British Journal of Music Education (2023), **40**, 34–53
doi:10.1017/S0265051722000146

CAMBRIDGE UNIVERSITY PRESS

ARTICLE

Teacher perspective on music performance anxiety: an exploration of coping strategies used by music teachers

Erin MacAfee* and Gilles Comeau

50 University Ave., Ottawa, ON K1N 6N5, Canada
*Corresponding author. Email: edemp084@uottawa.ca

Abstract

The purpose of this study was to explore music performance anxiety (MPA) from music teachers' perspectives by identifying and describing common coping strategies teachers use to support students with MPA. A quantitative content analysis of scientific and non-scientific MPA literature identified preparation, open communication, realistic expectations, exposure therapy and deep breathing as the five most common coping strategies mentioned in the literature. Qualitative thematic analyses of existing literature and interview transcripts from five piano teacher participants provided descriptions of the five commonly identified coping strategies. A comparison of literature and interview results suggests a gap between research knowledge of MPA and practical teaching application. While music teachers employ a variety of strategies to help students cope with MPA, they may also benefit from formal MPA training opportunities grounded in research to provide additional resources for effectively managing students with MPA.

Keywords: music performance anxiety; music teachers; music education; young musicians; coping strategies

Numerous studies show that young musicians often experience music performance anxiety (MPA) when asked to perform in public (Nusseck, Zander, & Spahn, 2015; Patston & Osborne, 2016). Research suggests that the student/teacher relationship impacts anxiety (Liu, 2016), making it crucial that teachers provide proper MPA support to young musicians. While many MPA intervention studies conclude with suggestions for music teachers (MacAfee & Comeau, 2020a; Osborne & Kenny, 2008), few studies examine whether teachers are implementing researcher suggestions (Jordan, 2016; Sieger, 2017). Therefore, the current study explores MPA from a music teacher perspective and has two aims: to identify common coping strategies music teachers use to support students with MPA and to explore how music teachers describe common coping strategies used in their teaching practice.

Music performance anxiety in young musicians

Kenny (2011) comprehensively defines MPA as:

> The experience of marked and persistent anxious apprehension related to musical performance that has arisen through underlying biological and/or psychological vulnerabilities and/or specific anxiety-conditioning experiences. It is manifested through combinations of affective, cognitive, somatic, and behavioural symptoms. It may occur in a range of performance settings, but is usually more severe in settings involving high ego investment, evaluative threat (audience), and fear of failure. It may be focal (i.e. focused only on music performance), or occur comorbidly with other anxiety disorders, in particular social phobia. It affects musicians across the lifespan and is at least partially independent of years of

> training, practice, and level of musical accomplishment. It may or may not impair the quality of performance. (p. 61)

Musicians with MPA can present a variety of cognitive, somatic and behavioural symptoms including worry, memory problems, shaking, increased heart rate, changes in breathing and avoidance behaviours (Hallam, Cross, & Thaut, 2009; Kenny, 2011; Kesselring, 2006). Researchers suggest that musicians of all ages experience MPA (Boucher & Ryan, 2011; Casanova, Zarza, & Orejudo, 2018; Thomas & Nettelbeck, 2014), and unaddressed MPA in young musicians can result in the early termination of music education (Orejudo, Zarza-Alzugaray, & Casanova, 2018). Several factors may influence MPA, including gender (Coşkun-Şentürk and Çırakoğlu (2017); Ryan, 2005), perfectionism (Kenny, Davis, & Oates, 2004; Patston & Osborne, 2016), self-efficacy (Hendricks, Smith, & Legutki, 2015; McPherson & McCormick, 2006) and age (Dempsey & Comeau, 2019; Patston & Osborne, 2016). With regard to age, Dempsey and Comeau, as well as Patston and Osborne, found that self-report MPA increased with age in 7-17-year-olds. The progression of MPA from childhood to adolescence coupled with the potential risk that MPA may cause students to end their music education early indicates that young musicians may benefit from learning effective MPA coping strategies.

Many researchers have investigated different interventions designed to reduce MPA. For example, researchers tested the efficacy of cognitive behavioural therapy (Braden, Osborne, & Wilson, 2015; Osborne, Kenny, & Cooksey, 2007), yoga and meditation (Blyskal, 2018; Stern, Khalsa, & Hofmann, 2012) and modelling (MacAfee & Comeau, 2020a; Moody, 2014) and found that participating musicians reported positive MPA effects following intervention. These results provide music teachers with potential strategies to diminish MPA in students. Additionally, many non-intervention MPA studies end with recommendations to music educators (Atlas, Taggart, & Goodell, 2004; Mitchell, 2011; Osborne & Kenny, 2008). Patston (2014) reviewed MPA literature and concluded with advice for teachers on how to help students cope with MPA throughout their developmental trajectory. Similarly, Slocumb's (2009) review of literature ends with a list of strategies music educators can use to teach brass players how to manage various MPA symptoms. In both studies, researchers recognise the need to provide teachers, and indirectly students, with MPA coping skills. However, despite the suggestions available to music teachers, few researchers have examined whether teachers are implementing literature findings in their everyday teaching practice.

Teacher perspective on MPA

Teachers often work closely with young musicians, specifically in the context of private music teaching, and can act as a front-line defense against MPA (Liu, 2016). However, few scientific studies explore MPA from a teacher perspective. Jordan (2016) explored teacher perspective in a multiple case study examining how undergraduate music schools address MPA. Interviews with primary instrumental instructors revealed that teachers were the primary resource for addressing student MPA. However, most teachers felt unprepared to help students manage MPA as they lacked formal training and had not been taught MPA coping skills by previous teachers. Similarly, Liu (2016) and Sieger (2017) respectively interviewed three university music teachers and three public school instrumental teachers and found that participating teachers did not have formal MPA training. Instead, teachers drew from personal experience to provide students with coping strategies. Even without formal training, teachers intuitively suggested several coping strategies that have been tested in intervention studies, such as exposure therapy (Bissonnette, Dube, Provencher, & Sala, 2011; Crawford, 2011), meditation (Blyskal, 2018; Diaz, 2018) and visualisation (Clark & Williamon, 2011; Hoffman & Hanrahan, 2012). These studies suggest that music teachers have some tools to help students cope with MPA but could benefit from formal training

https://doi.org/10.1017/S0265051722000146 Published online by Cambridge University Press

grounded in scientific, researched-based literature. Recently, researchers have begun to address this issue by providing evidence-based literature on coping with student MPA. One such example is *Performance anxiety: A practical guide for music teachers* (Daubney & Daubney, 2016), which was published as a guide to provide music teachers with practical strategies for helping students manage MPA. Further evidence-based publications may continue to bridge the gap between research and teaching practice, helping music teachers and students alike cope with MPA.

Non-scientific, practice-based literature, in the form of magazine and newsletter articles written by private music teachers, provides further insight into teacher perspective. Many private teachers have written non-scientific articles with the purpose of sharing MPA knowledge with other teachers. While non-scientific articles are typically based on informal observation and grounded in teachers' personal experience, the information provided often aligns with scientific MPA literature. For example, many teachers observe cognitive, physical and behavioural MPA symptoms in students, such as worry, memory difficulties, dry mouth, shaking hands, increased bodily tension, upset stomach and elevated heart rate (Crappell, 2014; Ginsborg, 2019; Thio, 2009; Wan, 2016), which are also described in scientific literature (Hallam, Cross, & Thaut, 2009; Kenny, 2011). Additionally, teachers in non-scientific literature describe self-efficacy (Boyett, 2019; Petrovich, 2003), perfectionism (Knerr, 2009; Nagel, 2015) and gender (Johnson, 2004; Knerr, 2009) as factors that may influence MPA in students. These factors have also been identified in scientific literature as potential variables affecting MPA (self-efficacy: McPherson & McCormick, 2006; Robson & Kenny, 2017; perfectionism: Kenny, Davis, & Oates, 2004; Nielsen et al., 2018; gender: Nusseck et al., 2015; Ryan, 2005). Interestingly, when discussing the effects of gender on student MPA, Johnson (2004) admits that while she recognises that boys and girls may need different MPA strategies, she does not know how to provide that for her students. This seems to echo a larger trend in that music teachers are accurately observing symptoms and trends in student MPA based on comparisons to scientific literature but often lack the training needed to help their students effectively manage MPA.

