BURNOUT AND ENGAGEMENT
IN MUSIC PERFORMANCE STUDENTS

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Abstract

This dissertation focuses on burnout and engagement in music performance students. While involvement in music can be detrimental to the health of those involved, it can also foster their well-being. There has been a growing interest in the experiences of music students but there is very little research on aspects of their music-related well-being such as burnout and engagement.[1] Not so much is known about the degrees to which students feel burned-out and engaged, and whether their demographic characteristics influence their burnout and engagement. A quantitative study was therefore undertaken to establish the levels of burnout and engagement in this population, and explore potential differences with respect to them between music performance students in Australia, Poland and the UK, and men and women (*N*=331). With a view to understanding why performance students burn out or become engaged, and what characterises their experiences of burnout or engagement, the mixed-method approach was employed. The results from a quantitative longitudinal study carried out in Australia and the UK (*N*=124), and the interviews with students classed as burned-out (*N*=7) or engaged (*N*=7) were combined to identify the factors underpinning the development of burnout and engagement, and to explore how they are experienced by music performance students. The findings suggest that performance students display comparatively low levels of burnout (although one in 10 could be at risk), and moderate degrees of engagement. The study points to cross-national and sex differences in the levels of music-related well-being experienced by performance students. Burnout develops as a consequence of inadequate motivation underlying involvement in music or limited personal and social resources to support learning. Burned-out students experience problems with their physical health (but devaluation of music may be a protective factor) and their overall psychological well-being is negatively affected. Students are likely to become engaged when music represents their true values, and when they have personal and social resources facilitating their self-actualisation through music. Engagement further fuels students' proactive approach to learning and resultant progress. The findings form the basis for practical advice for teachers, institutions and students themselves on how students' music-related well-being could be protected and enhanced.

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[1]In this thesis, well-being is defined as a state of eudaimonia, whereby one realises one's potential through music, is able to cope with the demands of music-making and effective in one's efforts. Burnout refers to a syndrome of emotional and physical exhaustion, devaluation and reduced sense of accomplishment, and engagement is conceptualised as a combination of vigour, dedication and absorption.

Peer-reviewed publications and conference presentations

Peer-reviewed publications

Zabuska, A., Ginsborg, J., & Wasley, D. (in press, 2017). A preliminary comparison study of burnout and engagement in performance students in Australia, Poland and the UK. *International Journal of Music Education.*

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Zabuska, A., Ginsborg, J., & Wasley, D. (2015). Engagement with performance and burnout among music performance students. In J. Ginsborg, A. Lamont, M. Phillips, & S. Bramley (Eds.), *Proceedings of the Ninth Triennial Conference of the European Society for the Cognitive Sciences of Music (ESCOM)*, Manchester, UK: Royal Northern College of Music. (Appendix B)

Peer-reviewed conference presentations

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Zabuska, A., Ginsborg, J., & Wasley, D. (2014). *Engagement and burnout among music performance students*. Paper presented at the 7th International Conference of Students of Systematic Musicology (SysMus14), London, UK; 18 – 20 September.

Zabuska, A., Ginsborg, J., & Wasley, D. (2015). *Engagement with performance and burnout among music performance students*. Paper presented at the Ninth Triennial Conference of the European Society for the Cognitive Sciences of Music (ESCOM), Manchester, UK; 17 - 22 August.

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Chapter 1. Introduction

Learning and making music can be beneficial for amateur musicians' health, both physical (e.g., Bailey & Davidson, 2003) and psychological (e.g., Jutras, 2006). Nevertheless, the physical and psychological demands placed on those involved in music professionally can take their toll, having negative consequences for their well-being (Ginsborg, Spahn, & Williamon, 2012). The adverse effects of musical involvement are likely to be most pronounced for performers since practising and performing require considerable amounts of both intellectual and physical effort. Their health status, in turn, is likely to have implications for their ability to make music (Gembris, 2012). Indeed, music history has witnessed outstanding musicians who withdrew from music as a result of mental problems: Vladimir Horowitz, for instance, is believed to have ceased his performing career due to depression (Schonberg, 2010; in Gembris, 2012).

Perhaps for the reasons mentioned above, issues relating to health in the performing arts, including music, have attracted attention from medical specialists. The Musicians' Clinic, subsequently renamed the British Association for Performing Arts Medicine (BAPAM), was founded in 1984, followed by the establishment of the US-based Performing Arts Medicine Association (PAMA), Australian Society for Performing Arts Healthcare and Dutch Performing Arts Medicine Association. Furthermore, University College London offers an MSc in Performing Arts Medicine for health specialists specifically interested in working with performing artists.

With practitioners becoming increasingly interested in performers' health, the need for research addressing this issue has become apparent. In the late 1980s, scholars began to recognise the importance of studying the health of those involved in the performing arts: *Medical Problems of Performing Artists*, a peer-reviewed journal entirely devoted to the issues of musicians', dancers', and actors' physical and psychological health, covering topics ranging from neurology and injuries to psychological ill- and well-being, has been published by PAMA since 1986. In its early years, research concerning aspects of the psychological health of performers focused primarily on their performance anxiety (e.g., Steptoe, 1989; Wesner, Noyes, & Davis, 1990). Over the years, however, it has expanded to incorporate a wider range of indices of psychological health, such as depression (e.g., Spahn,

Strukely, & Lehmann, 2004), and positive and negative affect (Kreutz, Ginsborg, & Williamon, 2008a). One extensive research initiative, Musical Impact (http://musicalimpact.org/), a project funded by the UK Arts and Humanities Research Council between 2013 and 2017 involving nine UK conservatoires and two universities, sought to address an array of issues concerning the physical and psychological health of student and professional musicians. The aims of the project included identifying the qualities characterising performers who deal successfully with the demands of practising and performing (the "Making Music" strand), measuring music students' physical and mental fitness ("Fit to Perform") and developing curricula and evidence-based interventions to improve their physical health and psychological well-being of performers' ("Better Practice" strands). A legacy of the project is the Healthy Conservatoires Network, based on the Healthy Universities Network, which provides a forum for sharing experiences and good practice through meetings and its website (www.healthyconservatoires.org).

In spite of the growing body of research on various aspects of performers' psychological health, the published literature on their music-related ill-being is largely restricted to that concerning performance anxiety. Similarly, research on the well-being performers experience specifically in relation to music is limited. The general literature tends to describe burnout and engagement as indicators of employees' ill- and well-being with respect to work (e.g., Hakanen & Schaufeli, 2012; Narainsamy & Van der Westhuizen, 2013), and students' ill- and well-being in relation to study (Sulea, van Beek, Sarbescu, Virga, & Schaufeli, 2015); there is a notable paucity of research addressing these issues in the population of music performers. Nevertheless, according to anecdotal evidence, even the most accomplished musicians can become burned-out: the pianist Van Cliburn is believed to have been a victim of burnout, to such an extent that he withdrew from his performing career for several years. In addition, there are informal reports in the music education literature that burnout affects music students (e.g., Moore, Burland, & Davidson, 2003). Yet, it is important to note that the absence of psychological ill-being does not necessarily mean well-being (e.g., Diener, 2000), an "optimal psychological experience and functioning" (Deci & Ryan, 2008; p. 1). This implies that both the negative and positive states (i.e., both burnout and engagement) that performers could experience with respect to music need to be

examined if their healthy involvement is to be understood better. Although burnout and engagement reflect well-being specifically in relation to music, they are likely to influence performers' physical health and overall functioning, which highlights the importance of studying their impact on performance students.

Given the vast numbers of performers trained at nine conservatoires and several music departments in the UK alone, it is imperative to increase our understanding of their music-related ill- and well-being to ensure they are as healthy as possible when they start their professional careers. The nature of music students' training is likely to be crucial for the formation of their attitudes and coping responses to practising and performing, which they will inevitably carry into their professional lives. This thesis therefore focuses on the burnout and engagement experienced by music performance students in tertiary education; the insights from the research are designed to add to the knowledge of how to foster music-related well-being and prevent the development of unhealthy attitudes towards music during this critical developmental period. In this thesis, drawing upon the definition of mental health proposed by the World Health Organization (2014), music-related well-being is understood as a positive state whereby students realise their true potential through their involvement in music, being able to cope with the demands of playing their instrument or singing, and demonstrating effectiveness at learning and performing music. This definition of well-being corresponds with "eudaimonia", a concept derived from Aristotle and defined as "the striving for perfection that represents the realization of one's true potential" (Ryff, 1995, p. 100). The definition of burnout adopted in this thesis stems from sport psychology (Raedeke, 1997), and encompasses emotional and physical exhaustion, devaluation and reduced sense of accomplishment that students may experience with respect to music-making. Emotional and physical exhaustion reflects limited mental and physical energy. Devaluation involves lack of enthusiasm and a negative attitude towards music while reduced sense of accomplishment means perceptions of being unsuccessful. Engagement is conceptualised as a combination of vigour, dedication and absorption while playing an instrument or singing, drawing upon the definition of work engagement put forth by Schaufeli and Bakker (2004b).[2] Vigour is

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[2] Originally, Schaufeli and Bakker (2004b) referred to "vigour" as "vigor", using the American spelling. In this dissertation, the British spelling is used throughout.

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characterised by vitality, mental stamina and readiness to invest energy in playing an instrument or singing. Dedication pertains to a strong involvement in music, accompanied by a sense of significance, challenge and pride derived from it. Absorption is a state of total immersion in music-making.

It is necessary, first, to establish the degree to which performance students feel burned-out and/or engaged. Moreover, for health promotion and the prevention of ill-health it is of primary importance to find out what underpins the development of burnout and engagement, and shed some light on how they relate to students' well-being and functioning. For targeting students at particular risk it is important to identify the factors associated with suboptimal music-related well-being both modifiable, at least to some degree, such as personal factors and the immediate learning environment, and those beyond students' direct control. Exploring how different systems of music education influence performers' music-related ill- and well-being is also worthwhile so as to determine the features that are most likely to compromise students' music-related well-being or, conversely, foster their healthy attitudes towards music-making.

The present thesis adds to the knowledge of burnout and engagement in music performance students by addressing the following research questions:

1) What are the levels of a) burnout and b) engagement experienced by music performance students?

2) To what extent are differences in levels of burnout and engagement, if any, attributable to a) differences between the countries in which music performance students undertake their training and b) the sex of the student? [3]

3) What are the factors contributing to burnout and engagement in music performance students?

4) How are burnout and engagement experienced by music performance students?

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[3] Sex is defined in this context by the *APA Dictionary of Psychology* as "the traits that distinguish between males and females. Sex refers especially to physical and biological traits, whereas gender refers especially to social or cultural traits, although the distinction between the two terms is not regularly observed" (American Psychological Association [APA], 2015a, p. 970). Throughout the thesis, the term "sex" is used to refer to men and women, and "sex differences/variations" to mean differences between them.

Because burnout and engagement in music performance students are comparatively unexplored, Research Questions 3 and 4 are broadly defined and intended to provide insights that could guide future, more focused research.

1.1 The thesis and me

I started formal musical training when I was seven. When playing the piano I experienced positive states that other activities could not afford. As a teenager, I was extremely passionate about the piano, and derived an enormous amount of pleasure from exploring and creating different sounds. Over time, music not only became a vital part of my self-identity but also shaped the ways in which people around me interacted with me. Unfortunately, once I entered full-time music education, I began to lose my self-confidence as a pianist and started to suffer from debilitating performance anxiety. My initial enthusiasm for music was gradually fading. This was an extremely difficult experience, which left me feeling as if I was losing a vital part of myself. My negative experiences of music affected my general emotional state, leaving me feel down and incomplete. Although I considered ceasing my musical training, I never decided to do so, perhaps because of various internal and external pressures. Yet, I never managed to restore my initial passion for music. I was not the only one, however: some of my fellow students struggled with similar issues.

While studying at a conservatoire, I read for a degree in psychology, and became interested in the applications of psychological knowledge to enhance music performance and the optimal experience of music-making; I found reading about research in music psychology and education exciting. My enthusiasm was further reinforced as I became aware of the benefits of applying research findings to my own practising and performing. As a part of my master's project, I conducted a preliminary study of performance anxiety as a self-handicapping strategy, and discovered that by doing research I could experience similar feelings to those I had had in relation to playing the piano. Based on my own personal story and those shared by my colleagues, I realised the importance of examining students' ill- and well-being in relation to music as a basis for informed educational practices fostering healthy involvement in music. I was, however, amazed to discover the scarcity of research concerning these issues.

Undertaking a PhD study to examine performance-related burnout and engagement was thus driven by my passion for research, and my determination to make a difference to the young performers with whom I identify personally by adding to the knowledge of how they could flourish as musicians.

1.2 Structure of the thesis

This chapter has introduced the general area of the research and explained the importance of studying burnout and engagement in performance students before going on to present the specific research questions addressed by the thesis. The chapter has also discussed my personal motives for the decision to study these topics in the context of PhD research.

Chapter 2 is in four parts. The first one reviews the literature relevant to the thesis, focusing on the development of burnout and engagement as concepts, how they are measured, their antecedents and relationships with physical health, and differences between them potentially attributable to or associated with cross-national and sex differences. It then proceeds to review issues relating to the psychological and physical health of music performance students, and the personal and social factors that forge students' developmental trajectories. The second part provides an overview of the methodological approach guiding the research. The third part addresses reflexivity and the fourth part introduces the ethical issues arising from the research.

Chapters 3-5 report the studies comprising the research. Chapters 3 and 4 both begin with a short introduction to the relevant literature, a summary of the aims of the relevant study/studies, and an account of the methods used and results obtained. They conclude with a discussion of the results of each study, consideration of their limitations and potential further research. Chapter 3 reports a quantitative study (I) addressing Research Questions 1 and 2 while Chapter 4 reports two quantitative studies (IIa and IIb). Study IIa examines the antecedents of burnout and engagement, aiming to answer, in part, Research Question 3. Study IIb addresses the relationship between burnout and engagement, and physical health so as to provide a partial answer to Research Question 4. Chapter 5 starts with an overview of the two studies (IIIa and IIIb) it reports, both qualitative, which also address Research Questions 3 and 4 in relation to burnout and engagement,

respectively, and provides a short rationale for the methods used. A more detailed presentation of the methods, analyses of data and discussions of the findings from each study follow. The general discussion considers the conclusions of the studies in the light of existing psychological theories and research in music education, and integrates them into simplified models of burnout and engagement in music performance students. The chapter concludes by considering the limitations of the two studies and suggests possible directions for future research.

Chapter 6 sums up the key findings of the research project, overall, so as to answer each research question. Those of Research Questions 3 and 4 merge the findings from Studies II and III. Finally, the chapter addresses the limitations of the project as a whole, sets out future directions for researchers and assesses the practical implications of the study for students, tutors and music education institutions.

Chapter 2. Literature review, rationale for the research and research questions

This chapter provides the background for the research. It consists of six main sections: i) a review of the literature relevant to the research, ii) a discussion of gaps in the current knowledge regarding burnout and engagement in music performance students, iii) the presentation of the research questions, and the aims and objectives of the research, iv) an outline of the research methodology and rationale for it, v) reflexivity and vi) a consideration of the ethical issues raised by the research.

2.1 Literature review

The literature review is in two parts: i) burnout and engagement and ii) literature pertaining to burnout and engagement in the context of music performance education. The first part addresses both conceptualisations and the most widely used measures of burnout and engagement. The theoretical framework explaining the development of burnout and engagement, cross-national and sex variations in burnout and engagement, and their associations with physical health are then discussed. The second part reviews the literature on music students' psychological well-being, including burnout and aspects of engagement, as well as issues relating to their physical health. This is followed by a discussion of the role of students' social context and personal characteristics in optimal musical development.

2.1.1 Burnout and engagement

2.1.1.1 The history of burnout as a concept

Burnout first emerged as a social problem rather than an academic construct and therefore, initially, it was mostly clinicians and the general public who were interested in it. Accordingly, the departure point for the conceptual development of this construct was clinical descriptions of people representing cases of burnout rather than empirical research. As a result, the burnout literature in its first years (i.e., in the mid- and late 1970s and early 1980s) was characterised by conceptual chaos, with the "burnout" metaphor being applied to a broad spectrum of personal problems. It was first described in the USA, but empirical research on burnout has flourished, and more and more methodologically rigorous studies have been carried

out elsewhere since the mid-1980s (Maslach & Schaufeli, 1993), leading to the development of more robust conceptual models (Schaufeli & Buunk, 1996).

Until the late 1980s, burnout was considered a problem of employees working within people-oriented occupations such as public service and education (Schaufeli, Leiter, & Maslach, 2009). In these professions, burnout is defined as a multidimensional syndrome of emotional exhaustion, cynicism reflecting an indifferent attitude towards clients (i.e., depersonalisation) and reduced personal accomplishment (Maslach & Jackson, 1986). Although by the end of the 1990s teachers, nurses and social workers were still the groups studied most extensively (Schaufeli & Enzmann, 1998), burnout research has progressed to encompass professions that do not necessarily centre on interpersonal relationships, including engineers (Lingard, 2003; Hall, Schmader, & Croft, 2015), communication workers (Beas & Salanova, 2006), and journalists (Reinardy, 2011). In these populations burnout is defined in broader terms to reflect the attitude to one's job in general rather than other people, and is believed to be manifested by exhaustion, cynicism referring to an indifferent attitude towards one's job and reduced professional efficacy (Schaufeli, Leiter, Maslach, & Jackson, 1996).

Over the years, the burnout literature has further expanded beyond professional arenas. Thus, burnout has gained recognition as a potential issue among students who, like professionals, are involved in structured activities directed towards achieving specific goals (Noushad, 2008). To date, the majority of investigations into academic burnout have been carried out with medical (Dyrbye et al., 2014; Brazeau et al., 2014) and nursing students (da Silva et al., 2014) but other groups such as those enrolled on engineering or social sciences (Schaufeli, Martínez, Marques Pinto, Salanova, & Bakker, 2002) and management information systems courses (Yang & Farn, 2005) were also examined. Furthermore, attempts have been made to apply burnout to music students (Bernhard, 2007, 2010; Castro, 2016; see Section 2.1.2.1).

Since the late 1980s, there has been a growing body of research into burnout in sport, focusing on coaches (Capel, Sisley, & Desertrain, 1987), and amateur (Cresswell & Eklund, 2005), semi-professional (e.g., Cresswell & Eklund, 2004) and professional athletes (Lonsdale, Hodge, & Rose, 2009). Raedeke (1997) proposes that burnout in athletes is demonstrated by emotional and physical exhaustion,

devaluation of sport and reduced sense of accomplishment, a conceptualisation commonly adopted by researchers in sport (e.g., Curran, Appleton, Hill, & Hall, 2013; Raedeke & Smith, 2001). In sport settings, training and competing are associated with both psychological and physical demands; therefore, Raedeke argues that athletes experience exhaustion not only on a psychological but also on a physical level. Interviews with junior tennis players in the USA (Gould, Tuffey, Udry, & Loehr, 1996) confirmed the preliminary definition of athlete burnout put forward by Raedeke, in that the burned-out athletes participating felt both physically and emotionally drained, and reported loss of enthusiasm towards their discipline. Physical and emotional tiredness and loss of motivation were also apparent in the accounts provided by Swedish elite athletes representing various sports, interviewed by Gustafsson, Hassmén, Kenttä and Johansson (2008). No evidence for them having a cynical attitude towards other people emerged in this study.

With exhaustion being widely recognised as the core aspect of burnout (Maslach et al., 2001), it is sometimes argued that its other proposed dimensions are redundant (Kristensen, Borritz, Villadsen, & Christensen, 2005; Shirom & Melamed, 2006). According to Maslach et al., however, definitions based on this idea are not adequate since they fail to tap the mental distancing from an activity that develops as a coping response to exhaustion. Nonetheless, scholars who see burnout as a multidimensional phenomenon do not seem to agree as to its components and they often call into question the relevance of reduced personal accomplishment/professional efficacy/sense of accomplishment. Some support for this point of view emerged from clinical interviews with employees identified through the interviewing process as burned-out, where reduced professional efficacy was found less common than exhaustion and cynicism (Roelofs, Verbraak, Keijsers, De Bruin, & Schmidt, 2005). This finding is in line with the results of a meta-analysis of 61 studies carried out by Lee and Ashforth (1996), revealing a strong meta-correlation between exhaustion and cynicism, but only moderate meta-correlations between exhaustion and personal accomplishment, and between cynicism and personal accomplishment. Similarly, in a study of academic burnout carried out in the Netherlands, Portugal and Spain by Schaufeli, Martínez, et al. (2002), undergraduate students' exhaustion correlated more strongly with their cynicism than with professional efficacy. The correlation between cynicism and exhaustion

was more salient than that between cynicism and professional efficacy in two countries under study; in one national sample, however, the correlation between cynicism and professional efficacy was slightly more prominent than that between cynicism and exhaustion. Furthermore, Lee and Ashforth showed that while exhaustion and cynicism meta-correlated strongly with turnover intentions and organisational commitment, their meta-correlations with control coping were weak. By contrast, personal accomplishment meta-correlated strongly with control coping but only weakly with turnover intentions. It is, however, possible that the findings suggesting that reduced sense of efficacy does not necessarily go together with exhaustion and cynicism may be an artefact of the measures used, assessing efficacy rather than inefficacy. Supporting this supposition, Schaufeli and Salanova (2007) found enhanced correlations between negatively rephrased items of efficacy, and exhaustion and cynicism reported by undergraduate students in Spain and the Netherlands, and employees in Spain, all taken as one group. Moreover, some evidence for reduced sense of accomplishment representing a dimension of burnout emerged from interviews conducted by Gustafsson et al. (2008) with burned-out athletes, who often reported a sense of failure to achieve results.

Measuring burnout

The range of measures of burnout available reflects its conceptual development as they are based on different definitions or are designed for different populations. Table 2.1 provides an overview of selected and validated measures of burnout, including their specific subscales and target groups.

The earliest measure of burnout – the Maslach Burnout Inventory (MBI; Maslach & Jackson, 1981), renamed later as MBI-Human Services Survey (MBI-HSS; Maslach & Jackson, 1996) and subsequent Maslach Burnout Inventory-Educators Survey (MBI-ES; Maslach, Jackson, & Schwab, 1996) – were developed for employees working in public service and education, respectively, drawing upon the definition of burnout as a syndrome of emotional exhaustion, depersonalisation and reduced personal accomplishment. The psychometric results of attempts to employ these measures to study burnout in professions for which they were not designed were unsatisfactory (Schaufeli, 2003). Evans and Fisher (1993), for instance, used confirmatory factor analysis to demonstrate that depersonalisation did not constitute a coherent factor when applied to professional groups outside of public

service. There was clearly a need for a measurement instrument that could be used with a wider range of professionals so a modified version of MBI – the Maslach Burnout Inventory-General Survey (MBI-GS; Schaufeli et al., 1996) – was introduced for use with occupations that do not necessarily involve intense interactions with other people. Thus, MBI-GS conceptualises burnout as a syndrome of exhaustion, cynicism towards one's job and reduced professional efficacy.

Table 2.1 *Subscales and groups targeted by selected measures of burnout*

Measure	Subscales	Targeted group
MBI-HSS (Maslach & Jackson, 1981; Maslach & Jackson, 1996)	• Emotional exhaustion • Cynicism (depersonalisation) • Personal accomplishment (*reversed*)	Public service workers
MBI-ES (Maslach et al., 1996)		Teachers
MBI-GS (Schaufeli et al., 1996)	• Exhaustion • Cynicism • Professional efficacy (*reversed*)	All professions
MBI-SS (Schaufeli, Martínez, et al., 2002)	• Exhaustion • Cynicism • Professional efficacy (*reversed*)	Students
OLBI (Demerouti, 1999)	• Exhaustion (cognitive, affective and physical) • Disengagement	All professions
SMBM (Shirom & Melamed, 2006)	• Cognitive weariness • Emotional exhaustion • Physical fatigue	All professions
ABQ (Raedeke & Smith, 2001)	• Emotional/physical exhaustion[4] • Devaluation • Reduced sense of accomplishment	Athletes

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[4] "Emotional/physical exhaustion" is the label used originally by the authors of ABQ (Raedeke & Smith, 2001) and refers to both physical and emotional tiredness.

With the expansion of burnout research to student populations, MBI-GS was modified to gauge academic burnout by Schaufeli, Martínez, et al. (2002), who used structural equation modelling (SEM) to support the factorial validity of their scale – the Maslach Burnout Inventory-Student Survey (MBI-SS) – using samples of undergraduate students in three European countries. Factorial invariance of MBI-SS across the countries was, however, not confirmed by SEM. Hu and Schaufeli (2009) conducted confirmatory factor analysis and produced support for the factorial validity of MBI-SS in Chinese high school, and university and nursing school students. Furthermore, research involving students across different countries largely supports the satisfactory internal consistencies of the three factors of MBI-SS (Schaufeli, Martínez et al., 2002) and their test-retest reliabilities (Rostami, Abedi, Schaufeli, Ahmadi, & Sadeghi, 2014).

