Article:
Suzuki, A. and Pitts, S. orcid.org/0000-0003-1430-5801 (2024) Towards effective performance psychology interventions in tertiary music education: an exploration of students' experiences, attitudes, and preferences. Psychology of Music, 52 (4). ISSN 0305-7356

https://doi.org/10.1177/03057356231204859

Towards effective performance psychology interventions in tertiary music education: an exploration of students' experiences, attitudes, and preferences

Akiho Suzuki (Royal Northern College of Music, Manchester UK)
Stephanie Pitts (University of Sheffield, Sheffield, UK)

Abstract

Tertiary music students face a variety of challenges in their musical journeys. It is therefore promising that studies have begun to explore the potential of performance psychology interventions to help music students. However, less attention has been given to how such interventions should be designed and delivered for maximum efficacy. This study aimed to address this gap by exploring tertiary music students' needs, preferences, and attitudes regarding performance psychology. Through semi-structured interviews and questionnaires, 11 students shared their experiences of the psychological aspects of being a music student as well as their attitudes toward interventions. Analysis revealed that students currently gained most of their knowledge of performance psychology through experience and personal research. They discussed a range of factors that helped them, as well as personal and environmental factors that created challenges. Participants wanted sessions that were practical, individually tailored, and held in a safe space. Regarding consultants, students placed high importance on personal characteristics and musical background. Time constraints and stigma were the two main barriers that the participants believed may prevent them from benefiting from an intervention. Recommendations for future intervention studies are made based on current and existing findings.

Keywords: performance psychology, tertiary music students, intervention design, attitudes, preferences

The career path for performing musicians is rewarding but extremely demanding. Students who study music at tertiary institutions, such as conservatoires, generally do so with the hope of pursuing a professional career in music. However, these students may face an array of challenges including music performance anxiety (MPA; Barros et al., 2022), playing-related injuries (Perkins et al., 2017; Steemers et al., 2020), competition and pressure (Pecen et al., 2018; Perkins et al., 2017), ineffective practice methods (McPherson et al., 2019), and poor mental health (Kegelaers et al., 2020).

Performance psychology research has the potential to support music students through such challenges, through the use of psychological principles to facilitate optimal performance and wellbeing (Kegelaers & Oudejans, 2020; Pecen et al., 2016). These approaches originate from sport but have been increasingly applied in musical contexts, and mental skills—such as goal setting, imagery, arousal regulation, pre-performance routines, and self-talk—have been found to help musicians practise effectively, manage MPA, and achieve optimal performance states (e.g., Cohen & Bodner, 2019; Hatfield, 2016; Miksza et al., 2018; Osborne et al., 2014; Tief & Gröpel, 2020). Consequently, researchers have implemented interventions that aimed to equip music students with such skills, which have reported promising results (for review, see Ford & Arvinen-Barrow, 2019). However, an aspect that is often overlooked is *how* such interventions should be designed and delivered (Kegelaers & Oudejans, 2020). This is an issue that requires attention given that a) recruiting sufficient participants for intervention studies is often a challenge for researchers (Clark & Williamon, 2011); and b) adherence and engagement are positively related to outcomes (Donkin et al., 2011; Osborne et al., 2007).

To design an intervention effectively, researchers need to consider the attitudes and preferences of the target population. This is an area which sport psychology has investigated extensively (for review, see Fortin-Guichard et al., 2018). For example, female athletes have higher confidence in the efficacy of sport psychology consulting and are less likely to stigmatise it, and therefore are more likely to utilise services (Martin et al., 2002, 2012). Athletes tend to prefer consultants who are female, professionally qualified, knowledgeable about sports, and have an athletic background (Lubker et al., 2012). In contrast, relatively few studies have investigated attitudes and preferences of musicians for

performance psychology interventions. Studies that evaluated interventions have found that musicians appreciate group interactions and practical activities (Clark & Williamon, 2011; Kegelaers & Oudejans, 2020). Regarding consultants, Hays (2002) found that performing artists across the fields of music, dance, and drama wanted someone who was caring, empathetic, non-judgemental, and had an understanding of the field. Similarly, desired characteristics for consultants reported by professional and graduate musicians have included open-mindedness, seeing the bigger picture, and an understanding of artistic freedom (Pecen et al., 2018). Musicians have also expressed a desire for consultants to be from a musical background (Kegelaers & Oudejans, 2020). These studies—except for Clark and Williamon (2011)—investigated preferences of graduate and professional musicians, and therefore there is a limited understanding of the preferences of tertiary music students for performance psychology interventions.

Music students may also perceive various barriers that could prevent them from utilising or fully benefitting from interventions. Among athletes, frequently reported barriers for utilising sport psychology services include time constraints, stigma, lack of confidence in their efficacy, lack of awareness, and a belief that services are only for athletes with "severe" problems (Donohue et al., 2004; Fortin-Guichard et al., 2018; Gee, 2010; Martin et al., 2012). No studies to date have investigated barriers for musicians accessing performance psychology support. However, time constraints may be a common barrier. Music students are often reluctant to dedicate time to activities which do not involve physically practising their instrument, such as writing down goals and reflections, because they feel that they are wasting their time even if they understand that it is useful (Hatfield & Lemyre, 2016; Kegelaers & Oudejans, 2020; Kruse-Weber & Sari, 2019). Musicians in the study by Pecen et al. (2018) referred to stigma and the need to "hide problems" (p. 6), suggesting that this may also be a common barrier for students.

While past studies have demonstrated the potential of performance psychology interventions to support tertiary music students, there is limited understanding of how such intervention should be designed for maximum efficacy. The current study aimed to address this gap by investigating the following research questions:

- RQ1. What can we learn from tertiary music students' experiences that could inform future support?
- RQ2: What are students' preferences for support?
- RQ3: What are students' perceived barriers for making use of support?

The study evolved from an initial project that aimed to help tertiary music students practise effectively through self-recording (Suzui, 2021), which had to be abandoned due to high dropout rates. Follow-up questionnaire responses revealed that lack of time was the most common reason for dropout; however, most participants also reported that they found self-recording useful, with some continuing to use it in their practice. Seeking to learn from the failure of this original study (Jancovich & Stevenson, 2021), a follow-up study was designed to investigate the underlying reluctance of tertiary music students to engage with performance psychology interventions. It is hoped that this investigation will be of value to future practitioners and researchers working with tertiary music students, both in the support of students with their musical journeys, and in the design of performance psychology interventions.