Purpose of the study

To provide teachers with applicable MPA training, it is first helpful to understand what teachers are currently doing to assist students with MPA. The purpose of this study is to explore MPA from music teachers' perspectives by identifying and describing common coping strategies music teachers use to support students with MPA. The study examines the following research questions: (a) What are the five most common strategies music teachers use to support young musicians with MPA based on a quantitative content analysis of scientific and non-scientific literature?, (b) How do music teachers describe the five most common MPA coping strategies (as identified in the previous question) based on a thematic analysis of scientific and non-scientific literature? and (c) How do piano teachers describe the five most common MPA coping strategies (as identified in the first question) based on a thematic analysis of semi-structured interviews?

The remainder of the paper is presented in three parts. The first part will present the quantitative content analysis of scientific and non-scientific literature. The second part will present the qualitative thematic analysis of scientific and non-scientific literature. The third part will present the thematic analysis of piano teacher interviews, followed by a discussion synthesising the results of parts one, two and three.

Part one: Quantitative content analysis of scientific and non-scientific literature

Method

Sample

A basic quantitative content analysis examined the common strategies in the literature that music teachers use to support young musicians with MPA. The population for the analysis included

https://doi.org/10.1017/S0265051722000146 Published online by Cambridge University Press

scientific literature looking at MPA from a teacher's perspective and non-scientific literature written by music teachers. ProQuest databases and Google Scholar were systematically searched using the keywords 'music performance anxiety' combined with 'teacher' to identify scientific literature. These searches yielded 374 and 670 results, respectively, and the researcher reviewed titles and abstracts of the first 100 references from each search to determine relevance. Relevant literature included all literature referencing MPA coping strategies used by teachers or teacher perspective on MPA. Twenty scientific sources were identified as potentially relevant and included in the sample. Searches were also conducted in two popular magazines for music teachers, *Clavier Companion* and *American Music Teacher*, to identify non-scientific literature. Given that participants in part three were all North American piano teachers, these magazines were chosen for their focus on North American music teaching practices, as well as for their accessibility to the researchers. A different set of keywords was used to identify non-scientific articles written by teachers: *anxiety, stage fright, fear* and *nervous*. These searches yielded 32 and 52 results, respectively, and all results were reviewed for relevance. Twenty-three non-scientific sources were included in the sample, for a total of 43 sources.

Data analysis

The identified sample underwent a quantitative content analysis, which is when existing texts are analysed by calculating the frequencies of specific units appearing in the literature. Researchers focused on manifest content only and identified specific meaningful passages of materials as recording units (Drisko & Maschi, 2015). Recording units for the current analysis were any passages related to MPA coping strategies employed by music teachers, and an MPA strategy was defined as any intervention, method or philosophy a teacher used to reduce student MPA. Thirty-three of the 43 sample sources contained recording units, and each unit was inductively assigned a code related to type of MPA strategy. For example, a recording unit discussing teachers providing low-pressure performance situations to reduce anxiety was coded as 'exposure to performance'. After coding, a frequency count totalled the amount of times each code appeared in the sample, with each code being counted one time per source. The frequency count determined the five codes appearing most often in the literature.

Results

Thirty-one coping strategies were identified during the quantitative content analysis. The five most frequently coded coping strategies are preparation, open communication, realistic expectations, exposure therapy and deep breathing (see Table 1).

Part two: Qualitative thematic analysis of scientific and non-scientific literature

Method

Sample

A qualitative thematic analysis explored how music teachers describe common MPA coping strategies in scientific and non-scientific literature. The sample consisted of all articles identified in part one as related to one of the five frequently coded coping strategies. Eleven scientific and 20 non-scientific articles were included, for a total of 31 sources.

Data analysis

All articles were deductively coded (Braun & Clark, 2006), using the five most frequently coded strategies identified in part one as broad themes. After reviewing the data, the researcher created a list of codes within each theme. Two researchers with qualitative coding and music teaching experience independently coded three articles with the initial coding list. The researchers compared

https://doi.org/10.1017/S0265051722000146 Published online by Cambridge University Press

Table 1. MPA coping strategies used by music teachers identified in scientific and non-scientific literature

Strategy	Scientific articles identifying strategy	Non-scientific articles identifying strategy	Total articles identifying strategy
Preparation	9	11	20
Open communication	7	8	15
Realistic expectations	4	9	13
Exposure to performance	6	7	13
Deep breathing	6	7	13
Imagery/visualisation	7	5	12
Physical relaxation techniques	6	4	10
Focus	4	6	10
Using different strategies	3	5	8
Meditation/mindfulness	3	4	7
Self-talk	3	4	7
Goal setting	6	0	6
Positive feedback	3	3	6
MPA education	3	2	5
Modelling	2	3	5
Build positive support network	2	3	5
Teach flow	3	2	5
Beta blockers	1	3	4
Foster self-confidence	2	2	4
Create safe environment	2	2	4
Cognitive behavioural therapy	4	0	4
Care for physical body	2	2	4
Focus on joy of music making	3	1	4
Teach problem solving	2	1	3
Teach performance reflection	2	1	3
Humour	1	1	2
Psychological counselling	1	1	2
Distract from anxious thoughts	1	1	2
Provide 'back-up plan'	0	2	2
Collaborative playing	0	1	1
Teach improvisation skills	1	0	1

Note. MPA = music performance anxiety. See Appendix A for full list of scientific and non-scientific articles identifying each coping strategy

results and achieved high agreement for all codes. After establishing inter-coder agreement, the primary researcher coded the remaining data using the final coding list (see Table 2). While Creswell (2007) suggests remaining open to addition themes, the researchers focused on the five identified themes to limit the scope of the paper.

https://doi.org/10.1017/S0265051722000146 Published online by Cambridge University Press

Results

Thirty-one scientific and non-scientific articles were coded in the qualitative thematic analysis using the five strategies identified in part one (preparation, open communication, realistic expectations, exposure to performance, deep breathing) as broad themes. Since both sources describe similar content, scientific and non-scientific data are presented in combination.

Preparation

Twenty articles described preparation as an effective MPA coping strategy (see Appendix B). Teachers identified poor preparation as a large contributor to student MPA and propose that 'one way to cope with anxiety is being well prepared for each aspect of the music: the structure, basic technique, interpretation, memory, and performance' (Liu, 2016, p. 123). Descriptions of preparation fell into two categories: musical and performance preparation. Teachers described musical preparation as helping students learn their pieces well to promote musical security before performing onstage. Several different techniques were used to musically prepare students, such as providing proper practice instructions, using analytical activities to enhance student understanding of the music and teaching proper memorisation. Teachers described performance preparation as helping students prepare for non-musical aspects of performance. This can include teaching students to manage performance malfunctions, providing dress rehearsals and addressing other aspects that can contribute to MPA. Teachers suggest training students to deal with potential performance problems, such as distractions or memory slips. Additionally, dress rehearsals can increase student comfort in the performance space by allowing students to 'test-run' their piece and have the added benefit of ensuring that students are musically prepared. Finally, teachers discuss addressing any remaining non-musical aspects, such as shoes and clothing, introductions and bowing, and proper sleep and nutrition. Kirchner (2004) states that 'attending to these [non-musical] matters will help reduce any last-minute panic on the day' (p. 22). While teachers believe that preparation may decrease MPA, they also acknowledge that preparation will not necessarily eradicate MPA.

