Performance Enhancement & Health 4 (2016) 42–49

Contents lists available at ScienceDirect

Performance Enhancement & Health

journal homepage: www.elsevier.com/locate/peh

The developmental features of music performance anxiety and perfectionism in school age music students

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ARTICLE INFO

Article history:
Received 25 May 2015
Received in revised form
22 September 2015
Accepted 25 September 2015
Available online 27 October 2015

Keywords:
Performance anxiety
Perfectionism
Music
Students
Teaching

ABSTRACT

There is an increasing body of evidence that the prevalence of music performance anxiety (MPA) and perfectionism in populations of adult musicians is high, and that both conditions impact negatively on the psychological health and wellbeing of musicians. There is scant evidence on the origins of these two conditions in student populations. The purpose of this study was to examine the prevalence and developmental trajectory of MPA and perfectionism in a population of school age children. A sample of 526 students (male $n = 291$; female $n = 235$) across Grades 5–12 at a private school on the outskirts of Melbourne, Victoria were administered two questionnaires, the *Music Performance Anxiety Inventory for Adolescents* (*MPAI-A*; Osborne & Kenny, 2005) which measures the somatic, cognitive and behavioural components of MPA, and the *Child Multidimensional Perfectionism Scale* (*C-MPS*; DeKryger, 2005). The C-MPS measures the multidimensional components of perfectionism in children, such as Concern over Mistakes, Organisation, Parental Expectations, and Doubts about Actions. The correlation between MPA and perfectionism by age showed a consistently strong, positive and highly significant relationship from 10 through to 17 years of age, particularly for Concern over Mistakes. The second significant relationship between MPA and perfectionism applied to gender, with females experiencing a steeper and more intense developmental trajectory than males. The third important finding of the research was that levels of MPA and perfectionism increase with years of experience. This study has implications for teachers and psychologists working with young students of music.

1. Introduction

The path to becoming a musician requires many hours of lessons and practice, over many years. There is an increasing body of evidence that undergraduate and professional musicians experience high levels of perfectionism and music performance anxiety (MPA). These conditions can negatively impact one's enjoyment of playing and performance, and more importantly, psychological health and well-being (Kenny & Ackermann, 2009; Patston & Loughlan, 2014). Musicians can experience marked anxious apprehension about the potential for making a mistake and not performing to one's own standard of excellence, which bears little relationship to their level of musical skill or degree of preparation (Kenny, 2011; Williamon, 2004). MPA can manifest physiologically (such as increased heart rate and sweaty palms), psychologically (such as negative self-talk and catastrophizing), and behaviourally (such as avoidance or preparation rituals). Although MPA is not consistently associated with poor performance outcomes (Braden, Osborne, & Wilson, 2015; Kenny, 2011; Osborne, Kenny, & Cooksey, 2007; Rodebaugh & Chambless, 2004; Ryan, 1998), the fear of making a mistake and delivering an unsatisfactory performance drives many musicians to strive for perfection in their craft (Kenny, 2011; Osborne, 2008; Patston, 2014).

Perfectionism is a complex, multi-dimensional construct that reaches beyond mere striving for flawlessness (Flett, Hewitt, Oliver, & MacDonald, 2002). It relates to striving for self-imposed unrealistic standards, a fixed mindset, high levels of self-criticism or expecting high standards from others (Flett et al., 2002; Slaney, Rice, & Ashby, 2002; Stairs, 2009). Perfectionism has been identified as a vulnerability factor for psychopathology and poor mental health. There is broad consensus that perfectionism in relation to human performance in areas such as sport and academic performance is a complex, multidimensional entity, with both personal

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http://dx.doi.org/10.1016/j.peh.2015.09.003
2211-2669/

and interpersonal aspects (Stoeber, 2012). Perfectionism may be a component of the cognitive nature of MPA, such that high concern about mistakes may interact with self-oriented cognitions associated with MPA, for example, low estimates of self-efficacy (Kenny, Davis, & Oates, 2004; Patston, 2014; Sinden, 1999). Perfectionism also has a significant behavioural component, which may manifest in sufferers of MPA in areas such as practice efficacy. A perfectionist may be expected either to practise incessantly in the pursuit of the perfect performance (Patston, 2010; Stoeber & Eismann, 2007), or to avoid practice, as they believe that the perfect performance is unattainable. Such behaviours may reinforce the condition of MPA.

Two studies have found that perfectionism is prevalent in undergraduate populations of musicians (Patston, 2010; Stoeber & Eismann, 2007). Preliminary work by Osborne (2008; Kenny & Osborne, 2006) found a weak yet significant positive relationship between MPA and perfectionism in adolescent musicians. Given that most people learn a musical instrument in their school years (Osborne, 2016) and that up to 75% of young people experience performance anxiety (Britsch, 2005), this study sought to further explore the relationship between MPA and perfectionism, in particular, the potential role it may play in exacerbating performance anxiety in young people learning a musical instrument.