Methods

Study design

The (follow-up) study consisted of three components: semi-structured interview, presentation, and questionnaire. The method was primarily qualitative, as is appropriate for an exploratory study focusing on individual experiences (Braun & Clarke, 2013). The semi-structured interview comprised the main part of the study, while the questionnaire supplemented interview data by probing participants' attitudes in a more targeted manner. The presentation briefly introduced participants to performance psychology, and its purpose was to a) provide background for the interview questions about interventions; and b) raise awareness of performance psychology among the participants.

Participants

Participants were recruited through personal contacts of the first author and several social media groups for conservatoire students. Eligible participants were students undertaking a music degree at a tertiary institution with a significant performance component. The final sample consisted of 11 students who were studying in Australia (*n* = 5), UK (*n* = 4), Spain (*n* = 1) and Switzerland (*n* = 1). All except one participant was female. Most of the participants played piano (*n* = 7) while other instruments included cello, flute, clarinet, and voice. Their mean age was 22.9 years (SD = 2.4). Six participants were undergraduate students, while four students were studying a Masters degree and one student a doctoral degree. The study was granted ethical approval by the University of Sheffield, and informed consent was obtained from participants prior to the session.

Materials

Semi-structured interview

The interview contained two parts that were conducted before and after the presentation, respectively. In the first part, participants were first asked to explain any previous experiences they have had with performance psychology. They were then presented with four specific topics—effective practice, MPA, mental skills, and wellbeing for musicians—and asked to talk about their experiences with each (if any). In the second part, the researcher presented a hypothetical scenario where a free performance psychology course was offered at the participant's institution. Participants were asked to discuss any potential barriers they foresaw that may prevent them from participating or committing fully to it, as well as desirable characteristics of the programme. There was an opportunity for additional comments or questions at the end. See Appendix A in Supplementary Material for the interview schedule.

Presentation

A short (10-15 min) presentation was designed and delivered by the first author to introduce performance psychology (see Appendix B, Supplementary Material). Participants were first introduced to sport psychology, where athletes are taught mental strategies (e.g. goal setting, self-talk) to achieve specific outcomes (e.g., prevent choking, improve

performance). Music performance psychology was then presented as a similar idea, where musicians are taught mental strategies to achieve specific outcomes (e.g., practise effectively, improve performance). Performance psychology was framed not as a way to "fix" problems, but help musicians perform their best. It was highlighted that performance psychology did not replace but complemented instrumental lessons (Pecen et al., 2016). The researcher also emphasised that mental skills were not like a "magic pill" that created immediate changes, but required time and effort (Hawkes, 2016).

The presentation also introduced and refuted five misconceptions that musicians may have regarding performance psychology. These misconceptions were based on sport and music psychology literature: 1) "It is only for musicians with 'severe' problems"; 2) "It is like going to a clinical psychologist"; 3) "If I'm not playing my instrument, I'm wasting my time"; 4) "It is only for musicians who are 'weak' or 'not good enough' "; and 5) "This sounds all 'airy-fairy': it probably does not work" (Donohue et al., 2004; Gee, 2010; Martin et al., 2012; Pecen et al., 2016).

Post-interview questionnaire

The post-interview questionnaire (see Appendix C, Supplementary Material) elicited information regarding participants' preferences for consultants and courses. Participants were asked to describe the ideal person to a) be their performance coach; and b) have written an online performance psychology course. Next, participants were asked to rate on 5-point Likert scales a) the importance of various attributes for a performance coach; b) likelihood of various factors being a barrier to benefiting from performance coaching; and c) the likelihood of attending a course if it was recommended by various people (e.g., instrumental teacher; fellow student). Performance coach attributes were based on Lubker et al. (2012) and included musical experience, personal characteristics, and professional qualifications and experience. The barriers presented were based on sport and music psychology literature (Martin et al., 2012; Donohue et al., 2004; Pecen et al., 2016; Fortin-Guichard et al., 2018) and included time constraints, lack of confidence in efficacy, lack of awareness, stigma, and belief that their issues were not severe enough. Participants were also asked to provide demographic information including age and instrument played.

Procedure

Sessions were conducted individually by the first author and lasted approximately 60 minutes. They were held online via Zoom and recorded; this approach was necessary due to the Covid-19 restrictions in place at the time, and also allowed for recruitment across multiple countries. The researcher provided an overview of the session before starting the first part of the interview. Following this, the researcher conducted the presentation then continued with the second part of the interview. After the interview component, participants were sent a link to the post-interview questionnaire on Google Forms. They completed it during the session and could ask the researcher for clarification if a question was unclear. They were then given a final opportunity to ask questions before the session concluded.

Analysis

Interviews were transcribed fully then analysed thematically (Braun & Clarke, 2006). An initial reading of all transcripts was conducted for familiarisation before codes were established. Transcripts were then coded, and codes were refined over multiple readings before categorisation into themes. Definitions and examples for codes are provided in the Supplementary Materials (Appendix D). The responses to the open-ended questions in the questionnaire were analysed in a similar manner. Quantitative data from the questionnaire were analysed in RStudio. Data were pseudonymised and assigned participant codes (P01-P11), which are used to indicate the contributors in the discussion below.

Findings

RQ1: What can we learn from tertiary music students' experiences that could inform future support?

Four main themes were identified from analysis of participants' responses regarding their experiences related to practice, performance, and wellbeing (Table 1). Two themes pertained to factors that helped students (*knowledge sources*; *facilitative factors*), while the other two themes concerned what students wanted support for (*personal challenges*) and

environmental factors that contributed to their experienced challenges (*environmental challenges*).

Table 1. Themes and subthemes identified for RQ1.

Theme	Sub-theme
Knowledge sources	Own experience (*n* = 8)
	One-off lectures and seminars (*n* = 7)
	Personal research (*n* = 6)
Facilitative factors	Helpful teachers (*n* = 8)
	Own psychological strategies (*n* = 7)
	Belief in the importance of general wellbeing (*n* = 7)
	Love for music and performing (*n* = 7)
	Inspiration and immersion (*n* = 6)
Personal challenges	Concentration (*n* = 7)
	Memory (*n* = 6)
	Playing-related injuries (*n* = 5)
	Self-doubts (*n* = 5)
Environmental challenges	Lack of support/training (*n* = 8)
	Competitiveness and evaluation (*n* = 7)
	Stigma and lack of discussion (*n* = 7)
	Toxic values (*n* = 7)
	Unhelpful teachers (*n* = 4)

Knowledge sources

Participants had acquired knowledge and strategies related to performance psychology through various sources. The most mentioned source (*n* = 8) was *own experience*: "I guess I've got a lot of those skills now, both from my experience of performing and like trying out things that work, things that don't work" (P01). Participants reported that they had learnt strategies for effective practice and MPA management by "figur[ing] it out by doing rather than…learning from a teacher" (P05). Some students also believed that certain aspects, like managing MPA, had to be discovered on your own: "Obviously, people tell you all of this stuff, but you just have to realise it for yourself..." (P11).