Open communication

Fifteen articles described open teacher–student communication as an effective strategy to buffer against MPA (see Appendix B). Descriptions of open communication fell into three categories: communication about MPA, fostering open communication and avoiding MPA discussion. Teachers in the literature felt it was their responsibility to discuss MPA symptoms, causes and treatments with students. For example, Johnson (2004) suggests that teachers should proactively discuss MPA as 'waiting to have the "how to cope" talk after a performance disaster is too little, too late' (pg. 81). Teachers also describe the importance of creating a safe environment as students are more likely to speak honestly about MPA when they feel comfortable. Suggestions for creating a safe environment include listening, validating fears, sharing personal experience and normalising MPA. While most teachers in the literature prefer proactive MPA communication, several teachers avoided MPA discussion with younger students for fear that 'it would inadvertently increase the possibility of occurrence' (Sieger, 2017, p. 45). Teachers feared that introducing the concept of MPA to students who had not yet experienced symptoms could unintentionally increase MPA.

Realistic expectations

Thirteen articles described setting realistic expectations as an effective strategy to manage MPA (see Appendix B). Descriptions of realistic expectations fell into two categories: performance expectations and learning expectations. Teachers suggest perfectionistic expectations can increase MPA in students and agreed that 'striving for perfection (versus appreciating competence and playing "as well as you can") is a ticket to experiencing performance anxiety' (Nagel, 2015, p. 46).

https://doi.org/10.1017/S0265051722000146 Published online by Cambridge University Press

Table 2. Coding list and definitions

Codes	Definitions
Preparation	Using musical or non-musical preparation to decrease MPA
Musical preparation	Helping students prepare for the musical aspects of performing
Performance preparation	Helping students prepare for performance and non-musical aspects of performing
Open communication	Using open student–teacher communication to decrease MPA
Communication about MPA	Discussion about causes, symptoms, treatments and coping strategies for MPA
Fostering open communication	Strategies teachers can use to foster open communication with students
Avoid MPA discussion	Avoiding MPA discussion with students
Realistic expectations	Helping students set realistic expectations to decrease MPA
Performance expectations	Encouraging students to set realistic, non-perfectionistic performance goals
Learning expectations	Encouraging students to set realistic, non-perfectionistic music learning goals
Exposure to performance	Providing positive performance opportunities to students to decrease MPA
Graded mastery experiences	Providing students with low-pressure performance opportunities
Frequent performance opportunities	Providing students with frequent performance opportunities
Deep breathing	Using deep breathing as a physiological technique to decrease MPA
MPA effect on breathing	Describing physiological effects of MPA on student breathing
Benefits of deep breathing	Describing how students can benefit from using deep breathing techniques
Breathing techniques	Describing different deep breathing techniques

Teachers combat perfectionism induced MPA by helping students set realistic performance expectations that focus on intrinsic rather than extrinsic goals. Teachers suggest helping students set intrinsic goals such as playing through a piece without stopping or working towards performing expressively rather than perfectly. Johnson (2004) states, 'It's really never too soon … to let the student know that one wrong note does not nullify the other 683 beautifully played ones' (p. 81). Teachers in the literature also describe setting realistic learning goals, as unrealistic expectations, such as assigning a piece that is too challenging, can result in failure experiences and decreased performance self-efficacy. Realistic learning expectations can include choosing appropriate repertoire, setting reasonable learning time frames and setting manageable practice goals.

Exposure to performance

Thirteen articles described exposure to performance as an effective MPA coping strategy (see Appendix B). Descriptions of exposure fell into two categories: graded mastery experiences and frequent performance opportunities. Teachers suggest that exposure to performance can decrease MPA as it helps 'students to become desensitized to the uniqueness of high-stakes music performance' (Jordan, 2016, p. 104). Teachers describe graded mastery experiences, which are when 'exposure is introduced incrementally beginning with low-intensity performance situations, such as playing for a friend in one's home, and graduating to higher-intensity experiences, such as playing in a larger venue' (Garner 2014, p. 57). The positive mastery experience gained from low-intensity performances can increase self-efficacy and decrease MPA for subsequent higher-intensity performances. Teachers stress the importance of providing low-intensity opportunities

https://doi.org/10.1017/S0265051722000146 Published online by Cambridge University Press

in supportive settings, as students are less likely to feel anxious performing in a positive environment. Teachers also suggest that students should perform frequently, indicating that on stage comfort typically increases the more often students perform. Frequent exposure also allows students to 'gradually gain practice coping with negative symptoms associated with anxiety' (Garner 2014, p. 57), and as students gain more experience performing successfully despite MPA symptoms, their confidence in coping with MPA increases.

Deep breathing

Thirteen articles described deep breathing as an effective strategy to manage MPA (see Appendix B). Descriptions of deep breathing fell into three categories: MPA effect on breathing, benefits of deep breathing and breathing techniques. Teachers in the literature state that MPA can interfere with normal breathing patterns when 'the sympathetic branch of the autonomic nervous system begins to work harder and cause symptoms such as increased heart rate, respiration, dizziness and muscle tension' (Boyett, 2019, p. 11). To combat physiological MPA symptoms, teachers suggest using deep breathing to regulate the autonomic nervous system and promote relaxation. Teachers described deep breathing as a practical strategy because it can be 'applied in several settings' (McKinney, 2008, p. 27), and a versatile strategy because it can be combined with other coping skills such as progressive muscle relaxation or visualisation. While practical and versatile, teachers stress that students should practice deep breathing prior to performing, as 'it will be impossible to execute under pressure unless the student has planned this into his or her performance' (McKinney, 2008, p. 28). Teachers in the literature described several deep breathing techniques including centred breathing, counting the breath and breath awareness.

Part three: Qualitative thematic analysis of piano teacher interviews

Method

Participants

The Research Ethics Board of the researcher's home institution approved this study. As this study was part of a larger set of studies examining MPA in adolescent pianists (Dempsey & Comeau, 2019; MacAfee & Comeau, 2020a, 2020b), five private piano teachers between the ages of 22 and 57 participated. Participants were required to have at least 1 year of teaching experience and needed to currently be teaching private piano lessons. All participants belonged to the Ontario Music Teachers Registered Association (ORMTA) and were recruited in person at an ORMTA conference in Ottawa. Additionally, all participants studied under the Royal Conservatory of Music (RCM) curriculum and taught piano lessons at private home studios. Helen was a 24-year-old female who had an RCM elementary piano pedagogy certificate as well as a grade 10 RCM piano performance certificate. She was currently completing a Bachelor of Music. Isaac was a 36-year-old male who had an RCM Associate Diploma (ARCT) certificate in piano performance as well as a Bachelor of Music. Janet was a 47-year-old female who had an RCM ARCT certificate in piano performance and an Associate Teacher's diploma from Conservatory Canada (CC). Janet also had a Master's degree in Piano Performance and Pedagogy. Kristina was a 57-year-old female who had an RCM ARCT certificate in piano pedagogy. Finally, Leah was a 27-year-old female who had RCM ARCT certificates in piano performance and piano pedagogy and had a Bachelor of Music in Piano Performance (see Table 3).