1.1. Development of MPA

A number of theoretical models have been proposed to explain the relationship between anxiety and performance in music. Models move from the simplified Yerkes-Dodson "Inverted-U" law that physiological arousal accompanying extreme anxiety impedes performance quality, extending to conceptualisations which consider the complexity of individual and situational variables that impact on the development and experience of MPA (Braden et al., 2015; Hancock & Ganey, 2003). These include biological vulnerability to anxiety, musical task mastery and skill, and performance environment (see for example Kenny, 2011; Osborne, 2008; Papageorgi, Hallam, & Welch, 2007). Yet currently there is no widely accepted theoretical position of the developmental trajectory of MPA.

There is evidence that children as young as three may experience some form of MPA (Boucher & Ryan, 2011; Maroon, 2002; van Brakel et al., 2006), and that MPA increases throughout adolescence and peaks at approximately 15 years of age (Osborne & Kenny, 2005; Osborne, Kenny, & Holsomback, 2005) As there is no prior empirical study on the origins of MPA extant, suggestions from the MPA literature regarding aetiology will be placed in context with studies from the broader anxiety-disorder literature.

Contemporary understanding of the aetiology of anxiety disorders is that the condition develops through a combination of a genetic predisposition and an individual's learning history (Barlow, Allen, & Choate, 2004; Mineka & Zinbarg, 2006). Genetic contributions to MPA cannot be determined in isolation from an individual's experience of values and philosophies articulated within their family and learning environment. The music performance learning history is a complex amalgam of experiences with teachers, parents, peers, examinations and performances (Papageorgi et al., 2007). Contextual variables leading up to and following performing experiences including level of preparation, and a child's broader life context are also relevant (Kenny, 2011; Mineka & Zinbarg, 2006). Teachers who offer positive and supportive instruction to young musicians in lessons and early performing experiences in an empathic environment, with repertoire appropriate to the musical and emotional level of the student, are likely to contribute to a positive learning history (Osborne & Kenny, 2008). According to Kenny's (2011) definition and developmental model of MPA, a lack of such a positive learning history and appropriate regard for life contexts may produce distressing experiences for learners. Musicians may subsequently perform badly, thus being more predisposed to develop anxiety associated with performance than students for whom this is not the case.

This is because music performance involves high levels of physiological and psychological arousal which may be unfamiliar to young musicians (Osborne, 2016; Osborne, Greene, & Immel, 2014; Patston, 2014). Adolescents have not yet developed coping strategies to deal with the level of arousal they experience in performance, particularly high stress performances such as auditions (Gratto, 1998). Auditions may contribute to the development of MPA if strategies to manage this spike in arousal are not offered (Braden et al., 2015; Robson, Davidson, & Snell, 1995). Young musicians may develop anxiety in response to the experience of the physiological effects of arousal which they do not understand, particularly when performing in an uncomfortable environment.

The conditioning of musicians begins at a very young age and continues through to the highest levels of the music profession. Theorists (Skinner, 1953; Mineka & Zinbarg, 2006) have argued that the aetiology of anxiety lies in conditioning, for example in the study of music this conditioning may be the result of a variety of learning experiences. The strength of conditioning may be affected by pre-event variables or post-event variables (Mineka & Zinbarg, 2006). In a music performance context, pre-event variables include the level of musical preparation and level of interaction with important others, such as peers, parents or teachers. Post-event variables may include the response of an audition panel, an audience, peers, parents or teachers, as has been already established. If pre-event or post-event variables are often negative, or reinforce negative cognitions, such as questioning ability or talent, then MPA could be developed or reinforced (Kenny, 2011; Papageorgi et al., 2007). Through conditioning processes, repeat experiences of discomfort whilst performing may result in poor self-esteem which may lead to MPA (Ryan, 1998).

Learning a musical instrument is a unique experience for young children. It may be their first experience of a one-to-one learning environment. The style of lesson and the temperament of the teacher would be expected to influence not only a child's enjoyment of playing, but also their outcome expectancies within lessons and in exams and performances (Patston & Waters, 2013). An instrumental teacher who encourages realistic goal-setting and enjoyment of playing under a variety of conditions is less likely to create or reinforce anxiety than a teacher for whom exam results are the only measure of musical success or failure (Kenny, 2011). However, many instrumental teachers, conservatories and professional auditions predominantly measure success by exam-style results (Patston, 2014).

Thus, research investigating MPA in children and adolescents shows that it manifests early in musical learning, and results from an interaction of heritable traits, and learned experiences. There are no longitudinal studies which have revisited participants over an extended period in order to assess changes. Dimensions of performance anxiety shift over time depending on situation (e.g., informal versus formal performance; Miller & Chesky, 2004; Powell, 2004; Ryan, 1998), and maturational changes in the development of the child and adolescent brain, particularly the limbic system, exacerbating emotional reactions to socially significant life events (Blakemore, 2010; Wolf, Bazargani, Kilford, Dumontheil, & Blakemore, 2015). Naturally, musical variables are also highly significant; including the ability to practise effectively, select repertoire appropriate to ability and experience, and obtain performance experience (see Williamon, 2004). Deficits in any of these areas are likely to reduce musical competency and increase the likelihood of a performance catastrophe and subsequent MPA.