The evidence suggesting that personal accomplishment/professional efficacy does not necessarily coexist with exhaustion and cynicism led to the development of the Oldenburg Burnout Inventory (OLBI; Demerouti, 1999). The validity of the factors identified by OLBI was supported by confirmatory factor analyses conducted in different countries across occupational groups (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001; Halbesleben & Demerouti, 2005), and partially confirmed in studies involving students (Campos, Carlotto, & Marôco, 2013; Reis, Xanthopoulou, & Tsaousis, 2015). The internal consistencies of the subscales of OLBI were shown to be acceptable in research with professionals (Demerouti, Mostert, & Bakker, 2010; Halbesleben & Demerouti, 2005) but were not confirmed when OLBI was adapted for students (Campos et al., 2013; Reis et al., 2015).

Yet another measure of burnout, the Shirom-Melamed Burnout Measure (SMBM; Shirom & Melamed, 2006), conceptualises it as a unidimensional construct, within which cognitive weariness, emotional exhaustion and physical fatigue can be identified. Internal consistency (e.g., Armon, Melamed, Shirom, & Shapira, 2010; Shirom & Melamed, 2006), construct validity (Shirom & Melamed, 2006) and predictive validity (Armon et al., 2010) of SMBM were demonstrated in working populations.

Researchers in sport have developed instruments designed specifically to tap burnout in populations of athletes. The Athlete Burnout Questionnaire (ABQ; Raedeke & Smith, 2001), the most popular measure of burnout in sport (e.g., Adie,

Duda, & Ntoumanis, 2012; Lonsdale, et al., 2009; Perreault, Gaudreau, Lapointe, & Lacroix, 2007) and dance research (Quested & Duda, 2010, 2011) is based on Raedeke's (1997) definition of athlete burnout as a syndrome of emotional and physical exhaustion, devaluation and reduced sense of accomplishment. Confirmatory analysis supported the three-factor structure of the ABQ, and its internal consistency and test-retest reliability were corroborated (Raedeke & Smith, 2001). Furthermore, empirical evidence was found for the acceptable convergent validity of the ABQ and MBI-GS, with their matching subscales being highly correlated and showing satisfactory internal discriminant validity in a sample of amateur rugby players in New Zealand (Cresswell & Eklund, 2006a).

One of the strengths of the ABQ is that most items in the subscale of reduced sense of accomplishment are negatively worded, meaning that they could gauge lack of accomplishment in burnout experience more accurately (e.g., Schaufeli & Salanova, 2007). The ABQ was originally developed to assess burnout among swimmers but was shown to be both valid and reliable when adapted by Raedeke and Smith (2001) for use in different disciplines of sport as follows: "swimming" was replaced by "sport" and "swim" by "perform".

Congruent with this, further research has shown that the ABQ can be successfully adapted to capture experiences of specific groups of athletes. A cross-sectional study by Hill, Hall, Appleton and Murray (2010), for example, provided support for the internal consistency of the ABQ modified for canoe polo and kayak slalom athletes. In addition, cross-sectional (Quested & Duda, 2010) and longitudinal research (Quested & Duda, 2011) involving dancers in vocational training confirmed the validity and reliability of the ABQ adapted for dance.

2.1.1.2 The history of engagement as a concept

Traditionally, psychology has been preoccupied with negative psychological states, deficits and disorders. Yet since the turn of the millennium, there has been a shift from the traditional approach towards "positive psychology" (a term first coined by Maslow, 1954), which focuses on the actualisation of human potential and optimal functioning (e.g., Seligman & Csikszentmihalyi, 2000). Following this trend, researchers have allocated more and more attention to the concept of engagement.

Research into engagement has leaned upon the literature pertaining to burnout, which could partly explain the rather rapid development of this concept. As burnout has been shown to occur outside work environments (e.g., Schaufeli, Martínez, et al., 2002), so engagement has been explored in a range of populations, including students (e.g., Alarcon, Edwards, & Menke, 2011; Salmela-Aro & Kunttu, 2010) and athletes (e.g., Hodge, Lonsdale, & Jackson, 2009). Nevertheless, there is no consensus regarding how engagement and burnout relate to each other. According to Maslach and Leiter (1997), they constitute opposite ends of a continuum: the presence of engagement can be inferred from low levels of burnout, while burnout equates to low levels of engagement. These authors claim that energy, involvement and effectiveness are the defining features of engagement, representing the opposite of their counterparts: exhaustion, disengagement and reduced accomplishment, respectively.

Schaufeli, Salanova, González-Romá and Bakker (2002) take a somewhat different approach, defining engagement as an independent construct that cannot be inferred simply from low scores on burnout measures. This means that an employee displaying high or low burnout levels could score both high and low on engagement measures. Still, Schaufeli and Bakker (2004b) emphasise that employees are highly likely to experience them, in practice, as opposite states. Providing support for the notion of burnout and engagement being independent concepts, a study of Dutch employees by Langelaan, Bakker, van Doornen and Schaufeli (2006) found neuroticism to be the only predictor of burnout, while engagement was predicted by neuroticism, extraversion and mobility (i.e., the ability to adapt to new demands). In a similar vein, Schaufeli and Bakker (2004a) produced evidence to suggest that burnout and engagement have different antecedents and consequences: specifically, their study of employees working within various professions showed that whereas both job demands and lack of job resources were predictors of burnout, engagement was predicted only by the latter. In relation to the consequences of burnout and engagement, burnout emerged as a predictor of both health issues and turnover intention, while engagement predicted only the latter. Following this line of research, and Schaufeli et al.'s definition of engagement as an independent construct, engagement has been often studied alongside

burnout (e.g., Llorens-Gumbau & Salanova-Soria, 2014, Hakanen, Schaufeli, & Ahola, 2008), allowing for a deeper understanding of well-being.

Kahn (1990) was the first to describe employee engagement, the activation and expression of one's physical, cognitive and emotional resources at work. Schaufeli, Salanova, et al. (2002) conceptualise engagement as a "positive, fulfilling, work-related state of mind that is characterised by vigour, dedication and absorption" (p. 74; see Chapter 1). Rather than being a momentary occurrence, engagement is a persistent affective-cognitive state. As can be seen, in contrast to Maslach and Leiter (1997), Schaufeli et al. do not include effectiveness in their conceptualisation of engagement. This is based on the finding from earlier interviews with employees and work supervisors that absorption may be a more common experience for engaged employees than a sense of efficacy (Schaufeli et al., 2001; in Schaufeli & Bakker, 2004b).

There are some indications in the sport literature to suggest that confidence may be one of the central features of athlete engagement, however. Drawing upon interviews with athletes in New Zealand carried out by Lonsdale, Hodge and Raedeke (2007), engagement within sport has been characterised by confidence ("a belief in one's ability to attain a high level of performance and achieve desired goals" [Lonsdale, Hodge, & Jackson, 2007, p. 472]), alongside dedication, enthusiasm and vigour (Lonsdale, Hodge, & Jackson, 2007).[5] Conversely, the concept of engagement as a combination of vigour, dedication and absorption has been also successfully applied to the sport environment: Guillen and Martínez-Alvarado (2014) found absorption to be positively and moderately correlated with vigour and dedication reported by Spanish soccer players. The internal consistency of the measure used was acceptable, which seems to point to athlete vigour, dedication and absorption reflecting a single phenomenon.

Measuring engagement

As discussed above, Schaufeli, Salanova, et al. (2002) claim that engagement and burnout are separate constructs and should therefore be assessed independently. To this end, they developed the Utrecht Work Engagement Scale (UWES) that taps

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[5] Originally, Lonsdale, Hodge and Jackson (2007), and Lonsdale, Hodge and Raedeke (2007) referred to "vigour" as "vigor", using the American spelling. In this dissertation, the British spelling is used throughout.

engagement as a combination of vigour, dedication and absorption. The three-factorial validity and internal consistencies of all versions of this scale (i.e., UWES-17, UWES-15 and UWES-9) were confirmed by analyses of data obtained from employees in different countries and occupational groups (Schaufeli & Bakker, 2004b).

Along with the expansion of the concept of engagement to student populations, the UWES was slightly modified to tap academic engagement by Schaufeli, Martínez, et al. (2002). SEM confirmed the factorial structure of their measure – the Utrecht Work Engagement Scale-Student (UWES-S) – in three European samples analysed separately, after some of the original items (e.g., "I am immersed in my work") were removed. While the internal consistencies of the subscales were largely supported, the factorial invariance of the UWES-S across countries was only partially confirmed by SEM.

Similarly, Guillen and Martínez-Alvarado (2014) adapted the UWES for use with athletes, renaming it the Sport Engagement Scale (SES). Its subscales were positively and moderately correlated, and the internal consistencies of the scale and its specific subscales were acceptable. In confirmatory analysis, adequate fit indices emerged for both the one- and three-factor solutions. These results seem to make a strong case for considering absorption as a component of engagement alongside vigour and dedication.

While the above-mentioned versions of the UWES remain the most widely used measures of engagement in education (e.g., Merino-Tejedor, Hontangas, & Boada-Grau, 2016; Sulea et al., 2015) and the workplace (e.g., Costa, Passos & Bakker, 2016; Harju, Hakanen, & Schaufeli, 2016), other scales for measuring engagement have been developed. Rich, LePine and Crawford (2010) introduced a scale to capture cognitive, emotional and physical engagement at work. These three factors demonstrated adequate fit indices in a confirmatory analysis when used with firefighters and nurses and the scale showed acceptable consistency, at least for firefighters. Nevertheless, this instrument has not yet gained popularity with researchers so there is little evidence that it could be applied to different domains. The Rothbard and Patil Engagement Scale (2011) comprises three subscales: attention, absorption and energy. Again, to the best of my knowledge, the psychometric qualities of this scale have not been validated. In the context of sport,

the Athlete Engagement Questionnaire (AEQ) has shown adequate fit to the model in a confirmatory factor analysis and an acceptable internal consistency (Lonsdale, Hodge, & Jackson, 2007). Table 2.2 presents a selection of validated measures of engagement, including their subscales and targeted groups.

Table 2.2 *Subscales and groups targeted by selected measures of engagement*

Measure	Subscales	Targeted group
UWES (Schaufeli, Salanova, et al., 2002)	• Vigour • Dedication • Absorption	All professions
UWES-S (Schaufeli, Martínez, et al., 2002)	• Vigour • Dedication • Absorption	Students
AEQ (Lonsdale, Hodge, & Jackson, 2007)	• Confidence • Dedication • Vigour • Enthusiasm	Athletes
SES (Guillen & Martínez-Alvarado, 2014)	• Vigour • Dedication • Absorption	Athletes

2.1.1.3 Antecedents of burnout and engagement: Basic Psychological Need Theory

One of the theories that appears to be successful in explaining various facets of well-being, including burnout and engagement, is self-determination theory (SDT; Deci & Ryan, 1985; 2000), and particularly its mini-theory of basic needs – Basic Psychological Need Theory (BPNT; Ryan & Deci, 2017). BPNT asserts that optimal outcomes at different levels of functioning are fostered by the fulfilment of three fundamental human needs: autonomy, competence and relatedness (e.g., Ryan & Deci, 2017). Conversely, functioning can be undermined if these needs are thwarted or frustrated (e.g., Deci & Ryan, 2011; Ryan & Deci, 2000b). One of the central tenets of BPNT is that the degree to which needs are satisfied or not depends on aspects of the interpersonal environment (e.g., Deci & Ryan, 2008ac; Deci & Ryan, 2011).

Needs are "innate psychological nutriments that are essential for ongoing psychological growth, integrity, and well-being" (Deci & Ryan, 2000; p. 229).

According to BPNT, the needs for autonomy, competence and relatedness are universal and relevant to all humans (e.g., Deci & Ryan, 2011; Deci & Ryan 2008a). Autonomy refers to perceptions of choice and being the initiator of one's own actions as well as the feeling that they are undertaken in accordance with one's values (deCharms, 1968). Reeve (2002) claims that need for autonomy is a multifaceted construct, combining perceived locus of causality (i.e., the perception that one is the cause of one's own actions and behaviour), volition (i.e., unpressured willingness to engage in an activity) and perceived choice (i.e., flexibility of personal decision-making provided by the environment). Competence is satisfied when one is able to achieve desired effects (White, 1959). Relatedness could be defined as the drive for being securely connected to and understood by other people (Baumeister & Leary, 1995).

The role of need satisfaction in burnout and engagement

BPNT postulates that variations in the satisfaction of autonomy, competence and relatedness directly predict variations in well-being (e.g., Deci & Ryan, 2000). Research conducted across various domains has lent support to hypothesised associations between need satisfaction and markers of psychological well-being, such as general self-esteem, low levels of anxiety (Deci et al., 2001), positive affect (Hancox, Quested, Ntoumanis, & Duda, 2017), life satisfaction (Ng, Ntoumanis, Thøgersen-Ntoumani, Stott, & Hindle, 2013), and performance at work (Baard, Deci, & Ryan, 2004) and school (Standage, Duda, & Ntoumanis, 2006). Also consistent with BPNT, frustration of needs has been linked to indices of ill-being, including negative affect (Hancox et al., 2017), depressive symptoms (Ng et al., 2013) and elevated levels of anxiety (Cordeiro, Paixaõ, Lens, Lacante, & Luyckx, 2016).

Burnout and need satisfaction

In line with BPNT, research undertaken with different populations has corroborated the relationship between degree of need satisfaction and burnout. Curran et al. (2013), for example, found in a cross-sectional study of young soccer players in the UK that the degree of their overall need satisfaction negatively predicted their scores on both global burnout and all its dimensions, and additionally, mediated in the relationships between athletes' "harmonious passion" (Vallerand et al., 2003), which represents their healthy involvement in sport based on intrinsic motives, and

global burnout and all its subscales. Balaguer et al.'s (2012) longitudinal study of young male soccer players in Spain showed that an increase in their overall need satisfaction predicted a decrease in their global burnout over the course of a season. Quested and Duda (2011) conducted a longitudinal study of UK-based dancers in vocational training and found that changes in all needs negatively predicted changes in global burnout and devaluation over eight months during a school year.

Each need may have different implications for the development of burnout, and such implications are not transparent, but Deci and Ryan (2000) propose that autonomy and competence are crucial. Thus, it would appear that those who feel restricted with respect to expressing their own ideas or perceive themselves unable to achieve the goals they have set themselves within their own domain, will eventually feel tired and unsuccessful, and cope with these difficult emotions by devaluating the activity in which they are involved. The findings of Hodge, Lonsdale and Ng's (2008) cross-sectional study of elite rugby players in New Zealand support this suggestion, in that their global burnout was negatively predicted mainly by competence and autonomy, with relatedness to other members of the team being only a weak-to-moderate predictor. Similarly, Lonsdale et al. (2009) demonstrated in a cross-sectional study of elite athletes in Canada that while competence and autonomy were negative predictors of global burnout and all its dimensions, relatedness "in sport" predicted only emotional and physical exhaustion, and Sulea et al. (2015) found in a cross-sectional study of undergraduate students in Romania that autonomy and competence were negative predictors of students' global burnout stronger than relatedness. By contrast, however, a cross-sectional study of Canadian high school athletes by Perreault et al. (2007) showed relatedness with respect to the coach to be the best and negative predictor of both global burnout and its specific dimensions.

The discrepancy between the findings of the studies outlined above could perhaps be attributed to different facets of relatedness (i.e., relatedness "in sport" versus coach-relatedness) that were examined. It could be that one's satisfaction of relatedness within specific relationships has a unique effect on one's well-being. Assessments of relatedness with regard to specific groups of people could therefore help cast more light on the implications of decreased relatedness for burnout.

Degree of need satisfaction may not have the same importance for specific dimensions representing burnout: it seems to be pertinent to devaluation and reduced accomplishment but its contribution to exhaustion may be less substantial. This was documented by Quested and Duda (2011), who confirmed that changes in need satisfaction negatively predicted changes in dancers' devaluation and reduced sense of accomplishment but not in their emotional and physical exhaustion. These findings are in accordance with those previously obtained by Hodge et al. (2008), who found that need satisfaction was a negative predictor of only devaluation and reduced accomplishment in athletes. One possible explanation for these results is that exhaustion may be triggered, in domains such as dance and sport that place demands on the body, primarily by the physical demands involved rather than psychological factors (Lonsdale et al., 2009). In other settings, however, the degree of satisfaction of psychological needs may play a more vital role in exhaustion. The findings of cross-sectional research undertaken with Belgian employees in different professions by Van den Broeck, Vansteenkiste, De Witte, and Lens (2008) lent support to this notion, in that their overall need satisfaction negatively predicted their exhaustion, and mediated its relationships with job demands and resources.

Engagement and need satisfaction

The links between need satisfaction and engagement have been studied mainly at work and in sport. Deci et al. (2001) discovered that employees in Bulgaria and USA were more likely to experience engagement with their jobs when their needs at work were satisfied. Van den Broeck et al. (2008) found that employees' need satisfaction was a positive predictor of the feeling of vigour they experienced at work. Similarly, Trépanier, Fernet and Austin's (2014) longitudinal study of nurses, carried out in Canada, controlled for the bullying they experienced in the workplace and showed that their need satisfaction at work positively predicted their work engagement over time.

Jowett, Hill, Hall and Curran (2016) found that overall need satisfaction positively predicts young athletes' engagement with sport and mediates its relationships with aspects of perfectionism. Sulea et al. (2015) applied BPNT to students and found that their engagement was predicted mainly and positively by their competence and autonomy, with satisfaction of relatedness in the study environment being less

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crucial. This is congruent with the findings of Hodge et al.'s (2009) study of Canadian athletes, which revealed that only competence and autonomy were positive predictors of athlete engagement. It therefore seems that those who perceive their actions within a domain as being based on their own choices, or experience a sense of proficiency when engaging with it will feel energised and value their involvement.

There is some implicit support for the capacity of need satisfaction to promote vigour, arising from research into subjective vitality: "a positive feeling of aliveness and energy" (Ryan & Frederick, 1997; p. 529). According to this definition, subjective vitality reflects aspects of both physical and psychological well-being, in that it taps feelings of vigour and alertness. Subjective vitality thus appears to correspond to the "vigour" (Schaufeli, Martínez, et al., 2002; Schaufeli, Salanova, et al., 2002) component of work/study engagement. Empirical evidence suggests that need satisfaction can enhance subjective vitality across a number of life domains, such as work, school, family and relationships (Milyavskaya & Koestner, 2011).

While the specific role of each need in subjective vitality is not clear, the findings of research undertaken with athletes are largely in line with those of studies of engagement by Hodge et al. (2009) and Sulea et al. (2015), which point towards competence and autonomy as main contributors. For example, Reinboth, Duda and Ntoumanis' (2004) cross-sectional study of adolescent soccer and cricket players demonstrated that athletes' subjective vitality while at sport was positively predicted by their satisfaction of competence and autonomy but not relatedness with regard to their team members. Similar findings emerged from Adie, Duda and Ntoumanis' (2008) cross-sectional study of adult sport participants, in which satisfaction of competence and autonomy turned out to be a stronger positive predictor of subjective vitality than relatedness with respect to teammates. Longitudinal studies have produced somewhat different results, however. Adie et al. (2012) studied elite youth soccer players and found that only competence and relatedness on the team positively predicted changes in athletes' subjective vitality over two competitive seasons. Similarly, Reinboth and Duda (2006) found changes in relatedness with respect to the coach, alongside changes in autonomy, to positively predict changes in subjective vitality among team athletes over five months during the competition

season. It is important to note, however, that, in contrast to most authors (Adie et al., 2008; Reinboth et al., 2004; Sulea et al., 2015), Reinboth and Duda conceptualise relatedness as a multifaceted construct. Hence, athletes' relatedness with regard to the coach and with regard to other team members were assessed separately, the results revealing that only the former had a facilitating effect on subjective vitality experienced by athletes. This, again, hints at the value of examining different aspects of relatedness (e.g., relatedness with regard to the teacher and relatedness with regard to peers) as a means of better understanding of the influence of this need on well-being (Adie et al., 2008).

Research into "flow" (Csikszentmihalyi, 1990), a state resembling absorption (Langelaan et al., 2006), provides indirect support for the positive implications of need satisfaction in engagement. For example, Schüler, Brandstätter and Sheldon's (2013) investigation of employees representing different occupations showed that the degree to which employees' competence was satisfied positively predicted the level of flow they experienced on an ordinary work day.

Burnout and engagement, and need satisfaction: summary

As can be seen from the foregoing, the vast majority of studies examining the impact of need satisfaction in burnout and engagement have been conducted in sport, dance and the workplace. Nonetheless, the findings of Sulea et al.'s (2015) study indicate that it would be worth employing BPNT in further investigations of burnout and engagement in education settings as the degree to which students' needs are satisfied explains their burnout and engagement better than personality traits. There is thus a strong case for using the BPNT framework to study well-being in student populations other than the undergraduate students of social sciences investigated by Sulea et al. whose study probed students' satisfaction of relatedness within their academic environments, broadly defined. Assessing more specific aspects of relatedness (e.g., relatedness with regard to teachers) could shed more light on the implications of different types of relationships for students' burnout and engagement.

Allusions to the influence of autonomy (e.g., Renwick & McPherson, 2002), competence (e.g., Jarvin & Subotnik, 2010) and relatedness (e.g., Burland & Davidson, 2002) on music students' motivation and learning can be found in the literature. Furthermore, as can be seen in Section 4.1.1, music education

researchers have begun to employ BPNT in examinations of the implications of psycho-social factors for music students' motivation (Evans, McPherson, & Davidson, 2013; MacIntyre & Potter, 2014) and practice behaviour (Evans & Bonneville-Roussy, 2016). There is, however, a gap in research aimed at exploring the contribution of need satisfaction to well-being in this population.

Need satisfaction and the social environment

To understand the conditions under which needs are likely to be fulfilled, aspects of the social environment have been examined. One facet of the social environment that can afford need satisfaction, producing well-being in different settings, is autonomy support (e.g., Quested, Duda, Ntoumanis, & Maxwell, 2013; Reeve, 2006). According to SDT, people have different motivating styles, the characteristics of which can be conceptualised along a continuum from highly autonomy supportive to highly controlling (Deci, Schwartz, Sheinman, & Ryan, 1981). Autonomy support is an interpersonal behaviour that nurtures another person's volitional intentions to act, those intentions having an internal locus. Autonomy supportive motivating style involves recognising the other person's motivational resources (i.e., psychological needs, values, interests and goals) and incorporating them into an activity (Reeve & Jang, 2006). Controlling style, by contrast, interferes with the other's self-determined motives (e.g., Reeve, Jang, Carrell, Jeon, & Barsh, 2004). It is important to bear in mind that it is the perception and interpretation of the other person's acts rather than their actual behaviours that are relevant to need satisfaction (Reeve et al., 2004). Examples of autonomy supportive acts include involving the other person in decision-making, taking their perspective, reducing pressure and providing opportunities for choice (Black & Deci, 2000). In the educational milieu, autonomy supportive teachers might ask students for their input when planning lessons or give them the opportunity to work on a problem in their own way. Controlling teachers, by contrast, tend to impose external goals, set deadlines and use pressuring language (Reeve & Jung, 2006).

There is evidence from different domains that social contexts characterised by high autonomy support provide nourishment for the satisfaction of basic psychological needs. Balaguer et al. (2012), for example, found that increased autonomy support from the coach predicted increased overall need satisfaction and decreased overall need thwarting reported by young athletes over time. Similarly,

Adie et al. (2012) showed that autonomy supportive behaviour of the coach predicted athletes' overall need satisfaction; thus, according to Adie et al., autonomy supportive environments have the potential to facilitate satisfaction of all basic needs.

In terms of the contribution of autonomy support to fulfilment of specific needs, environments high in autonomy support correspond to satisfaction of autonomy. Standage et al. (2006), for instance, showed that the extent to which the atmosphere created by the teacher was autonomy supportive predicted the extent to which the need for autonomy of secondary students within physical education classes was satisfied. Autonomy support from the coach emerged as a predictor of autonomy experienced by athletes studied by Reinboth et al. (2004). This indicates that being encouraged to take an active role and express opinions would lead one to develop an enhanced sense of control and volition. Furthermore, Standage et al.'s results point to autonomy support from the teacher as the strongest predictor of students' competence. Enhanced self-confidence could thus be attributed to the perception that one's opinions are respected and valued. Discrepant findings emerged from research with athletes (Adie et al., 2008; Reinboth et al., 2004) and dancers (Quested & Duda, 2011), however: the effects of teachers' autonomy support on student competence were weak. Adie et al. suggest this discrepancy may have arisen from the differences between the settings studied and the ages of participants. Nonetheless, Adie et al. (2008) found that perceptions of the coach as being autonomy supportive predicted relatedness with respect to other team members more strongly than autonomy and competence. This supports Quested and Duda's (2011) finding that autonomy support from teachers in a dance school predicted dancers' satisfaction of all needs but primarily relatedness with respect to other people at the school. It therefore seems that the feelings of belonging and emotional bond are fostered by environments that communicate respect and trust for their members through acknowledging them as autonomous beings.

The impact of social support in buffering against stress (Cohen & McKay, 1985) and aspects of ill-being, including depressive symptoms (e.g., Grav, Hellzen, Romild, & Stordal, 2012) and students' burnout (e.g., Jacobs & Dodd, 2003) is well-corroborated in the literature. Perceptions of high levels of social support are associated with markers of psychological adjustment, such as greater life

satisfaction (Yeung & Fung, 2007; Malinauskas, 2010) and academic engagement (Klem & Connell, 2004). Different types of social support have been identified, including informational and emotional (Schaefer, Coyne, & Lazarus, 1981). Informational support is the provision of information that can be used to solve a problem. Emotional support refers to intimacy and the perception of being able to rely on other people (Schaefer et al., 1981).