Seven students had attended *one-off lectures and masterclasses* on performance psychology at their institution, which were often on MPA management. Only two students had participated in a performance psychology-related module as part of their degrees.

While participants found one-off sessions “quite useful” (P01), they acknowledged that it was not the same as a long-term programme. For example, P02 reported that their cohort participated in a “really nice seminar” before their final performance exams that provided some good “fast” tips, but also discussed that it is “a long track” before one can really feel “more comfortable” with performing. P09 discussed how each time they attend a one-off lecture on performance psychology, they think, “Wow, that’s really interesting, I should look into that”, but then they “get busy and…never look into it”.

Six participants reported conducting *personal research* through sources such as books and websites: “…my last performance, I watched two TED talks about performing, and that really helped” (P06). Some participants gathered information from non-musical domains: “It’s been probably self-taught in a way, just reading a lot of books, which sometimes aren’t related to music but…related to sport or...just the experiences that you go through as a musician...” (P05). Reason for turning to non-musical sources was often because there was more information available: “I feel like [athletes] have so much more research in that area” (P01).

Facilitative factors

Helpful teachers were a common source of knowledge and advice: “I’m happy with the way I practise because I’m very creative, and my previous teacher...she took care that I will be fully equipped and I appreciate it a lot” (P04). Teachers were described not only as imparting instrumental/vocal technique and interpretation, but also as caring mentors that looked after students in a broader sense:

> “[My teacher] just got to a point where he was sick of me turning up to every lesson half dead and very depressed, and he’s like written down a list of things for me to like, make sure that are okay...and then things like, you need meditation in your life, you need activity in your life to keep your brain happy...I really like [him], I love the holistic way he thinks.” (P08)

Many participants found that their *love of music and performing*, or reminding themselves “why [they are] doing music” (P10), helped them stay motivated or combat MPA:

> "[The] only way I could stop myself from procrastinating practising was knowing that I'm enjoying it…every time I get up on stage, I'm like, 'Oh, I'm so glad I do this, like I love doing this'." (P08)

Participants talked about how it was important to remember that performing was not about "competition" or "trying to be the better one out of your peers" (P10), but an "opportunity to share something with others" (P05). They reported that it was helpful to focus on "expressing [your]self" (P11) or "connecting with people" (P10).

Seven participants described their *own psychological strategies* for practice or performance that they used routinely. These strategies often resembled those from the performance psychology literature, and most students reported that they had found strategies through personal research or their own experiences of trial and error (see above). Strategies mentioned included performance cues (Chaffin et al., 2002), self-recording (Boucher et al., 2021), and goal setting (Hatfield, 2016), but the most reported strategy (*n* = 4) was reappraisal of MPA as excitement (Brooks, 2014): "I feel like anxiety, excitement, nerves, and adrenaline rush can all kind of be confused with one another. So I've been telling myself recently...'You know that feeling I got? Oh, you're just excited...'" (P06).

Many students believed that *general wellbeing* was important for optimal practice and performance: "it's always going to come out in performance, so you do have to take care of that side, or else it's obviously going to affect your performance" (P05). They were motivated to take care of themselves by the awareness that practice sessions tended to be "most productive" when they are "mentally okay" (P11).

Several participants discussed the importance of feeling "inspired" and "engaged" (P09). *Inspiration* was seen as something that could "make your interpretations more rich and more communicative" (P03), while some participants also found that practice sessions and performances were enhanced by feeling "immersed into that character or into that kind of storyline or sound world" (P10).

Personal challenges

Concentration was discussed by seven participants as an important but "definitely quite challenging" (P11) aspect of music practice and performance: "I feel like, the issue with me is just focusing the whole time" (P05). For some participants, the issue of concentration was more prevalent in practice sessions where they got "a bit distracted" (P01), while others wished to feel "totally comfortable and focused" during performances (P02).

Six students discussed the challenges of *memorisation*, which often contributed to MPA: "For me, the memory is one of the most anxious parts. It's not so much the performance, but the memory" (P01). Participants talked about how the fear of "memory lapses" could turn into "their nerves" (P06). For one participant, this challenge with memory only occurred with classical pieces: "classical just scares me memory-wise" (P02).

Five students reported that they currently experienced, or had experienced in the past, some type of *playing-related injury*. The psychological struggles of dealing with such injuries, such as feelings of frustration and powerlessness, were frequently mentioned by these students: "It's awful...you can't do what you want to do and you can't play with it the way you want to play it" (P09). Such injuries could "put you down" and "demotivate you" (P07), while "not knowing when you can play again" was "scary" (P10). This "not knowing" also led to frustration: "[It] gets to a point where you're like, 'When's this gonna end? Why does it not feel like it's progressing?" (P10).

Another personal challenge was *self-doubts* and anxieties that stemmed from "caring about what other people thought" (P11). Some participants talked of "moments of self-doubt" (P06) in performances and concerns that the audience was "gonna notice this mistake, and this mistake, and all that sort of stuff" (P11). For other participants, it was a more general feeling that they were not good enough: "I have [a competition] on Sunday and I'm pretty, I'm really prepared…but I kind of am worried…about actually just putting my best out there, because I'm like, what if I do that and…the comments are like, 'It's really crap'?" (P01). P10 also discussed how the "subjectivity" of music made it "hard to kind of find a sense of self-confidence that you can kind of constantly come back to".

Environmental challenges

Participants felt that there was a general *lack of support or training* for music students, as aspects outside traditional theory, technique, and musicality were "not really taught" (P06). Instead, students were "expected" to "somehow figure it out" (P04). P03 said that "maybe [they] have had some help from [their] teacher" for practice and performance skills but wished that it was "more explicit". There was a sense that teachers were expected to fill these gaps, but some students also questioned this expectation, given that "there's just so much to learn" that "you can't just do an hour a week" (P06). The capabilities for teachers to fulfil such responsibilities was also questioned: "I've experienced attempts at…performance psychology on the part of some teachers…sometimes it works and sometimes you really wish they would stick to what they're qualified to do" (P09). Those who had struggled with injuries wished to be taught "support and coping skills" (P07). P01 discussed how a freelance career in the "hustle and grind culture that musicians are a part of" is "really hard", yet it was "nothing that [they're] really taught about at music school".

The *competitive and evaluative environment* of tertiary music institutions was a challenge for many students: "The competition within, amongst...students and that sort of thing...it's hard" (P10). Students reported that performing in evaluative contexts such as exams and competitions was more challenging than concerts as they thought "too much about what [they] needed to do…rather than like, enjoying and playing" (P01). Knowing that there was "a panel who is like judging" was "stressing" (P07), especially since they are not "there to support you…they're literally there to circle your wrong notes" (P09).

