons] was a need/want to feel in command of [themselves] when performing and building awareness and presence when playing’. All of these findings, therefore, show the variance of motivations for taking AT sessions among music students, with implications for the provision and promotion of AT within UK HE music institutions.

<sup>7</sup> This respondent is potentially referring to music performance assessments in academic courses.



### 3.3 *Experienced Benefits of AT*

Music students with direct experience on AT sessions commented on the experienced benefits of AT. These were both expected and, in some cases, unexpected. In general, respondents expressed positive feelings about AT, finding it 'useful' (UMDS-UG-R92; MCS-PhD-R131), 'very helpful' (UMDS-PhD-R99; MCS-UG-R122), 'extremely beneficial' (UMDS-UG-R85; UMDS-UG-R118), and 'life-changing' (UMDS-MA-R98). UMDS-MA-R95, after experiencing discomfort at first, found AT lessons interesting: '[it was] awkward at first but [I] was able to engage with it more as it went on'.

According to the music students in this research, body awareness, reduced tension and pain, along with postural comfort, were the most stated benefits of AT sessions. These were interconnected and were perceived to impact music performance positively:

My muscles were very tense while playing (both in practice and performance), for example, my shoulders were constantly raised, my jaw was tensed, and my wrists had very little flexibility. I didn't realise how tense I was until it was pointed out during the sessions ... and simply being made aware of this was a shock. I took a while to get used to trying to relax during practice, but I benefitted greatly and have a great freedom in my playing as a result. (UMDS-PhD-R99)

In one case, this increased body awareness was rather surprising, as UMDS-PhD-R100 described: 'I did not expect to get anything but a quick fix of my knee. Instead, I have had the chance to learn more about both the capabilities of my body and the tensions I experience without realising it'. Regarding postural comfort, UMDS-UG-R89 noted: '[I] found [AT] very interesting and got a lot out of it, with a new look on how I should stand and sit when playing an instrument or singing'. Interestingly, this approach to posture and body awareness was found non-judgmental by one of the music students: 'I got great feedback on my posture but also understood that I wasn't being critiqued for the way my body was and rather [was] just becoming more aware of how my body naturally functioned' (MCS-UG-R127).

Another common benefit was related to performance anxiety. In a few cases this was an expected outcome, whereas in many others it was unexpected. While UMDS-MA-R95 wrote that they had envisaged to 'stay calm when in front of an audience' and AT 'helped with' it, UMDS-PhD-R101 recalled that they had at first thought AT was 'simply relaxation' but later on AT 'helped greatly with performance anxiety, and, due to this, enabled [them] to move into professional music-making'.

Many other respondents were surprised by AT emphasis on a perceived mind-body connection. UMDS-UG-R96 commented: 'over time [AT] became more than just the physical aspects, but also the mental aspects, such as dealing with music performance anxiety, getting yourself in the right mindset for performances', without having previously realized 'how much of a mental aspect there was to AT'. This tied in with MCS-UG-R116's assertion: 'I didn't expect the mental aspect of it all'.

Other students noticed how AT had made a positive impact on their everyday lives. AT, indeed, was viewed to help deal with potentially stressful situations: '[I] was able to apply the techniques to more general life and anxiety faced outside of performance' (UMDS-MA-R95), which raises questions about the potential of AT to support the health and well-being of a number of music students whose interests may lie beyond music performance.

Lastly, a few respondents highlighted the benefits of AT as a transferable skill for both learning and teaching. UMDS-MA-R97 noted that the awareness gained from an AT workshop helped them 'to pick up [a] new instrument without getting into bad habits'. They also mentioned referencing AT when teaching 'students about posture' (UMDS-MA-R97). Similarly, MCS-PhD-R131 mentioned incorporating AT principles into their teaching, which suggests implications of AT-based knowledge for music students who may engage in teaching or may undertake pedagogical training.

### 3.4 *Challenges: Unhelpful Experiences and Limitations of AT*

A few music students expressed mixed or unhelpful experiences about AT, often connected to its nature. UMDS-PhD-R105 found it initially 'useful' but later considered it 'redundant' as they gained confidence and experience as a musician, ultimately deeming it 'pointless'. UMDS-UG-R89 found the experience 'relaxing' but also described it as 'difficult and frustrating' at times, such as the concept of 'non-doing', and felt it had not yielded significant musical results, possibly due to not applying 'the ideas well enough'. On the other hand, MCS-MA-R128 described their experience as just 'okay', attributing their lack of understanding to their young age.

Interestingly, one music student<sup>8</sup> highlighted that their experiences with AT varied depending on the AT teacher. They noted that their experience with the AT teacher at their current HE music institution 'did not help to relieve the physical tensions and postural issues that [they] sought help for and had flagged up' and that 'in this sense it differed greatly from [their] previous experience of AT'. In particular, the student had found the teacher's inquiries into their private life intrusive and irrelevant to what they considered as the purpose of AT sessions.