Ryan and Solky (1996) propose that social support fosters well-being primarily via its contribution to autonomy and relatedness satisfaction. By contrast, perceptions of the environment as being low in social support are expected to compromise satisfaction of psychological needs, in turn leading to negative outcomes. While examinations of the contribution of social support to need satisfaction are rather scarce, there is nevertheless evidence that they are associated. Talley, Molix, Schlegel and Bettencourt (2010), for instance, showed that survivors of breast cancer who perceived their life partners as emotionally and informationally supportive reported higher need satisfaction within their intimate relationships. Van den Broeck, Vansteeinkiste, De Witte, Soenens and Lens (2010) found that social support from the colleagues correlated moderately and positively with Belgian employees' and students' satisfaction of relatedness. Similarly, a study of athletes by Reinboth et al. (2004) showed that perceptions of social support from the coach predicted their relatedness within their team.

It is not surprising that social support should have a role in relatedness since being around people who show care and understanding will inevitably nurture the sense of being close to them at the emotional level. Nevertheless, its roles in autonomy and competence are less clear. Van den Broeck et al. (2010) found weak and positive correlations between the perceptions of social support from colleagues reported by employees and students, and their autonomy and competence. By contrast, Reinboth et al. (2004) found that the perception of social support from the coach did not predict athletes' satisfaction of autonomy and competence. It might be that social support operates in different ways depending on the domain. This is worth exploring: a positive social environment is crucial for the optimal development of music students (e.g., Burland & Davidson, 2002; Manturzewska, 1990; see Section 2.1.2.2), but its role in fostering their well-being via need satisfaction has not been examined until now.

2.1.1.4 Cross-cultural perspectives on burnout and engagement

International research on well-being has found many cross-cultural and cross-national differences. College students in Japan and South Korea displayed lower life satisfaction and happiness than their counterparts in the USA (Diener, Suh, Smith, & Shao, 1995). Similarly, and more recently, elderly people living in ex-communist countries reported lower levels of life satisfaction and happiness than elderly people in English-speaking countries (Zelikova, 2013). These variations in general well-being could be explained, in part, by differences in cultural values across the world (Hofstede, 2001). Arrindell et al. (1997) analysed international databases containing information on cultural values in a range of countries (Hofstede, 1980; 1991, in Arrindell et al., 1997) and their national subjective well-being (Diener, Diener, & Diener, 1995). Cultures high on feminism, characterised by an overlap between the social roles of men and women, and low on uncertainty avoidance, which is the degree to which people get anxious when put in situations they cannot control, are likely to promote subjective well-being. Furthermore, Diener, Oishi and Lucas (2003) note that higher levels of well-being are likely to be found in individualistic cultures that value personal achievements and choices (Hofstede, 2001).

In a similar vein, cross-cultural and cross-national differences can be observed in relation to burnout and engagement. According to Maslach et al. (2001), employees in North America are more susceptible to burnout than their counterparts in other Western countries, or they simply feel freer to express themselves or respond to questionnaire items in more extreme ways. For example, the results of Poghosyan, Clarke, Finlayson and Aiken's (2010) study of nurses in three countries revealed higher burnout levels in the American than German group. In a study by van Horn, Schaufeli, Greenglass and Burke (1997), Canadian teachers scored higher on emotional exhaustion and depersonalisation than their colleagues in the Netherlands. There are also differences between the degrees of burnout experienced in different European countries. Greek employees in Xanthopoulou, Bakker, Kantas and Demerouti's (2013) study reported higher professional efficacy and absorption than their Dutch counterparts but tended to be more emotionally exhausted and cynical. Taipale, Selander, Anttila and Nätti (2011) conducted a comprehensive survey of engagement in eight European countries;

respondents were employees in service sectors including retail, banking and hospitals. Employees in Scandinavia and the Netherlands displayed the highest levels of engagement, and those in the UK the lowest. Variations between levels of burnout and engagement could be attributable to differences in the job demands, autonomy and social support that characterise different, specific working environments (Deci et al., 2001; Taipale et al., 2011). Glazer and Beehr (2005), who studied the pathways between a range of work stressors, anxiety and intention to change job reported by nurses in Hungary, Italy, UK and USA, came to the conclusion that while the directions of effects were the same across countries, they differed in terms of their magnitudes. In other words, employees in different countries may respond differently to the same working conditions.

The literature on cross-cultural differences in burnout and engagement has focused primarily on employees rather than students in different countries but there are indications that academic engagement may also vary by country. Surveys undertaken by the Programme for International Student Assessment (PISA) in 2012 (OECD; 2013) showed that students in Indonesia and Thailand demonstrated the highest levels of intrinsic motivation to study maths, while those for most European countries were below the average. Students differed also with respect to their perseverance when facing difficulties and their openness to solving new problems. These variations may be attributable not only to cultural factors but also differences between educational practices in different countries. In line with this notion, Lam et al. (2016) found that individualism (Hofstede, 2001) did not correlate positively with engagement reported by students aged between 11 and 17 in Asian, European and North American countries, but contextual factors, such as instructions and support provided by the teacher, did.

Music education systems are not universal, so music students are influenced not only by country-specific cultural values but also their unique developmental and learning experiences. These could explain some of the cross-national differences found by Brand (2001) in music students' motivation and affect (Panebianco-Warrens, Fletcher, & Kreutz, 2015) to be discussed in Section 3.1. Cross-national variations in music students' burnout and engagement can therefore be hypothesised but these have not been explored to date.

2.1.1.5 Sex differences in burnout and engagement

There are sex differences in psychological well-being. These could have a hormonal basis (e.g., Albert, 2015) but socialization processes (e.g., Dedovic, Wadiwalla, Engert, & Pruessner, 2009), determining different responses to stress (e.g., Kajantie & Phillips, 2006) and coping methods (Matheny, Ashby, & Cupp, 2005) are likely to be crucial. Women are, for example, more prone to depression than men (e.g., Arenliu, Kelmendi, & Berxulli, 2016; Schuch, Roest, Nolen, Penninx, & de Jonge, 2014), a tendency most salient in adolescents and young people (Salk, Hyde, & Abramson, 2017). Furthermore, they are more likely to experience anxiety (McLean, Asnaani, Litz, & Hofmann, 2011; Schuch et al., 2014). Findings from research on sex differences in subjective well-being (SWB) are inconsistent, however. There is some evidence suggesting that women report more life satisfaction (e.g., Boarini, Comola, Smith, Manchin, & de Keulenaer, 2012) and happiness (e.g., Senik, 2015). Nevertheless, other research indicates that sex differences in SWB are minor and of little importance: Meisenberg and Woodley (2015), for instance, analysed data from World Values Survey collected in 90 countries and found sex differences to be minimal and inconsistent.

Similarly, research on work-related well-being has produced inconclusive results. Purvanova and Muros (2010) conducted a meta-analysis of 183 studies, and found that while women are likely to feel more exhausted, men are more susceptible to the experience of depersonalisation or disengagement from work. Nevertheless, in a study of Iranian athletes examined by Heidari (2013), women scored higher on all dimensions of the ABQ. The differences between men and women in their engagement are less pronounced. Persson (2010) did not detect differences between men and women working for a Swedish management consultancy company in their levels of work engagement. Schaufeli, Bakker and Salanova (2006) came to similar conclusions, in that they found sex differences in work engagement to be small and of little practical importance.

The only research addressing sex differences in burnout among music students, which suggests similar frequencies of emotional exhaustion, depersonalisation and personal accomplishment in men and women, was conducted over 30 years ago in the USA (Hamann & Daugherty, 1985). Its results are therefore likely to be outdated and/or applicable only to American students. Although the evidence for sex

variations in well-being at work is inconclusive, these are certainly worth studying further in the context of music education, since gendered teaching practices to be discussed in Section 3.1 are bound to lead to differences in study-related experiences of female and male music students and thus their attitudes towards music and well-being.[6]

2.1.1.6 Burnout, engagement, and physical health

Burnout and physical health

One reason burnout and engagement have been studied is that they can affect physical health and performance. The theoretical basis for the association between burnout, a form of job-stress, and compromised physical health stems from the stress literature (e.g., Juster, McEwen, & Lupien, 2010). It could well be that the health deteriorates as individuals try to protect the quality of their performance under high work demands. These attempts are related to the activation of sympathetic functions and/or increased effort, which inevitably lead to elevated physiological costs (Hockey, 1993; in Demerouti, Bakker, Nachreiner, et al., 2001). This explanation is the basis for Schaufeli and Bakker's (2004a) proposal that burnout compromises health because habitual active coping depletes energy. Similarly, Vinokur, Pierce and Lewandowski-Romps (2009) draw upon the theory of Conservation of Resources (COR; Hobfoll, 2001) in arguing that burnout has negative consequences for health because it depletes physical, emotional and cognitive resources.

Burnout has an adverse impact on health via pathophysiological processes. It is associated with hypocortisolism (e.g., Pruessner, Hellhammer, Kirschbaum, 1999), which could explain, in part, the association between burnout and higher vulnerability to autoimmune disorders, inflammation, asthma and allergies (e.g., Raison & Miller, 2003; in Melamed, Shirom, Toker, Berliner, & Shapira, 2006). According to Nakamura, Nagase, Yoshida, and Ogino's (1999) study of office workers, in which burnout was assessed with the MBI-HS (Maslach & Jackson, 1996), it is also related to lower cellular immunity, believed to be responsible for impaired immunity more generally.

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[6] The terms "gendered associations/expectations/teaching practices" and "gender bias/stereotyping" used throughout the thesis build upon the definition of gender as "the attitudes, feelings, and behaviors that a given culture associates with a person's biological sex" (APA, 2015b, p. 20).

Consistent with these findings, research points to a relationship between burnout and poor self-rated health. Moodie, Dolan and Burke (2014) measured burnout in Spanish nurses using the SMBM (Shirom & Melamed, 2006) that equates burnout to exhaustion. Nurses with high levels of burnout assessed their physical health as worse than those with lower levels of burnout. Also other dimensions of burnout are related to physical health issues. Peterson et al.'s (2008) cross-sectional study of Swedish healthcare workers who were classed as not burned-out, or who scored high on either exhaustion or both exhaustion and disengagement showed that the latter two groups reported lower levels of self-rated health. In the course of interviews, burned-out rugby players in their twenties and early thirties (Cresswell & Eklund, 2006b), and junior tennis players (Gould et al., 1996) referred to their symptoms of illness and the feeling of being sick.

Since causal attributions cannot be made on the basis of cross-sectional studies, longitudinal designs have been used to support the inference that burnout, conceptualised as a three-dimensional syndrome, may cause (self-rated) ill-health. In a study of Dutch office workers by Mohren et al. (2003), initial burnout measured with MBI-GS (Schaufeli et al., 1996), and particularly exhaustion, predicted gastroenteritis and, to a lesser extent, colds and flu-like illnesses over periods of six months and one year but the effects disappeared when followed-up later than a year from baseline. The effects found were not explained by sex, age and chronic diseases, which were controlled for. A longitudinal study involving social workers in America by Kim, Ji and Kao (2011) showed that baseline levels of burnout assessed with MBI-HSS predicted higher incidence of physical health complaints, such as sleep problems, headaches, and respiratory and gastrointestinal infections measured a year later, with socio-demographic characteristics being controlled for. Burnout is not only associated with the perception of one's own health but also with objectively measured physical symptoms. This is illustrated by the findings of Honkonen et al.'s (2006) cross-sectional study: male Finnish employees classed as burned-out on the basis of their results on MBI-GS had more cardiovascular problems than those with low levels of burnout. The effects of burnout on health may be observed even after several years: initial burnout in employees in the Finnish forestry industry, identified via MBI-GS, emerged as a predictor for their

hospitalisation for cardiovascular diseases ten years later (Toppinen-Tanner, Ahola, Koskinen, & Väänänen, 2009).

Musculoskeletal pain (henceforth referred to as "MS pain") is believed to be the main reason for limited capacity to work (Bevan et al., 2009). The ethology of MS is complex but psycho-social and physical factors at work are likely to be among the most important contributors (e.g., Macfarlane et al., 2009). The relationship between burnout and MS pain could be described, at the physiological level, as the activation of the sympathetic-adrenal medullary response to stress that prompts the secretion of norepinephrine, in turn leading to greater muscle activity and ensuing pain (Elfering, Grebner, Gerber, & Semmer, 2008). The findings from van Doorner and van Blokland (1989; in Melamed et al, 2006), for example, suggest that individuals with burnout have elevated levels of norepinephrine, which could perhaps explain their higher susceptibility to MS pain (Melamed et al., 2006).

There is evidence to support these explanations: Peterson et al. (2008) found that those scoring high on either exhaustion, or both exhaustion and disengagement were more likely to report neck and back pain. Burnout assessed with MBI-GS emerged as a correlate of objective measures of MS pain in women in Finland, even when adjusting for their socio-demographic and socio-economic characteristics, health behaviour, body mass index and depressive symptoms (Honkonen et al., 2006). The burned-out junior tennis players interviewed by Gould et al. (1996) reported pain in the knee and ankle, and "weird" injuries. This finding should be interpreted with caution, however, since injuries may be a risk factor for athlete burnout rather than its symptom or consequence (Cresswell & Eklund, 2006b; Gould et al., 1996).

Further support for physical and psychological exhaustion as a contributory factor to MS pain has been provided by longitudinal studies, which tend to show the association between them even when other variables are controlled for. Armon et al. (2010) adjusted for age, sex, educational level, depression, anxiety and body mass index and found that elevated levels of burnout, assessed with SMBM, increased the risk of shoulder and lower back pain, over an 18-month period for workers who were apparently healthy at baseline. Grossi, Thomtén, Fandiño-Losada, Soares and Sundin's (2009) study of women in Sweden controlled for socio-demographic, work and health characteristics, and showed that both initial

burnout and its temporal changes measured with SMBM were the most salient predictors of changes in pain overall, and in pain located in the neck, shoulder and back a year later.

Engagement and physical health

Schaufeli and Bakker (2004a) propose that burnout depletes energy and gives rise to physical complaints while engagement has consequences primarily for turnover intention. Accordingly, there is not much explicit research on potential relationships between engagement and physical health; most available data are secondary results of other analyses. Hence, support for the link between engagement and health stems predominantly from research using correlational and cross-sectional designs. Nevertheless, the findings are consistent: engaged employees tend to enjoy good physical health.

Of the three dimensions of engagement, vigour and dedication are likely to be most important for physical health but the correlations between these two dimensions and health tend to be weak. The findings of cross-sectional studies of Finnish teachers (Hakanen, Bakker, & Schaufeli, 2006) and Dutch telecom workers (Schaufeli, Taris, & van Rhenen, 2008), for example, yielded positive, albeit weak, correlations between vigour and dedication, and self-rated general health. In their study of Dutch workers employed in several sectors, Schaufeli and Bakker found negative and weak correlations between vigour and dedication, and self-rated psychosomatic health encompassing cardiovascular symptoms, stomach aches, headaches, fatigue and dizziness. Korunka, Kubicek, Schaufeli and Hoonakker (2009) obtained similar results in their cross-sectional study of employees in different professions in Austria, finding negative and weak correlations between self-reported cardiovascular, gastro-intestinal and MS pain, and vigour and dedication. In all these studies, the correlations for vigour were stronger than those for dedication. Furthermore, Demerouti, Bakker, De Jonge, Janssen and Schaufeli (2001) provided some empirical evidence for the link between absorption and health from their study of employees in an insurance company: negative but weak correlations between all dimensions of engagement (the strongest for vigour and the weakest for absorption) and physical health problems.

Burnout and engagement, and physical health: summary

As discussed above, most research into the relationships between burnout and engagement, and health has been carried out with employees, leaving the effects of students' burnout and engagement on their physical health largely unexamined. The body is a tool in performing musical activities, which tend to involve a great deal of physical effort. Given that many music students experience problems with their physical health (see Section 2.1.2.1), it is imperative that research be carried out to identify potential causes. Drawing upon the existing literature, burnout and, to a lesser extent, engagement are likely to be related to variations in physical health. Studies are therefore needed to elucidate the effects of burnout and engagement on music students' physical well-being.

2.1.2 Burnout and engagement in the context of music performance education

2.1.2.1 Well-being in music students

Psychological well-being

Most literature on musicians' well-being has focused on the experience of performance anxiety in students (e.g., Braden, Osborne, & Wilson, 2015; Patston & Osborne, 2016) and professional musicians (e.g., Amorim & Jorge, 2016; Kenny, Driscoll, & Ackermann, 2016). A growing body of research investigates different aspects of psychological well-being in these groups, however. For example, performing musicians in Norway were found to report higher levels of anxiety and depression when compared to the general working population (Vaag, Bjørngaard, & Bjerkeset, 2016). 71% of more than 500 respondents to a recent survey for Help Musicians UK (Gross & Musgrave, 2016) reported having suffered from depression and 69% reported having had anxiety and panic attacks. The authors suggest that musicians are therefore three times more likely to suffer from depression and anxiety than the general population (although Ascenso, Perkins and Williamon (2017) found from a recent survey of 1098 performing artists of whom 79% were musicians that there is a higher percentage of performing artists with optimal mental health than the general population, and musicians scored the same or higher than the general population on more than half of the measures employed in the survey). It should be noted that respondents to the Help Musicians UK survey identified

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work-related factors, such as uncertainty regarding the future, anti-social working hours and low pay as the main determinants of their psychological problems. Although the results of similar surveys of music students give less cause for concern, they nevertheless experience challenges to their mental well-being. For example, Spahn et al. (2004) found that 33.5% of the first-year university music students involved in their study displayed elevated levels of anxiety, and described more than 8% of them as "conspicuously depressed". The undergraduate music students investigated by Orzel (2010) at an American university displayed high levels of stress overall and in relation to their musical studies. Hildebrandt, Nübling and Candia (2012) carried out longitudinal research tracking the experiences of music students over the course of their first academic year and found that they suffered increases in fatigue, depression and performance anxiety. These findings suggest that the mental well-being of music students may well be influenced adversely as the result of their training.

Burnout

References to burnout in the literature on music students tend to use the term colloquially rather than conveying a theory-grounded understanding of this phenomenon. Dews and Williams (1989), for instance, identified "burnout with musical progress" as one of the sources of stress experienced by the university and conservatoire music students they surveyed. It is not clear, however, how "burnout with musical progress" relates to descriptions of the burnout syndrome in the theoretical literature. Furthermore, while music education researchers have stressed the possibility that music students are at risk of burnout, there are few investigations of burnout in this population. Moore, Burland and Davidson (2003) point out that "lack of social contact and peer support, combined with high intensity but isolated practice may serve to demotivate childhood musicians and lead to so-called 'burnout'" (p. 546). Jørgensen (2009) argues research is warranted into burnout in young musicians because they face unique demands and stressors. Likewise, Orzel (2010) identifies the need for research on burnout in music students, as well as stress, but focuses almost exclusively on the latter in her questionnaire, mentioning burnout only in the context of items on stress that "if prolonged could lead to burnout" (p. 30).

Hamann and Daugherty's (1985) research on students conducted at one university in the USA was the first attempt to examine burnout among music students. The study found that most of them experienced medium levels of emotional exhaustion and depersonalisation and high levels of personal accomplishment as measured by MBI (Maslach & Jackson, 1981).[7] Emotional exhaustion was most frequently experienced by string players, who also reported its greatest intensity. Bernhard's studies produced more recent findings concerning music students' burnout. He administered the College Students Survey (CSS; Gold, Bachelor & Michael; 1989) to music students (Bernhard, 2007), and two separate groups of music students: music education and non-music education (Bernhard, 2010) at one university in the USA.[8] The findings of both studies revealed that music students experienced high levels of emotional exhaustion, and moderate levels of depersonalisation and personal accomplishment.[9] Castro's (2016) study provides partial support for Bernhard's results. Castro administered the University Burnout Measure (Furr & Wood, 2013; in Castro, 2016) to music students enrolled on different degree courses (mostly performance and education) at one university in the USA, and found high levels of emotional exhaustion, low depersonalisation and high personal accomplishment.[10] The relatively high levels of exhaustion reported by respondents in these studies highlight the need for further research on burnout in this population. The discrepancies between the findings of the studies mentioned above may have resulted from differences between the institutional cultures of the music departments taking part; a Finnish study by Salmela-Aro, Kiuru, Pietikäinen and Jokela (2008) showed minor between-school differences pointing to the potential role of school 'climate' in students' academic burnout.

The findings of Hamann and Daugherty's (1985) study provided some insights into the relationships between burnout and various psycho-social factors. Lack of personal goals, little recognition from teachers, peers, administration and parents, academic overload and lack of coordination between different areas of study characterised the experiences of students classed as highly burned-out.

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[7] Low scores on personal accomplishment as measured by MBI are representative of burnout.
[8] CSS is the MBI (Maslach & Jackson, 1986) modified for students.
[9] Low scores on personal accomplishment as measured by CSS are indicative of burnout.
[10] Low scores on personal accomplishment as measured by the University Burnout Measure are indicative of burnout.

Furthermore, Bernhard's two studies cast some light on the relationship between lifestyle factors and burnout. The most prominent finding was perhaps the negative correlation between emotional exhaustion and the time students spent sleeping and relaxing, although the correlation was weak. Likewise, depersonalisation was negatively and weakly correlated with sleep and exercise, and personal accomplishment was positively and weakly correlated with sleep and (in the 2010 study) exercise. In the 2007 study, emotional exhaustion was negatively and moderately correlated with the time spent playing in ensembles, and weakly correlated with the time spent doing homework, and number of classes and credit hours taken. Depersonalisation was negatively and weakly correlated with the time spent playing in ensembles. Not all of these results were replicated, however, in the 2010 study: there were no significant correlations between burnout, and hours of academic credit and classes, lessons, homework, ensembles, practice, and extra-curricular work. Moreover, both studies found variations in burnout between music students according to their year of study, with undergraduate students reporting significantly higher levels of emotional exhaustion and reduced personal accomplishment than those studying at the postgraduate level, perhaps because students who experience the symptoms of burnout drop out of musical education.

Non-music education music students in Bernhard's (2010) study reported higher levels of depersonalisation than music education students. This points to the importance of studying burnout in different groups of music students.

An Australian study by Parker (2015), involving performers, composers, producers and conductors, including those undertaking training at the tertiary level, offered a somewhat different perspective on music-related burnout, in that it conceptualised it as a syndrome of emotional exhaustion, cynicism towards music and lack of professional efficacy, in line with Schaufeli et al. (1996). The results indicate that 4% of those surveyed displayed "high" levels of burnout but the criteria used to class musicians according to their scores were not made explicit in this article. Furthermore, it is not clear if there were any differences between performance students and other sub-groups within the sample.

To sum up, music students are at risk of feeling exhausted and experiencing other burnout-related symptoms. Yet, investigations of burnout among music students have produced relatively little knowledge of this phenomenon to date: little

is known about its prevalence in specific student sub-groups within this population, such as those studying performance and composition. Likewise, the understanding of the factors leading to burnout, and its consequences for music students is limited.

Engagement

To date, research on musicians' health has focused primarily on the negative aspects of music-making. Nonetheless, researchers have recently begun to probe into the ways in which music promotes well-being of those involved in it professionally, focusing on positive aspects of their musical involvement, such as engagement (e.g., Ascenso, Williamon, & Perkins, 2017). The concept of engagement has not been yet used explicitly in the context of music education but indirect information as to engagement in music students is provided in the music education literature pertaining to intrinsic motivation, flow, and talent development.

Studies in the domains of general education and sport have documented the substantial role of intrinsic motivation in fostering positive psychological outcomes, including creativity (e.g., Amabile, 1985) and well-being (e.g., Lonsdale et al., 2009). Mirroring these findings, the literature in music education has often pointed to the role of intrinsic motivation in optimal musical development. In their longitudinal study combining analyses of interview data and videotaped practice sessions of children aged between seven and nine, McPherson and Renwick (2001) found that pupils whose main motives for learning music were fun and enjoyment made better progress in their first year of playing an instrument than those who gave extrinsic reasons for taking music lessons. Adolescent and adult musicians playing in ensembles at a high level in Australia, interviewed by Beltman and Volet (2007), indicated mainly intrinsic motives for continuing their involvement in music, both in retrospect and when referring to the time when the study was taking place. Burland and Davidson (2002) interviewed people involved in previous research (i.e., Davidson, Howe, Moore, & Sloboda 1996, 1998; Howe, Davidson, Moore, & Sloboda, 1995; Sloboda, Davidson, Howe, & Moore, 1996) at the time when they were in the transitional phase between education and professional life. It emerged that the interviewees who were still pursuing performing careers recalled being driven mostly by strong intrinsic motivation; they described music as a crucial part of their identity and an important means of communication rather than simply

as a source of pleasure. Involvement in music can thus be manifested in various ways, transcending mere enjoyment from musical participation.