Measurements

Semi-structured interviews. The researcher conducted semi-structured interviews to explore which coping strategies participants use to support students with MPA, as well as determine participants' general MPA knowledge (see Appendix C). Liu's (2016) pre-existing interview guide provided the

https://doi.org/10.1017/S0265051722000146 Published online by Cambridge University Press

Table 3. Demographic variables for interview participants

Participant	Age	Gender	Years teaching	Current number of students	Age range of students
Helen	22	Female	2	12	6 years old to 65 years old
Isaac	36	Male	15	45	6 years old to 83 years old
Janet	47	Female	32	30	4 years old to 70 years old
Kristina	57	Female	40	35	Average 8 to 10 years old
Leah	27	Female	12	27	6 years old to adult

basis for the current interview guide. Applicable questions from Lui's guide were adapted for the study, while several questions not pertaining to the project were removed. As well, several researcher-created questions on coping with MPA were added to fully explore participants' teaching experiences helping students manage MPA. While the analysis focused on the five strategies identified in part one, the researcher did not ask specific questions related to these strategies. Instead, the interviews consisted of general questions related to MPA knowledge and strategies, which avoided biasing participant responses towards the strategies identified in part one. This allowed the researcher to determine if participants currently used the identified strategies, and if so, explore how they described them.

Procedure

The researcher recruited participants in-person on the first evening of an ORMTA conference. Conference attendants were provided with information on the current study and interested participants were asked to contact the researcher either in-person or via email. Once the researcher was contacted by potential participants, the researcher arranged to meet participants in-person on the second day of the ORMTA conference. The researchers intended to recruit five participants to limit the scope of the paper, and five participants contacted the researcher, so all interested teachers were able to participate. After obtaining informed consent, participants completed semi-structured interviews in the hotel lobby where the conference was held. Interviews lasted between 15 and 25 min and were recorded using a recording programme on the researcher's cell phone. Following the interviews, audio files were transferred to the researcher's computer and password protected, and pseudonyms were assigned to protect participant identity.

Data analysis

The researcher transcribed all verbal, non-verbal and background content in the interviews (McLellan, MacQueen, & Neidig, 2003). Upon review, the non-verbal content did not add additional meaning to the verbal content and was excluded from the analysis. The researcher adopted a three-pass-per-tape policy to establish transcription accuracy and performed member checks to establish credibility (Lincoln & Guba, 1985; McLellan et al., 2003). After transcription, the researcher conducted a qualitative thematic analysis on the five interview transcripts using the method and coding list established in part two (see Table 2). As with part two, the researchers focused on the five identified themes to limit the scope of the paper and did not remain open to exploring additional themes or strategies in the data.

Results

Preparation

All five interview participants described preparation as an effective MPA coping strategy (see Appendix D). Interviewed teachers reported similar elements as teachers in the literature, such

https://doi.org/10.1017/S0265051722000146 Published online by Cambridge University Press

as using musical and performance preparation to reduce student MPA. Teachers described the importance of dress rehearsals and learning how to manage performance malfunctions so that 'they [students] can do it even if something goes wrong' (Leah). Interviewed teachers also acknowledged that some students 'prepare so well, and still things go wrong' (Janet), suggesting that students may need additional MPA coping strategies.

Open communication

All five interview participants described open teacher–student communication as an effective strategy to buffer against MPA (see Appendix D). Interviewed teachers' descriptions of open communication differed from literature descriptions. Most participants shared a belief that teachers should discuss MPA with students, but student–teacher MPA communication only occurred if a student was already exhibiting MPA symptoms or if a performance was impacted by MPA. Otherwise, participants avoided MPA discussion with students who did not exhibit MPA symptoms for fear of inadvertently increasing MPA. For example, Helen stated, 'For students that do get nervous, then I will talk about the nervousness of performance because they already know what it is', but Leah stated, 'If the kid is totally happy to go onstage and play, I wouldn't say, "What if you get nervous?" Because then they might realize that they can get nervous'.

Realistic expectations

All five interview participants described setting realistic expectations as an effective strategy to manage MPA (see Appendix D). Similar to teachers in the literature, interviewed teachers agreed that perfectionistic performance expectations can increase student MPA. However, participants discussed intrinsic versus extrinsic goals more explicitly and acknowledged the practical consequences that can stem from unsuccessful performances. For example, Kristina described how an unsuccessful university entrance audition could mean that a student must put their life on hold for a year. She highlights how intrinsic goals, like performance enjoyment, can help protect self-efficacy against the negative effect of unsuccessful extrinsic evaluations. In contrast to teachers in the literature, interview participants did not discuss realistic learning expectations.

Exposure to performance

All five interview participants described exposure to performance as an effective MPA coping strategy (see Appendix D). Interviewed teachers reported similar elements as teachers in the literature, such as using graded mastery experiences and frequent performance opportunities to help decrease MPA. The teachers highlighted that low-intensity opportunities should be provided in supportive settings to help reduce MPA. For example, Helen's students gather before studio recitals to play musical games, which helps create a non-threatening atmosphere. Interviewed teachers also agree that performing frequently can help increase student comfort on stage. As Leah states, 'Exposure is helpful for any fear, right? Just do it, a lot'.

Deep breathing

Three interview participants described deep breathing as an effective strategy to manage MPA (see Appendix D). While teachers in the literature often discussed deep breathing, this coping strategy was only briefly acknowledged by three interviewed teachers. For example, Krista indicated that she instructs students to 'breathe, relax, and play the piece'. While her comment indicates an awareness that deep breathing can benefit students during performance, the interviewed teachers did not describe how or why students might implement this coping strategy.

https://doi.org/10.1017/S0265051722000146 Published online by Cambridge University Press

Discussion

The current study asked three research questions: (a) What are the five most common strategies music teachers use to support young musicians with MPA based on a quantitative content analysis of scientific and non-scientific literature?, (b) How do music teachers describe the five most common MPA coping strategies (as identified in the previous question) based on a thematic analysis of scientific and non-scientific literature? and (c) How do piano teachers describe the five most common MPA coping strategies (as identified in the first question) based on a thematic analysis of semi-structured interviews?

A quantitative content analysis of scientific and non-scientific literature identified 31 strategies music teachers use to reduce MPA. The results suggest that teachers use a variety of tools to help students manage MPA. Of these strategies, preparation, open communication, realistic expectations, exposure therapy and deep breathing were coded most frequently. Qualitative thematic analyses revealed that preparation was the coping strategy discussed most often by teachers in the literature and interviewed teachers. Teachers from both data sets agreed that poor preparation is a contributor to MPA, and therefore used musical and performance preparation to reduce student MPA. Several study results support the idea that preparation can buffer against MPA (Clark & Williamon, 2011; Osborne & Kenny, 2008), and research also indicates that professional musicians combat MPA with preparation (Dempsey & Comeau, 2017). However, literature and interviewed teachers also suggest that preparation may not alleviate all MPA symptoms, an observation supported by Kenny's (2011) definition that MPA is 'at least partly independent of preparation, experience, or practice' (p. 60). Since preparation may not eradicate MPA, teachers could consider providing additional coping strategies.

Open student–teacher MPA communication was the second most frequently discussed coping strategy from the quantitative analysis. The qualitative analysis revealed that teachers in the literature believe that proactive MPA discussion can increase student awareness, as well as encourage students to share their MPA experiences honestly with teachers. Literature teachers used tools such as validating fears, listening and normalising MPA to promote open student–teacher communication. In contrast, interviewed teachers avoided MPA discussion with younger students or students who did not exhibit MPA symptoms for fear that introducing the concept of MPA could unintentionally increase MPA. However, this belief could be problematic as comparisons between self-report MPA and observed behavioural anxiety symptoms indicate that self-perceived and observed MPA can differ (Braden et al., 2015; MacAfee & Comeau, 2020a; Spahn, Walther, & Nusseck, 2016). Given that teacher observation may not accurately detect MPA, direct communication may be a more effective way for teachers to support students.