Participants felt that challenges such as MPA, feelings of insecurity, and injuries were "so stigmatised…no one wants to admit they've got a problem" (P09). As a result of this *stigma*, students felt that there was a *lack of discussion* about such issues: "Most of the people avoid to talk about [injuries]...Sometimes they hide it. They don't want to talk about it" (P07). However, participants believed that musicians need to start talking more openly about issues to "get more ideas" (P04) and support each other since "fellow musicians are probably the people that best know that situation" (P10).

Students also felt that there were several *toxic values and beliefs* that were prevalent in the classical music community. Many participants believed that musicians are "probably one of the…harshest people [in judging] themselves", which was connected to the idea that "you have to get every note perfect" (P06). One participant discussed how "we're always finding things to fix" in lessons and practice sessions, which inevitably carried over to performances: "If your brain is so hardwired from years of training to being a perfectionist, do you really think you're going to be able to turn that off at will for the performance?" (P09). Practising many hours was "seen like a flex" (P11) while ideas such as "virtuosity", "talent", and "prodigiousness" were "valued and…showcased", which participants believed was "toxic" (P01). Another prevalent toxic belief was "this idea that if you have an injury, it is because you have a deficient technique" (P09), which led people to conceal injuries.

While helpful teachers were discussed as a facilitative factor by many students, four students spoke about *unhelpful teachers*: "At the very beginning, [my teacher] kind of treated me like I'm the worst student in the world" (P04). One participant discussed how some teachers could be "bloody awful for your mental wellbeing, and also physical wellbeing", citing an example of their former teacher that "routinely reduced people to tears" in lessons that were "three hours long" (P09). Two participants commented on teachers' lack of knowledge regarding physical aspects of playing and management of injuries:

> "Nobody realised...the jaw cramps I was having…was a result of me not having a sustainable posture or not having a sustainable embouchure...nobody thought about that part of it until it was too late, until [it was] significantly impacting how long and what I could play." (P08)

RQ1 explored participants' current experiences and found that the students wished to receive support for various areas including skills for practice, performance, career, and injury management. RQ2 sought to understand students' preferences for how such support might be delivered for maximum engagement.

RQ2: What are students' preferences for support?

Preferences for courses

Six students reported that *practical activities* would be crucial for a performance psychology course: "…it would need some practical components" (P08). Participants emphasised that sessions could not "be like a lecture" (P06) and wanted "techniques that [they] can try out" (P02) or exercises that you could incorporate "into your daily sort of routine" (P11). Students also wanted to be able to try the strategies in class: "…like act out a performance or...something hypothetical you could do just to kind of try those things out" (P10).

Five students wanted *individually tailored support* and therefore preferred one-to-one sessions where you could "go exactly towards what you are struggling with" (P11) and spend "the most time on the things that I need to work on" (P05). They wanted the consultant to "know me…what my values are as an artist and like, what I actually want to achieve on stage" (P01).

Conversely, other students (n = 4) wanted the *opportunity to share experiences* with fellow musicians and therefore preferred group sessions: "I would like to hear other people's experiences too just because we can help each other" (P02). They wanted to hear "experience[s] from other people that are at your same level more or less" so that you are not "receiv[ing] just information from a book, but from real people" (P03). Participants talked about how group settings could provide a support network so "that you can understand, 'Oh, I'm not alone struggling with this'" (P04).

Four students expressed the need for a *safe space*: "I need to feel really safe...and I need to feel that it's someone who is not going to judge me...someone who's going to understand" (P09). The safe space was also perceived as a necessary environment to "try and put those strategies into use" in a "safe environment where you kind of don't feel like, 'Oh, it's super important'" (P10).

Participants rated the likelihood of signing up to a performance psychology course if it was recommended by various people (Table 2). “Own instrumental teacher” and “a professional musician that they respect” received the highest ratings.

Table 2. Likelihood of Signing up for a Performance Psychology Course Depending on Recommending Person (1 = *Very Unlikely* to 5 = *Very Likely*).

Recommending person	Mean (SD)
Your instrumental teacher	4.5 (0.5)
A professional musician you respect	4.4 (0.5)
Another music student	3.8 (1.0)
A music psychology researcher	3.8 (1.0)

Preferences for consultant

Six characteristics were identified from participants’ written descriptions of an ideal performance coach and an ideal author of an online performance psychology course (Figure 1). Only nine responses were analysed for the ideal author as one participant named a specific person and another participant wrote that they would prefer face-to-face sessions.