Other respondents commented on some of the limitations they had experienced with AT sessions. Firstly, one of the limitations related to the extent to which the content of the AT sessions had focused on music. UMDS-PhD-R102 noted: 'I had a few lessons separate to music which were not much help'. Likewise, MCS-MA-R130 indicated that AT lessons had been helpful for physical activities, such as 'swimming and running', but they did not feel that AT had been 'applied directly to musical ideas'. Secondly, a few music students struggled to replicate the results of AT sessions on their own. Among these, UMDS-PhD-R103, who had attended over ten AT sessions biweekly, attributed this difficulty to the type of guidance they received, which ultimately led them to stop attending sessions:

I had a hard time recreating the experience alone, so I eventually stopped taking the lessons ... The main limitation for me was that I was often unable to recreate the experience I had during a lesson when I practised alone because the guidance was quite vague ... [and I] didn't understand what I was supposed to do.

UMDS-MA-R96 likewise expressed frustrations concerning a sense of dependence on the AT teacher rather than the self-regulation which they had hoped to achieve:

I found that ... I'd have this amazing experience during class but couldn't do it on my own, which can lead to a sense of dependency and helplessness, which was exactly what I was trying to work on because I used to feel dependent on my piano teacher.

<sup>8</sup> As explained in Pendenza (2023), it is not possible to display the respondent number for issues of anonymity and confidentiality.

Other limitations concerned AT's application to instrumental/vocal (I/V) practice. One respondent wrote about the challenges in reconciling AT instruction with vocal lessons, highlighting potential friction between AT and I/V teachers: 'some concepts of AT were challenged by my vocal teachers and coaches, who were stating the exact opposite methods of movement/muscle engagement [and what would be] right/helpful' (UMDS-UG-R124).

Despite the mixed/negative experiences and perceived AT limitations, AT was generally felt as a safe practice. Many respondents did not envisage or were unaware of any risks associated with AT: 'I don't see any risks', UMDS-MA-R95 wrote. This feeling was echoed by MCS-MA-R130 who illustrated: 'nothing comes to my mind'. Other respondents speculated on the potential risks of AT, such as 'not having a good AT teacher' (MCS-UG-R10) or 'if the practitioner wasn't qualified to deliver lessons (UMDS-MA-R97). Indeed, a high level of professionalism was considered paramount to deal with hands-on guidance in a sensible manner: 'AT lessons can also be intimate, so it is important that the practitioner is someone who can be trusted', UMDS-MA-R97 emphasized. Similarly, IHEMIS-PhD-R133 mentioned that 'safeguarding and wellbeing must be upheld' considering the 'inevitable touching of students'. Therefore, the need for an appropriate teacher was put forward. As UMDS-MA-R96 argued: 'I think the teacher has to be right for you'; nonetheless, they continued that 'there's so much variability between teachers that it's hard to generalise', drawing attention to diversity in AT teaching approaches and AT teachers' individual traits.

#### 4 Discussion

The findings presented above emphasize the complexity and variability in music students' understanding of AT. This is reflected in the number of definitions and perspectives provided by the music students in this research. The high number of UMD students with a lack of familiarity with AT may suggest that AT may be more widespread in music specialist institutions, such as MCs, rather than UMDs (see Figure 2). However, this cannot be concluded given the imbalance between the UMD and MC respondents, so such comparisons could be explored further.

Although direct experience with AT may result in a deeper understanding of AT, this correlation is not clear-cut, with findings suggesting the multifaceted nature of AT and the potential challenges in grasping it fully. While music students *without* direct experience of AT described it as a postural practice aimed at relieving and minimising bodily tension, those *with* direct experience of AT focussed their definition on the psychophysical elements of AT. This suggests that direct engagement with AT sessions may lead to a more nuanced and thorough understanding of AT going beyond a surface-level description of AT as a primarily postural corrector.

However, findings also showed that there are variances of views even among students *with* direct experience of AT. MCS-MA-R128's description of AT as a primarily postural practice highlights that a direct experience of AT may not necessarily lead to an understanding of AT as a psychophysical practice, with a number of factors potentially contributing to the way AT is understood. Social influences and word of mouth impact the understanding of AT: while second-hand knowledge may be beneficial for the promotion of AT in UK HE music contexts (Pendenza, 2023), it may lead to misunderstandings or a partial understanding of AT, especially considering how subjectivity directly affects interpretations of AT. This subjectivity extends to AT

teachers' approaches to AT, which could lead to surface-level interpretations. As Nobes (2020) explained,

Some "traditional" Alexander teachers use "chairwork" as a teaching method, and it is very easy to mistake the point of it as learning how to stand and sit well. But what they are teaching is not a different way of getting out of a chair, it's a way of switching on a mind/body aliveness, which leads to natural movement and to standing and sitting effortlessly. (p. 5)

Therefore, these findings have consequences for the communication of AT within HE music institutions, the wider music sector, as well as the broader AT community, highlighting the need for careful consideration of the ways in which AT is communicated to ensure its understanding. For example, the AT community may work closely with HE music institutions to update current promotional and educational materials about AT, while also reassessing its own communication strategies to address potential inconsistencies in marketing materials.

This study showed that the motivations for taking AT sessions among music students in UK HE music institutions were diverse. One of the most common reasons for undertaking AT sessions was postural comfort and the reduction of musculoskeletal disorders. Depending on the respondent, these issues were the result of either music playing and/or academic studies, such as prolonged computer use. These findings are consistent with previous research on playing-related musculoskeletal disorders among music students (Kok et al., 2013) and the effectiveness of AT in reducing back pain (Little et al., 2008), highlighting the primary concerns and issues of music students studying in tertiary-level institutions that extend beyond playing-related issues. Therefore, these insights into music students' experience of AT suggests that AT can serve as a valuable support practice, with implications for the provision of AT not only as a form of support for music students undertaking music performance degrees but also for those undertaking theoretical pathways. This wider support aligns with the nature of AT as a transferable practice with potentially many applications (Kinsey et al., 2021), although more robust evidence is needed (NHS, 2021).