Over the course of their lives, young musicians are subject to various setbacks and negative experiences. While challenges arise throughout their careers, it seems that their ability to deal with transitions is critical for their success in music. MacNamara, Holmes and Collins interviewed world-class classical performers who pointed towards determination, commitment and persistence as essential personal qualities that aid successful transitions into full-time music education and professional life (2008), and facilitate the negotiation of challenges arising at these developmental stages (2006). Similarly, teachers and gatekeepers at three highly competitive American conservatoires, interviewed by Jarvin and Subotnik (2010), underscored the key significance of persistence in progressing towards musical artistry, and teachers additionally placed importance on intrinsic motivation. The significance of commitment when dealing with challenges was also confirmed by Burland (2005), who used both qualitative and quantitative methods to track undergraduate university and college music students over a two-year period to determine the factors underpinning the formation of their professional identities. The "performer identity" characterised those who planned to become professional musicians as opposed to those who developed "amateur identity", considering an alternative career path. While both groups seemed to derive enjoyment from musical activities and expressed their strong connection to music, they differed in terms of their reasons for engaging with it. The "performers" were motivated by emerging opportunities and demands, and tended to be more committed to fulfilment of their musical goals. By contrast, the "amateurs" emphasised the therapeutic qualities of making music, at the same time being somewhat reluctant to take up the challenges necessary for achieving success.

Experiences of flow (Csikszentmihalyi, 1990) while making music have attracted attention from researchers such as O'Neill (1999), and Bloom and Skutnick-Henley (2005). Bakker (2005), for example, applied flow, conceptualised as a combination of intrinsic motivation, enjoyment and absorption (Csikszentmihalyi, 1997), to music students of different ages and specialising in a range of musical genres, and showed that they experienced absorption, on average, *regularly* to *often*, reporting the feelings related to enjoyment and intrinsic motivation, on average, *often* to *very*

often. Similar findings emerged from a study by Sinnamon, Moran and O'Connell (2012), who surveyed two groups of music performance students based at two conservatoires in a European city: those aged between nine and 18, and those studying at the tertiary level. The vast majority of respondents attained flow when performing music, represented by nine dimensions proposed by Jackson and Eklund (2002), *frequently* or *always.* Three aspects of flow that seem to be most relevant to absorption are autotelic experience (i.e., the activity being intrinsically rewarding), time transformation (i.e., a distortion of subjective experience of time), both of which were reported *sometimes* to *frequently*, and concentration on the task (i.e., intense and focused concentration), which was reported *frequently* to *always.* Nonetheless, the attainment of flow appears to be less common under performance exam conditions. This was shown in a study by Wrigley and Emmerson (2011), who found that the majority of performance students they surveyed at a conservatoire in Australia experienced low levels of flow, defined in line with Jackson and Eklund, when performing in an exam. Furthermore, the frequency of experiencing flow while making music is related to indicators of well-being: Fritz and Avsec (2007) showed that autotelic experience and concentration on the task predicted positive affect in music pedagogy, performance and composition students at a conservatoire in Slovenia. Music-related well-being may thus influence students' general psychological welfare.

To summarise, the evidence to date suggests that students' commitment to music is multidimensional and cannot be reduced to intrinsic motivation, dedication or flow. Engagement encompasses all of these and therefore offers a useful framework for examining students' relationship with music in greater detail. Whereas the conditions identified as contributors to the optimal development of music students may also play a role in engagement, further research is needed to explore the factors that underpin it specifically.

Spahn et al. (2004) compared students of music, sport, medicine and psychology and found that music students displayed significantly higher levels of commitment and attached a higher significance to music than their counterparts to their own subjects of study; music students were also less able to detach themselves from music than were their counterparts from their subjects of study. It should be noted that while engagement is generally considered to contribute to a positive state of

mind (e.g., Schaufeli & Bakker, 2004b), Spahn et al. note that high commitment to music may have negative outcomes for students' health behaviour. An additional risk is that highly engaged students may invest so much in music that they fail to assess their own limitations or make use of resources outside music that could help them cope better. More research is clearly needed to explore the consequences of performance-related engagement for music students, using quantitative and qualitative methods.

Physical well-being

Since the late 1980s, researchers have become increasingly interested in musicians' and music students' physical health (e.g., Caldron et al., 1986; Fishbein, Middlestadt, Ottati, Straus, & Ellis 1988; Kok, Nelissen, & Huisstede, 2015; Ranelli, Straker, & Smith, 2011). Music students' MS pain has often been studied, perhaps because it has the potential to affect performance. High rates of self-declared MS pain were found in conservatoire-based undergraduate music performance students surveyed by Williamon and Thompson (2006), with neck, shoulders and back being the most affected. In a more recent study at conservatoires in the Netherlands, 36% of music students reported chronic MS pain (Kok et al., 2015).

Ginsborg, Kreutz, Thompson and Williamon (2009) surveyed music performance students at conservatoires, and non-music students at universities, finding that the former reported experiencing MS pain in at least one part of the body and more MS issues than did the latter. This supports the earlier findings of Roach, Martinez and Anderson (1994): a higher proportion of university students who had played an instrument for at least seven hours per week in the preceding month reported pain located in upper back, hand, elbow and wrist, and upper-extremity pain when compared to those who had played less or who did not play at all. In line with the general literature (e.g., Hartvigsen, Davidsen, Hestbaek, Sogaard, & Roos, 2013), research involving musicians and music students indicates that women are more afflicted than men. Zetterberg, Backlund, Karlsson, Werner and Olsson (1998), for example, in a study conducted at universities in Sweden, found that female music students reported MS pain in more areas of the body than their male colleagues. Yet another Swedish study of music performance and music education students showed that women were more likely to experience MS pain that affected their playing (Hagberg, Thiringer, & Brandström, 2005). Leaver, Harris and Palmer

(2011) examined professional orchestral musicians in the UK and found women reporting more MS pain in various bodily areas in the past 12 months. Similarly, a German study of orchestral musicians carried out by Steinmetz, Scheffer, Esmer, Delank, & Peroz (2015) showed that women experienced chronic pain more frequently than men, affecting several parts of the body.

There is some evidence suggesting that the risk of MS pain varies depending on the type of instrument played. Larsson, Baum, Mudholkar and Kollia (1993) surveyed students at an internationally-known school of music in the USA and found that significantly more string players reported MS pain during playing when compared to other groups of instrumentalists. Similar results emerged from a Polish study of high school music students undertaken by Nawrocka, Mynarski, Powerska-Didkowska, Grabara and Garbaciak (2014): a higher proportion of those playing string instruments than those specialising in keyboard and wind instruments experienced MS pain, but the difference was significant only for shoulder pain, however. While Kreutz, Ginsborg and Williamon (2008b) failed to find significant differences in the distributions of MS pain across different groups of instrumentalists at conservatoires in the UK, "severe" or "above average" problems were reported most frequently by string players. In accordance with this, Steinmetz et al. (2015) discovered that violinists in orchestras were more likely than other groups of instrumentalists to experience pain in more than five body parts.

Half the respondents examined by Kreutz et al. (2008b) reported at least one non-MS issue such as sleep disturbance, inappropriate tiredness, sensitivity to the weather, lack of concentration or severe headaches. These results confirmed those of Ginsborg et al. (2009), who demonstrated that as many as 92% of the music performance students surveyed reported a variety of fatigue-related issues including severe headaches, sleep disturbance, lack of concentration and inappropriate tiredness during the week preceding data collection. The occurrence of other non-MS problems was also high, with nearly four out of five respondents experiencing symptoms such as sensitivity to weather, nausea, stomach ache and bowel problems during the week preceding data collection. Furthermore, non-MS health issues, including headaches and gastrointestinal issues, were more frequent in music performance than non-music students; this finding confirms Spahn et al.'s (2004) results, in that music performance students were more likely to experience

physical symptoms, such as headaches and nausea than sport, medicine or psychology students.

The general literature has consistently pointed to sex as a predictor of physical health status, with women reporting more complaints (e.g., Haug, Mykletun, & Dahl, 2004; Kim et al., 2011). While such research in music settings is scarce, a similar tendency was observed by Zetterberg et al. (1998) in their study of professional and student musicians, in that women reported more headaches than men.

Music students' practice and performance is inevitably compromised by health issues. Zaza and Farewell (1997) propose a definition of "performance-related musculoskeletal disorders" (PRMD) as pain that interferes with one's ability to perform to one's usual standards. A number of studies have focused on PRMDs (e.g., Ackermann, Driscoll, & Kenny, 2012; Kenny & Ackermann, 2015). Nearly 25% of the music performance students studied by Spahn et al. (2004) experienced PRMDs, and a study by Kreutz et al. (2008b) showed associations between students' MS and non-MS health issues (mostly spine problems and fatigue), their perceptions of their own practice time, and the assessments of the quality of their practice and performance.

To recapitulate, music students' physical well-being is bound to affect their performance, and the evidence suggests that they often experience both MS and non-MS issues. It is therefore well worth examining the factors that undermine or enhance music students' physical health, and burnout and engagement would seem to be contributors.

2.1.2.2 The development of performers

Competence

Motivation is only one of the personal characteristics that help musicians flourish; a sense of competence is also associated with optimal growth, according to the literature on talent development and musical self-efficacy. In their interview study with students, Jarvin and Subotnik (2010) highlighted the substantial role of self-confidence as a mediating variable aiding progression in the development of musical artistry. This confirms the findings of MacNamara et al.: internationally renowned classical instrumentalists identified self-belief and self-confidence as the factors undergirding successful transitions, first into full-time education and then into professional careers in music (2008), and when dealing with the challenges

characteristic for these developmental phases (2006). It is not uncommon, however, for tertiary music students to feel uncertain as to their own musical abilities. In Burland's (2005) study, interviewees with a "performer identity" were more satisfied with their skills and progress than those with a predominantly "amateur identity", who were more likely to describe their own musical competencies in negative terms. A major difference emerged between "performers'" and "amateurs'" views on the nature of musical ability: "performers" believed it can be improved through effort, while "amateurs" considered it a fixed, internal characteristic. "Performers" thus perceived themselves to have control over their performance, which, according to Burland, helped them cope with the arising challenges successfully and make improvements as performers. This could explain their positive attitudes towards careers in music.

Another construct related to competence is self-efficacy, reflecting the conviction that one can perform a specific task (Bandura, 1977). Empirical research has shown links between self-efficacy and positive outcomes: self-determined motivation (e.g., Alivernini & Lucidi, 2011), the use of a wider array of learning strategies (e.g., Pintrich, 1999), and enhanced athletic (e.g., Gilson, Chow, & Feltz, 2012) and academic performance (e.g., Zuffianó et al., 2013). Research in music education has focused on associations between musical self-efficacy and performance-related outcomes. Nielsen (2004), for instance, conducted a questionnaire study in Norway with first-year vocal and instrumental conservatoire students, revealing positive correlations, albeit weak to moderate, between their perceptions of their own ability to master music-related tasks, and their use of cognitive and metacognitive practice strategies. Even though Ritchie and Williamon (2013) found a positive (but weak) correlation between self-efficacy for learning music reported by undergraduate students at universities and conservatoires, and their tendency to evaluate the quality of their learning progress in practice, there were no significant correlations between self-efficacy and nine further practice strategies identified. Nonetheless, self-efficacy can be beneficial for performance, as shown by McCormick and McPherson (2003) who asked children aged between nine and 18 learning musical instruments to evaluate the extent to which they thought they had mastered the music to be performed, assess their own skills in comparison to those of other students, and predict the grade they thought they would be awarded

in their forthcoming examination. Self-efficacy turned out to be the strongest predictor of performance quality as indicated by the grade they received. Using more sophisticated measures of self-efficacy to gauge students' confidence to perform specific musical tasks (e.g., sight-reading), McPherson and McCormick (2006) replicated their previous study, providing further evidence for its findings in that self-efficacy predicted the exam grade better than the frequency with which students engaged with different types of practice.

To sum up, there is some empirical evidence that sense of competence underpins proficiency in music performance. Contributory factors include social influences, such as the impact of the instrumental or vocal tutors, among others (see next section) but more research is warranted to explain how music students develop a sense of competence, including self-efficacy, and how this affects their well-being.

Tutors

Music education researchers have conducted numerous studies of the relationship between the music student and their tutor, in the context of one-to-one tuition. Most instrumental and vocal lessons at secondary and tertiary levels, especially in conservatoires, are delivered in the form of weekly or more frequent lessons, creating the opportunity for the development of a unique and often intimate relationship (Presland, 2005). Inevitably the tutor's personality and teaching style influence the resulting quality of the relationship, which plays a key role in students' development. A body of research has produced evidence confirming the centrality of the tutor for music students at different points in their lives. Students surveyed by Williamon and Thompson (2006), for example, referred to their tutors as the primary source of advice on performance-related health problems and psychological issues. Nogaj and Ossowski (2015) used the questionnaire method to study different facets of social support – emotional, instrumental (i.e., provision of instructions regarding further actions), informative (i.e., provision of specific information), and evaluative (i.e., conveying belief in one's skills) – received by performance students aged between 14 and 20 in secondary music schools in Poland. They found differences in students' musical achievements as assessed by teachers, which were dependent on the levels of all types of social support from their instrumental or vocal tutors: students who reported higher levels of all types of

social support tended to be rated as more accomplished. While the role of the socially supportive tutor was clear, the degrees of social support provided by other social agents in the lives of young musicians were not related to their musical performance.

While children place the greatest importance on their tutor's personal qualities, older students primarily seek high quality instruction (Davidson et al., 1998; Howe & Sloboda, 1991). Burt and Mills (2006) tracked the experiences of young musicians in the UK from just before they entered a conservatoire until the end of their first year, using questionnaires and interviews. When asked about their hopes, prospective students frequently mentioned the opportunity to receive high quality teaching. Gaunt, Creech, Long and Hallam (2012) noted in their interview study that tertiary level students at conservatoires expected their tutor to be a great musician with a thorough knowledge of their instrument.

Nonetheless, the tutor's musical expertise appears not sufficient to build an effective learning environment. Manturzewska (1990) interviewed exceptional and average music performers, conductors and composers. She found that one of the common features in the biographies of highly successful musicians was the presence of the "master" in their lives throughout the period from the end of their puberty and the end of their formal music education. According to Manturzewska, the "master-student" relationship, shaped by the teacher's personality, competence and personal culture, is the main arena for the development of a tertiary student. "Masters" are responsible not only for each of their students' musical progress but also for their personal development. They fulfil this responsibility by passing on both their professional knowledge and life experience, and serving as a role model. Similar results emerged from Burland and Davidson's (2002) study: interviewees still pursuing performing careers tended to recall positive experiences with their tutors who stimulated their personal development and made attempts to promote them in the music environment.

Specific characteristics of the tutor's personality and teaching style may be particularly conducive to students' optimal development. Two interview studies were carried out by Gaunt involving conservatoire students (2009) and student-tutor dyads at the same UK conservatoire (2011). Students reported that the most effective teaching was delivered by tutors with a sense of humour who showed

respect and care for them not only as musicians but also as human beings. Undesirable characteristics of tutors included abrupt and unpredictable behaviour, and a distant attitude. Furthermore, Hamann and Daugherty (1985) showed that students who perceive lack of recognition from teachers are more likely to become emotionally exhausted, have a cynical attitude towards other people and experience lack of accomplishment more frequently and intensely.

Student pianists at conservatoires, interviewed by Presland (2005), often touched upon the special bond and intimacy that unfolded between them and their tutors over time. They sought open and honest communication with their tutors, considering it of paramount importance in the learning process. Similarly, the conservatoire students interviewed by Gaunt et al. (2012) expected their tutor to be supportive but also encourage them to take risks. In addition, students valued tutors' understanding and empathy for students' "personal ups and downs" (p. 33), which they saw as creating a safe atmosphere conducive to learning. They thus clearly considered rapport with their tutor an important facilitator of expertise development (Presland, 2005; Gaunt, 2011), as proposed by Collens and Creech (2013): "the capacity to create, sustain and manage the interpersonal complexities of a relatively private one-to-one relationship between two adults over a period of years underpins progression in this learning situation" (p. 152).

While it may not be necessary for students and tutors to know each other well at the personal level, it is a prerequisite for the optimal development of tertiary music students that the tutor offers high levels of social support. Yet, sometimes "one-to-one tuition can develop into the site of interpersonal conflict and high anxiety, where the relationship itself can become an obstruction to learning (Collens & Creech, 2013, p. 151), suggesting that interpersonal difficulties in the student-tutor relationship have the potential to be detrimental to both students' well-being and their progress within music.

The balance of power in the student-tutor relationship, weighted in favour of the tutor, can affect students' autonomy. Jørgensen (2000) points out that "historically, the predominant relationship between teacher and student in instrumental instruction has been described as a master-apprentice relationship, where the master usually is looked at as a role model and a source of identification for the student", adding "and where the dominating mode of student learning is imitation"

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(p. 68). In the context of one-to-one music tuition, then, the tutor's power is expected, if not desired. As discussed in Section 2.1.1.3, however, evidence from other domains attributes optimal outcomes to autonomy-supportive environments (e.g., Balaguer et al., 2012; Flink, Boggiano, Barrett, 1990).

The majority of conservatoire tutors interviewed by Gaunt (2008) said that one of their main aims when teaching was the encouragement of autonomous learning but only a few reported using specific strategies to promote their students' independence. These included giving them the opportunity to come up with their own solutions and engaging them in critical reflection on their own work. There was also a tension between the importance placed on transmitting musical skills and encouraging autonomous learning in students. Gaunt (2009) highlights difficulties associated with power dynamics in the student-tutor relationship: students in her study were likely to adopt a passive role in the one-to-one tuition setting, thereby becoming highly dependent on their tutors. The tutor's endeavours to stimulate them to take responsibility for their own learning tended to be interpreted by them as the tutor not being interested, which in turn undermined their motivation. Gaunt also suggests that students may lose their own musical identity through admiration for, and emulation of their tutors' expertise.

Tutors' attempts to promote students' independence may produce different effects depending on the strategy they embrace. Burwell (2005), for example, advocates increasing students' self-confidence by asking questions so as to give them the impression that the student is "on the same level" as the respected musician teaching them; she describes this as "disguised instruction" (p. 212).

Students may be prepared to take responsibility to varying degrees for their own learning, however. The university students interviewed by Burwell (2005) responded differently when encouraged to be more independent learners; similarly, when given suggestions by their tutors rather than definite instructions, some of the students interviewed by Gaunt et al. (2012) reported feeling empowered and motivated, while others expressed the need for more guidance. Students' perceptions of the extent to which they possess the skills required for autonomous work are likely to determine their reactions to situations stimulating their autonomy.

Tutors clearly influence students' motivation and success in music but more research is needed, in line with the sport and dance literature (e.g., Reinboth et al.,

2004; Quested & Duda, 2011), to find out how their well-being is affected, first, by perceptions of their tutors and second, given the inconclusive evidence to date, tutors' attempts to encourage student autonomy (e.g., Gaunt, 2009).

2.1.3 Summary: gaps in the literature

The literature review was in two parts. The first part provided an overview of the ways in which burnout and engagement can be conceptualised, and introduced BPNT as an explanatory framework for both. It addressed cross-cultural and sex differences in burnout and engagement, and discussed their associations with physical health. The second part reviewed literature on music performance students' psychological and physical health, and considered the impact of their competence and the role of the tutor in fostering their optimal development as musicians.

There are some allusions to, but little theory-driven research on music performance students' burnout and engagement in the music education literature. Exceptionally, Hamann and Daugherty (1985), Bernhard (2007, 2010) and Castro (2016) attempted to establish levels of burnout in music performance students, including depersonalisation. In line with studies conducted in dance (e.g., Quested & Duda, 2011), sport (e.g., Curran et al., 2013) and education (e.g., Sulea et al., 2015), depersonalisation is replaced, in the present research, with devaluation of music because, even though the learning of young musicians does not occur in an interpersonal vacuum, most of their daily activities, including practising and rehearsing, centre on music itself rather than relationships with tutors and other students. Their experiences are thus more similar to those of athletes and others who do not work primarily with other people rather than doctors or nurses. The present research therefore defines the cynicism component of burnout as a negative attitude towards music rather than other people.

Also, respondents in the studies of music students' burnout mentioned above were recruited at American universities and were not necessarily training to become performers. Given cross-national variations in burnout (e.g., Xanthopoulou et al., 2013), and differences between levels of burnout experienced by music education and non-music education students (Bernhard, 2010), it is useful to replicate this line of research elsewhere and with specific groups of music students. It is also worth extending the study of burnout to include conservatoires since Burland (2005) found

differences between university and conservatoire students' motivation and coping methods, which suggests that they may be more or less susceptible to ill-being. Although Parker (2015) examined cynical attitude towards music rather than depersonalisation, her study addressed the degrees to which "music professionals" felt burned-out and did not provide information regarding the levels of burnout in performance students specifically. The present research is therefore the first to focus on the prevalence of burnout in music performance students at conservatoires.

Not having the symptoms of ill-being does not imply the presence of well-being (Ryff & Singer, 1998). Accordingly, burnout and engagement must be considered independent constructs (e.g., Schaufeli & Bakker; 2004b) and studied alongside each other, if the well-being of music performance students is to be understood better. Despite studies of aspects of music students' motivation (e.g., Beltman & Volet, 2007; Burland & Davidson, 2002; Evans et al., 2013), there is a paucity of research on their engagement with performance. As there are differences in levels of well-being in different countries, it is plausible that students' unique experiences, related to their country-specific tradition of music education have an impact on their music-related well-being. The present research is the first to explore potential cross-national differences in these aspects of music performance students' burnout and engagement. Moreover, little is known about sex differences in music-related well-being in the population of performance students specifically: the only study (i.e., Hamann & Daugherty, 1985) of this issue in relation to burnout examined depersonalisation and, even more important, is likely to be outdated.

Since music performance students' burnout and engagement are relatively new areas of study, there is a need for research exploring their development and manifestations using qualitative methods to obtain rich information from participants. Bernhard (2007, 2010) highlighted the role of lifestyle factors in burnout, and Hamann and Daugherty (1985) associated burnout with characteristics such as lack of personal goals and perceptions of lack of recognition by teachers. It is also known from a substantial body of research that the social context, and especially teachers (e.g., Collens & Creech, 2013; Manturzewska, 1990), as well as students' personal characteristics such as self-confidence (e.g., MacNamara et al., 2008) influence their musical development. There is therefore a

strong case for studying the potential contributions of instrumental and vocal tutors and students' personal characteristics to their burnout and engagement. BPNT, which draws together the social and personal factors identified as crucial for thriving in music, holds promise for further research involving music students (Evans, 2015), including the processes underlying the development of their burnout and engagement; the present research is the first to use BPNT to explain well-being in the context of tertiary music education. Finally, there is a lack of research on the outcomes of burnout and engagement for music performance students, including effects on their physical health. With the high prevalence of general health issues (e.g., Ginsborg et al., 2009) and MS pain (e.g., Williamon & Thompson, 2006) among music students, the present study contributes to research into their ethology and potential causes by undertaking studies of burnout and engagement.

2.1.3.1 Research questions, aims and objectives

The thesis asks:

1) What are the levels of a) burnout and b) engagement experienced by music performance students?
2) To what extent are differences in levels of burnout and engagement, if any, attributable to a) differences between the countries in which music performance students undertake their training and b) the sex of the student?
3) What factors contribute to burnout and engagement in music performance students?
4) How are burnout and engagement experienced by music performance students?

The aims and objectives of the research are presented in Table 2.3.

Table 2.3 *Aims and objectives of the research*

Research question	Aim	Method and objective	Respondents and timeline	Study
1) What are the levels of a) burnout and b) engagement experienced by music performance students?	Establish levels of burnout and engagement in music performance students at conservatoires in Australia,	Quantitative questionnaire; cross-sectional design Using average scores, establish	Australia (n=65) May-June 2013 Poland (n=142) Nov-Dec 2014 UK (n=124)	I

	Poland and the UK	levels of burnout and engagement Using available criteria, establish proportions of burned-out students Using available criteria, establish proportions of engaged students	Nov-Dec 2013 and Nov-Dec 2014	
2) To what extent are differences in levels of burnout and engagement, if any, attributable to a) differences between the countries in which music performance students undertake their training and b) the sex of the student?	Compare levels of burnout and engagement in music performance students at conservatoires in Australia, Poland and the UK, and between men and women	Quantitative questionnaire; cross-sectional design Using comparison tests and average scores, explore differences in burnout and engagement by country and sex		I
3) What factors contribute to burnout and engagement in music performance students?	Examine the extent to which BPNT explains burnout and engagement in music performance students at conservatoires and universities	Quantitative questionnaire; longitudinal design Using regression analyses, establish the extent to which a) perceptions of the tutor predict need satisfaction, and b) need satisfaction predicts burnout and engagement	Australia Time 1 (n=53): May-June 2013; Time 2 (n=23): December 2013 UK Time 1 (n=195): Nov-Dec 2013 and Nov-Dec 2014; Time 2 (n=101): May-June 2014 and May-June 2015	IIa
	Explore the experiences of burned-out or engaged music performance students	One-to-one semi-structured interviews analysed using thematic analysis	Burned-out (n=7) and engaged (n=7) music performance students, classified on the basis of their responses in Studies I and/or II, or additional small-scale data collections in Poland	IIIab

4) How are burnout and engagement experienced by music performance students?	Establish the extent to which burnout and engagement affect general health and MS pain Using regression analyses, establish the extent to which burnout and engagement a) predict general health and b) MS pain	Quantitative questionnaire; longitudinal design	Australia Time 1 (n=53): May-June 2013; Time 2 (n=23): December 2013 UK Time 1 (n=195): Nov-Dec 2013 and Nov-Dec 2014; Time 2 (n=101): May-June 2014 and May-June 2015	IIb
	Explore the experiences of burned-out or engaged music performance students	One-to-one semi-structured interviews analysed using thematic analysis	Burned-out (n=7) and engaged (n=7) students, classified on the basis of their responses in Studies I and/or II, or additional small-scale data collections in Poland	IIIab

2.2 Methodology: overview and rationale

In this section, I introduce and provide the rationale for the broad methodological approach used in the research. Subsequent chapters will include more detailed rationales for the ways in which data were collected and analysed, where relevant. Reflecting the philosophy underlying the study, I will use a more personal style of writing when reporting qualitative research, as recommended by Banister et al. (2011) and Crowley (2010).