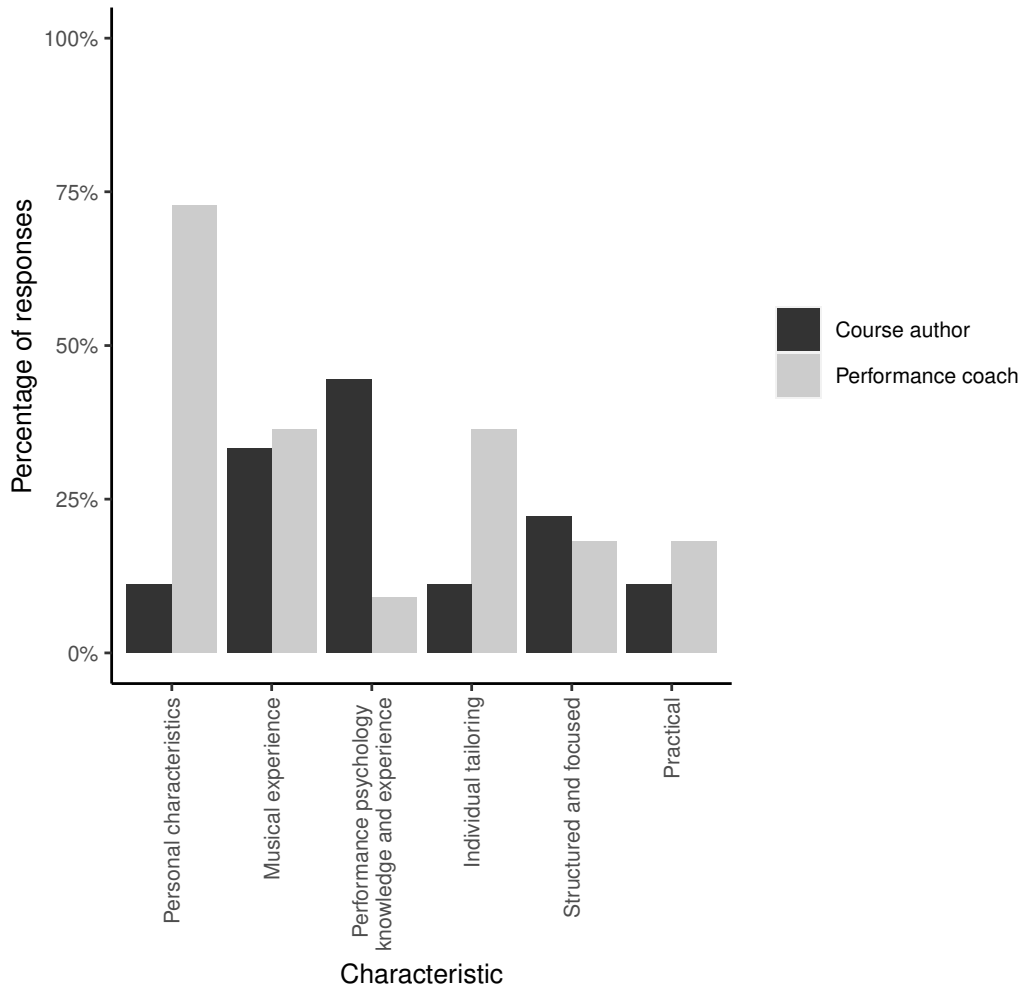

Figure 1. Characteristics Mentioned in Participants' Written Descriptions of an Ideal Performance Coach and Online Course Author.

Personal characteristics was the most frequently mentioned characteristic for an ideal performance coach (e.g., "Compassionate and is a good listener"), followed by *musical experience* (e.g., "…has experience playing music") and *individual tailoring* (e.g. "…able to adapt and help with specific problems I was having."). The importance of musical experience was also voiced by participants in the interviews, as they spoke about how non-musicians "don't understand" (P06).

In the descriptions of an ideal author for an online course, the most mentioned characteristic was *performance psychology knowledge/experience* (e.g. "extensive knowledge in the psychology field"), followed by *musical experience*. Interestingly, only two

students mentioned *performance psychology experience/knowledge* for an ideal performance coach.

Participants' ratings of various characteristics for a performance coach from the questionnaire corroborated above findings (Table 3). Personal characteristics, musical background, and experience working with musicians as a performance coach were the highest-rated characteristics.

Table 3. Importance Ratings of Performance Coach Characteristics (1 = *Not Important* to 5 = *Very Important*).

Characteristic	Mean (SD)
Is friendly, approachable, and caring	4.8 (0.4)
Is a musician	4.6 (0.7)
Is or has been a professional performing musician	4.4 (0.8)
Has extensive experience working with musicians as a performance coach	4.2 (1.2)
Is a qualified registered psychologist	4.1 (1.4)
Has extensive experience working with a variety of people (e.g. musicians, actors, athletes) as a performance coach	3.7 (0.8)
Has a music degree from a reputable institution	3.5 (1.0)
Has extensive instrumental teaching experience	3.4 (1.4)
Plays the same instrument as me	3.1 (0.8)
Is currently an active professional performing musician	2.5 (1.0)
Studied with an internationally-renowned musician/pedagogue	2.0 (0.8)

Findings for RQ2 demonstrated that participants wished for interventions that consisted of practical activities. Participants also placed a strong emphasis on the personal qualities and musical credentials of a performance coach. These characteristics may allow interventions to be more appealing to students and therefore help to diminish any perceived barriers, which are explored further below in RQ3.

RQ3: What are students' perceived barriers for making use of support?

Seven students spoke in the interviews about barriers that may prevent them from participating or fully committing to a performance psychology course if it were offered at their institution. The two commonly reported barriers were *time constraints* (*n* = 4) and *stigma* (*n* = 4). Time constraints were related to "the feeling that...you have to practise a lot of the time" (P10), which students felt even if they knew that it was counterproductive: "If I have to prepare a lot of repertoire, I would think, '...I can't waste two hours in doing these things if I need to practise.' I know probably it's not true, but you find these barriers" (P03).

Stigma was reported as a potential barrier in group sessions. Participants felt that "being very open about your insecurities and what you lack" could be difficult as fellow students "can be very judgemental" (P02). Because of this, one participant said that they might prefer a course with a group of strangers so that "you don't have an image that you have to protect" (P03). Stigma was also a potential issue with telling others about attending such a course: "...I'd still do it, cos like, 'Well, I'm gonna be a better performer so who's the real loser now?' [laughs] but...I wouldn't publicise it probably...until I was ready to speak about it" (P01).

Table 4 summarises students' likelihood ratings of various factors being barriers. While only four students talked about time constraints as a potential barrier in the interview, eight students (73%) responded in the questionnaire that it would be a "very likely" or "likely" barrier for them.

Table 4. Self-reported Likelihood of Potential Barriers Preventing the Use of Performance Psychology Support.

Potential barrier	Very likely	Likely	Don't know	Unlikely	Very unlikely
Time constraints	3	5	1	2	0
Lack of awareness	0	4	1	3	3
Being unsure about whether it'll be helpful to you	1	2	1	5	2
Feeling that your issues are not severe enough	1	2	2	2	4
Being perceived as weak	1	0	1	2	7

As expected, findings for RQ3 revealed that time constraints and stigma were the two main barriers for students accessing performance psychology support. Researchers wishing to design and implement interventions need to be aware of these barriers and find ways to mitigate them. Suggestions for how this may be achieved are discussed below.

Discussion

This study aimed to explore how interventions for tertiary music students could be designed and delivered effectively, by asking 11 students to share their experiences of the psychological aspects of being a musician and their attitudes towards support. We identified participants' current sources of knowledge of performance psychology, facilitative factors that helped them, and areas for which they wished to have more support. We also investigated participants' preferences for performance psychology interventions and perceived barriers that could prevent them from benefitting from such interventions.

Participants had gained most of their existing knowledge and skills for performance psychology through experience and personal research. Some participants reported that they already used specific psychological strategies to aid their practice and performance. This is promising as it suggests that students are interested in learning mental skills and are already independently attempting to seek such knowledge. However, findings also indicated a gap

in provision, since only few participants had had the opportunity for sustained engagement with performance psychology training.

Some participants in this study reported that their intrinsic love for performing or feelings of inspiration were factors that helped them with motivation, practice, and performance. Since performance psychology for musicians is heavily rooted in sport psychology, researchers have previously discussed the importance of utilising appropriate terminology and adapting support for musicians (Hays, 2002; Nordin-Bates, 2012; Pecen et al., 2016). Incorporating artistic concepts such as inspiration, passion, expression, and identity into performance psychology interventions could make support more appealing to musicians. These aspects could also have beneficial effects: for example, fostering harmonious passion (Vallerand, 2008) and autonomous motivation (Evans, 2015) could lead to optimal practice, performance, and wellbeing (Bonneville-Roussy et al., 2011; Evans & Bonneville-Roussy, 2016), while focusing on expression during practice and performance could improve performance quality (Miksza, 2015; Mornell & Wulf, 2019).