Setting realistic expectations was the third most frequently discussed coping strategy from the quantitative analysis, along with exposure therapy and deep breathing. The qualitative analysis suggests that teachers in the literature use realistic performance and learning expectations to help students combat perfectionism induced MPA. Since several study results suggest a positive perfectionism/MPA relationship (Kenny et al., 2004; Nielsen et al., 2018), setting realistic expectations is a practical strategy teachers can use to address this research finding. In contrast, interviewed teachers discussed realistic performance, but not learning expectations, and were motivated to help students set intrinsic performance goals by the potential consequences of extrinsic evaluations. The differences between literature and interviewed teachers suggest a gap between research knowledge and practical application and indicate a need for methods of communicating research findings to practicing music educators. Evidence-based literature (Daubney & Daubney, 2016) designed to provide teachers with practical strategies to help students manage MPA is one way researchers can bridge this potential knowledge gap.

Exposure therapy was the fourth strategy identified in the quantitative analysis. Qualitative analyses suggest that literature and interviewed teachers offer students graded mastery experiences and frequent performance opportunities to increase comfort on stage. Students are more likely to

https://doi.org/10.1017/S0265051722000146 Published online by Cambridge University Press

succeed in low-intensity environments, and the resulting positive mastery experiences can increase self-efficacy for subsequent performances (Hendricks et al., 2015; Royo, 2014). Given findings that indicate a negative self-efficacy/MPA relationship (McPherson & McCormick, 2006; Robson & Kenny, 2017), increases in self-efficacy following exposure therapy may also decrease MPA. Exposure therapy can also help students feel more confident in their ability to manage MPA. When students perform successfully despite MPA, the positive mastery experience will likely help them feel more efficacious the next time they have to cope with MPA symptoms (Bandura, 1993).

Deep breathing was the final strategy identified in the quantitative analysis. A qualitative analysis revealed that teachers in the literature viewed deep breathing as a practical strategy to help regulate physiological MPA symptoms. Literature teachers described several different breathing exercises for students, demonstrating the versatility of the strategy. However, the qualitative analysis of interview transcripts demonstrated that interviewed teachers had minimal awareness that deep breathing could benefit student performance or manage MPA. Again, the differences between literature and interviewed teachers suggest a gap between research knowledge and application when it comes to effectively supporting students with MPA.

Limitations

The sample size of the interviewed participants limits the transferability of the findings to the overall population. Generalisations about all music teachers are not possible in the current study. A second limitation is participant recruitment. Given that potential participants were asked to contact the researcher, it is likely that the teachers who chose to participate were already interested in the topic of MPA. As such, the interview data may not represent the views of teachers who are not interested or are less knowledgeable about the topic. A third limitation is the non-scientific literature sample size. The literature search was limited to two music magazines for the scope of the paper, but a wider range of non-scientific literature may be found in other magazines. The semi-structured interviews are a fourth limitation. The researchers did not ask questions about specific strategies for fear of biasing participant responses. While general interview questions allowed the current study to explore whether teachers are aware of and implementing MPA strategies from the literature, the absence of specified questions means that the interview data may not fully represent participant knowledge on the identified strategies. Additionally, the analysis of interviews was limited to the five identified strategies, meaning that the data presented may not fully represent other potential MPA strategies used by the current participants. Next, the interviews did not explore whether participants have access to journals or research on MPA. As the findings indicate that teachers may not be consistently implementing suggestions from MPA research, a fifth limitation of the study is that it did not explore whether teachers have access to this information. Finally, a sixth limitation is the study location. All interviewed teachers were from Ontario, and teachers from other regions may use different coping strategies. However, despite these limitations, this study offers important exploratory findings that can guide future research on MPA from music teachers' perspective.

Future research

While the current study focused on five coping strategies, future researchers could investigate other strategies to gain a wider perspective on current MPA teaching practices. Additionally, future researchers could examine strategies used by teachers from different regions and pedagogical backgrounds to further investigate teacher perspective on MPA. Future researchers could also conduct a similar study with more non-scientific review and interview participants to continue to expand the scope of research. Next, future researchers could explore how factors such as student age, skill level or teacher experience can influence student MPA and music teachers' responses to

https://doi.org/10.1017/S0265051722000146 Published online by Cambridge University Press

said MPA. Finally, future researchers could explore whether teachers have access to specialist advice or research journals on MPA. One area for future researchers to consider is how teachers perceive their ability to help students' cope with MPA, as it may be lack of confidence rather than lack of access that prevents teachers from implementing suggestions from existing MPA literature. However, if researchers find that this information in inaccessible for practicing teachers, one potential solution could be for researchers to use scientific literature to develop MPA training workshops for music teachers.

Conclusion

A quantitative content analysis of scientific and non-scientific literature revealed 31 strategies music teachers use to help students manage MPA, indicating that teachers employ a variety of tools to combat student MPA. Of these strategies, preparation, open communication, realistic expectations, exposure therapy and deep breathing appeared most frequently in the literature. Two qualitative thematic analyses revealed that descriptions of these strategies varied between teachers in the literature and interviewed teachers, which suggests a gap between research knowledge and practical application. Providing teachers with formal training opportunities grounded in MPA research could bridge the knowledge gap and supply music teachers with additional resources to effectively manage student MPA.

References

ANONYMOUS. (2012). Why I use beta blockers – A response. *Clavier Companion*, **4**(5), 45.

ATLAS, G. D., TAGGART, T. & GOODELL, D. J. (2004). The effects of sensitivity to criticism on motivation and performance in music students. *British Journal of Music Education*, **21**(1), 81–87.

BANDURA, A. (1993). Perceived self-efficacy in cognitive development and functioning. *Educational Psychologist*, **28**(2), 117–148.

BISSONNETTE, J., DUBÉ, F., PROVENCHER, M. D. & SALA, M. T. M. (2011). The effect of virtual training on music performance anxiety. In Proceedings of the International Symposium on Performance Science. Utrecht, Netherlands: European Association of Conservatoires. http://www.legacyweb.rcm.ac.uk/cache/fl0026851.pdf.

BLYSKAL, E. (2018). Mindfulness practice in the collegiate voice studio: A case study. Retrieved from ProQuest Dissertations and Theses. (Order No. 10813557)

BOUCHER, H. & RYAN, C. (2011). Performance stress and the very young musicians. *Journal of Research in Music Education*, **58**(4), 329–345.

BOYETT, C. (2019). Music performance anxiety: The role of teachers in addressing anxiety in adolescent students and beyond. *Music Teachers National Association E-Journal*, **10**(3), 2–21.

BRADEN, A. M., OSBORNE, M. S. & WILSON, S. J. (2015). Psychological intervention reduces self- reported performance anxiety in high school music students. *Frontiers in Psychology*, **6**, 195. doi: 10.3389/fpsyg.2015.00195

BRAUN, V. & CLARK, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, **3,** 77–101. doi: 10.1191/1478088706qp063oa

BRUNDAGE, S. (2014). Choking hazards and the reversion effect. *American Music Teacher*, **63**(4), 22–24.

CASANOVA, O., ZARZA, F. J. & OREJUDO, S. (2018). Differences in performance anxiety levels among advanced conservatory students in Spain, according to type of instrument and academic year of enrolment. *Music Education Research*, **20**(3), 377–389.

CLARK, T. & WILLIAMON, A. (2011). Evaluation of a mental skills training program for musicians. *Journal of Applied Sport Psychology*, **23**(3), 342–359.

COŞKUN-ŞENTÜRK, G. & ÇIRAKOĞLU, O. C. (2017). How guilt/shame proneness and coping styles are related to music performance anxiety and stress symptoms by gender. *Psychology of Music*, **46**(5), 682–698. doi: 10.1177/0305735617721338

CRAPPELL, C. (2014). Confessions of a performing teacher. *American Music Teacher*, **63**(6), 10–12.