Quantitative methods are used to obtain data from large groups of respondents from which tendencies can be observed and generalisations can be made (Creswell & Plano Clark, 2011), and differences between groups established (Bryman, 2012). Quantitative methods were used to answer Research Questions 1 and 2. While results obtained by qualitative methods cannot be generalised to a larger population, the qualitative approach does address some of the limitations of quantitative research, in which "the voices of participants are not directly heard" (Creswell & Plano Clark, 2011, p. 12). Another advantage of the qualitative approach is that it can be used to generate detailed insights into a phenomenon,

which is particularly useful in the study of problems that have not yet been addressed in a population of interest (Patton, 2015).

The strengths of the quantitative approach can counterbalance the weaknesses of the qualitative, and vice versa. The mixed-methods approach combines both to yield the fullest insight possible (Creswell, 2014). Its primary benefit is that it "provides more evidence for studying a research problem than either quantitative or qualitative research alone" (Creswell & Plano Clark, 2011; p. 12). Research Questions 3 and 4 were addressed using a convergent parallel design (Creswell, 2014), whereby quantitative and qualitative data are considered of equal importance, and they are collected and analysed concurrently, and then converged together. Creswell & Plano Clark refer to such an approach as concurrent triangulation, suggesting that it is perhaps the most popular mixed-methods design. Thus, while quantitative methods were used to obtain objective measures of trends, qualitative data provided context for their interpretation (Holmes & Holmes, 2012).

2.3 Reflexivity

The use of qualitative methods requires consideration of the role of the researcher in the research process. In this section, I consider myself as both "insider" and "outsider", discussing my personal history, experiences and the beliefs that could have had an impact on the research.

Self-awareness, usually referred to in the context of qualitative research as "reflexivity", is an essential part of qualitative investigations (Braun & Clarke, 2013; Patton, 2015). It could be defined as "sensitivity to the ways in which the researcher and the research process have shaped the collected data, including the role of prior assumptions and experience, which can influence even the most avowedly inductive inquiries" (Mays & Pope, 2000, p. 51). Drawing upon Wilkinson (1988), Braun and Clarke state that qualitative researchers should acknowledge two aspects of reflexivity: functional and personal. Functional reflexivity is a consideration of the impact of research tools and processes, while personal reflexivity involves a reflection concerning how the persona of the researcher, with their history and beliefs could have influenced their research output.

Throughout all the stages of the research process, I reflected on my own history, experiences and beliefs regarding both the issues under study and a broader

context of music education, and considered the ways the research may have been influenced by them. While analysing the data, I kept a research journal that helped me understand how my own position in relation to the population under study, as well as my personal beliefs were likely to contribute to methodological decisions I made throughout (Braun & Clarke, 2013). My "insider" status (Le Gallais, 2008) was primarily based on the elements that were fundamental to my self-identity in the past: I studied the piano for 17 years within a formal setting, and my piano playing was essential to the ways I reflected on myself at that time. I was thus aware that my personal story, marked by fluctuations in my own attitude towards music, determined both my choice of the topic and the methodology I adopted. For instance, at the outset of this study, I held strong personal beliefs regarding the processes underlying music-related well-being that developed on the basis of my own experiences. My self-identity, initially primarily relying on my role as a piano student, began to evolve, however, as I enrolled on a master's degree course in psychology, which stirred my interest in exploring psychological processes in the lives of music students and musicians. Hence, my engagement with research in music psychology is fundamental to my current self-identity. In the last few years, I have been working as a piano teacher, the role significantly contributing to the way I construct my self-identity, and inevitably affecting my views of the issues under study. These two facets of my personal status formed the basis for the predominantly "outsider" position (Le Gallais, 2008) I adopted in the research.

2.4 Ethical considerations

This section provides an account of the ethical aspects of the research. It is in two parts: discussion of how I ensured compliance with a particular code of ethics and dealt with ethical issues, first, when recruiting participants, and second, when collecting and analysing i) quantitative data and ii) qualitative data.

The research adhered to the principles outlined in the British Psychological Society (BPS) Code of Human Research Ethics (2010): respect for the autonomy and dignity of the persons, scientific value, social responsibility, and maximising benefit and minimising harm. Accordingly, I obtained informed consent, ensured voluntary participation and confidentiality, and carried out debriefing (e.g., Whitley Jr. & Kite, 2013). Deception was used and is discussed below. Ethical approval was

sought and granted by the research ethics committees of the Royal Northern College of Music (see Appendices C and D, University of Sydney (see Appendix E), and Conservatoires UK (see Appendices F, G and H), as appropriate.

2.4.1 Quantitative phase (Studies I and II)

2.4.1.1 Recruitment and procedure

Invitation e-mails were sent to potential respondents by gatekeepers or they were recruited in person by the researcher. All respondents were informed about the studies' aims and procedures in the Participant Information Statement (PIS; see Appendix I, for the PIS distributed in Australia) or in introductory paragraph to the questionnaire (see Appendix J, for the introductory paragraph used in the UK). In all data collections (i.e., pilot studies, main studies, additional data collections in Poland), it was made clear to the potential respondents that completing the questionnaire was voluntary and that they could withdraw from it without any consequences. In line with research on athlete burnout (e.g., Gould et al., 1996) and in order to prevent potential bias, the terms "burnout" and "engagement" were replaced by more neutral "motivational problems" and "motivational issues". All students taking part were in a legal position to give their informed consent (i.e., they were at least 18 years old). Those who completed the paper-based version of the questionnaire (i.e., some respondents to Study I and II Australia and Study I in Poland, and some respondents to the pilot study in the UK) were asked to sign a relevant document confirming that they gave their consent (see Appendix K, for the informed consent for Australian respondents). Those who took the online survey gave their informed consent by submitting the completed questionnaire.

There are several reasons why people are willing to devote their time and energy to take part in a study, which can include interest in the subject and altruism (Singer & Couper, 2008). Incentives are, however, commonly used to motivate potential respondents to participate (Whitley Jr & Kite, 2013). As McBride (2015) suggests, they are particularly relevant to research that mean an investment of a great deal of time and effort from participants. The questionnaire survey used in Study II was expected to take around 15-25 minutes to complete. Because of the longitudinal design of the study, respondents were required to complete the questionnaire on two different occasions (i.e., Time 1 and Time 2, henceforth referred to as "T1" and

"T2", respectively). Keeping the issue of high attrition rates in longitudinal studies (e.g., Deng, Hillygus, Reiter, Si, Zheng, 2013; Gustavson, von Soest, Karevold, & Røysamb, 2012) in mind, I considered it necessary to ensure sufficient sample size by offering additional incentives. Therefore, the UK respondents to Study II had the opportunity to take part in a prize draw to win gift cards provided they completed the questionnaire at both T1 and T2. Since Study I used data obtained from the Australian and UK respondents as a part of the T1 questionnaire survey employed in Study II, the UK respondents to Study I were also informed about the prize draw but it was made clear to them that they could only be eligible for the prize if they responded to the T2 questionnaire in Study II. The Polish respondents to Study I and those who took part in additional data collections in Poland were entered in a similar prize draw but incentives were not offered to Australian respondents. Although potential respondents were made aware of the voluntary character of their participation, the use of incentives may raise the question as to whether coercion was involved (McBride, 2015). It has been argued that the presence of incentives may create power relationships, whereby respondents feel obliged to take part (Grant & Sugarman, 2004). Despite this argument, ethicists tend to posit that incentives do not imply coercion (e.g., Faden & Beauchamp, 1986; Wertheimer & Miller, 2008). Singer and Couper, for instance, believe that incentives will not motivate an individual to take part if they cannot accept the risks involved. Therefore, in order for the potential respondents to be able to make an informed decision regarding their participation, I informed them about the risk of emotional discomfort that completing the questionnaire may have entailed. The risk, however, was expected to be marginal. Gift cards for popular shops were offered as rewards and were available outside the study context to those who decided not to respond to the questionnaire. Thus, completing the questionnaire provided only one of the means of accessing the objects offered as incentives, which further reduced the risk of coercion (McBride, 2015).

2.4.1.2 Confidentiality

In line with the BPS Code of Human Research Ethics (2010), researchers are obliged to safeguard respondents' privacy. Due to purposes of the study and a prize draw, ensuring anonymity of all respondents in additional data collections in Poland, a part of respondents in Study I and all respondents to Study II in the UK was not

possible but their personal details were handled in strict confidence. While all the Polish respondents in Study I and additional data collections, and all the respondents in Studies I and II in the UK were asked to provide their e-mail addresses, these, often revealing respondents' identities, were kept separately from their responses and used as a reference only when necessary. In order to protect the confidentiality and anonymity of the data in longitudinal studies that require matching responses from the respondent obtained on different occasions, Whitley Jr. and Kite (2013) recommend the use of unique codes. Following this suggestion, a coding system was used in Study II.

2.4.2 Qualitative phase (Study III)

2.4.2.1 Recruitment and procedure

To recruit participants in Study III, invitation e-mails were sent to the respondents to the surveys administered in Study I in Poland and the UK, Study II in the UK, and two additional small-scale data collections in Poland, classed as burned-out or highly engaged (see Section 5.3.1). The e-mails contained information regarding the study's aims and its procedures. The PIS (Appendix L) was attached to the e-mails so that potential interviewees could familiarise themselves with the details of the study and make a fully informed decision regarding whether to take part or not. Those who were interested in participating were asked to respond to the invitation e-mail. In the initial phase of the interview, I reminded the interviewees of the voluntary character of the study, and their right to refuse to answer questions that they found sensitive, and withdraw from the study altogether without stating any reason for it and with no consequences. The online interviewees gave their informed consent verbally while the interviewee who was interviewed face-to-face was asked to sign a consent form (Appendix M).[11]

Taking part in an interview requires a high investment from the interviewee in terms of time and energy. I therefore considered it essential to offer a payment to those who participated. Yet, as discussed above, incentives may be seen as a form of coercion. Nonetheless, the chance of participants taking part due to coercion was reduced by informing them in the PIS about the potential emotional risks entailed by participation (Singer & Couper, 2008). Moreover, access to the object offered as

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[11] The document used was a Polish translation of the consent form in English.

incentive was not restricted to those who decided to participate, making it less likely that the interviewees felt obliged to take part (McBride, 2015). Indeed, several interviewees expressed their strong interest in the topics under study after the interviews had taken place, which suggests that their participation was not motivated solely by the presence of rewards.

2.4.2.2 Deception

In line with previous interview studies with burned-out athletes (Gould et al., 1996; Gustafsson et al., 2008), I refrained from using the term "burnout" at all stages of the interviews because of its negative connotations, which could trigger feelings of embarrassment or distress in some interviewees. I also avoided the term "engagement" in order to prevent interviewees from responding in the ways they perceived as desirable in the light of the purpose of the study. Instead, in all communications with participants prior to and during data collection, I used the more neutral term "motivation". Nonetheless, avoiding the terms "burnout" and "engagement" might be regarded a form of passive deception, aimed at withholding some details rather than giving false information (Whitley Jr. & Kite, 2013). While deception is commonly used in behavioural science, it raises some ethical controversies (Willig, 2013) as it might trigger negative emotions (e.g., Fisher & Fyrberg 1994). Yet, it must be noted that my primary motivation for avoiding the term "burnout" was minimising potential harm stemming from distress at being labelled as "burned-out", which I considered more harmful than a mild form of deception. It did not seem likely that replacing the term "engagement", a label that may introduce bias, with the more neutral term "motivation" would pose a threat to the feelings of the interviewees.

2.4.2.3 Debriefing

In compliance with recommendations described in BPS Code of Human Research Ethics (2010), each interview was followed by debriefing. The interviewees were first told about the aims of the study and had the opportunity to ask me questions. I also reassured them that they could contact me at any point following their interview in case they would like to find out more about the study. Dehoaxing, aimed at explaining the nature of deception and the reasons why it had to be used, is an important step in debriefing of participants in studies involving deception (Holmes,

1976; in Whitley Jr. & Kite, 2013). The BPS Code of Human Research Ethics states: "If the reaction of participants when deception is revealed later in their participation is likely to lead to discomfort, anger or objections from the participants then the deception is inappropriate" (p. 24). It is therefore worth noting that none of the participants reacted negatively to dehoaxing following their interview. Furthermore, a few interviewees expressed their satisfaction with the interview process, recognising the personal benefits of having the opportunity to verbalise their own thoughts. Since I was not in the position to offer psychological help, I advised participants classed as "burned-out" to seek support from counsellors available at their college, listed in the PIS. Alternatively, I suggested that psychological support could be sought from other specialists, for example those recommended on the website of the BAPAM.

2.4.2.4 Confidentiality

Ensuring confidentiality is crucial in research involving people (Willig, 2013). In order to protect interviewees' dignity and privacy, I anonymised the data by changing their names, and removing any details that could identify them (i.e., names of their teachers, locations and names of music colleges) when transcribing the interviews (Corti, Day, & Backhouse, 2000).

2.5 Summary of the chapter

In this chapter, I reviewed the relevant literature pertaining to burnout and engagement, and to the music performance education. Gaps in the current literature concerning burnout and engagement in music performance students were then identified, forming the basis for research questions which followed. The chapter also provided an overview of the research methodology used and the issues relating to reflexivity and ethics.

Chapter 3. Establishing and comparing levels of burnout and engagement in Australia, Poland and the UK (Study I)

3.1 Background

There is a gap in the literature on levels of burnout and engagement in students at conservatoires, as discussed in Section 2.1.3. Given cross-national differences in approaches to music education, these are likely to vary between students in different countries. While potential variations in their burnout and engagement across the world remain under-researched, there are some indications suggesting that students differ internationally in terms of their motivation in music. McPherson and O'Neill (2010), for example, surveyed students aged between nine and 21, in general education in eight countries, and found cross-national differences in their sense of competence at music, enjoyment derived from studying it, perceptions of its importance and usefulness, and perceived difficulty of music as compared to other subjects at school. Cross-national variations emerged not only between countries typically considered to have individualistic or collectivistic societies but also within them. In their questionnaire study, Miksza, Tan and Dye (2016) examined the goal orientations of volunteer band musicians at public schools in the USA and polytechnics in Singapore, controlling statistically for their age and whether they additionally took private instrumental lessons or not. Consistent with the goal orientation framework proposed by Elliot and McGregor (2001), the authors of the study defined mastery-approach as striving for excellence, and mastery-avoidance goals as the attempt to avoid failing one's personal standards. Performance-oriented goals referred to the focus on demonstrating better skills than others, while performance-avoidance goals pertained to respondents' efforts not to perform worse than others. Relationships between goal orientation and motivational outcomes varied as a function of country, in that mastery-approach goals were associated with flow and grit in American but not Singaporean students, and mastery-avoidance goals were related to flow and commitment to the band in the American but not the Singaporean group. Students adopting a primarily mastery-approach goal orientation tended to be more committed to their band, a pattern observed in both countries but more salient for American students. Furthermore, a questionnaire study by Brand (2001) showed motivational

differences between undergraduate students reading for degrees in music education, composition and performance at an American university versus those at a Chinese conservatoire. Specifically, American students tended to rely on extrinsic motivation and rote learning to a higher degree than their Chinese counterparts. It should be noted, however, that the type of school (i.e., university in America and conservatoire in China) could have confounded the effects that emerged in this study since students at universities and conservatoires differ in terms of their motivational characteristics (Burland, 2005).

The existing research on cross-national differences among music students has primarily focused on comparisons between those in Asian and Western countries. A South African questionnaire study of music students at universities by Panebianco-Warrens et al. (2015), replicating that done at UK conservatoires by Kreutz et al. (2008a), is an exception although the examination of cross-national differences was not its aim. Higher levels of negative affect found in the South African group in this study could have been, again, influenced by different motivational attitudes demonstrated by students at universities and conservatoires (Burland, 2005).

There are fundamental differences between systems of music education in the UK, Australia, and North America, on the one hand, and the countries relying on the Russian tradition of teaching, on the other (Walker, 2007). Students in these countries thus have different experiences while training that could well affect their well-being. The Polish system of music education that developed in the 1950s was influenced by the Soviet Russian tradition of music teaching (Jankowski, 2012), and has not changed much since then. The vast majority of Polish students at conservatoires in Poland attend specialist music schools prior to commencing education at the tertiary level. These schools are designed to train gifted children, and provide music training on weekday afternoons or in the form of full-time education alongside general subjects. In Australia and the UK, by contrast, private tuition is more common. Thus, according to Walker, the music education within the countries embedded in the Western traditions is much more egalitarian, offering opportunities for all children regardless of their abilities. There is also a difference in music curricula, with the Polish and Russian traditions focusing mainly on classical music, and with students in the countries within the Western tradition being

often encouraged to engage with popular music (Walker, 2007). Nevertheless, even students within the Western tradition of music education seem to have different educational experiences prior to and while at a conservatoire. Lebler, Burt-Perkins and Carey (2009) used the questionnaire method to compare students on similar tertiary-level programmes at conservatoires in Australia and the UK, and found that the former had engaged with more music-making activities by the time they began their conservatoire training than had the latter. Students in different countries are therefore likely to be prepared for the demands of studying music at conservatoire to varying degrees. The same study showed that for both Australian and UK music performance students, learning revolved for the most part around playing an instrument or singing, with other subjects being of secondary importance. The latter were, however, encouraged to become involved with a range of music-related activities, reaching beyond the narrow focus on solo performance, to a greater extent than their Australian counterparts. This may explain why students at the UK conservatoires were more likely than those at Australian conservatoires to report apprehension about studying music theory and found it difficult to negotiate the balance between their instrumental/vocal practice and other modules within their course. While being a performer was the most common aspiration for both groups, Australian students were more interested than those in the UK in the prospect of instrumental or vocal teaching. It was also apparent that UK students were less likely to foresee making money from music-related activities but at the same time expected to enjoy more financial stability after graduation. It could be argued that the broader curriculum offered for the students in the UK provides them with more opportunities for development of a wide range of skills, thus preparing them for jobs not only within but also outside the music profession. Yet, it cannot be ruled out that they were less realistic about their future careers than their Australian colleagues. In addition, with specific economic conditions in different countries, there are cross-national differences in the funds available for education, which could also affect the experience of studying music. Most students at conservatoires in Poland enjoy free education, while the majority of those studying in Australia and the UK pay high fees; even if students receive loans, they are expected to pay them back when they have graduated, which could contribute to their levels of stress. In fact, Lebler et al.

discovered that finance was the main concern for UK (but not Australian) conservatoire students.

Furthermore, there are variations in well-being reported by general populations of Australia, Poland and the UK. Data collected in the World Values Survey between the years 2010 and 2014 indicated that people living in Australia tended to be happier than those in Poland.[12] As suggested by the data gathered between the years 2005 and 2009, levels of happiness were higher in the UK than in Australia and Poland. Moreover, the societies in Australia and UK, on the one hand, and in Poland, on the other, differ in relation to cultural values they endorse such that people in Australia and the UK tend to be more individualistic and lower in uncertainty avoidance when compared to those in Poland (Hofstede, 2001). These cultural features are likely to be conducive to well-being, as described in Section 2.1.1.4.

The processes of socialisation shape the experiences and attitudes of female and male music students differently through presenting them with gendered expectations. The evidence for gender stereotyping in pre-tertiary music education is perhaps most obvious in relation to musical instruments. Past research shows that children are aware of stereotyping of instruments as masculine or feminine, and tend to express a preference for those corresponding with their sex (e.g., Abeles & Porter, 1978; O'Neill & Boulton, 1996) although a more recent study suggests that girls are becoming more adventurous in their choices (Harrison, 2007). The gendered associations with one's instrument are likely to influence the ways they are assessed as musicians. Elliott (1995/1996) played pre-recorded flute and trumpet solos to undergraduate and postgraduate music education students, using different video tracks, to test for the potential effects of the performer's sex and race on evaluations of their performance. The participants tended to give women playing the trumpet (i.e., a stereotypically masculine instrument) lower ratings than the ratings given to women playing the flute (i.e., a stereotypically female instrument) but there were no differences in the ways they evaluated male trumpet and flute players. Moreover, the participants gave white women lower performance ratings than the ratings given to white men but this effect was reversed

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[12] Data for the 2010-2014 wave of the World Values Survey for UK are not available.

for black performers. These findings thus demonstrate that one's sex (and race) may have an impact on how others assess their musical skills.

Educational practices may reinforce such gender stereotyping. In her ethnographic study of secondary music school education in England, Green (1997) identified a gender bias in the accounts provided by music teachers, whereby boys were perceived as more imaginative and talented, while girls were depicted as lacking these qualities. Green notes that creativity, which teachers linked to the presence of natural talent, is underpinned by non-conformity, independence and confidence, traditionally operating in the definitions of masculinity. The teachers in the study seemed to deny the "creative genius" (p. 227), historically considered a male prerogative, to girls, who were perceived as conforming and conservative in line with the traditional understanding of femininity. Even though teachers considered girls as dedicated and hard-working, they saw these qualities, paradoxically, as a proof of their lack of creativity and talent. While the teachers acknowledged the skills of girls and admitted that they showed more musical interest and persistence than boys, they pointed to the latter as ultimately more successful instrumentalists. Green notes that this may be related to the processes of self-selection illustrated by the teachers, whereby only the boys who show exceptional skills and motivation stay involved. While this could be the case, such conviction may be, again, reflective of gendered expectation described by O'Neill (1997) that the boys who engage in music are more talented as compared to girls, who need to work hard in the absence of natural abilities. It should be noted here that the teachers' views identified by Green contradict a body of research, which, as concluded by O'Neill, shows no actual differences with respect to boys' and girls' musical abilities and achievements. To sum up, through gender stereotyping both within and outside of the context of music education, the social environment provides boys and girls with different experiences that have the potential to forge their self-perceptions and ensuing well-being accordingly.

Despite the differences in approaches towards boys and girls described above, Hamann and Daugherty (1985) did not find major differences in the distributions of frequency and intensity of emotional exhaustion, depersonalisation and personal accomplishment experienced by male and female music students. The results may be outdated and apply only to American students or those studying at the university

where it was conducted since the specific institutional culture may influence students' experiences (e.g., Papageorgi et al, 2010ab). Although sex differences in stress, motivation and well-being have received little attention in the music education literature, indeed, there are some more recent indications that, consistent with the gendered expectations discussed above, female students are more vulnerable to negative experiences. Using questionnaires, Studer, Danuser, Hildebrandt, Arial and Gomez (2011), for example, found that female classical music students at Swiss universities displayed higher levels of anxiety while performing music, and experienced more symptoms of hyperventilation. Similar results emerged from Bonneville, Evans, Verner-Filion, Vallerand and Bouffard's (2017) questionnaire study involving music students at colleges: women tended to experience more stress during a public performance. This could be because they were likely to employ more disengagement-oriented coping, linked in previous research to maladaptive outcomes, such as perceptions of lack of goal attainment during performance (Amiot, Gaudreau & Blanchard, 2004) and burnout (Schellenberg, Gaudreau, & Crocker, 2013). Furthermore, female music students appear to feel less self-efficacious in general (Ginsborg et al., 2009) and in relation to music performance (Nielsen, 2004). It also seems that female music students are more susceptible to physical and psychological ill-being, although this line of research has not yet been substantially pursued. As discussed in Section 2.1.2.1, women studying for degrees in music or working as professional musicians tend to have higher levels of MS problems (e.g., Hagberg et al., 2005). Moreover, in a study by Hildebrandt et al. (2012), female students reported a greater increase in fatigue in the first year of tertiary education than their male colleagues. Taken together, these findings could partly explain why, in Bonneville et al.'s study, women expressed less interest in having a career in music performance after graduating. They also highlight the need to replicate Hamann and Daugherty's study involving students from a wider range of tertiary schools and countries.

To sum up, music performance students in different countries are exposed to unique teaching approaches, which may, in turn, explain cross-national differences found in their motivation (e.g., Brand, 2001) and well-being (Panebianco-Warrens et al., 2015). Likewise, gendered expectations that students are subject to from their

early years may influence burnout and engagement experienced by men and women at the tertiary level in relation to music.

3.2 The present study

Study I seeks to establish levels of burnout and engagement among performance students at conservatoires in Australia, Poland and the UK. In addition, it aims to compare the levels of burnout and engagement in these three countries, and between female and male music performance students.