Specific challenges for which participants wanted support included concentration, memory, and self-doubts. Mental skills such as goal setting, attentional training, imagery, pre-performance routines, and self-talk could help musicians with these challenges by improving concentration and increasing confidence (Clark & Williamon, 2011; Hatfield, 2016; Mornell & Wulf, 2019; Tief & Gröpel, 2020). There is also now a wealth of research on expert memorisation in music (e.g., Chaffin et al., 2002, 2010; Ginsborg, 2022; Lisboa et al., 2018), which could be applied to equip music students with strategies for effective memorisation. Addressing strategies for memorisation may also be important for optimal performance since memory lapses—or merely a fear of them—can have detrimental effects on performers' self-confidence (Ginsborg, 2004).

Playing-related injuries was another challenge discussed by several participants. This is a prevalent issue among musicians (Kochem & Silva, 2018) and many studies have investigated risk factors (Baadjou et al., 2016) and the effects of physical interventions (Stanhope et al., 2022). However, an aspect which has received less attention in the literature is the psychological challenges associated with such injuries (Rickert et al., 2013).

Participants shared their feelings of frustration, fear, and powerlessness as injuries prevented them from practising or performing as they wished. Injuries can be detrimental to musicians' sense of identity and self-worth (Rickert et al., 2014), and there is a need for further investigation of how teachers, institutions, and practitioners can support music students through these psychological challenges.

The other challenges discussed by participants were related to the culture and environment of the music industry and conservatoires. Participants reported that the environment of music institutions was toxic, competitive, and unhealthy, and these environmental factors exacerbated personal challenges. Participants also spoke about the challenges associated with managing "portfolio" careers (Bennett, 2012; Perkins, 2013). Such environmental challenges are well-documented (Perkins et al., 2018; Pecen et al. 2018; Perkins, 2013) and our findings reinforce the idea that support for music students needs to go beyond individuals and consider the cultural and organisational components of institutions (Jørgensen, 2000; Perkins, 2013; Perkins et al., 2017).

Similar to the participants in Pecen et al. (2018), this study saw evidence of vocal/instrumental teacher being both a facilitative factor and a challenge. While seemingly paradoxical, this finding supports the notion that instrumental and vocal teachers are in a unique position of power, being the people that students typically trust and consult for advice (Williamon & Thompson, 2006). Participants in the current study reported that they were most likely to sign up for a performance psychology course if it was recommended by their teacher, further affirming the powerful influence that teachers have on their students. While the traditional master-apprentice model has been questioned (Carey, 2010), potential exists for the use of teachers' influence over students to make positive changes in the context of performance psychology. For example, researchers wishing to design and implement interventions could involve teachers in their study or explore the possibility of training teachers to deliver interventions to students (Shaw et al., 2020).

Participants reported that they would want practical activities in courses that would allow them to try out new strategies. This echoes student feedback reported in previous intervention studies (Clark & Williamon, 2011). Students are likely to be receptive to this

mode of learning, considering that they already tend to learn through experiences of trial-and-error. Rather than being prescriptive about what strategies participants must adopt, it may be more useful to present a wide range of strategies from which students can choose (Kegelaers & Oudejans, 2020). This may not only be more appealing to students, but also allow them to develop autonomy (Evans, 2015). Given that students are often concerned about additional activities taking up practice time, it may also be useful to provide activities that students can try out during their usual practice. Where possible, interventions should also provide informal performance opportunities that allow students to try out strategies in a safe and relaxed environment (Hatfield & Lemyre, 2016). Furthermore, it may be beneficial for interventions to employ both individual and group sessions, so that content can be individually tailored while still providing an opportunity for participants to share ideas with fellow students (Hatfield & Lemyre, 2016). However, group sessions would need to be moderated carefully to ensure that all participants feel comfortable and safe. Similar to previous studies with graduate and professional musicians (Hays, 2002; Pecen et al., 2018), students believed that personal qualities, such as being empathetic and compassionate, were important characteristics for consultants. Musical background was also an important factor as participants felt that non-musicians "don't understand" the unique challenges faced by musicians (Kegelaers & Oudejans, 2020; Pecen et al., 2018).

Time constraints was the main barrier that participants believed could prevent them from benefitting from a performance psychology intervention. Specifically, students felt that it could be difficult to fit extra activities around their busy practice and study schedules. Participants believed that attaining sufficient quantity of practice was of utmost importance (Pecen et al., 2016, 2018). To support musicians, perhaps the first important step is to show them that performance success is not only about traditional physical practice. Stigma was another barrier reported by participants. Support services should minimise this barrier as much as possible by providing a safe space, ensuring confidentiality, and framing support positively rather than pathologically (Pecen et al., 2016). Hopefully, as performance psychology becomes more commonplace and a part of music education, this stigma will naturally decrease. Implementing programmes as part of degrees, rather than as optional extra-curricular activities, could also minimise both barriers.

Limitations and future directions

As the first study to investigate attitudes towards performance psychology with tertiary music students, this article adds to the growing literature on performance science and support for musicians. While this study has shed light on the preferences of tertiary music students for performance psychology interventions, we acknowledge that our findings are limited by being hypothetical, since participants did not actually take part in an intervention. However, investigating the beliefs and perceptions of musicians who have not yet undertaken performance psychology interventions is a valuable first step to increasing engagement and participation rates. As self-selecting participants, the current sample may have been more interested in performance psychology than the general population of tertiary music students. Interestingly, the participation rate of males was low (n = 1), which may indicate that they are less likely to make use of support services; in sports, male athletes have been found to report higher levels of stigma towards sport psychology consultancy than females (Martin et al., 2012). Future studies with a larger sample could investigate whether this gender difference also exists among musicians. In addition, there is scope to investigate differences between instrumental groups, with the potential for interventions to be tailored accordingly.

Conclusion

Tertiary music students striving to pursue a musical career face myriad challenges. It is the responsibility of researchers and institutions to ensure that these students are provided with sufficient support to manage these challenges and develop into healthy, competent musicians. To design and implement interventions effectively, it is crucial that researchers consider students' needs, preferences, and attitudes. These factors may also be key to overcoming the issue of low participation rates that researchers often face. Interventions for music students can only lead to meaningful change if researchers start looking beyond the content of the interventions and more broadly at how they fit into the wider context of tertiary music education.