CRAWFORD, C. R. (2011). Effects of exposure to virtual audience environments on performing musicians. Retrieved from ProQuest Dissertations and Theses. (Order No. MR75937)

CRESWELL, J. W. (2007). *Qualitative Inquiry & Research Design: Choosing among Five Approaches* (2nd ed.). Thousand Oakes, CA: SAGE.

DAUBNEY, G. & DAUBNEY, C. (2016). *Performance Anxiety: A Practical Guide for Music Teachers*. London, UK: ISM Trust.

DAWSON, W. J. (2015). Playing healthy, staying healthy. *American Music Teacher*, **64**(5), 23–25.

DEMPSEY, E. & COMEAU, G. (2017). How professional pianists experience music performance anxiety. *Piano Pedagogy Forum*, **18**(1), 2–19.
DEMPSEY, E. & COMEAU, G. (2019). Music performance anxiety and self-efficacy in young musicians: Effects of gender and age. *Music Performance Research*, **9**, 60–79.
DIAZ, F. M. (2018). Relationships among mediation, perfectionism, mindfulness, and performance anxiety among collegiate students. *Journal of Research in Music Education*, **66**(2), 150–167.
DRISKO, J. W. & MASCHI, T. (2015). *Content Analysis*. New York, NY: Oxford University Press.
FINCH, J. B. (2012). Is it right to drug our way to better playing? Clavier Companion, 4(5), 42–44.
GARNER, A. M. (2014). Preparing the mind and body for performance: Conquering stage fright through effective practice. *Clavier Companion*, **6**(4), 54–57.
GINSBORG, J. (2019). Managing music performance anxiety: Memorization strategies for instrumental musicians and singers. *American Music Teacher*, **68**(4), 16–18.
HALLAM, S., CROSS, I., & THAUT, M. H. (2009). *The Oxford Handbook of Music Psychology*. Oxford, UK: Oxford University Press.
HENDRICKS, K., SMITH, T. & STANUCH, J. (2014). Creating safe spaces for music learning. *Music Educators Journal*, **101**(1), 35–40.
HENDRICKS, K. S., SMITH, T. D. & LEGUTKI, A. R. (2015). Competitive comparison in music: Influences upon self-efficacy beliefs by gender. *Gender and Education*, **28**(7), 918–934. doi: 10.1080/09540253.2015.1107032
HOFFMAN, S. L. & HANRAHAN, S. J. (2012). Mental skills for musicians: Managing music performance anxiety and enhancing performance. *Sport, Exercise, and Performance Psychology*, **1**(1), 17–28.
JOHNSON, R. G. (2004). What's new in pedagogy research? American Music Teacher, 53(6), 80–81.
JORDAN, C. R. (2016). How undergraduate music schools address music performance anxiety: A multiple case study. Retrieved from ProQuest Dissertations and Theses. (Order No. 10253856)
JUTRAS, P. (2009). Could we use a good laugh? Clavier Companion, 1(6), 4–5.
KENNY, D.T. (2011). *The Psychology of Music Performance Anxiety*. Oxford, UK: Oxford University Press.
KENNY, D. T., DAVIS, P. & OATES, J. M. (2004). Music performance anxiety and occupational stress amongst opera chorus artists and their relationship with state and trait anxiety and perfectionism. *Journal of Anxiety Disorders*, **18**(6), 757–777.
KESSELRING, J. (2006). Music performance anxiety. In E. Altenmüller, M. Wiesendanger, & J. Kesselring (eds.), *Music, Motor Control and the Brain* (pp. 309–318). Oxford, UK: Oxford University Press.
KIRCHNER, J. (2004). Managing musical performance anxiety. *American Music Teacher*, **54**(3), 31–33.
KIRCHNER, J. M., BLOOM, A. J. & SKUTNICK-HENLEY, P. (2008). The relationship between performance and flow. *Medical Problems of Performing Artists*, **23**(2), 59–65.
KNERR, J. (2009). Seven steps to conquering stage fright. *Clavier Companion*, **1**(3), 38–39.
KRAMER, R. (2007). The reluctant recitalist. *American Music Teacher*, **57**(3), 52.
LINCOLN, Y. S., & GUBA, E. G. (1985). *Naturalistic Inquiry*. Beverly Hills, CA: SAGE.
LIU, P-C. (2016). Music performance anxiety among college piano majors in Taiwan. Retrieved from ProQuest Dissertations and Theses. (Order No.10191687)
MACAFEE, E. & COMEAU, G. (2020a). Exploring music performance anxiety, self-efficacy, performance quality, and behavioural anxiety within a self-modeling intervention for young musicians. *Music Education Research*. doi: 10.1080/14613808.2020.1781074
MACAFEE, E. & COMEAU, G. (2020b). The impact of the four sources of efficacy on adolescent musicians. *Contributions to Music Education*, **45**, 205–236.
MALEBRANCHE, T. (2012). Preventing music performance anxiety in beginning pianists. Retrieved from ProQuest Dissertations and Theses. (Order No. 1511808)
MCALLISTER, L. (2015). Playing healthy, staying healthy. *American Music Teacher*, **64**(5), 20–22.
MCKINNEY, D. L. (2008). Mental strategies to improve playing from memory. *American Music Teacher*, **57**(6), 26–28.
MCLELLAN, E., MACQUEEN, K. M. & NEIDIG, J. L. (2003). Beyond the qualitative interview: Data preparation and transcription. *Field Methods*, **15**(1), 63–84.
MCPHERSON, G. & MCCORMICK, J. (2006). Self-efficacy and music performance. *Psychology of Music*, **34**(3), 322–336.
MITCHELL, N. (2011). Evaluation and performance anxiety in music study. *Canadian Music Educator*, **53**(1), 32–34.
MOODY, L. (2014). The effects of feed-forward self-modeling on self-efficacy, music performance anxiety, and music performance in anxious adolescent musicians (Unpublished dissertation). University of Ottawa, Ontario.
NAGEL, J. J. (2015). Do perfect performances exist? Clavier Companion, 7(1), 46–47.
NAGEL, J. J. (2017a). The origins of performance anxiety. *Clavier Companion*, **7**(3), 61–65.
NAGEL, J. J. (2017b). Stage fright on my mind. *Clavier Companion*, **9**(5), 48–49.
NAGEL, J. J. (2018). Stage fright and symptoms: Cause or effect? Clavier Companion, 10(1), 62–63.

NIELSEN, C., STUDER, R. K., HILDEBRANDT, H., NATER, U. M., et al. (2018). The relationship between music performance anxiety, subjective performance quality and post-event rumination among music students. *Psychology of Music*, **46**(1), 136–152.

NUSSECK, M., ZANDER, M. & SPAHN, C. (2015). Music performance anxiety in young musicians: Comparison of playing classical or popular music. *Medical Problems of Performing Artists*, **30**(1), 30–37.

OREJUDO, S., ZARZA-ALZUGARAY, F. J. & CASANOVA, O. (2018). Music performance anxiety. Substance use and career abandonment in Spanish music students. *International Journal of Music Education*, **36**(3), 460–472.

OSBORNE, M. S. & KENNY, D. T. (2008). The role of sensitizing experiences in music performance anxiety in adolescent musicians. *Psychology of Music*, **36**(4), 447–462.

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), 53–84.

PARENTE, T. J. (2015). The positive pianist: How flow brings passion to practice and performance. *Clavier Companion*, **7**(1), 50–53.

PATSTON, T. (2014). Teaching stage fright? – Implications for music educators. *British Journal of Music Education*, **31**(1), 85–98.

PATSTON, T. & OSBORNE, M. S. (2016). The developmental features of music performance anxiety and perfectionism in school age music students. *Performance Enhancement & Health*, **4**(1–2), 42–49.

PETROVICH, A. (2003). Performance anxiety: How teachers can help. *American Music Teacher*, **53**(3), 24–27.