The choice of these specific national samples was primarily based on their availability although, as seen in Section 3.1, there are obvious differences between pre-tertiary music training in Australia and the UK, on the one hand, and Poland, on the other. Nevertheless, even though there are many similarities between pre-tertiary music education in Australia and the UK, the educational experiences of students in these countries seem to differ in some ways during both their pre-tertiary music education and conservatoire training. Given the variations in the cultural values typically endorsed in Australia, Poland and the UK, and the differences between national levels of well-being, music performance students in these countries are likely to vary in both their attitudes towards music and their experiences of mental health, including burnout and engagement. In Poland, training in music performance at the tertiary level can only be undertaken at conservatoires. Accordingly, to avoid introducing a potential confounding variable associated with different motivational attitudes and experiences characterising students at universities and conservatoires (Burland, 2005), the present study investigated only the latter. As described in Section 2.1.3, burnout is defined in the present work in the same way as it is in the literature on dance, (e.g., Quested & Duda, 2011), education (e.g., Sulea et al., 2015), sport (e.g., Curran et al., 2013) and work (e.g., Schaufeli & Bakker, 2004a), replacing depersonalisation with a negative attitude towards the key activity for the population under investigation (i.e., playing an instrument or singing). A cross-sectional design was used, with data for each respondent obtained at a single point of time, as Sedgwick (2014) says this is most suitable for estimating the prevalence of phenomena, and Macera, Shaffer and Shaffer (2013) recommend it for comparing specific sub-groups within a population.

3.3 Method

3.3.1 Respondents

In total, 362 music performance students at one conservatoire in Australia (n=73), and several conservatoires in Poland (n=145) and the UK (n=144) responded to the questionnaire. Twelve respondents in Australia and all respondents in Poland completed only the measures reported in Section 3.3.2.1. All respondents in the UK and the remainder of those in Australia responded to a longer survey employed in Study II, which comprised the measurement instruments reported in Section 3.3.2.1. The respondents who did not meet the inclusion criteria (i.e., were not music performance students or were more than 32 years old) or provided incomplete responses (including those to the longer survey used in Study II) were excluded from further data analyses.

Excluding invalid or incomplete responses resulted in the final sample of 331 men (n=98) and women (n=233) with instrumental (n=270) and vocal (n=61) performance as their principal study in Australia (n=65), Poland (n=142) and the UK (n=124).[13] The age of respondents ranged between 18 and 32 years. Table 3.1 provides an overview of the demographic characteristics of the respondents.

Table 3.1 *Demographic characteristics of the respondents*

Respondents	Australia	Poland	UK	Men	Women	Total
	(n=65)	(n=142)	(n=124)	(n=98)	(n=233)	(N=331)
Age						
Average age in years	20.95	21.44	21.15	21.19	21.25	21.24
(*SD*)	(2.59)	(2.20)	(2.50)	(2.37)	(2.41)	(2.39)
Median	20.00	21.00	21.00	21.00	21.00	21.00
Sex (%)						
Men	45	24	28			30
Women	55	76	72			70
Country (%)						
Australia				30	16	
Poland				35	46	
UK				36	38	

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[13] Data regarding nationalities of the respondents were not collected. For simplicity, however, they are referred to as "the UK/Australian/Polish group/sample/students" throughout.

Respondents	Australia	Poland	UK	Men	Women	Total
	(*n*=65)	(*n*=142)	(*n*=124)	(*n*=98)	(*n*=233)	(*N*=331)
Course of study (%)						
Undergraduate	88	77	79	83	79	80
Postgraduate	12	23	21	17	22	20
Mode of study (%)						
Full-time	99	93	100	99	96	97
Part-time	2	7	0	1	4	3
Principal study (%)						
<u>Instrument</u>	91	87	71	87	79	82
Type of instrument (%)						
Keyboard	23	24	13	30	16	20
Percussion	2	1	6	9	0	3
String	35	39	24	22	37	33
Wind	29	21	27	25	25	25
Not stated	2	1	2	1	2	2
<u>Voice</u>	9	13	29	13	21	18
Genre (%)						
Classical	99	97	92	91	97	95
Jazz	2	3	6	7	2	4
Pop	0	1	5	5	1	2

3.3.2   Measures

3.3.2.1 Measures of burnout and engagement

Burnout was measured with the 15-item ABQ (Raedeke & Smith, 2001; see Section 2.1.1.1: Questionnaire A in Appendix N and Appendix O). The ABQ consists of three 5-item subscales using a Likert scale of 1 (*almost never*) to 5 (*almost always*). Respondents were asked in the introductory paragraph of this and the other questionnaire used in the present study to refer to their experiences "in the last month" when responding to questionnaire items. Cronbach's alpha coefficients for both the English and Polish versions of the ABQ demonstrated acceptable internal consistency (Table 3.2; Hair, Anderson, Tatham, & Black, 1998).[14] In line with guidelines as to the use of versions of MBI (Maslach & Jackson, 1996; Maslach, Jackson, & Schwab, 1996), normative data were computed by dividing the sample

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[14] The threshold of .70 is used this work as an indicator of the lowest acceptable internal consistency in line with Hair et al. (1998).

into three equally sized groups representing "low", "average" and "high" levels of burnout. Gustafsson, Kenttä, Hassmén, and Lundqvist (2007), for example, adopted such an approach when interpreting the scores of adolescent athletes on the Eades Athlete Burnout Inventory (Eades, 1991, in Gustafsson et al., 2007). Drawing upon the data obtained by Raedeke (1997) from swimmers, Eklund and Cresswell (2007) tentatively suggest that scores of 3 or above on each subscale of the ABQ could be indicative of burnout in athletes. These two criteria were used in the current study to identify music performance students with high levels of burnout.

The 14-item UWES-S (Schaufeli, Martínez, et al., 2002; see Section 2.1.1.2: Questionnaire A in Appendix N and Appendix O), was used to gauge engagement. The answering options on the three subscales of the UWES-S – 5-item vigour and dedication, and 4-item absorption – were anchored on a Likert scale of 1 (*almost never*) to 5 (*almost always*). There is some empirical support for the three-factor structure of the UWES-S (Schaufeli, Martínez, et al., 2002) but the superiority of the one-factor solution over the three-factor solution is also advocated (e.g., Wefald & Downey, 2009). Accordingly, both global engagement and its subscales were examined in the present study. Although norms are available for Dutch employees for global engagement measured with the UWES (Schaufeli & Bakker, 2004b), these are not likely to be applicable to the UWES-S used with music performance students. When determining the Dutch norms, scores at or above the 95th percentile on global engagement were classed as indicators of very high engagement, while the scores at or above the 75th percentile were considered indicative of high engagement. The same approach was used to calculate tentative cut-off points for high and very high engagement in the current study. Internal consistencies for global engagement, vigour and dedication in both the English and Polish versions of the UWES-S were acceptable (Table 3.2; Hair et al., 1998). While internal consistency for absorption in the English version of the questionnaire was below the arbitrary criterion of .70, Cronbach (1961) points out that the coefficient alpha underestimates the internal consistency of scales with a low number of items. The internal consistencies for absorption were therefore deemed acceptable.

3.3.2.2 Pilot study and modifications to the measures

Selected, existing measures of burnout and engagement were first adapted to the context of music performance and pilot tested with a group of performance students

(*N*=33) at one conservatoire in the UK. No burnout measure specifically designed for the use with music students exists and there are no studies to examine their devaluation of music, likely to be vital in their experiences of burnout. Furthermore, available measures of burnout are based on different definitions since there is no consensus among researchers as to the core elements of burnout. It was therefore considered essential to choose the burnout measure to be used in the main study carefully, and give voice to performance students while selecting it. MBI-SS (Schaufeli, Martínez, et al., 2002; see Section 2.1.1.1) was pilot tested as it is perhaps the most commonly used measure of students' burnout (e.g., Casuso-Holgado et al., 2013; Sulea et al., 2015). It was particularly important to capture physical as well as emotional exhaustion because making music involves physical exertion, and the physical demands of practising and performing music may affect musicians' health (Williamon & Thompson, 2006). To that end, OLBI, another measure previously employed in research involving students (e.g., Campos et al., 2013; Reis et al., 2015), was pilot tested alongside MBI-SS. Since OLBI fails to gauge respondents' perceptions of their own performance, the ABQ was additionally tested as it captures lack of sense of accomplishment, often considered to constitute a vital part of the burnout experience (e.g., Gustafsson et al., 2008; Schaufeli et al., 1996). The pilot tested measures of burnout thus differed, in that they comprised the dimension of only psychological (i.e., MBI-SS), or both psychological and physical aspects of exhaustion (i.e., ABQ and OLBI), and in that they tapped students' diminished sense of accomplishment (i.e., ABQ and MBI-SS) or not (i.e., OLBI). The UWES-S was the only pilot tested measure of engagement since the AEQ (Lonsdale, Hodge, & Jackson, 2007; see Section 2.1.1.2), one of few validated alternatives, fails to assess absorption: it was crucial to tap absorption because it is closely related to flow (Schaufeli & Bakker, 2004b), a common experience among music students (Bakker, 2005; Sinnamon et al., 2012).

Based on the comments made by the respondents to the pilot study, the ABQ was chosen as the measure most accurately describing respondents' experiences and being more easily understood by them. Both the ABQ and the UWES-S were subsequently modified slightly in the light of the pilot study results. English was likely to be the second language for some of the pilot respondents, which could explain why they struggled to understand some of the expressions used in the ABQ

to describe emotional/physical exhaustion. In order to address this issue in the main study, the terms reported as unclear in the pilot testing were followed by their more commonly used synonyms (e.g., "wiped out/tired") in the modified questionnaire.

A 14-item UWES-S was used in line with Schaufeli, Martínez, et al. (2002), who had removed three of the items in the original 17-item version because of their relatively poor factor loadings and confirmed the factorial structure and internal reliability of the 14-item UWES-S. Utilising Occam's Razor and the principle of parsimony following confirmatory factor analyses, Wefald and Downey (2009) supported the one-factor structure of the 14-item UWES-S. The response options for each item in the original UWES-S are on a scale anchored by 0 (*once a year or less*) and 6 (*a couple of times a week or daily*). Pilot respondents found these confusing so the anchor responses were changed to those used in the ABQ, a decision supported by De Bruin, Hill, Henn and Muller (2013), who note that the answer options in the middle range of the seven-point scale of the UWES-17 were not used by respondents in their study as intended, while rescoring the data into five response categories yielded properly ordered thresholds for all items.

3.3.2.3 Translation of the measures

All the instructions and the ABQ were translated into Polish following the guidelines set by van Widenfelt, Treffers, De Beurs, Siebelink and Koudijs (2005). First, the members of the team undertaking the translation familiarised themselves with the basics of questionnaire development. Although van Widenfelt et al. recommend that a native speaker should ideally be involved in back-translation, it was not possible to identify an English native speaker with a command of Polish, so the team consisted of four Polish bilinguals: the researcher, a university lecturer with a PhD in English (U.C.), a former student of English (who did not graduate) with the experience of learning an instrument (A.P.), and a teacher of English at the university level (D.P.). First, the researcher, U.C. and A.P. translated, independently, the instructions in the introductory paragraph and the questionnaire items from English into Polish; then they compared their translations and agreed on a single version. Next, the questionnaire was back-translated into English by D.P. Discrepancies between the original and translated questionnaires were addressed by the researcher and A.P., who subsequently made minor alterations to the Polish version of the questionnaire. The translated items were then pilot tested on two

Polish-speaking music performance students in the UK and three recent graduates from Polish conservatoires. The final version of the Polish questionnaire incorporating changes made on the basis of the pilot testing with Polish-speaking respondents was prepared by the researcher and A.P. A Polish translation of the UWES-S already exists (Szabowska-Walaszczyk, Zawadzka, & Wojtaś, 2011) but was modified for use with music performance students and pilot tested with five Polish-speaking respondents as reported above.

3.3.3 Data analysis

All analyses of data were carried out using SPSS 23.0.

3.3.3.1 Preliminary analyses

Cronbach's alpha coefficients were calculated to determine internal consistencies of global burnout and global engagement, and their subscales. Further preliminary analyses were performed in order to rule out potential confounding variables in separate comparisons by country and sex. Data representing the ages of respondents in each of the three countries were tested for the assumptions of parametric statistics using a series of Shapiro-Wilk tests, and were found to violate them. Potential differences between the ages of respondents in each country were therefore explored with a Kruskal-Wallis test, with pairwise comparisons performed using Dunn's (1964) procedure with a Bonferroni correction for multiple comparisons. Potential differences between the ages of men and women were tested using a Mann-Whitney test. Chi-square tests were applied to check for differences between the distributions of sex, full-time versus part-time students, instrumental versus vocal students and genre of music studied/performed in the three countries. Chi-square tests were employed to check for differences between the distributions of full-time versus part-time students, instrumental versus vocal students and genre of music studied/performed by men and women. All cells met the minimum five cases unless otherwise stated.

3.3.3.2 Levels of burnout and engagement

Averages, standard deviations, and medians for global burnout and engagement, and their subscales, were calculated as appropriate for the total sample, for respondents in each of the three countries, and for male and female respondents

in all three countries and in each of the three countries. The average values for the total sample for emotional/physical exhaustion, devaluation, and reduced sense of accomplishment were divided into three equal-sized groups in order to determine cut-off points for high levels of burnout. The respondents scoring at or above the computed cut-off points, and at or above 3 on each subscale of the ABQ were identified in the total sample, each of the three countries and among men and women in all three countries. The 75th and 95th percentiles of average values for global engagement were established to determine cut-off points for its high and very high levels, respectively. Respondents scoring at or above the computed cut-off points for global engagement in each of the three countries, and among men and women in all three countries, were identified.

3.3.3.3 Tests of comparisons of burnout and engagement by country and sex

The data for global burnout and global engagement, and their subscales for each of the three countries, and men and women in all three countries, were tested for the assumptions of parametric statistics using Shapiro-Wilk tests. With the exception of data for global burnout for men and women, and reduced sense of accomplishment for each of the three countries and men and women, they were found to violate them. Kruskal-Wallis tests were therefore performed to test for differences between global burnout and global engagement, and their subscales, other than that for reduced sense of accomplishment, by country. Pairwise comparisons were carried out using Dunn's (1964) procedure with a Bonferroni correction for multiple comparisons. Visual examinations were made of the shapes of scoring distributions for global burnout and global engagement, and their subscales, other than that for reduced sense of accomplishment, for each of the three countries. Pairwise comparisons between variables with similar shapes of scoring distributions in the three countries were based on medians, while mean ranks were used as the basis for pairwise comparisons between variables with different-shaped scoring distributions in the three countries (Hart, 2001). Visual examinations were made of boxplots representing the reduced sense of accomplishment subscale in each of the three countries to determine the presence of outliers. Levene's test was employed to test for homogeneity of variances for reduced sense of accomplishment in the three countries. One-way analyses of variance (ANOVA) at the 95% confidence level were run to test for differences in

reduced sense of accomplishment by country, and pairwise comparisons were performed using Tukey HSD tests.

Levene's tests were run to test for homogeneity of variances for global burnout and reduced sense of accomplishment between the sexes. *T*-tests were performed to test for differences in global burnout and reduced sense of accomplishment by sex, and Cohen's effect sizes were calculated. Mann-Whitney tests were performed to test for differences in emotional/physical exhaustion, devaluation, and global engagement and its subscales by sex.

3.3.4 Procedure

Data were collected between the ninth and 14th weeks of the academic years 2013-2014 and 2014-2015 (see Table 2.3, for details). Respondents were recruited through an invitation e-mail including a link to the online questionnaire created using SurveyMonkey® and circulated by staff at one conservatoire in Australia, one conservatoire in Poland and two conservatoires in the UK. The invitation e-mail including a link to the survey was also circulated via social media of three conservatoires in Poland and one conservatoire in the UK, where it was also shared with a private network of peers.[15] The researcher also recruited additional Australian and Polish respondents, in person, on visits to the conservatoire in Australia described above and one of the conservatoires in Poland. Since little is known about the dynamics of burnout and engagement in music students over the academic year, it was essential that students' experiences should be captured during similar periods of the academic year so as to ensure that the samples in each of the three countries were comparable. Of the total 331 respondents, the majority (i.e., 250) completed the online questionnaire. The remaining 81 (two in Australia and 79 in Poland; 53 women and 28 men) completed a paper version of the questionnaire. These respondents were instructed either to put it in a designated box or hand it to the researcher who placed it in an envelope immediately to ensure that their responses remained confidential (see Section 2.4.1, for further details of the ethical issues in the procedure).

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[15] The respondents in the UK were recruited using social media in 2013 only.

3.4 Results

3.4.1 Preliminary analyses

Internal consistencies of global burnout and global engagement, and their subscales, are discussed in Section 3.4.2.1 and presented in Table 3.2. The percentages of male versus female, full-time versus part-time, and instrumental versus vocal students in the total sample and in each of the three countries are shown in Table 3.1. Chi-square tests indicated that the relative percentages of male and female respondents differed between Australia and Poland ($\chi^2_{(1)}$=9.00, p = .003), and between Australia and the UK ($\chi^2_{(1)}$=5.12, p = .02), such that there was a higher percentage of male respondents in Australia than in Poland and the UK. The relative percentages of full- and part-time students between the countries could not be compared because some cells did not meet the minimum of five cases: there were no part-time students in the UK and one part-time student in Australia. To check whether the full-time versus part-time enrolment status of students in Poland influenced their burnout and engagement, a series of analyses was performed but only one significant difference was found: absorption was higher in part-time than full-time students (mean ranks 99.90 versus 69.35, respectively; U=944.000, z=2.28; p=.02), as shown by a Mann-Whitney test. The responses of part-time and full-time students in the Polish group were therefore combined. Chi-square tests revealed that the relative percentages of instrumental and vocal students differed between Australia and the UK ($\chi^2_{(1)}$=9.67, p=.002), and Poland and the UK ($\chi^2_{(1)}$=9.89, p=.002), such that there were more vocal students in the UK than in Australia and Poland.

3.4.2 Burnout

3.4.2.1 Levels

Respondents in the total sample (Table 3.2) and in each of the three countries (Table 3.3), men and women (Table 3.4), reported comparatively low levels of burnout, as implied by the average scores and medians for global burnout, emotional/physical exhaustion, and reduced sense of accomplishment ranging between 2 and 3. Descriptive statistics for global burnout and its subscales for men and women in each of the three countries are presented in Appendix P.

There were differences between the countries such that respondents in the UK and Australia reported higher levels of devaluation, scoring, on average, between 2 and 3, in contrast to the Polish group, with average scores between 1 and 2. There were comparatively large standard deviations for global burnout and its subscales for the total sample and each of the three countries. The largest standard deviations were noted for the Polish, and the smallest for the Australian respondents. For the total sample, and the Polish and UK groups, scores representing devaluation and emotional/physical exhaustion had the largest standard deviations; for the Australian group, scores representing reduced sense of accomplishment had the largest standard deviation.

Table 3.2 *Scores for global burnout and engagement, and their subscales for the total sample, and Cronbach's alpha coefficients for the English and Polish versions of the questionnaires*

	Mean (SD)	Median	α (English version) (*n*=189)	α (Polish version) (*n*=142)
Global burnout	2.48 (.61)	2.47	.85	.88
Emotional/physical exhaustion	2.58 (.78)	2.60	.82	.87
Devaluation	2.06 (.83)	2.00	.75	.82
Reduced sense of accomplishment	2.79 (.74)	2.80	.79	.76
Global engagement	3.74 (.57)	3.79	.88	.89
Vigour	3.48 (.66)	3.40	.74	.74
Dedication	4.06 (.69)	4.20	.84	.85
Absorption	3.67 (.60)	3.75	.59	.68

Differences between the sexes emerged such that women reported marginally higher levels of devaluation, scoring, on average, between 2 and 3, while men's average scores were closer to 2. The standard deviations for global burnout and its subscales for men and women were relatively large. For women, scores representing devaluation and emotional/physical exhaustion had the largest standard deviations, while for men, scores representing devaluation had the largest standard deviation.

Normative data were computed by dividing responses into three groups categorised as low, average and high, as described in Section 3.3.2.1. Thresholds were set at scores of 3 for high emotional/physical exhaustion, 2.4 for devaluation and 3.2 for reduced sense of accomplishment. According to these criteria, 11% of all respondents were at risk of burnout (14% of UK, 11% of Polish and 8% of Australian respondents; 14% of women and 5% of men). Furthermore, 9% of all respondents (11% of UK, 8% of Polish and 6% of Australian respondents; 11% of women and 5% of men) scored 3 or more on all subscales of the ABQ, meeting the criteria for burnout proposed by Eklund and Cresswell (2007) for athletes.

3.4.2.2 Tests of comparison by country and sex

Shapiro-Wilk tests revealed that the data for reduced sense of accomplishment were normally distributed in each of the three countries, while global burnout, emotional/physical exhaustion and devaluation were not normally distributed in at least one of the three countries. Shapiro-Wilk tests showed that data for global burnout and reduced sense of accomplishment were normally distributed for men and women, while data for emotional/physical exhaustion and devaluation were not normally distributed across sexes.

Kruskal-Wallis tests revealed differences in global burnout, emotional/physical exhaustion and devaluation by country (Table 3.3). Visual inspections of boxplots indicated that the shapes of scoring distributions for global burnout and its subscales differed substantially between the countries. Pairwise comparisons showed differences in global burnout, emotional/physical exhaustion and devaluation such that mean ranks were higher for UK than Polish respondents. Pairwise comparisons revealed differences between the Australian and Polish groups such that mean ranks for emotional/physical exhaustion and devaluation were higher for Australian than Polish respondents. There were no outliers in the data for reduced sense of accomplishment in each of the three countries, and the assumption of homogeneity in the variances was met. A one-way ANOVA with Tukey post hoc tests yielded differences in reduced sense of accomplishment such that levels were lower in the Australian than in the UK (mean difference -.27, 95% CI [-.54,-.01]) and Polish (mean difference -.28, 95% CI [-.54,-.03]) groups.

Table 3.3 *Descriptive statistics and tests of comparisons for global burnout and engagement, and their subscales by country*

	Australia (AU)			Poland (PL)			UK			Kruskal-Wallis H	One-way ANOVA F	p	Significant pairwise comparisons
	Mean (SD)	Median	Mean rank	Mean (SD)	Median	Mean rank	Mean (SD)	Median	Mean rank				
Global burnout	2.49 (.50)	2.47	172.98	2.36 (.65)	2.23	144.43	2.61 (.61)	2.60	187.04	13.58		.001	UK>PL
Emotional/ physical exhaustion	2.81 (.62)	2.80	199.17	2.39 (.80)	2.40	141.65	2.68 (.78)	2.80	176.50	18.62		<.001	AU>PL UK>PL
Devaluation	2.09 (.68)	2.00	176.65	1.84 (.84)	1.60	134.88	2.30 (.83)	2.20	196.06	28.26		<.001	AU>PL UK>PL
Reduced sense of accomplishment	2.57 (.70)	2.60	139.02	2.85 (.76)	2.80	174.12	2.84 (.71)	2.80	170.85		3.81	.02	PL>AU UK>AU
Global engagement	3.74 (.57)	3.79	166.36	3.87 (.58)	3.93	189.08	3.59 (.54)	3.57	139.38	17.89		<.001	PL>UK
Vigour	3.48 (.62)	3.60	166.46	3.65 (.66)	3.60	190.61	3.30 (.64)	3.40	137.57	20.52		<.001	PL>UK
Dedication	4.09 (.75)	4.00	171.68	4.20 (.69)	4.40	188.22	3.88 (.61)	4.00	137.58	19.01		<.001	PL>UK
Absorption	3.62 (.60)	3.75	160.33	3.73 (.63)	3.75	176.94	3.61 (.56)	3.63	156.45	3.37		.19	

As shown in Table 3.4, *t*-tests yielded differences by sex such that women reported higher levels of global burnout (mean difference .18, 95% CI [.03, .32]) and men felt more accomplished (mean difference .18, 95% CI [.00, .35]). The Cohen's effect sizes for both global burnout and reduced sense of accomplishment were small (Cohen, 1988). A Mann-Whitney test revealed a difference in emotional/physical exhaustion such that mean ranks were higher for women than for men.

3.4.3 Engagement

3.4.3.1 Levels

Average scores and medians for global engagement and its subscales in the total sample (Table 3.2), each of the three countries (Table 3.3), men and women (Table 3.4), were above the midpoint of 3, showing that respondents were moderately engaged with playing an instrument or singing. Descriptive statistics for global engagement and its subscales for men and women in each of the three countries are presented in Appendix Q. Average scores in the total sample, each of the three countries, and men and women ranged between 3 and 4 for global engagement, vigour and absorption. The average scores for dedication were even higher, ranging between 4 and 5.

For dedication, however, there were differences between the countries such that respondents in Australia and Poland scored higher, with averages between 4 and 5, than those in the UK who scored, on average, between 3 and 4. There were relatively large standard deviations for global engagement and its subscales for the total sample and each of the three countries. For the total sample, and the Australian and Polish groups, scores representing dedication had the largest standard deviations. For the UK sample, scores representing vigour had the largest standard deviation.

The standard deviations for global engagement and its subscales for men and women were comparatively large. Scores representing dedication had the largest standard deviations, and were more salient in the male group.