Another common reason for having AT sessions was curiosity in AT and trying out something new. In some instances, this curiosity was sparked by a general interest in the health and well-being of musicians. It could be speculated that developing such interest among music students may result in a likelihood of generating an interest in AT within those institutions who provide health and well-being courses and offer AT sessions; however, there is not enough evidence to strongly support this, and further research is needed.

Although enhancing music performance was reported as another motivation for taking part in AT sessions, the anticipated music performance benefits seemed to be attributed to reduced muscular tension rather than perceived inherent qualities of AT as a music-performance-enhancement tool. This suggests that the promotion of AT may need to emphasize its potential advantages for those who may not have immediate physical issues but could still benefit from AT. In fact, findings showed that only a few music students had taken AT sessions to prevent injuries and develop good habits. Although prevention is at the core of AT philosophy (Alexander, 1923), and previous studies on the health and well-being of musicians have highlighted the importance of preventative practices and behaviours (Zander, Voltmer and Spahn, 2010), this study highlights the view that AT may be more commonly understood by the music students in some UK HE institutions as a treatment to reduce stiffness and muscular tension rather than as

an educational discipline, as discussed in some literature on AT (for example, Woods, Glover and Woodman, 2020). Therefore, these findings support a need for action within the AT community to develop a more comprehensive understanding of AT in the UK HE music sector and more widely, with implications for its implementation and value (Pendenza, 2023).

It is interesting to note that one of the respondents, UMDS-UG-R87, took AT sessions to improve their marks, potentially in reference to music performance assessments. This leads to considerations about the equality of AT opportunities in those HE music institutions providing music performance degrees in which AT sessions are available but are entirely funded by students. If AT sessions are supposed to lead to enhanced music performance (Davies, 2020a; Davies, 2020b), such provision may create disparity between those music students who can afford AT sessions and those who cannot. It is possible that music students may still undertake AT sessions through an external private provider and benefit from this. In addition, even if institutions offered an equal number of AT sessions to all students, those with more financial resources could still pay for additional sessions; nonetheless, inequality arises when it is the institution *itself* that may unintentionally cause this through offering AT as a solely “pay-for-it-yourself” option. It is therefore recommended that a minimum level of equality be guaranteed, while ensuring that the arrangement remains effective in producing meaningful outcomes.

As detailed above, a few respondents took AT sessions because AT was a mandatory component in a summer music course or a UK music conservatoire. While the limited prevalence of this factor indicates that AT may generally be additional to the music curriculum, the absence of mention of UMDs implies that AT may be considered more integral to music conservatoire curricula rather than to the university music programs. However, Pendenza (2023) noted that UK music universities and conservatoires may face similar challenges in the provision of AT, regardless of the recognition of AT within the sector. For example, budgetary constraints can impact the provision of AT in both contexts; in addition, the provision of AT in UK music conservatoires varies significantly among institutions (Pendenza, 2023). Therefore, although it is not possible to draw such conclusions about the importance of AT in these different educational settings based on these findings, they do generate reflections on how AT may be valued and integrated into diverse educational settings. For example, the fact that the PhD student in an IHEMI took AT sessions as part of their Continuous Professional Development does raise questions about the value that some institutions place on AT and the health and well-being of their music students or employees, as well as the feasibility of providing AT regular provision when budget constraints limit spending across the whole UK HE sector (Adams, 2024).

Findings revealed that AT sessions had been a positive experience for the majority of the music students in this research. The fact that in one instance the level of comfort had increased over time suggests that for some students it may take time to engage with AT, highlighting the importance for AT teachers to provide extra care to introduce and teach AT so that students could benefit fully from it. The wide-ranging benefits, from increased body awareness and reduced pain to enhanced music performance and reduced performance anxiety, are consistent with previous research studies on the effectiveness of AT (Davies 2020b; Klein et al., 2014; Valentine et al., 1995). In addition, some respondents found AT useful to deal with everyday challenges, aligning with anecdotal evidence in Lee’s (2019) research showing that AT had ‘provided a practical



living skill to deal with various life situations' (p. 116). Further empirical evidence could explore the longitudinal effect of AT sessions.

Furthermore, this study revealed that AT was viewed by some respondents as a transferable skill to their own I/V teaching practice. Such benefits can be attributed to the AT focus on developing *skills* and *processes* applicable to various aspects of life, rather than involving a set of passive exercises (STAT, 2024a). This is interesting as it highlights the potential value of appropriate AT-based content for music students who may develop an interest in teaching and may benefit from integrating AT-informed knowledge into their teaching practices. However, it poses questions about the viability of such content due to the risks associated with providing and transferring AT knowledge without proper qualification from an accredited AT organisation (STAT, 2024b).