ROBERTSON, D. U. & EISENSMITH, K. E. (2010). Teaching students about performance anxiety: The scratch pad pop-up model. *Music Educators Journal*, **97**(2), 31–35.

ROBSON, K. E. & 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), 868–885.

ROYO, J. (2014). Self-efficacy in music education vocal instruction: A collective case study of four undergraduate vocal music education majors. Retrieved from ProQuest Dissertations and Theses. (Order No. 3619734).

RYAN, C. (2005). Experience of music performance anxiety in elementary school children. *International Journal of Stress Management*, **12**(4), 331–342.

SIEGER, C. (2017). Music performance anxiety in instrumental music students: A multiple case study of teacher perspectives. *Contributions to Music Education*, **42**, 35–52.

SLOCUMB, B. S. (2009). Causes, effects, and solutions to performance-related anxiety: Suggestions for the teaching of brass players. Retrieved from ProQuest Dissertations and Theses. (Order No. 3355980)

SNOW, A. (2017). Mastering the inner game: Three "mind coaches" on managing performance anxiety. *Clavier Companion*, **9**(1), 44–48.

SPAHN, C., WALTHER, J-C. & NUSSECK, M. (2016). The effectiveness of a multimodal concept of audition training for music students in coping with music performance anxiety. *Psychology of Music*, **44**(4), 893–909.

STERN, J. R. S., KHALSA, S. B. S. & HOFMANN, S. G. (2012). A yoga intervention for music performance anxiety in conservatory students. *Medical Problems of Performing Artists*, **27**(3), 123–128.

THIO, A. (2009). Conquering the elephant. *Clavier Companion*, **1**(3), 40–41.

THOMAS, J. P. & NETTELBECK, T. (2014). Performance anxiety in adolescent musicians. *Psychology of Music*, **42**(2), 624–634.

WAN, A. (2016). What relaxation means for musicians. *American Music Teacher*, **65**(6), 8–1.

Dr. Erin MacAfee completed her Ph.D. at the School of Human Kinetics of the University of Ottawa and has earned degrees in Piano Pedagogy (MA) from the University of Ottawa and Music (BMus) from Brock University. Specialising in music performance anxiety, her research explores the relationships between self-efficacy and anxiety in young musicians and interventions to help students suffering from anxiety. Dr. MacAfee is also the executive director of Lotus Centre for Special Music Education, a Centre that is a leader in increasing access to adapted music education for individuals with special needs.

Director of the Music and Health Research Institute and Director of the Piano Pedagogy Research Laboratory at the University of Ottawa, Gilles Comeau is a member of the Royal Society of Canada. Recognised for his innovative work, he has helped establish piano pedagogy on solid scientific basis. With the creation of a unique research laboratory and ingenious multidisciplinary research, Comeau has opened a new path in research.

Appendix A

Table 4. MPA coping strategies used by music teachers identified in individual scientific and non-scientific references

Strategy	*Articles*	*Total*
Preparation	Boyett (2019); Brundage (2014); Crappell (2014); Dawson (2015); Garner (2014); Ginsborg (2019); Kirchner (2004); Kirchner et al. (2008); Knerr (2009); Kramer (2007); Liu (2016); Malebranche (2012); McKinney (2008); Mitchell (2011); Patston (2014); Robertson & Eisensmith (2010); Sieger (2017); Slocumb (2009); Snow (2017); Thio (2009)	20
Open communication	Anonymous (2012); Boyett (2019); Dawson (2015); Hendricks et al. (2014); Johnson (2004); Kramer (2007); Liu (2016); Malebranche (2012); McAllister (2015); Nagel (2018); Nagel (2017b); Patston (2014); Petrovich (2003); Sieger (2017); Slocumb (2009)	15
Realistic expectations	Brundage (2014); Johnson (2004); Jutras (2009); Kirchner (2004); Knerr (2009); McAllister (2015); Mitchell (2011); Nagel (2018); Nagel (2017a); Nagel 2015; Patston (2014); Robertson & Eisensmith (2010); Sieger (2017)	13
Exposure to performance	Boyett (2019); Garner (2014); Jordan (2016); Kirchner (2004); Knerr (2009); Kramer (2007); Liu (2016); Malebranche (2012); McKinney (2008); Mitchell (2011); Petrovich (2003); Robertson & Eisensmith (2010); Thio (2009)	13
Deep breathing	Boyett (2019); Jordan (2016); Kirchner (2004); Kramer (2007); McAllister (2015); McKinney (2008); Mitchell (2011); Nagel (2018); Petrovich (2003); Robertson & Eisensmith (2010); Sieger (2017); Slocumb (2009); Snow (2017)	13
Imagery/visualisation	Boyett (2019); Jordan (2016); Kirchner (2004); Kramer (2007); Liu (2016); Malebranche (2012); McAllister (2015); Mitchell (2011); Petrovich (2003); Sieger (2017); Slocumb (2009); Snow (2017)	12
Physical relaxation techniques	Anonymous (2012); Boyett (2019); Jordan (2016); Kirchner (2004); Malebranche (2012); McAllister (2015); Mitchell (2011); Petrovich (2003); Robertson & Eisensmith (2010); Slocumb (2009)	10
Focus	Crappell (2014); Kirchner (2004); Kirchner et al. (2008); Knerr (2009); McKinney (2008); Robertson & Eisensmith (2010); Sieger (2017); Slocumb (2009); Snow (2017); Thio (2009)	10
Using different strategies	Boyett (2019); Brundage (2014); Dawson (2015); Johnson (2004); Jordan (2016); Kramer (2007); Petrovich (2003); Sieger (2017)	8
Meditation/mindfulness	Anonymous (2012); Boyett (2019); Kirchner (2004); Liu (2016); McAllister (2015); Petrovich (2003); Robertson & Eisensmith (2010)	7
Self-talk	Jordan (2016); Kirchner (2004); Kirchner et al. (2008); Kramer (2007); Nagel (2017b); Petrovich (2003); Slocumb (2009)	7
Goal setting	Kirchner et al. (2008); Malebranche (2012); Mitchell (2011); Patston (2014); Robertson & Eisensmith (2010); Slocumb (2009)	6
Positive feedback	Kirchner et al. (2008); Kramer (2007); Malebranche (2012); Petrovich (2003); Sieger (2017); Thio (2009)	6
MPA education	Dawson (2015); Jordan (2016); McAllister (2015); Patston (2014); Slocumb (2009)	5
Modelling	Kirchner (2004); Kramer (2007); Malebranche (2012); Mitchell (2011); Petrovich (2003)	5
Build positive support network	McAllister (2015); Nagel (2017b); Patston (2014); Petrovich (2003); Sieger (2017)	5
Teach flow	Boyett (2019); Parente (2015); Petrovich (2003); Sieger (2017); Slocumb (2009)	5

(*Continued*)

https://doi.org/10.1017/S0265051722000146 Published online by Cambridge University Press

Table 4. (*Continued*)

Strategy	*Articles*	*Total*
Beta blockers	Finch (2012); Kirchner (2004); Malebranche (2012); Petrovich (2003)	4
Foster self-confidence	Crappell (2014); Liu (2016); Mitchell (2011); Thio (2009)	4
Create safe environment	Hendricks et al. (2014); Jutras (2009); Mitchell (2011); Nagel (2017b);	4
Cognitive behavioural therapy	Boyett (2019); Jordan (2016); Malebranche (2012); Robertson & Eisensmith (2010)	4
Care for physical body	Kramer (2007); Malebranche (2012); McAllister (2015); Patston (2014)	4
Focus on joy of music making	Malebranche (2012); Mitchell (2011); Nagel (2017a); Slocumb (2009)	4
Teach problem solving	Malebranche (2012); Nagel (2017b); Patston (2014)	3
Teach performance reflection	Malebranche (2012); Patston (2014); Snow (2017)	3
Humour	Jutras (2009); Malebranche (2012)	2
Psychological counselling	Jordan (2016); Petrovich (2003)	2
Distract from anxious thoughts	Kramer (2007); Malebranche (2012)	2
Provide 'back-up plan'	McKinney (2008); Snow (2017)	2
Collaborative playing	Thio (2009)	1
Teach improvisation skills	Boyett (2019)	1