Table 3.4 *Descriptive statistics and tests of comparisons for global burnout and engagement, and their subscales by sex*

	Men			Women			*t*-test *t*	Cohen's *d*	Mann-Whitney *U*	*p*
	Mean (SD)	Median	Mean rank	Mean (SD)	Median	Mean rank				
Global burnout	2.35 (.56)	2.33	146.43	2.53 (.63)	2.53	174.23	2.42	.30		.02
Emotional/ physical exhaustion	2.44 (.70)	2.40	149.80	2.64 (.80)	2.80	172.82			9,829.000	.045
Devaluation	1.94 (.77)	1.80	152.95	2.11 (.85)	2.00	171.49			10,138.000	.11
Reduced sense of accomplishment	2.67 (.73)	2.60	150.21	2.85 (.73)	2.80	172.64	1.99	.25		.047
Global engagement	3.74 (.59)	3.79	168.59	3.74 (.57)	3.79	164.91			11,670.500	.75
Vigour	3.52 (.68)	3.60	172.40	3.47 (.65)	3.40	163.31			12,044.500	.43
Dedication	4.08 (.74)	4.20	170.12	4.05 (.67)	4.20	164.27			11,821.000	.61
Absorption	3.60 (.61)	3.75	157.95	3.69 (.59)	3.75	169.39			10,628.000	.32

Normative data for high and very high engagement were computed by identifying the scores marking the 75th and the 95th percentile, respectively, as described in Section 3.3.2.1. Thresholds were set at scores of 4.1 for high, and at 4.6 for very high engagement. According to these criteria, 26% of the respondents in Poland, 23% of those in Australia, and 18% of those in the UK were recognised as highly engaged, while 9% of respondents in Poland, 5% of those in Australia and 2% of those in the UK were classed as very highly engaged. Using the same cut-off points, 28% of men and 20% of women were classified as highly engaged, and 7% of women and 3% of men were identified as very highly engaged.

3.4.3.2 Tests of comparison by country and sex

Shapiro-Wilk tests revealed that the data for global engagement and its subscales were not normally distributed in at least one of the three countries or across sexes.

Kruskal-Wallis tests revealed differences between the scores of respondents for global engagement, vigour and dedication by country (Table 3.3). Visual inspections of boxplots indicated that the shapes of scoring distributions for global engagement were similar in the three countries, while the shapes of scoring distributions for vigour, dedication and absorption differed substantially between the countries. Pairwise comparisons yielded differences between the medians for global engagement, and mean ranks for vigour and dedication between the respondents in the UK and Poland such that Polish respondents scored higher.

Kruskal-Wallis tests did not reveal differences between men and women with respect to global engagement and its subscales.

3.5   Discussion

While the relatively recent studies by Bernhard (2007, 2010) and Castro's even more recent (2016) research documented high exhaustion in American music students, in the present study, based on average scores, the levels of burnout were comparatively low. This discrepancy may be explained by empirical evidence suggesting higher levels of burnout in North America than in Western Europe (e.g., van Horn et al., 1997). The levels of sense of accomplishment were, however, comparable to those found by Bernhard and Castro. Given large standard deviations in global burnout and its subscales, there were likely to be major inter-individual variations in the levels of burnout-related symptoms among music

performance students, especially with respect to the degree to which they devalued music and felt tired as a result of being involved in musical activities. Using individual criteria, one in ten of them was classified as burned out, a relatively high proportion when compared, for example, to 4% of professional musicians in Australia (Parker, 2015), 4-7% of Dutch working population (Schaufeli, 2003), 4% of rugby players in New Zealand (Hodge et al., 2008), and 1-2% of adolescent athletes in Sweden (Gustafsson et al., 2007). The prevalence of burnout among music performance students may be thus comparable to that found among, for instance, Dutch occupational physicians (i.e., 11%; Bakker, Schaufeli, & Van Dierendonck, 2000, in Schaufeli, 2003) and teachers (i.e., 9%; Zijlstra & De Vries, 2001, in Schaufeli, 2003) but slightly lower than among, for example, radiation oncology trainees in Australia and New Zealand (i.e., 13%; Leung & Rioseco, 2017).

The average scores obtained imply that students experienced moderate levels of engagement with playing an instrument or singing. This supports the findings from Ascenso et al.'s (2017) study combining interview and diary methods, which demonstrated that professional performers experienced well-being in relation to music, including engagement. The relatively high levels of dedication that emerged in the present study support the findings of previous research, showing that music students identify strongly with and are highly committed to their discipline (Spahn et al., 2004). The levels of absorption reported by respondents in the present study were, however, slightly lower than the degrees of flow experienced by students in Sinnamon et al.'s (2012) study. This discrepancy may be associated with cross-national differences or those related to the specific institutional cultures of the schools involved. Nevertheless, large standard deviations indicate that engagement, and particularly the extents to which students were dedicated to music and felt energetic when playing or singing, may have varied largely between individuals.

Cross-national differences emerged, with Polish students tending to be less burned out, on average, than their counterparts in the UK and Australia, and more engaged than those in the UK. This supports previous findings demonstrating differences in well-being by country (e.g., Poghosyan et al., 2010) although, as we shall see, it may also be attributable to systemic differences in music education. Up

to fourteen percent of students in the UK displayed symptoms of burnout: a higher proportion than in Australia and Poland. The UK and Australian students reported feeling more emotionally and physically drained by playing or singing, and expressed negative attitudes towards playing or singing more frequently than those in Poland. Nevertheless, students in Australia felt more efficacious at playing or singing as compared to their colleagues in the UK and Poland. While average levels of burnout were higher in Australia than Poland, there were more burned-out individuals in Poland. This finding corresponds with the large standard deviations that suggest inter-individual differences in the levels of burnout experienced by Polish respondents.

Students in Poland scored higher on global engagement, on average, compared with those in the UK. Furthermore, the proportions of highly and very highly engaged students were highest in the Polish group, and lowest among the UK respondents. This finding is consistent with previous research showing levels of work engagement in the UK to be typically lower than in other European countries (Taipale et al., 2011). Specifically, students in Poland felt more invigorated, and mentally and physically resilient in relation to music-making than their counterparts in the UK. They were also more enthusiastic, and attached a greater significance to playing or singing than those in the UK.

According to Hofstede (2001), levels of individualism are higher, and uncertainty avoidance lower in Australia and the UK than in Poland: such characteristics are typically associated with higher levels of well-being (Arrindell et al., 1997; Diener et al., 2003). Despite this, in the present study, the respondents in Australia and the UK tended to display higher levels of burnout than their counterparts in Poland. These results also challenge Maslach et al. (2001), who suggest on the basis of research by Schaufeli and Janczur (1994) that levels of burnout in Poland are as high as in North America. However, Schaufeli and Janczur studied nurses, whose working environments are very different from those of music performance students. Furthermore, Schaufeli and Janczur's study was conducted over 20 years ago, when living and working conditions in Poland were substantially poorer than nowadays.

The more positive attitudes towards music performance found in the Polish respondents are thus likely to be related to their experiences of musical training.

Because most students in Poland have already undergone extensive training in classical music in the context of formal music education, unlike those in the UK and Australia whose pre-tertiary training consisted of weekly lessons with a private teacher (perhaps in combination with weekend classes, and local or national choral or orchestral courses during the school holidays), they may be better equipped to deal with the demands of the conservatoire. This could explain why they felt less burned-out as compared to their Australian and UK counterparts. It is also plausible that students in Poland make more informed decisions, based on their past experiences, as to whether they continue their music education at the tertiary level. Thus, those who are highly engaged with performing and have not already experienced symptoms of burnout may be more likely to enter a conservatoire. Because they have spent several years undergoing formal music education in company with others with the same interests and commitment, music has become a central aspect of their self-identity: they demonstrate a positive attitude towards playing or singing and are proud of their involvement in music and music-making. Their more positive attitudes may be also associated with their lack of study-related financial concerns since most of them, unlike their colleagues in Australia and the UK, do not pay for their education at a conservatoire. The findings indicate that respondents in Australia reported a higher sense of accomplishment in relation to playing or singing than their counterparts in Poland and the UK; this may be attributed to the higher proportion of men (who, as we shall see, tend to feel more efficacious) in the Australian than in the UK and Polish groups. Finally, while different experiences of education may underlie the variations in music-related well-being exhibited by students in the three countries, cross-national differences in impression management in the UK and Australia, and Poland could have influenced responses to the questionnaire in different ways (Diener et al., 2003).

Women reported being, on average, more burned-out than men although the differences in the levels of global burnout, emotional/physical exhaustion and reduced sense of accomplishment found in the current study were likely to be of very little or no practical importance. Nonetheless, the proportion of burned-out cases among women surveyed was also higher than among men. The findings of the present study only partly confirm those of Hamann and Daugherty (1985), who documented similar intensity and frequency of emotional exhaustion and sense of

accomplishment among male and female music students in the USA. The discrepancy might be associated with cross-cultural differences since the strengths of sex differences in work-related well-being are dependent, to some degree, on a country (e.g., Schaufeli et al., 2006). Although, in the context of work, these are more pronounced in America than in Europe (Purvanova & Muros, 2010), this may not be the case for music students, whose experiences are determined by different factors than those of employees. The effect of the institutional culture was likely to be smaller in the present study, which examined students at several conservatoires, than in that by Hamann and Daugherty. Moreover, different criteria for determining the levels of burnout were used in both studies. The findings of the present study, however, support the general literature, which tends to describe higher rates of mental health problems in women (e.g., Nolen-Hoeksema, Larson, & Grayson, 1999). They also corroborate previous research in music education indicating that female students are more susceptible to negative experiences (e.g., Hildebrandt et al., 2012). Moreover, the finding suggesting that women were likely to feel less accomplished is in line with past empirical work in music education (Ginsborg et al., 2009) and other domains (e.g., Adekola, 2010; Heidari, 2013).

Burnout develops as a reaction to chronic stress (e.g., Maslach et al., 2001) so the differences found could be partly explained by sex-dependent biological mechanisms underlying responses to stressors (e.g., Goldstein, Jerram, Abbs, Whitfield-Gabrieli, & Makris, 2010). The process of socialisation seems to play a key role: traditionally, parents grant more autonomy to boys, thus supporting them in developing the sense that they are capable of achieving success independently. Girls, by contrast, tend to be given more supervision, which may contribute to them feeling dependent and out of control (Pomerantz & Ruble, 1998). Gendered expectations are likely to continue to be transmitted by music teachers, who may, often unknowingly, further reinforce the sense of musical competence in boys, and self-doubts and lack of control in girls. Since perceived lack of competence forms the basis for development of burnout (e.g., Lonsdale et al., 2009; Sulea et al., 2015), the gendered practices exercised by teachers could help explain why female students in the present study were at higher risk of feeling burned-out. Nevertheless, it should be noted that the results suggesting sex differences in burnout may be attributable, in part, to a response bias whereby men are less eager

to share information about their health (Oksuzyan, Brønnum-Hansen, & Jeune, 2010).

Even though women felt, on average, more burned-out than men, there were no variations between sexes in terms of their engagement, which confirms previous research conducted among general population demonstrating only a small difference of little practical importance (Schaufeli & Bakker, 2004b). Although more highly engaged men than women were identified, there were more very highly engaged women than men. These discrepancies could be explained by large standard deviations that emerged in relation to the markers of engagement, pointing to substantial inter-individual differences in the groups of men and women studied.

3.6 Limitations and further research

First, translating continuous scores on measures of burnout into levels of burnout is somewhat problematic (e.g., Maslach et al., 2001). This is also the case for the ABQ since, according to Hodge et al. (2008), there are no clear criteria for interpreting its scores. The cut-off points for high burnout established in this study are reasonable given those determined in previous research on athlete burnout (Raedeke, 1997) and the criterion of "three" (Eklund & Cresswell, 2007). They are, however, based on arbitrary criteria for detecting burnout and should not therefore be treated as the basis for its diagnosis. Furthermore, whereas cut-off points and the proportions of burned-out students, established by dividing the sample into three equally sized groups depending on their scores, correspond with those based on the criterion of "three", there are no indications in the literature that they could be employed to interpret the scores on the ABQ. Moreover, Schaufeli and Van Dierendonck (1995) argue that only nation-specific cut-off points for burnout based on normative data are valid but they also should be treated with caution. Nonetheless, due to small sizes of the samples in each of the three countries in the current study, it was deemed inadequate to derive normative data for each country separately. Similarly, the cut-off points computed for high and very high engagement were based on arbitrary criteria, and should be only considered as their preliminary indicators since there are no suggestions in the literature that the method used when establishing them is applicable to small-scale research.

Second, levels of burnout and engagement in the wider population of music performance students may be different from those suggested by the findings of the present study because of self-selection bias, whereby respondents were most likely to be those with a particular interest in the topic (Heckman, 1990). This could apply especially to female respondents: healthier women are less likely to take part in surveys, which leads to overestimating issues in the female respondents surveyed (Oksuzyan et al., 2010); this could explain, in part, why they appeared more burned-out in the present study. In future research it would be worth tracking response rates and exploring the characteristics of those who do not initially respond so as to determine the nature of the potential differences between respondents and non-respondents.

Third, because the study was conducted on a relatively small scale, it is not clear whether its findings could be generalised to wider populations of music performance students in the UK, Australia and Poland. Moreover, respondents in Poland and the UK were recruited at several institutions, while those in Australia studied at a single conservatoire. Specific cultures characterising tertiary music education institutions may determine students' attitudes towards music (e.g., Papageorgi et al., 2010ab). Further studies involving more respondents at a range of tertiary schools are therefore warranted to examine the prevalence of burnout and engagement among music performance students further and form a basis for establishing norms for their high levels.

Fourth, the study was confined to students at conservatoires in three countries; in order to gain a fuller understanding of students' music-related well-being, future studies could include university students, and in a broader range of countries. Fifth, there may have been variations between the proportions of home and international students in the three countries studied. In the academic year 2013-2014, 18% of tertiary-level students in the UK (Higher Education Statistics Agency, 2015) and 24% of tertiary-level students in Australia (Australian Government, 2014) were classed as international in contrast with only 2% of tertiary-level students in Poland (Education Foundation Perspektywy, 2014). Although studying abroad can be an enriching experience, it also poses many challenges for students. The process of adaptation to a new culture (Church, 1982), combined with separation from supportive networks (Werkman, 1980) and the language barrier (Sovic, 2008), can

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lead to psychological distress (Mori, 2000). The greater levels of burnout and lower engagement with performance found in the UK and Australian students could therefore be associated with potentially higher proportions of international students in these groups when compared to the Polish sample. Future research could control for the status of the respondents (i.e., home/international), and examine potential differences in the experiences of burnout and engagement between them.

Finally, there was a minor difference between the questionnaires administered to the sample in Australia, and the samples in Poland and the UK. In Australia, the term "principal study" was used in the five items comprising the dedication subscale and one item on the absorption subscale of the UWES-S instead of the term "playing my instrument/singing", e.g. "My principal study inspires me" vs "Playing my instrument/singing inspires me". These terms are used interchangeably by performance students so it can be assumed that the Australian sample understood "principal study" to mean "playing my instrument/singing". While it might have been that the use of the two terms influenced differences in responses of students in Australia, and those in Poland and the UK, pairwise comparisons did not reveal significant differences between the responses of the Australian group, and Polish and UK samples to these items.

In future research, it would be worth establishing the proportion of students who are both burned-out and engaged, and exploring whether there are cross-national and sex differences between them. It would also be worth studying possible interactions between country and sex in shaping students' burnout and engagement. This was not possible in the present work due to non-parametric properties of the data. Potential differences in music-related well-being between different groups of instrumentalists could be also examined. These may exist, as suggested by Hamann and Daugherty (1985) in their study of burnout. Moreover, while the present study suggests that culturally ingrained factors and cross-national differences in the systems of music education may be responsible, in part, for variations in levels of burnout and engagement, further research addressing the processes underlying students' burnout and engagement is warranted. Adopting a qualitative approach would be particularly worthwhile so as to produce a rich knowledge of these under-researched phenomena, including insights into their antecedents and consequences. Certain personal and social-environmental

characteristics are primary candidates for contributing to music performance students' burnout and engagement, according to research conducted in other contexts including dance and other settings (e.g., Quested & Duda, 2011; Sulea et al., 2015). Similarly, empirical research on the general population (e.g., Korunka et al., 2009; Peterson et al., 2008) suggests that burnout and engagement could be related to physical health status. These hypothesised associations could be examined in performance students with the use of quantitative methods.

Chapter 4. The role of psycho-social factors in burnout and engagement: A longitudinal test of BPNT (Study IIa); Longitudinal effects of burnout and engagement on physical health (Study IIb)

4.1 Literature review

As discussed in Section 2.1.2.1, empirical research on musicians' and music students' physical and psychological well-being has focused predominantly on MS pain (e.g., Ginsborg et al., 2009; Roach et al., 1994) and performance anxiety (e.g., Kenny, Fortune, & Ackermann, 2013; Studer et al., 2011). To date, however, little research has been undertaken pertaining to the development of burnout or engagement in music students, so understanding of their antecedents and consequences for students' physical well-being is limited.

4.1.1 BPNT in the context of music education

Musical development takes place within social environments that involve teachers, peers and families. While music education researchers emphasise that the social context is important for students' optimal development (e.g., Burland & Davidson, 2002; Presland, 2005), few studies (e.g., Bonneville-Roussy, Vallerand, & Bouffard, 2013) have aimed to identify the characteristics of the social context that determine music students' well-being. Until recently, music education research lacked a unifying theory to study the impact of the social environment, so it was difficult to explore the mechanisms through which its different aspects operate and their implications. Evans (2015) therefore advocates SDT as a framework within which to investigate the role of the social environment in promoting optimal musical development, with a particular focus on BPNT. It offers a promising basis for music education research because its explanations are parsimonious, affording the study of different facets of the social environment in relation to a variety of outcomes via their effects on need satisfaction. Researchers in education (Sulea et al., 2015), dance (Quested & Duda, 2011) and sport (e.g., Adie et al., 2008) have used BPNT to explore aspects of well-being including burnout and engagement as a corollary of need satisfaction but music students' well-being has not yet been studied in this way.

4.1.1.1 BPNT as a framework for studying motivation for music

If BPNT has not been applied to music students' well-being, it has, however, been used as a theoretical framework to study their motivation to practise their instruments. A survey of university music students carried out by Evans and Bonneville-Roussy (2016) showed that students whose needs for autonomy, competence and relatedness were fulfilled were likely to be happier with both the quantity and quality of their own practice. Nevertheless, the study did not clarify the significance of specific needs in explaining students' satisfaction with their practice behaviour. MacIntyre and Potter (2014) used a mixed-methods design to explore the importance of competence in the motivation of guitarists and pianists representing different countries and musical genres, finding that it correlated positively but only weakly-to-moderately with musicians' intrinsic motivation, motivational intensity, desire to learn and willingness to play. The relative importance of specific needs may depend, however, on the instrument played. While the quantitative data suggested that the pianists felt less competent than guitarists, their need for competence (e.g., winning competitions, achieving goals) was strongly implicated in their responses to an open-ended questionnaire exploring their "hoped for", "expected" and "feared" possible selves (Schnare, MacIntyre, & Doucette, 2012). By contrast, the guitarists constructed their possible selves in terms of their needs for autonomy (e.g., improving improvising skills to facilitate free self-expression) and relatedness (e.g., playing with a band, engaging the audience). In a retrospective mixed-methods investigation, Evans et al. (2013) followed up an earlier study of primary-school children who played in a band (McPherson & Davidson, 2006), and shed light on the effects of each need on students' motivation. Those who decided not to pursue music showed low competence and diminished relatedness in relationships with peers, teachers, friends and family. Reduced autonomy with respect to music training was shown in responses to open-ended but not closed questionnaire items. Taken together, these results highlight the contribution, outlined in Section 2.1.2.2, of the sense of competence and the social context to students' optimal development. The role of autonomy is less clear but it is worth noting that Evans et al.'s respondents were asked to reflect on their experiences in childhood and/or adolescence, so the results may not be generalizable to tertiary music education.

4.1.1.2 BPNT as a framework for studying music students' well-being

Competence

There is empirical evidence that competence is relevant to music students' physical and psychological well-being. Self-efficacy, which corresponds with competence, is associated with physical health: Kreutz et al. (2008a) found a positive and moderate correlation between self-efficacy and positive affect, and a negative, if weak, correlation between self-efficacy and negative affect reported by music performance students at two UK conservatoires. Ginsborg et al. (2009) showed negative, albeit weak, correlations between self-efficacy and fatigue, and other non-MS problems, in a study of the same music performance students, and students reading for nursing or biomedical science degrees at two universities in the UK. In light of these findings, it might be that music students' burnout and engagement are dependent on the degree to which their need for competence is satisfied.

Tutors

Positive relationships between students and tutors promote musical development as well as psychological well-being. The research findings outlined in Section 2.1.2.2 showed overwhelmingly that positive interpersonal interactions in one-to-one lessons facilitate students' growth as musicians (e.g., Manturzewska, 1990; Presland, 2005). Likewise, building upon BPNT, students' perceptions of social support from the tutor are likely to influence the degree to which their basic psychological needs are satisfied, especially autonomy and relatedness (Ryan & Solky, 1996), which in turn shapes their well-being.

Yet, tutor-student relationships do not always have positive effects. According to Brandfonbrener and Lederman (2002), "The relationship between studio teachers and students, at all levels, can be intense and has the potential for being both healthy and unhealthy for both student and teacher" (p. 1013). Hamann and Daugherty (1985) showed that music students who perceived lack of recognition from their teachers were more likely to experience symptoms of burnout. Furthermore, Gaunt (2009, 2011) contrasts the (healthy) benefits to the student of socially supportive tutors with the (unhealthy) reluctance of some students to engage in autonomous learning. Meanwhile Troum (2010) showed that tutors who offer autonomy support foster optimal psychological outcomes: the perceptions of undergraduate instrumental and vocal students at a university in America as to the

autonomy support they received from their main tutors predicted their task persistence, defined as focused, dedicated and enjoyable independent practice, although the relationship between the two was mediated by their perceptions of their competence in relation to learning music. The findings of a series of correlational and longitudinal studies by Bonneville-Roussy et al. (2013) indicate that autonomy support provided by the tutor in the context of tertiary-level one-to-one music lessons enables students to develop "harmonious passion'" for music and desire to pursue it after graduating. Consistent with these findings, it seems possible that students' perceptions of the autonomy support provided by their tutors have an impact on further aspects of their well-being. In line with research informed by BPNT, this influence is likely to be mediated by the degree of students' basic psychological needs satisfaction (e.g., Adie et al., 2012).

4.1.2 Burnout and engagement, and physical health

Physical health problems are comparatively prevalent among music students (e.g., Kok et al., 2015; Spahn et al., 2004), which highlights the value of identifying their underlying causes. The music performance students surveyed by Williamon and Thompson (2006) believed that bad posture, poor technique, over-practising, failure to warm up, inappropriate facilities, the long hours worked and carrying an instrument can all give rise to the physical health issues often experienced by professional musicians. There is evidence that other factors, not specific to the music profession, may also play a role. Ginsborg et al. (2009), for instance, found that students who reported engaging in health promoting behaviours, such as focusing on their spiritual growth and interpersonal relationships, were less likely than those who did not to report suffering from MS and non-MS issues such as fatigue, and more likely to assess their general health as better.

Consistent with these findings, there are well-documented associations between aspects of music students' psychological well-being and physical health. Ginsborg et al. (2009), for example, discovered that students who experienced negative affect were more likely to suffer from MS pain and non-MS health issues, and students with higher levels of positive affect were less likely to report non-MS symptoms. Furthermore, Leaver et al. (2011) demonstrated that low mood increased the risk of MS pain in orchestral musicians in the UK, while Steinmetz et al. (2015) showed that stage fright predicted the occurrence of MS pain in orchestral musicians in

Germany. Similarly, Wristen and Fountain (2013) found positive correlations between anxiety and depression, on the one hand, and the experience of physical pain, on the other, in music students at universities in the USA. Anxiety and depression, however, failed to explain the variance in the levels of bodily pain experienced both while practising and performing, and outside of the context of music making. Taken together, the empirical research findings to date suggest that aspects of the music profession environment and psychological factors combine to shape music students' physical health. Given that burnout and engagement have been shown in the general literature to be associated with physical health (e.g., Moodie et al., 2014; Schaufeli et al., 2008), studying them is likely to add to our understanding of both psychological and physical well-being of music students.

4.2 The present studies

Two analyses were made of the same datasets, collected on two occasions from the same respondents, and are reported separately, where appropriate, as Studies IIa and IIb.

Study IIa represents one of the first attempts to explore music students' well-being using BPNT. With the participation of tertiary-level music performance students at conservatoires in Australia and in the UK, and at universities in the UK, it aimed to disentangle the associations between perceptions of the tutor (i.e., autonomy support and social support) and need satisfaction (i.e., autonomy, competence, relatedness with regard to the tutor), and between need satisfaction, and burnout and engagement. Although perceptions of the peer context and relatedness with regard to peers were planned to be examined, issues emerged in relation to the measures used to tap them so that they were excluded from the study. Nevertheless, in the context of sport, Reinboth and Duda (2006) showed that changes in relatedness with regard to the coach but not the team predicted changes in athletes' subjective vitality over time. Likewise, the impact of the relationship with the tutor seems to be more crucial in students' development than the influence of their personal interactions with peers (e.g., Nogaj & Ossowski, 2015), who are mainly seen as a learning resource (e.g., Gaunt et al., 2012). Students' perceptions of the tutor and the degree to which their relatedness was satisfied in their relationship with the tutor were therefore examined in the current study. Study IIb

aimed to assess the potential effects of burnout and engagement on music performance students' general physical health and MS pain. Both studies used longitudinal designs so as to enhance causal inferences (Zapf, Dormann, & Frese, 1996), in line with research on the antecedents of burnout (e.g., Lizano & Mor Barak, 2012; Schaufeli, Bakker, & Van Rhenen, 2009; Travis, Lizano, Mor Barak, 2016) and engagement (Hakanen et al., 2008; Rodríguez-Muñoz, Baillien, De Witte, Moreno-Jimenez, & Pastor, 2009; Van den Broeck et al., 2008), and the health-related outcomes of burnout (e.g., Armon et al., 2010; Grossi et al., 2009).