The physical benefits of AT largely aligned with music students' expected outcomes, whereas the mental aspects of AT deviated from their expectations, with respondents finding the AT body-mind connection surprising. This may explain why a low number of music students had taken AT sessions to solve performance anxiety issues. It is possible that music students found the support from their teachers sufficient to deal with those issues, as instrumental teachers are often the first source of support with regard to health and well-being concerns (Williamon and Thompson, 2006). There may also be a widespread view that AT is primarily a postural practice rather than a psychophysical one. Unfortunately, it is not possible to compare these findings with those of other previous studies due to the lack of research investigating views on AT. However, considering the number of psychophysical outcomes of AT identified by Kinsey et al. (2021), as well as those related to embodiment and increased psychophysical awareness by Kvammen and Hagen (2024), the findings of the current study again highlight implications for the communication of AT within and beyond the UK HE music sector, with future studies investigating the effectiveness of AT in supporting music students on various levels.

This study found that while the majority of music students found AT beneficial, a few had mixed and/or negative feelings about it. Based on the current dataset, it is difficult to draw a strong conclusion as to why UMDS-PhD-R105 had initially found AT 'useful' and then 'redundant' and 'pointless'. This shift might be related to aspects such as the student's personality, the kind of AT teaching received, any overlap between the I/V and AT teachers' approaches, and/or a process of internalization of AT-based processes. It is also possible that the benefits of AT became more subtle over time, making them difficult to recognize. Although these are speculations given the lack of previous research on this matter, such view is useful to further identify factors that may influence students' long-term attitudes towards AT.

In addition, it was interesting that one of the students had found one of the core principles of AT, the "non-doing" (Alexander, 1923), to be 'frustrating'. While there are situations where appropriate discomfort leads to reflective processes and development (Woolley and Fishbach, 2022), it is recommended that AT teachers explain concepts in ways that consider the different responses that individuals may have to challenges and new situations. This adaptability to individual students also relates to age, with implications going beyond the HE music sector, as Bosanquet (1987) advocated the importance of AT to all levels of music education. The fact that MCS-MA-R128 felt that they had not understood the nature of AT due to their young age highlights the importance of tailoring AT concepts to be age-appropriate. Considering that students' understanding of AT can shape their engagement with AT over time, with repercussions



on how AT is understood within the HE music sector, it is important that key AT concepts are explained in ways that align with students' developmental stages. For example, young music students may benefit from straightforward explanations that make concepts, such as “non-doing” or “end-gaining”, more accessible.

Findings also indicated that AT teachers' approaches to AT impact music students' experiences with AT. The view that an intrusive teaching approach might be considered as inappropriate highlights potential inconsistencies in how AT is taught. De Alcantara (1997) explained that although emotional instability may occur during AT sessions, AT teachers may 'risk losing sight of the actual goals of the Alexander Technique, *goals which may well diverge from those of psychotherapy*' (p. 83, original emphasis). Likewise, Kinsey et al. (2021) highlighted that AT teachers should not function as counsellors or therapists, but they would still benefit from training that helps them address learners' emotional issues empathetically. On the other hand, in alignment with NHS (2021) and Little et al. (2014), AT was considered a safe practice by the majority of music respondents in this study. However, potential issues around safeguarding were advanced by a few music students, particularly concerning the AT hands-on emphasis (de Alcantara, 1997). Therefore, all of these findings call for the development of safeguarding policies and the further professionalisation of AT teachers, especially given the lack of a standardized code of practice regulating AT sessions in the UK HE music sector. In particular, such policies should address concerns related to hands-on work, ensuring that it is implemented safely and ethically while maintaining the effectiveness of AT.

Findings revealed some of the limitations music students had experienced with AT sessions. One of these is related to the content of AT sessions. Sessions focussing on music-specific activities were perceived by two music students to be more effective than those centred on non-music specific tasks. This supports Davies' (2020b) view that an AT curriculum tailored for music students is beneficial across a number of factors, such as health and performance. However, there is debate within the AT community around the use of a direct application approach to AT, which addresses complex activities such as music playing right from the beginning, or a classical approach, which starts with basic skills before moving to complex activities (Fischer, 2022). The classical approach seems to align with Alexander's principle of end-gaining (Alexander, 1910), which focuses on the means of achieving movement rather than just the end goal. Rootberg (2011) also noticed that singers who had learned AT principles thoroughly before applying them to singing were more satisfied and committed in the long run. Therefore, the current research highlights a need for longitudinal studies comparing the long-term effectiveness of these approaches in the HE music sector.

Another limitation of AT mentioned by a few music students was the challenge of replicating the AT experience in their own individual practice. The view that this issue was the result of vague instruction may be explained by the experiential nature of AT, where early learning may depend on the AT teacher's guidance offering a new sensory experience (see Pendenza, 2023, section 4.2.3, with regard to AT teachers' views on AT as an embodied practice and the difficulty to define it). It was surprising that this limitation was described by a few students who had attended over ten AT individual and group sessions, raising questions about how many sessions are needed for students to achieve self-independent learning skills. Factors such as the frequency of AT sessions (i.e. biweekly), the AT teacher's teaching approaches used, or the group size may have affected students' ability to replicate the outcomes achieved in the sessions. It is however possible that a multi-disciplinary approach to AT (e.g. combining music and

AT) in diverse teaching contexts (individual and group) may lead to increased self-regulated processes (Kvammen and Hagen, 2024). Therefore, these findings highlight the need for developing independent learning skills in AT, reinforcing the need for research investigating further the factors leading to AT self-regulatory skills in the context of music practice.