References

Baadjou, V. A. E., Roussel, N. A., Verbunt, J. A. M. C. F., Smeets, R. J. E. M., & de Bie, R. A. (2016). Systematic review: Risk factors for musculoskeletal disorders in musicians. *Occupational Medicine*, *66*(8), 614–622. https://doi.org/10.1093/occmed/kqw052

Barros, S., Marinho, H., Borges, N., & Pereira, A. (2022). Characteristics of music performance anxiety among undergraduate music students: A systematic review. *Psychology of Music*, *50*(6), 2021–2043. https://doi.org/10.1177/03057356211066967

Bennett, D. (2012). Staying afloat: Skills, attributes and passion. In D. Bennett (Ed.), *Life in the real world: How to make music graduates employable* (pp. 63–78). Common Ground Publishing LLC.

Bonneville-Roussy, A., Lavigne, G. L., & Vallerand, R. J. (2011). When passion leads to excellence: The case of musicians. *Psychology of Music*, *39*(1), 123–138. https://doi.org/10.1177/0305735609352441

Boucher, M., Creech, A., & Dubé, F. (2021). Video feedback and the self-evaluation of college-level guitarists during individual practice. *Psychology of Music*, *49*(2), 159–176. https://doi.org/10.1177/0305735619842374

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Braun, V., & Clarke, V. (2013). *Successful qualitative research: A practical guide for beginners*. Sage Publications.

Brooks, A. W. (2014). Get excited: Reappraising pre-performance anxiety as excitement. *Journal of Experimental Psychology: General*, *143*(3), 1144–1158. https://doi.org/10.1037/a0035325

Carey, G. (2010). Performance or learning? Reflections on pedagogical practices within the conservatoire. *The Musician in Creative and Educational Spaces in the 21st Century. Proceedings from the 18th International Seminar of the Commission for the Education of the Professional Musician (CEPROM)*, 7.

Chaffin, R., Imreh, G., & Crawford, M. (2002). *Practicing Perfection: Memory and Piano Performance*. Lawrence Erlbaum Associates.

Chaffin, R., Lisboa, T., Logan, T., & Begosh, K. T. (2010). Preparing for memorized cello performance: The role of performance cues. *Psychology of Music*, *38*(1), 3–30. https://doi.org/10.1177/0305735608100377

Clark, T., & Williamon, A. (2011). Evaluation of a mental skills training program for musicians. *Journal of Applied Sport Psychology*, *23*(3), 342–359. https://doi.org/10.1080/10413200.2011.574676

Cohen, S., & Bodner, E. (2019). Music performance skills: A two-pronged approach – facilitating optimal music performance and reducing music performance anxiety. *Psychology of Music*, *47*(4), 521–538. https://doi.org/10.1177/0305735618765349

Donkin, L., Christensen, H., Naismith, S. L., Neal, B., Hickie, I. B., & Glozier, N. (2011). A Systematic Review of the Impact of Adherence on the Effectiveness of e-Therapies. *Journal of Medical Internet Research*, *13*(3), e52. https://doi.org/10.2196/jmir.1772

Donohue, B., Dickens, Y., Lancer, K., Covassin, T., Hash, A., Miller, A., & Genet, J. (2004). Improving athletes' perspectives of sport psychology consultation: A controlled evaluation of two interview methods. *Behavior Modification*, *28*(2), 182–193. https://doi.org/10.1177/0145445503259399

Evans, P. (2015). Self-determination theory: An approach to motivation in music education. *Musicae Scientiae*, *19*(1), 65–83. https://doi.org/10.1177/1029864914568044

Evans, P., & Bonneville-Roussy, A. (2016). Self-determined motivation for practice in university music students. *Psychology of Music*, *44*(5), 1095–1110. https://doi.org/10.1177/0305735615610926

Ford, J., & Arvinen-Barrow, M. (2019). Exploring the use of psychological skills training interventions in a music domain: A systematic review. *Medical Problems of Performing Artists*, *34*(4), 222–229. https://doi.org/10.21091/mppa.2019.4033

Fortin-Guichard, D., Boudreault, V., Gagnon, S., & Trottier, C. (2018). Experience, effectiveness, and perceptions towards sport psychology consultants: A critical review of peer-reviewed articles. *Journal of Applied Sport Psychology*, *30*(1), 3–22. https://doi.org/10.1080/10413200.2017.1318416

Gee, C. J. (2010). How does sport psychology actually improve athletic performance? A framework to facilitate athletes' and coaches' understanding. *Behavior Modification*, *34*(5), 386–402. https://doi.org/10.1177/0145445510383525

Ginsborg, J. (2004). Strategies for Memorizing Music. In A. Williamon, *Musical Excellence: Strategies and Techniques to Enhance Performance*. Oxford University Press. https://doi.org/10.1093/acprof:oso/9780198525356.001.0001

Ginsborg, J. (2022). Memorization. In G. E. McPherson (Ed.), *The Oxford Handbook of Music Performance, Volume 1* (p. 0). Oxford University Press. https://doi.org/10.1093/oxfordhb/9780190056285.013.12

Hatfield, J. L. (2016). Performing at the Top of One's Musical Game. *Frontiers in Psychology*, *7*, 1356. https://doi.org/10.3389/fpsyg.2016.01356

Hatfield, J. L., & Lemyre, P.-N. (2016). Foundations of intervention research in instrumental practice. *Frontiers in Psychology*, *6*. https://doi.org/10.3389/fpsyg.2015.02014

Hawkes, M. E. (2016). Enhancing performance: An exploratory study of performance coaching in practice in a UK conservatoire. *Arts and Humanities in Higher Education*.

Hays, K. F. (2002). The enhancement of performance excellence among performing artists. *Journal of Applied Sport Psychology*, *14*(4), 299–312. https://doi.org/10.1080/10413200290103572

Jancovich, L., & Stevenson, D. (2021). Failure seems to be the hardest word to say. *International Journal of Cultural Policy*, 1–15. https://doi.org/10.1080/10286632.2021.1879798

Jørgensen, H. (2000). Student learning in higher instrumental education: Who is responsible? *British Journal of Music Education*, *17*(1), 67–77. https://doi.org/10.1017/S0265051700000164

Kegelaers, J., & Oudejans, R. R. D. (2020). A process evaluation of a performance psychology intervention for transitioning elite and elite musicians. *Frontiers in Psychology*, *11*, 1090. https://doi.org/10.3389/fpsyg.2020.01090

Kegelaers, J., Schuijer, M., & Oudejans, R. R. (2020). Resilience and mental health issues in classical musicians: A preliminary study. *Psychology of Music*, 030573562092778. https://doi.org/10.1177/0305735620927789

Kochem, F. B., & Silva, J. G. (2018). Prevalence of Playing-related Musculoskeletal Disorders in String Players: A Systematic Review. *Journal of Manipulative and Physiological Therapeutics*, *41*(6), 540–549. https://doi.org/10.1016/j.jmpt.2018.05.001

Kruse-Weber, S., & Sari, T. (2019). Learning to reflect: Enhancing instrumental music education students' practice through reflective journals. In S. Gies & J. H. Sætre

(Eds.), *Becoming musicians. Student involvement and teacher collaboration in higher music education* (pp. 127–150). Norges musikkhøgskole.