Note. MPA = music performance anxiety. Articles = The scientific and non-scientific articles containing recording units pertaining to the relevant MPA coping strategy. Total articles = total number of articles containing recording units related to the relevant MPA coping strategy

https://doi.org/10.1017/S0265051722000146 Published online by Cambridge University Press

Appendix B

Table 5. Codes identified in thematic analysis of scientific literature and non-scientific literature

	Preparation			Open communication				Realistic expectations			Exposure to performance			Deep breathing			
Articles	P	MP	PP	OC	CM	FO	AD	RE	PE	LE	EP	GM	FP	DB	ME	BB	BT
Anonymous (2012)				x													
Boyett (2019)	x	x		x	x						x	x		x	x		
Brundage (2014)	x		x					x									
Crappell (2014)	x	x	x	x													
Dawson (2015)	x		x			x											
Garner (2014)	x	x	x								x	x					
Ginsborg (2019)	x																
Hendricks et al. (2014)				x		x											
Johnson (2004)				x	x		x	x									
Jutras (2009)								x	x	x							
Jordan (2016)						x					x	x		x		x	x
Kirchner (2004)	x		x					x		x	x			x	x	x	x
Kirchner et al. (2008)	x																
Knerr (2009)	x	x						x		x	x	x	x				
Kramer (2007)	x	x	x	x		x					x	x	x	x			x
Liu (2016)	x	x	x	x		x					x	x	x				
Malebranche (2012)	x	x	x	x		x			x		x	x			x	x	x
McAllister (2015)				x				x	x					x		x	
McKinney (2008)	x		x								x			x		x	x
Mitchell (2011)	x							x	x		x			x		x	
Nagel (2018)				x	x	x		x	x					x		x	
Nagel (2017a)								x									
Nagel (2017b)				x		x		x	x								
Nagel (2015)								x									
Patston (2014)	x			x				x	x	x							
Petrovich (2003)				x							x	x	x	x		x	
Robertson & Eisensmith (2010)	x		x					x	x					x		x	x
Sieger (2017)	x			x	x	x	x	x	x		x	x	x	x		x	x
Slocumb (2009)	x			x		x								x	x	x	
Snow (2017)	x		x											x		x	
Thio (2009)	x		x								x	x					
Total	20	7	12	15	4	10	2	14	9	4	13	10	5	13	4	12	7

Note. P = preparation, MP = musical preparation, PP = performance preparation, OC = open communication, CM = communication about MPA, FO = fostering open communication, AD = avoid MPA discussion, RE = realistic expectations, PE = realistic performance expectations, LE = realistic learning expectations, EP = exposure to performance, GM = graded mastery experience, FP = frequent performance opportunities, DB = deep breathing, ME = MPA effect on breathing, BB = benefits of deep breathing, BT = breathing techniques. An x indicates which codes were identified in each article.

https://doi.org/10.1017/S0265051722000146 Published online by Cambridge University Press

Appendix C

Semi-structured interview guide

Good morning/afternoon. Thank you for agreeing to participate in this project. Today we will be conducting a short interview to explore your thoughts on performance anxiety. As well, we will also be discussing strategies you use in your teaching practice to help students cope performance anxiety. Are you ready to get started?

Teacher background

- First, could you describe your teaching background?
  - How long have you been teaching?
  - How many students do you currently teach?
  - How old are your current students?

Performance anxiety issues

We're going to talk a little about what anxiety is and how it presents in your students.

- How would you define performance anxiety?
  - Could you describe any common mental or physical symptoms of anxiety you observe in your students?
- In your opinion, what kinds of situations make students nervous when performing?
  - Audience, evaluation, unfamiliar setting, etc.
- Throughout your teaching experiences, what are the effects of anxiety on student performance?
  - Are they positive/negative
  - What kinds of things do they affect (technique, expression, memorisation, etc.)
- In your experience, are there specific characteristics that might make a student more prone to performance anxiety?
  - Males versus females?
  - Age (children versus teenagers)?
  - If age is a factor influencing anxiety, at what age do you observe that students begin to feel nervous about performing?
  - Self-confidence/self-efficacy?

Preparing for performances/coping with MPA

Next, we're going to talk about ways you help your students prepare for performances and cope with MPA leading up to performances.

- How do you prepare your students to cope with MPA before performing a big concert or competition?
  - Could you describe any coping strategies you have found particularly successful in helping ease performance anxiety in young musicians?
- When your students face obstacles or challenges when preparing for performance, how do you try to help them overcome these challenges?
  - If they overcome challenges, do you observe an impact on the students' feelings about the upcoming performance?
- Do you give your students any advice or encouragement leading up to their public performance?
  - What kinds of advice/encouragement do you give?
- Some say there is a connection between memorisation and anxiety. Do you observe performance anxiety stemming from memorisation issues/worries in your students?
  - If so, how do you help your students deal with anxiety around memorisation?
- Do you ever have students watch videos or recordings of themselves or other musicians leading up to performances?
  - Why or why not?
  - If yes, what affects, if any, do you observe when your students watch recordings?
  - Effects on anxiety?
  - Effects on self-efficacy/self-confidence?

https://doi.org/10.1017/S0265051722000146 Published online by Cambridge University Press

During performance

- Do you discuss with your students how to manage performance anxiety that occurs while they are performing (anxiety experienced during performance)?
  - What types of strategies do you suggest for your students when they are nervous *during* a performance?
- Many students indicate that focusing or concentrating on the music during a performance helps them combat performance anxiety. Do you believe this is true?
  - If yes, do you have any specific teaching techniques you use to help teach students to focus while onstage?

Comments

- Do you think there is any way to prevent MPA from developing in students?

  Why or why not?

  If yes, what can be done to prevent MPA from developing?
- In your opinion, do you think MPA should be addressed at an early on in a student's musical education?
- Anything else that you would like to add to this topic?

Appendix D

Table 6. Codes identified in thematic analysis of interview transcripts

	Preparation			Open communication				Realistic expectations			Exposure to performance			Deep breathing			
Participants	P	MP	PP	OC	CM	FO	AD	RE	PE	LE	EP	GM	FP	DB	ME	BB	BT
Helen	x	x	x	x			x	x	x		x	x	x				
Isaac	x	x	x	x		x		x	x		x	x	x				
Janet	x	x	x	x	x	x	x	x	x		x	x	x	x			x
Kristina	x	x	x	x	x			x	x		x	x	x	x		x	x
Leah	x	x	x	x	x		x	x	x		x	x	x	x			x
Total	5	5	5	5	3	2	3	5	5	0	5	5	5	3	0	1	3

Note. P = preparation, MP = musical preparation, PP = performance preparation, OC = open communication, CM = communication about MPA, FO = fostering open communication, AD = avoid MPA discussion, RE = realistic expectations, PE = realistic performance expectations, LE = realistic learning expectations, EP = exposure to performance, GM = graded mastery experience, FP = frequent performance opportunities, DB = deep breathing, ME = MPA effect on breathing, BB = benefits of deep breathing, BT = breathing techniques. An x indicates which codes were identified in each transcript.

Cite this article: MacAfee E and Comeau G (2023). Teacher perspective on music performance anxiety: an exploration of coping strategies used by music teachers. *British Journal of Music Education* **40**, 34–53. https://doi.org/10.1017/S0265051722000146