Lastly, this study highlighted the struggles to integrate AT with I/V techniques, questioning the integration of AT into music teaching. Given the benefits of cross-collaborations between instrumental and AT teachers (Fox and Romaniuk, 2021), this finding suggests that collaboration between I/V and AT teachers could be beneficial to nurture approaches that harmoniously combine both disciplines, reducing potential confusion and enhancing effectiveness for music students. However, this raises further questions about the feasibility of such integration into the HE music sector, considering factors including I/V and AT teachers' personalities, students' personal traits, and logistical challenges that could impact its effectiveness (Pendenza, 2023).

## 5 Conclusion: Final Remarks, Limitations, and Further Research

This study explored the varied understanding of AT among music students in some UK HE music institutions: university music departments, music conservatoires, and one independent HE music institution. AT was generally perceived as beneficial for alleviating musculoskeletal issues and enhancing postural comfort and bodily awareness, yet the broader psychophysical nature of AT and its wider applications to different areas of life - acknowledged in some AT literature and by some music students - remain under-recognized by many music respondents. Although the study revealed that a direct experience with AT sessions often leads to a more nuanced understanding of the psychophysical elements of AT, views differ even among music students who have taken AT sessions. It is for this reason that this study supports the notion that multiple ATs coexist. In fact, factors such as social influences and variations in AT teaching approaches were shown to impact music students' understanding and experiences of AT. While more robust evidence is needed to support the wider applications of AT, these findings suggest a need for enhanced communication of AT within the UK HE music sector. Not only has this implications for the uptake of AT sessions by music students, with or without an interest in music performance, but also for the AT wider community which may need to address such issues in current regulations and training courses. Future research could investigate these areas through interviews to generate richer data, potentially yielding new insights.

The diverse motivations for engaging with AT sessions highlight some of the issues music students face through their studies and what may pique their interest in AT, such as postural comfort, curiosity, and music performance. While these findings have implications for the promotion and provision of AT in the HE music sector, they raise concerns about inequality of access, especially if AT sessions are proven effective in enhancing music students' performance but are only offered on a pay-it-yourself basis. Therefore, institutional discussions around equality of access are recommended to ensure equitable opportunities for music students, considering that financial barriers may limit access to AT sessions.

This study also found that AT was considered a risk-free practice. Nonetheless, findings showed that safeguarding considerations are paramount in the provision of AT. Institutions planning to offer AT sessions should establish clear guidelines and measures to support both music students and certified AT teachers, ensuring a safe

and protected environment. Such policies could be developed in communication with AT recognized organisations providing AT training, with discussions around professional development courses and monitoring practices.

Lastly, the limitations of the AT identified by a few music students regarding the replicability of AT benefits and its integration into music practice point to discussions around the use of AT within and beyond the music practice. Considering that this study was based on respondents' accounts on their experiences of AT at a specific point in time (for example, during the COVID-19 pandemic), this study calls for further studies investigating the longitudinal impact of AT sessions on music students, the effectiveness and comparison of diverse AT teaching approaches, and teaching arrangements (for example, a triadic lesson) involving AT teachers, instrumental/vocal teachers, and music students. Since it was not possible to collect data in some UK institutions, further studies could investigate such aspects in relation to specific institutional contexts, as well as in different countries and education environments. Such investigations have also the potential to draw comparisons between diverse musical cultures (classical, popular, or traditional music), offering valuable insights for a comprehensive understanding of AT and its implications for the health support of music students in the UK and globally.

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## References

- Adams, R. (2024) 'English universities face autumn 'tipping point' as financial crisis looms', *The Guardian*, 9 August. Available at: <https://www.theguardian.com/education/article/2024/aug/09/english-universities-face-autumn-tipping-point-as-financial-crisis-looms> (Accessed: 02 September 2024).
- Alexander, F. M. (1910) *Man's supreme inheritance: Conscious guidance and control in relation to human evolution in civilization*. London: Chaterson Ltd, 1946.
- Alexander, F. M. (1923) *Constructive conscious control of the individual*. London: Victor Gollancz Ltd, 1987.
- Alexander, F. M. (1932) *The use of the self: Its conscious direction in relation to diagnosis, functioning and the control of reaction*. London: Victor Gollancz Ltd, 1990.
- Alexander, F. M. (1946) *The universal constant in living*. London: Mouritz, 2015.
- Baadjou, V. A. E., Roussel, N. A., Verbunt, J. A. M. C. F., Smeets, R. J. E. M. and de Bie, R. A. (2016) 'Systematic review: Risk factors for musculoskeletal disorders in musicians', *Occupational medicine (Oxford, England)*, 66(8), pp. 614–622. doi: <https://doi.org/10.1093/occmed/kqw052>
- Becker, J. J., Copeland, S. L., Botterbusch, E. L. and Cohen, R. G. (2018) 'Preliminary evidence for feasibility, efficacy, and mechanisms of Alexander technique group classes for chronic neck pain', *Complementary Therapies in Medicine*, 39, pp. 80–86. doi: <https://doi.org/10.1016/j.ctim.2018.05.012>
- Bosanquet, R. C. (1987) 'The Alexander principle and its importance to music education', *British Journal of Music Education*, 4(3), pp. 229–242. doi: <https://doi.org/10.1017/S0265051700006069>