Lisboa, T., Demos, A. P., & Chaffin, R. (2018). Training thought and action for virtuoso performance. *Musicae Scientiae*, *22*(4), 519–538. https://doi.org/10.1177/1029864918782350

Lubker, J. R., Visek, A. J., Ii, J. C. W., & Singpurwalla, D. (2012). Athletes' preferred characteristics and qualifications of sport psychology practitioners: A consumer market analysis. *Journal of Applied Sport Psychology*, *24*, 465–480.

Martin, S. B., Kellmann, M., Lavallee, D., & Page, S. J. (2002). Development and psychometric evaluation of the sport psychology attitudes—revised form: A multiple group investigation. *The Sport Psychologist*, *16*(3), 272–290. https://doi.org/10.1123/tsp.16.3.272

Martin, S. B., Zakrajsek, R., & Wrisberg, C., A. (2012). Attitudes toward sport psychology and seeking assistance: Key factors and a proposed model. In C. D. Logan & M. I. Hodges (Eds.), *Psychology of attitudes*. Nova Science Publishers.

McPherson, G. E., Osborne, M. S., Evans, P., & Miksza, P. (2019). Applying self-regulated learning microanalysis to study musicians' practice. *Psychology of Music*, *47*(1), 18–32. https://doi.org/10.1177/0305735617731614

Miksza, P. (2015). The effect of self-regulation instruction on the performance achievement, musical self-efficacy, and practicing of advanced wind players. *Psychology of Music*, *43*(2), 219–243. https://doi.org/10.1177/0305735613500832

Miksza, P., Blackwell, J., & Roseth, N. E. (2018). Self-regulated music practice: Microanalysis as a data collection technique and inspiration for pedagogical intervention. *Journal of Research in Music Education*, *66*(3), 295–319. https://doi.org/10.1177/0022429418788557

Mornell, A., & Wulf, G. (2019). Adopting an External Focus of Attention Enhances Musical Performance. *Journal of Research in Music Education*, *66*(4), 375–391. https://doi.org/10.1177/0022429418801573

Nordin-Bates, S. M. (2012). *Performance psychology in the performing arts*. Oxford University Press. https://doi.org/10.1093/oxfordhb/9780199731763.013.0005

Osborne, M. S., Greene, D. J., & Immel, D. T. (2014). Managing performance anxiety and improving mental skills in conservatoire students through performance psychology

training: A pilot study. *Psychology of Well-Being*, *4*(1), 18. https://doi.org/10.1186/s13612-014-0018-3

Osborne, M. S., Kenny, D. T., & Cooksey, J. (2007). Impact of a cognitive-behavioural treatment program on music performance anxiety in secondary school music students: A pilot study. *Musicae Scientiae*, *11*(2_suppl), 53–84. https://doi.org/10.1177/10298649070110S204

Pecen, E., Collins, D. J., & MacNamara, Á. (2018). "It's your problem. Deal with it." Performers' experiences of psychological challenges in music. *Frontiers in Psychology*, *8*, 2374. https://doi.org/10.3389/fpsyg.2017.02374

Pecen, E., Collins, D., & MacNamara, Á. (2016). Music of the night: Performance practitioner considerations for enhancement work in music. *Sport, Exercise, and Performance Psychology*, *5*(4), 377–395. https://doi.org/10.1037/spy0000067

Perkins, R. (2013). Learning cultures and the conservatoire: An ethnographically-informed case study. *Music Education Research*, *15*(2), 196–213. https://doi.org/10.1080/14613808.2012.759551

Perkins, R., Reid, H., Araújo, L. S., Clark, T., & 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*, 968. https://doi.org/10.3389/fpsyg.2017.00968

Rickert, D. L., Barrett, M. S., & Ackermann, B. J. (2013). Injury and the orchestral environment: Part I. The role of work organisation and psychosocial factors in injury risk. *Medical Problems of Performing Artists*, *28*(4), 219–229. https://doi.org/10.21091/mppa.2013.4043

Rickert, D. L., Barrett, M. S., & Ackermann, B. J. (2014). Injury and the orchestral environment: Part II. Organisational culture, behavioural norms, and attitudes to Injury. *Medical Problems of Performing Artists*, *29*(2), 94–101. https://doi.org/10.21091/mppa.2014.2020

Shaw, T. A., Juncos, D. G., & Winter, D. (2020). Piloting a New Model for Treating Music Performance Anxiety: Training a Singing Teacher to Use Acceptance and Commitment Coaching With a Student. *Frontiers in Psychology*, *11*, 882. https://doi.org/10.3389/fpsyg.2020.00882

Stanhope, J., Pisaniello, D., & Weinstein, P. (2022). The effect of strategies to prevent and manage musicians' musculoskeletal symptoms: A systematic review. *Archives of Environmental & Occupational Health*, *77*(3), 185–208. https://doi.org/10.1080/19338244.2020.1860879

Steemers, S., van Rijn, R. M., van Middelkoop, M., Bierma-Zeinstra, S. M. A., & Stubbe, J. H. (2020). Health Problems in Conservatoire Students: A Retrospective Study Focusing on Playing-Related Musculoskeletal Disorders and Mental Health. *Medical Problems of Performing Artists*, *35*(4), 214–220. https://doi.org/10.21091/mppa.2020.4029

Suzuki, A. (2021). *Using performance psychology to support tertiary music students: An intervention and exploration of attitudes* [Unpublished master's thesis]. The University of Sheffield.

Tief, V. J., & Gröpel, P. (2020). Pre-performance routines for music students: An experimental pilot study. *Psychology of Music*, 12. https://doi.org/10.1177/0305735620953621

Vallerand, R. J. (2008). On the Psychology of Passion: In Search of What Makes People's Lives Most Worth Living. *Canadian Psychology*, *49*(1), 1–13.

Williamon, A., & Thompson, S. (2006). Awareness and incidence of health problems among conservatoire students. *Psychology of Music*, *34*(4), 411–430. https://doi.org/10.1177/0305735606067150