- Braun, V., Clarke, V., Hayfield, N. and Terry, G. (2019) 'Thematic analysis' in *Handbook of research methods in health social sciences*. Edited by Pranee Liamputtong, 113–128. Singapore: Springer Nature Singapore Pte Ltd.
- Cacciatore, T. W., Gurfinkel, V. S., Horak, F. B., Cordo, P. J. and Ames, K. E. (2011) 'Increased dynamic regulation of postural tone through Alexander Technique training', *Human Movement Science*, 30(1), pp. 74–89. doi: <https://doi.org/10.1016/j.humov.2010.10.002>
- Cacciatore, T. W., Johnson, P. M. and Cohen, R. G. (2020) 'Potential mechanisms of the Alexander Technique: Toward a comprehensive neurophysiological model'. *Kinesiology Review*, 9(3), pp. 199–213. Available at: <https://journals.humankinetics.com/view/journals/krij/9/3/article-p199.xml> (Accessed: 10 July 2024).
- Cammarota, G., Masala, G., Cianci, R., Palli, D., Capaccio, P., Schindler, A., Cuoco, L., Galli, J., Ierardi, E., Cannizzaro, O., Caselli, M., Dore, M. P., Bendinelli, B. and Gasbarrini, G. (2007) 'Reflux symptoms in professional opera choristers', *Gastroenterology*, 132(3), pp. 890–898. doi: <https://doi.org/10.1053/j.gastro.2007.01.047>
- Cole, A. J. (2022) *Marjorie Barstow and the Alexander Technique: Critical thinking in performing arts pedagogy*. Singapore: Palgrave Macmillan. doi: <https://doi.org/10.1007/978-981-16-5256-1>
- Cruder, C., Falla, D., Mangili, F., Azzimonti, L., Araújo, L. S., Williamon A. and Barbero, M. (2018) 'Profiling the location and extent of musicians' pain using digital pain drawings', *Pain Practice*, 18(1), pp. 53–66. doi: <https://doi.org/10.1111/papr.12581>
- Davies, J. (2020a) 'Alexander Technique classes for tertiary music students: Student and teacher evaluations of pre- and post-test audiovisual recordings', *International Journal of Music Education*, 38(2), pp. 194–207. doi: <https://doi.org/10.1177/0255761419880007>
- Davies, J. (2020b) 'Alexander Technique classes improve pain and performance factors in tertiary music students', *Journal of Bodywork and Movement Therapies*, 24(1), pp. 1–7. doi: <https://doi.org/10.1016/j.jbmt.2019.04.006>
- de Alcantara, P. (1997) *Indirect procedures: A musician's guide to the Alexander Technique*. Oxford: Oxford University Press.
- Détári, A. and Egermann, H. (2022) 'Towards a holistic understanding of musician's focal dystonia: Educational factors and mistake rumination contribute to the risk of developing the disorder', *Frontiers in Psychology*, 13, 882966, pp. 1–13. doi: <https://doi.org/10.3389/fpsyg.2022.882966>
- Fischer, J. M. O. (2022) *Application approach*. Available at: <https://mouritz.org/companion/article/application-approach> (Accessed: 02 September 2024).
- Fox, D. B. and Romaniuk, S. (2021) 'The embodied musician: An integrated approach to Alexander Technique and collegiate music performance instruction', *Journal of Performing Arts Leadership in Higher Education*, XII, 4–22. Available at: [https://cnu.edu/jpalhe/pdf/jpalhe\\_volume12.pdf](https://cnu.edu/jpalhe/pdf/jpalhe_volume12.pdf) (Accessed: 02 September 2024).
- Hildebrandt, H., Nübling, M., and Candia, V. (2012) 'Increment of fatigue, depression, and stage fright during the first year of high-level education in music students', *Medical Problems of Performing Artists*, 27(1), pp. 43–48. doi: <https://doi.org/10.21091/mppa.2012.1008>
- Kenny, D. T., Driscoll, T. and Ackermann, B. (2014) 'Psychological well-being in professional orchestral musicians in Australia: A descriptive population study', *Psychology of Music*, 42(2), pp. 210–232. doi: <https://doi.org/10.1177/0305735612463950>
- Kinsey, D., Glover, L. and Wadehul, F. (2021) 'How does the Alexander Technique lead to psychological and non-physical outcomes? A realist review', *European Journal of Integrative Medicine*, 46, pp. 1–10. doi: <https://doi.org/10.1016/j.eujim.2021.101371>
- Klein, S. D., Bayard, C. and Wolf, U. (2014) 'The Alexander Technique and musicians: A systematic review of controlled trials', *BMC Complementary and Alternative Medicine*, 14(1), pp. 1–11. doi: <https://doi.org/10.1186/1472-6882-14-41>

- Kleinman, J. and Buckocke, P. (2013) *The Alexander Technique for musicians*. London: Bloomsbury.
- Kok, L. M., Huisstede, B. M., Voorn, V. M., Schoones, J. W. and Nelissen, R. G. (2016) 'The occurrence of musculoskeletal complaints among professional musicians: A systematic review', *International Archives of Occupational and Environmental Health*, 89(3), pp. 373–396. doi: <https://doi.org/10.1007/s00420-015-1090-6>
- Kok, L. M., Vliet Vlieland, T. P., Fiocco, M., Kaptein, A. A. and Nelissen, R. G. (2013) 'Musicians' illness perceptions of musculoskeletal complaints', *Clinical Rheumatology*, 32(4), pp. 487–492. doi: <https://doi.org/10.1007/s10067-013-2199-1>
- Kvammen, A. C. R. and Hagen, J. K. (2024) 'I'll figure it out myself! Musical theatre students' enhanced knowledge of embodied learning processes through application of the Alexander Technique', *Nordic Research in Music Education*, 5, pp. 90–110. doi: <https://doi.org/10.23865/nrme.v5.5650>
- Lee, M. (2019) *Forward and up: An exploration of implementations of the Alexander Technique in post-secondary music institutions*. London: The University of Western Ontario. Unpublished.
- Little, J., Geraghty, A. W. A., Nicholls, C. and Little, P. (2022) 'Findings from the development and implementation of a novel course consisting of both group and individual Alexander Technique lessons for low back pain', *BMJ Open*, 12(1), e039399. doi: <https://doi.org/10.1136/bmjopen-2020-039399>
- Little, P., Lewith, G., Webley, F., Evans, M., Beattie, A., Middleton, K., Barnett, J., Ballard, K., Oxford, F., Smith, P., Yardley, L., Hollinghurst, S. and Sharp, D. (2008) 'Randomised controlled trial of Alexander technique lessons, exercise, and massage (ATEAM) for chronic and recurrent back pain', *BMJ*, 337, article a2656, pp. 1–8. doi: <https://doi.org/10.1136/bmj.a884>
- Little, P., Stuart, B., Stokes, M., Nicholls, C., Roberts, L., Preece, S., Cacciatore, T., Brown, S., Lewith, G., Geraghty, A., Yardley, L., O'Reilly, G., Chalk, C., Sharp, D. and Smith, P. (2014) 'Alexander technique and supervised physiotherapy exercises in back pain (ASPEN): A four-group randomised feasibility trial', *Efficacy and Mechanism Evaluation*, 1(2). doi: <https://doi.org/10.3310/eme01020>
- Loo, F. Y., Evens, G. I., Hashim, M. N. and Loo, F. C. (2015) 'Tension release in piano playing: Teaching Alexander Technique to undergraduate piano majors', *Procedia - Social and Behavioral Sciences*, 174, pp. 2413–417. doi: <https://doi.org/10.1016/j.sbspro.2015.01.910>
- MacPherson, H., Tilbrook, H., Richmond, S., Woodman, J., Ballard, K., Atkin, K., Bland, M., Eldred, J., Essex, H., Hewitt, C., Hopton, A., Keding, A., Lansdown, H., Parrott, S., Torgerson, D., Wenham, A. and Watt, I. (2015) 'Alexander Technique lessons or acupuncture sessions for persons with chronic neck pain: A randomized trial', *Annals of Internal Medicine*, 163(9), pp. 653–662. doi: <https://doi.org/10.7326/M15-0667>
- Matei, R., Broad, S., Goldbart, J. and Ginsborg, J. (2018) 'Health education for musicians', *Frontiers in Psychology*, 9, pp. 1–17. doi: <https://doi.org/10.3389/fpsyg.2018.01137>
- Matei, R. (2019) *Better practice: Health promotion in the music conservatoire*. Manchester: Manchester Metropolitan University in collaboration with The Royal Northern College of Music. Available at: <https://espace.mmu.ac.uk/id/eprint/622806> (Accessed: 02 September 2024).
- Maxwell, J. A. (2010) 'Using numbers in qualitative research', *Qualitative Enquiry*, 16(6), pp. 475–482. doi: <https://doi.org/10.1177/1077800410364740>
- Neale, P., Miller, P. and West, R. (2014) 'Reporting quantitative information in qualitative research: Guidance for authors and reviewers', *Addiction*, 109(2), pp. 175–176. doi: <https://doi.org/10.1111/add.12408>
- Newby, P. (2014) *Research methods for education*. London: Pearson Education Limited.



- NHS (2021) *Alexander Technique*. Available at: <https://www.nhs.uk/conditions/alexander-technique/> (Accessed: 30 August 2024).
- Nobes, P. (2020) *Mindfulness in 3D: Alexander Technique for the 21st century*. UK: The Real Press.
- Norton, N. C. (2016) *Health promotion in instrumental and vocal music lessons: The teacher's perspective*. Manchester Metropolitan University. Unpublished. Available at: <https://e-space.mmu.ac.uk/id/eprint/494> (Accessed: 02 September 2024).
- Pendenza, F. (2023) *The perceptions of Alexander Technique in UK higher education music institutions: Alexander Technique teachers, instrumental/vocal teachers, and music students*. York: University of York. Unpublished. Available at: <https://etheses.whiterose.ac.uk/33089/> (Accessed: 02 September 2024).
- Perkins, R., Reid, H., Araújo, L. S., Clark, T. and Williamon, A. (2017) 'Perceived enablers and barriers to optimal health among music students: A qualitative study in the music conservatoire setting', *Frontiers in Psychology*, 8, article 968, pp. 1–15. doi: <https://doi.org/10.3389/fpsyg.2017.00968>
- Robson, K. E. and Kenny, D. T. (2017) 'Music performance anxiety in ensemble rehearsals and concerts: A comparison of music and non-music major undergraduate musicians', *Psychology of Music*, 45(6), pp. 868–885. doi: <https://doi.org/10.1177/0305735617693472>
- Rootberg, R. (2011) "End-gaining" and the "Means-Whereby": Discovering the best process to achieve goals of vocal training and pedagogy using the Alexander Technique', *Voice and Speech Review*, 7(1), pp. 157–163. doi: <https://doi.org/10.1080/23268263.2011.10739536>
- Rosenberg, B. (2008) 'The Alexander Technique and somatic education', *Somatics*, XV(4), pp. 34–38. Available at: <https://www.alexandertechnique.be/AT/wp-content/uploads/2018/10/RB-AT-and-Somatic-Education.pdf> (Accessed: 16 September 2024).
- Rosset i Llobet, J. and Odam, G. (2007). *The musician's body: A maintenance manual for peak performance*. London: Guildhall School of Music and Ashgate Publishing Limited.
- Saunderson, J. and Woodman, J. (2015) 'Alexander Technique' in *The SAGE Encyclopedia of Theory in Counselling and Psychotherapy*. Edited by Edward S. Neukrug, 40–44. United States of America, SAGE Publications, Inc. doi: <https://dx.doi.org/10.4135/9781483346502>
- Steinmetz, A., Möller, H., Seidel, W., and Rigotti, T. (2012) 'Playing-related musculoskeletal disorders in music students-associated musculoskeletal signs', *European Journal of Physical and Rehabilitation Medicine*, 48(4), pp. 625–633. Available at: <https://pubmed.ncbi.nlm.nih.gov/23138678/> (Accessed: 02 September 2024).
- Steinmetz, A., Möller, H., Seidel, W. and Rigotti, T. (2012) 'Playing-related musculoskeletal disorders in music students-associated musculoskeletal signs', *European Journal of Physical and Rehabilitation Medicine*, 48(4), pp. 625–633. Available at: <https://pubmed.ncbi.nlm.nih.gov/23138678/> (Accessed: 02 September 2024).
- The Institute of Contemporary Music Performance (2024) *The Alexander Technique*. Available at: <https://www.icmp.ac.uk/student-experience/alexander-technique> (Accessed: 02 September 2024).
- The Society of Teachers of the Alexander Technique [STAT] (2024a) *Alexander Technique*. Available at: <https://alexandertechnique.co.uk/> (Accessed: 02 September 2024).
- The Society of Teachers of the Alexander Technique [STAT] (2024b) *Professional standards*. Available at: <https://alexandertechnique.co.uk/content/professional-standards> (Accessed: 02 September 2024).
- The Society of Teachers of the Alexander Technique [STAT] (2024c) *Where is the Alexander Technique taught?* Available at: <https://alexandertechnique.co.uk/education/wherealexander-technique-taught> (Accessed: 02 September 2024).



- UCAS (2024) *Is conservatoire study right for me?*. Available at: <https://www.ucas.com/conservatoires/conservatoire-study-right-me> (Accessed: 02 September 2024).
- Valentine, E., Kleinman, J. and Buckoke, P. (2022) 'The Alexander Technique', in *The Oxford Handbook of Music Performance*. Vol. 2. Edited by Gary E. McPherson, 22–41. doi: <https://doi.org/10.1093/oxfordhb/9780190058869.001.0001>
- Valentine, E. R., Fitzgerald, D. F. P., Gorton, T. L., Hudson, J. A. and Symonds, E. R. C. (1995) 'The effect of lessons in the Alexander technique on music performance in high and low stress situations', *Psychology of Music*, 23(2), pp. 129–141. doi: <https://doi.org/10.1177/0305735695232002>
- Watson, A. H. D. (2009) *The biology of musical performance and performance-related injury*. Lanham, MD, United States: The Scarecrow Press Inc.
- Williamon, A., Ginsborg, J., Perkins, R. and Waddell, G. (2021) *Performing music research: Methods in music education, psychology, and performance science*. Oxford: Oxford University Press. doi: <https://doi.org/10.1093/oso/9780198714545.001.0001>
- Williamon, A. and Thompson, S. (2006) 'Awareness and incidence of health problems among conservatoire students', *Psychology of Music*, 34(4), pp. 411–430. doi: <https://doi.org/10.1177/0305735606067150>
- Wong, G. K., Comeau, G., Russell, D. and Huta, V. (2023) 'The effect of lessons in the Alexander Technique on pianists' posture during performance', *Musicae Scientiae*, 28(1), pp. 159–173. doi: <https://doi.org/10.1177/10298649231172928>
- Woods, C., Glover, L. and Woodman, J. (2020) 'An education for life: The process of learning the Alexander Technique', *Kinesiology Review*, 9(3), pp. 190–198. doi: <https://doi.org/10.1123/KR.2020-0020>
- Woolley, K. and Fishbach, A. (2022) 'Motivating personal growth by seeking discomfort', *Psychological Science*, 33(4), pp. 510–523. doi: <https://doi.org/10.1177/09567976211044685>
- Zander, M. F., Voltmer, E. and Spahn, C. (2010) 'Health promotion and prevention in higher music education: Results of a longitudinal study', *Medical Problems of Performing Artists*, 25(2), pp. 54–65. Available at: <https://pubmed.ncbi.nlm.nih.gov/20795333/> (Accessed: 01 September 2024).
- Zaza, C. (1998) 'Playing-related musculoskeletal disorders in musicians: a systematic review of incidence and prevalence', *CMAJ: Canadian Medical Association Journal = journal de l'Association medicale canadienne*, 158(8), pp. 1019–1025. Available at: <https://pubmed.ncbi.nlm.nih.gov/9580730> (Accessed: 02 September 2024).