4.3 Method

4.3.1 Design

Data were collected at two points in each of two consecutive academic years, weeks 9-14 in 2013-2014 and 2014-2015 (T1) and six to seven months later, i.e. during the last four weeks of the academic year (T2).

The first data collection was scheduled to take place after nine weeks (once ethical approval had been obtained) to ensure that respondents had already established perceptions of their environment because, although no analogous evidence exists for music students, research by Miller and Roberts (2004; in Quested & Duda, 2011) suggests that it can take athletes six weeks to form views on their social environment. The second data collection point was scheduled to take place six to seven months later to ensure that changes in perceptions of the social environment and effects of those changes on need satisfaction, and changes in need satisfaction and the effects of those changes on burnout and engagement could be observed (Study IIa), as in longitudinal studies of BPNT in sport (Balaguer et al., 2012; Reinboth & Duda, 2006) and dance (Quested & Duda, 2011).

Six to seven months was also deemed an appropriate gap between T1 and T2 for a preliminary exploration of the potential effects of burnout on general physical health and MS pain (Study IIb) although, once again, there is no evidence from research with music students to support this. Such effects are often assessed using a time lag of approximately one year (e.g., Kim et al., 2011; Mohren et al., 2003). It has been argued that too-short time lags may produce underestimated results (Zapf et al., 1996) and Vinokur et al. (2009) doubted the accuracy of their findings at a one-year follow-up.

On the basis of the research suggesting that sex may be a predictor of physical health (e.g., Zetterberg et al., 1998) and MS pain (e.g., Leaver et al., 2011), the potential effects of sex on general physical health and MS pain were controlled for statistically in the present study. There is also evidence that string players may be particularly affected by MS pain (e.g., Nawrocka et al., 2014) so the type of musical instrument played was also controlled for statistically.

4.3.2 Respondents

Respondents were included in the sample if they were music performance students at the time of data collection. Those who did not meet the inclusion criteria at T1 and/or T2 (e.g., because they had graduated by T2) and those who provided incomplete responses were removed from further analyses. Response rates at T1 and T2, by country and type of school, are shown in Table 4.1.

Table 4.1 *Response rates by country, type of school, and validity and completeness at T1 and T2 (in numbers)*

	Australia		UK		Total valid and complete responses
	All responses	Valid and complete responses	All responses (conservatoire/ university)	Valid and complete responses (conservatoire /university)	
T1	59	53	144/85	124/71	248
T2	26	23	81/28	76/25	124

At T1, music performance students at one conservatoire in Australia, several conservatoires (see Section 3.3.1) and 11 university music departments in the UK responded to the questionnaire. No matching T1 responses were identified for two respondents at T2, so they were excluded from further analyses. The correlational and the main, longitudinal analyses were thus performed using data obtained from the respondents who provided complete responses at both T1 and T2 (henceforth referred to as "the T1-2 group").

The final sample of T1-2 respondents comprised 91 women and 33 men aged between 18 and 31 years at T1, with an average age of 21.35 years (*SD*=2.67; *Mdn*=21.00), undergraduate (*n*=101) and postgraduate (*n*=23) students. The majority of respondents specialised in classical music (*n*=116), but four specialised in jazz and four in popular music. A total of 24 were singers and the remainder played woodwind or brass instruments (*n*=39), strings (*n*=36), keyboard (*n*=21) and drums (*n*=4).

4.3.3 Measures

Two versions of a questionnaire (see Appendix N) combining the instruments described below were constructed with measures arranged in different orders to reduce ordering effects (Perreault, 1975/1976). A total of 76 respondents completed one version of the questionnaire, and 48 the other version. Respondents were asked always to refer to their experiences "in the last month".

4.3.3.1 Burnout and engagement

The ABQ (Raedeke & Smith, 2001) adapted to the context of music performance was used to measure burnout from playing an instrument or singing. Engagement was gauged with the UWES-S (Schaufeli, Martínez, et al., 2002), also modified to tap experiences of music performance students. The rationale for the choice of these measures, details of their pilot testing and their psychometric properties were covered in more detail in Section 3.3.2.

The internal consistencies of the modified ABQ and UWES-S scales for the T1-2 respondents at both data-collection points are shown in Table 4.2. These were acceptable for global burnout, global engagement, and all their subscales, except one (Hair et al., 1998). The exception was the 4-item subscale of UWES-S representing absorption, which yielded Cronbach's alpha coefficients at T1 and T2 of .54 and .66, respectively. Since the alpha coefficient may underestimate the internal consistency of a scale with a low number of items (Cronbach, 1961), the internal consistency of absorption was considered sufficient, and the subscale was retained in subsequent analyses.

4.3.3.2 Study IIa: Social environment and need satisfaction

Five items from the 6-item Health Care Climate Questionnaire (HCCQ; Williams, Grow, Freedman, Ryan, & Deci, 1996; Williams, McGregor, King, Nelson, & Glasgow, 2005) were used to gauge the degree to which respondents' tutors were perceived as autonomy-supportive (the sixth was removed since it overlapped with the measure of relatedness with regard to the tutor: "I feel understood by my physician"). The original HCCQ was found to show acceptable internal consistency in research conducted in medical settings (Shumway et al., 2015), and predictive validity as well as internal consistency in sport settings (Edmunds, Ntoumanis, & Duda, 2006).

Eight items from the 27-item Social Support Questionnaire (Sarason, Levine, Basham, & Sarason, 1983) were employed to measure perceptions of social support available from respondents' main instrumental or vocal tutors. The items were those comprising the scale used in Quested and Duda's (2009) study of dancers, slightly adapted by them to the context of dance, which was found to demonstrate adequate internal consistency and predictive validity.

The 7-item Autonomy subscale from the Basic Need Satisfaction at Work Scale (Deci et al., 2001; Ilardi, Leone, Kasser, & Ryan, 1993; Kasser, Davey, & Ryan, 1992) was used to measure degree of satisfaction of autonomy in relation to music-making. This subscale has been shown to demonstrate satisfactory internal consistency in research conducted at work (e.g., Brien et al., 2012; Deci et al., 2001) and predictive validity as well as internal consistency in sport (Hodge et al., 2008).

The 4-item Perceived Competence Scale (Williams & Deci, 1996) tapped satisfaction of competence at playing an instrument or singing. This scale was found to show acceptable internal consistency in research conducted with musicians (MacIntyre & Potter, 2014) and predictive validity as well as internal consistency in research on patients with diabetes (Williams, Freedman, & Deci, 1998).

Finally, the 5-item Acceptance subscale from the Need for Relatedness (Richer & Vallerand, 1998) was used to measure satisfaction of relatedness with regard to respondents' main instrumental or vocal tutors. This subscale has been shown to have adequate internal consistency and predictive validity in studies in dance (e.g.,

Quested & Duda, 2011) and sport settings (e.g., Adie et al., 2008; Reinboth & Duda, 2006).

Respondents were asked to use a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*) for all items.

The internal consistencies of the five measures listed above for the T1-2 respondents at both data-collection points are shown in Table 4.2. These were all acceptable (Hair et al., 1998).

4.3.3.3 Study IIb: General physical health and MS pain

Eight items from the 9-item checklist of physical symptoms (Emmons, 1991) were employed to measure students' general physical health; one was eliminated because it overlapped with the 4-item measure of MS pain used. The original checklist of physical symptoms was shown to demonstrate acceptable internal consistency in studies undertaken with athletes (Reinboth & Duda, 2006; Reinboth et al., 2004) and students (Ryan, LaGuardia, & Rawsthorne, 2005).

The four items used to gauge MS pain were selected from a checklist proposed by Williamon and Thompson (2006) as those most often experienced by music performance students in the same study.

Respondents were asked to use a 7-point Likert scale ranging from 1 (*not at all*) to 7 (*very much*) for all items.

The internal consistencies of the two measures listed above for the T1-2 respondents at both data-collection points are shown in Table 4.2. These were all acceptable (Hair et al., 1998).

4.3.3.4 Pilot study

Selected measures of burnout and engagement were modified to gauge the experiences of music performance students and pilot tested as described in Section 3.3.2.2. The instruments used in previous research to tap perceptions of the social environment and need satisfaction were first adapted for music performance students and pilot tested with 23 of them at one conservatoire in the UK. The pilot respondents were divided into six groups. Each group completed a different set of measures in order to minimise the amount of time required to complete them. They were then asked to assess the relevance of the items to the context of music performance, and provide their comments and suggestions regarding how they

could be improved. Based on the results of the pilot testing, minor modifications were made to the wording of the questionnaire before the final version was administered.

Table 4.2 *Cronbach's alpha coefficients for all measures*

	T1	T2
Global burnout	.84	.87
Emotional/physical exhaustion	.84	.85
Devaluation	.71	.74
Reduced accomplishment	.80	.85
Global engagement	.87	.89
Vigour	.74	.75
Dedication	.79	.81
Absorption	.54	.66
<u>Study IIa</u>		
Autonomy support	.87	.89
Social support	.94	.94
Autonomy	.84	.83
Competence	.85	.89
Relatedness	.92	.95
<u>Study IIb</u>		
General physical health	.80	.81
MS pain	.83	.86

4.3.4 Procedure

Respondents in Australia and the UK were recruited as described in Section 3.3.4. The analyses reported in this chapter as Studies IIa and IIb are of data provided by respondents at T1 and T2 in Australia and the UK (but not in Poland). In the data collection in 2014, the UK respondents were recruited via an invitation e-mail sent by the staff at two conservatoires and 11 university departments.[16] At T1, all respondents in the UK were asked to provide their e-mail addresses so the

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[16] These were the same conservatoires that circulated the link to the survey in 2013, described in Section 3.3.4.

researcher would be able to contact them again at T2 data collection, while those in Australia were contacted either via gatekeepers or e-mail which they provided separately to their questionnaire responses; UK respondents were, in addition, told that if they completed the questionnaire at both T1 and T2 they would be entered into a prize draw (see Section 2.4.1.1).

At T1, all respondents in the UK and most respondents in Australia (n=51) completed the questionnaire online (see Section 3.3.4). The respondents were asked to insert a code consisting of the second and the third letters of their mother's and father's names in order for the researcher to be able to match their responses at T1 and T2. Invitation e-mails with a link to the T2 questionnaire were circulated four weeks before the end of the academic year to the respondents who had provided complete responses to the T1 questionnaire. Reminders were sent to those who did not initially respond to the T2 questionnaire two weeks before the end of the academic year. At T2, all respondents completed the online version of the questionnaire.

4.3.5 Data analysis

Data analyses were all carried out using SPSS 23.0.

4.3.5.1 Study IIa: The application of BPNT to burnout and engagement

Preliminary analyses and bivariate correlations

Averages, standard deviations, medians and mean ranks were calculated for data provided by 117 respondents who completed the questionnaire at T1 but not T2, and the 124 respondents who completed it at T1 and T2. Descriptive data at T1 for the T1-only and the T1-2 respondents were compared using dummy-coding to find out if attrition at T2 was random. First, Shapiro-Wilk tests were carried out on the data provided by the two groups at T1 to check whether the data met the assumptions for parametric statistics. Because they were found to violate them, a series of Mann-Whitney tests was performed to test for differences between the two groups of respondents at T1. Second, the shapes of distributions of the variables for both groups at T1 were compared visually in order to establish whether medians or mean ranks should be used as the basis for further comparisons made using Mann-Whitney tests (Hart, 2001; see Section 3.3.3.3).

Next, Shapiro-Wilk tests were carried out on the data provided by the T1-2 respondents at T1 and T2 to check whether the data met the assumptions of parametric statistics. Once again they were found to violate them, so Spearman's rho correlation coefficient was used to establish relationships between the variables of interest.

Hierarchical regression analyses

Synchronous effects are shown when changes in predictor variables predict changes in criterion variables (Zapf et al., 1996). It is particularly valuable when the time needed for a predictor variable to make a change in the criterion variable is shorter than the time lag used in an investigation (Finkel, 1995). The approach to analysis employed in the present study was the one described by Reinboth and Duda (2006), who demonstrated synchronous effects of motivational climate on need satisfaction, and of need satisfaction on subjective vitality and physical well-being in team athletes over the period of five months.

A series of hierarchical regression analyses was run for the T1-2 group to test the assumption that changes in perceptions of the tutor from T1 to T2 predict changes in need satisfaction over the same period of time. Scores representing three psychological needs at T2 were regressed separately on to perceptions of the tutor at T2, while controlling for their corresponding T1 scores and scores representing perceptions of the tutor at T1. The following procedure was used for each of the three psychological needs at T2: the corresponding T1 scores representing each psychological need and perceptions of the tutor at T1 were entered first (step 1) and scores representing perceptions of the tutor at T2 were entered second (step 2).

A series of hierarchical regression analyses was run for the T1-2 group to test the assumption that changes in need satisfaction from T1 to T2 predict changes in the indices of burnout and engagement over the same period of time. Scores for global burnout and global engagement, and each of their subscales at T2 were regressed separately on to the three psychological need scores at T2, while controlling for their corresponding T1 scores and three psychological need scores at T1. The following procedure was used for global burnout and global engagement, and each of their subscales at T2: their corresponding scores at T1 and three

psychological need scores at T1 were entered first (step 1) and three psychological need scores at T2 were entered second (step 2).

The sample size was deemed sufficient for each regression, meeting the criteria of $N>=50+8m$, with N representing the number of respondents and m standing for the number of predictor variables (Tabachnick & Fidell, 2007). Each regression model was tested to check that it met the assumptions of linear regression: independence of observations, homoscedasticity, linearity, multicollinearity, normality of residuals, and that there were no unusual observations, including significant outliers, or high leverage and highly influential points that might exert a substantial effect on the regression. Independence of observations was assessed with a Durbin-Watson statistic, with the values ranging between one and three regarded acceptable (Field, 2009). Studentized residuals were referred to while testing the assumptions of homoscedasticity, linearity and normality of residuals since they are considered a more powerful test for possible violations of the assumptions than standardized residuals (Norušis, 2000). Homoscedasticity and linearity between the predictor variables taken collectively and each criterion variable were examined visually by assessing the plots of studentized residuals as a function of unstandardized predicted values. Homoscedasticity was assumed when studentized residuals were equally spread over unstandardized predicted values. Partial regression plots were assessed visually in order to examine the linearity of the specific relationships between the predictor and criterion variables. Variance inflation factors (VIF) and tolerances were assessed in order to test for multicollinearity. VIFs below ten and tolerances above .10 were considered acceptable (Field, Miles, & Field, 2012; Hair et al., 1998). Normality of residuals was tested by visually inspecting normal Q-Q plots of studentized residuals, and histograms and P-P plots of standardized residuals. Each hierarchical regression model met the assumptions of independence of observations, homoscedasticity, linearity, multicollinearity and normality of residuals. Studentized deleted residuals greater than ±3 standard deviations were considered extreme and classed as univariate outliers (Heiberger & Holland, 2014). Mahalanobis distance was used in order to detect multivariate outliers. The cut-off points for Mahalanobis distance were set for each regression after consulting a chi-square table on the basis of degrees of freedom at $p<.001$ (Tabachnick & Fidell, 2007). The cut-off points for

high leverage values were established for each regression using the formula $3k/n$, with k representing the number of predictor variables, and n standing for the number of respondents (Stevens, 2012). Highly influential points were identified using Cook's distance, with cut-off points established for each regression using the $4/n$ formula, where n represented the number of respondents (Gordon, 2012). The possibility that the presence of unusual observations resulted from data entry or measurement errors was first ruled out during a visual examination of the dataset. For each criterion variable, a series of preliminary regressions was then run excluding one unusual observation at a time. The unusual observations whose exclusion led to substantial changes in the regression coefficients were removed from relevant regression analyses, and the modified data were tested again in order to check if they met the assumptions of regression. Unusual observations detected and the pre-regression treatment of data are described in Appendix R.

4.3.5.2 Study IIb: The effects of burnout and engagement on physical health

Preliminary analyses and bivariate correlations

Averages, standard deviations, medians, mean ranks and Cronbach's alpha coefficients were computed for both the T1-only and T1-2 respondents at T1 and T2. The descriptive data for the T1-only and T1-2 respondents at T1 were compared using dummy-coding to find out if the attrition at T2 was random. First, Shapiro-Wilk tests were used to check whether the data provided by both groups at T1 met the assumptions for parametric statistics. Because they were found to violate them, Mann-Whitney tests were performed in order to test for differences between the two groups of respondents at T1. Second, the shapes of distributions of the variables for both groups at T1 were compared visually in order to check whether medians or mean ranks should be used as the basis for the comparisons made with Mann-Whitney tests (Hart, 2001; see Section 3.3.3.3). Third, a series of chi-square tests was performed in order to identify potential differences between the two groups at T1 in terms of their sex and whether they played a string instrument or not. All expected cell counts were greater than five unless stated otherwise.

Next, Shapiro-Wilk tests were used to check that the T1 and T2 data for the T1-2 respondents met the assumptions of parametric statistics. Since they were found to violate them, Spearman's rho correlation coefficient was used to establish the

relationships between the variables of interest for the T1-2 respondents at T1 and T2.

Hierarchical regression analyses

The current study tested synchronous effects (see Section 4.3.5.1), an analytical approach advocated by Zapf et al. (1996). The analysis thus was consistent with Grossi et al.'s (2009) examination of the impact of changes in burnout on changes in bodily pain.

Hierarchical regression analyses were run for the T1-2 group to find out if changes in their scores for the subscales of burnout and engagement from T1 to T2 predicted changes in their general physical health over the same period of time. Female respondents were coded as "0", and male respondents were coded as "1". General physical health at T2 was regressed on to the scores representing all three subscales of burnout or engagement, as appropriate, at T2, while controlling for sex, general physical health at T1 and the scores representing all three subscales of burnout or engagement, as appropriate, at T1. The following procedure was employed for general physical health: sex, the scores representing general physical health at T1, and the scores representing all three subscales of burnout or engagement, as appropriate, at T1 were entered first (Step 1); the scores representing all three subscales of burnout or engagement, as appropriate, at T2 were entered second (Step 2).

Hierarchical regression analyses were run for the T1-2 respondents to find out if changes in their scores for the subscales of burnout and engagement from T1 to T2 predicted changes in their MS pain over the same period of time. Female respondents were coded as "0", and male respondents were coded as "1". Dummy coding was used to distinguish string players and players of other instruments. String players were coded as "0", and other respondents were coded as "1". MS pain at T2 was regressed on to all three subscales of burnout or engagement, as appropriate, at T2, while controlling for sex, type of instrument (string, i.e., violin, viola, cello, double bass, guitar versus others), MS pain at T1 and all three subscales of burnout or engagement, as appropriate, at T1. The following procedure was used for MS pain: sex, type of instrument, the scores representing MS pain at T1, and all three subscales of burnout or engagement, as appropriate,

at T1 were entered first (Step 1); the scores representing all three subscales of burnout or engagement, as appropriate, at T2 were entered second (Step 2).

The sample size was deemed sufficient for both regressions, meeting the criteria of $N>=50+8m$ (Tabachnick & Fidell, 2007; see Section 4.3.5.1). The hierarchical regression models were tested in order to check whether they met the assumptions of linear regression, following the procedure described in Section 4.3.5.1. Both met the assumptions of linear regression, other than that unusual observations were detected. The pre-regression treatment used to address this violation is described in Appendix S.

4.4 Results

4.4.1 Study IIa: The application of BPNT to burnout and engagement

4.4.1.1 Preliminary analyses and bivariate correlations

Table 4.3 presents averages, standard deviations and medians for the T1-2 group at T1 and T2. Cronbach's alpha coefficients were acceptable for both groups at T1 (see Table 4.2, for Cronbach's alpha coefficients for T1-2 respondents).[17] The data for each of the study variables at T1 were not normally distributed for either group. The shapes of the two groups' distributions of scores for reduced sense of accomplishment at T1 were similar but there were differences between the shapes of the two groups' distributions for the remaining variables at T1.

At T1, the T1-2 group scored higher for global burnout than the T1-only group (mean ranks 131.96 versus 109.38; U=5.895.000, z=-2.51, p=.01). They also scored higher for emotional/physical exhaustion (mean ranks 131.13 versus 110.26; U=5,997.000, z=-2.33, p=.02) and for reduced sense of accomplishment (Mdn 2.80 versus 2.40; U=5,966.000, z=-2.39, p=.02), meaning that the T1-only group felt more accomplished.

At T1, the T1-2 group scored lower for global engagement than the T1-only group (mean ranks 107.39 versus 135.43; U=8,942.000, z=3.12, p=.002). Their scores indicated that they had lower levels of vigour (mean ranks 109.94 versus 132.73; U=8,626.000, z=2.55, p=.01), dedication (mean ranks 107.05 versus 135.79; U=8,984.000, z=3.21, p=.002), absorption (mean ranks 110.10 versus 132.56;

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[17] The internal consistencies for the T1-only respondents are not reported.

U=8,606.000, *z*=2.52, *p*=.01) and competence (mean ranks 106.19 versus 136.69; *U*=9,090.000, *z*=3.41, *p*=.001).

Table 4.3 *Descriptive statistics for perceptions of the tutor, need satisfaction, burnout and engagement, general physical health and MS pain at T1 and T2 for T1-2 respondents*

	T1			T2		
	M	*SD*	*Mdn*	*M*	*SD*	*Mdn*
Global burnout	2.61	.54	2.53	2.66	.58	2.67
Emotional/physical exhaustion	2.81	.73	2.80	2.86	.70	2.80
Devaluation	2.25	.72	2.20	2.38	.74	2.20
Reduced accomplishment	2.77	.71	2.80	2.75	.74	2.60
Global engagement	3.61	.52	3.61	3.58	.52	3.57
Vigour	3.32	.62	3.40	3.33	.59	3.40
Dedication	3.88	.61	4.00	3.83	.59	3.80
Absorption	3.63	.56	3.50	3.57	.62	3.50
Study IIa						
Autonomy support	5.52	1.10	5.60	5.52	1.18	5.80
Social support	5.36	1.31	5.50	5.50	1.21	5.63
Autonomy	5.09	1.08	5.14	5.14	1.00	5.21
Competence	5.20	1.08	5.25	5.30	1.01	5.50
Relatedness	5.52	1.24	5.80	5.65	1.25	6.00
Study IIb						
General physical health	3.39	1.23	3.63	3.06	1.22	2.88
MS pain	3.76	1.69	3.63	3.43	1.69	3.50

Table 4.4 shows the matrix of correlations between perceptions of the tutor, need satisfaction, and the indices of burnout and engagement at T1 and T2 for the T1-2 group. Correlations between perceptions of the tutor and need satisfaction were positive and ranged from weak to strong.[18,19]The strongest positive correlations at T2 were between relatedness with regard to the tutor and (i) autonomy support (*r*=.85, *p*<.01), and (ii) social support from the tutor (*r*=.90, *p*<.01). Correlations between perceptions of the tutor and the indices of engagement were positive, if

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[18] *R* values lower than .40 are interpreted in Studies IIa and IIb as indicative of weak correlations.
[19] *R* values of or above .70 are interpreted in Studies IIa and IIb as indicative of strong correlations.

Table 4.4 *Bivariate correlations between perceptions of the tutor, need satisfaction, and burnout and engagement at T1 and T2 for T1-2 respondents*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
1 T1 Global burnout																									
2 T1 Exhaustion	.71**																								
3 T1 Devaluation	.78**	.38**																							
4 T1 Reduced accomplishment	.73**	.25**	.44**																						
5 T1 Global engagement	-.57**	-.26*	-.52**	-.52**																					
6 T1 Vigour	-.49**	-.24**	-.37**	-.52**	.89**																				
7 T1 Dedication	-.61**	-.28*	-.58**	-.52**	.88**	.67**																			
8 T1 Absorption	-.33**	-.11	-.38**	-.28*	.81**	.64**	.58**																		
9 T1 Autonomy support	-.32*	-.12	-.23*	-.37**	.28**	.23*	.30*	.21*																	
10 T1 Social support	-.23*	-.13	-.15	-.25*	.20*	.18*	.17	.16	.77**																
11 T1 Autonomy	-.27**	-.10	-.19*	-.37**	.29**	.23*	.36**	.17	.62**	.37**															
12 T1 Competence	-.55**	-.24**	-.35**	-.68**	.41**	.33**	.47**	.21*	.29**	.11	.32**														
13 T1 Relatedness	-.29**	-.14	-.18*	-.32*	.26**	.20*	.26**	.21*	.85**	.89**	.49**	.19*													
14 T2 Global burnout	.65**	.49**	.33**	.59**	-.39**	-.36**	-.46**	-.13	-.30**	-.20*	-.26*	-.58**	-.26**												
15 T2 Exhaustion	.55**	.60**	.33**	.33**	-.29**	-.26**	-.33**	-.12	-.18*	-.08	-.20*	-.36**	-.13	.77**											
16 T2 Devaluation	.55**	.30**	.60**	.39**	-.33**	-.28*	-.42*	-.13	-.28*	-.22*	-.24*	-.43**	-.26*	.79**	.46**										
17 T2 Reduced accomplishment	.45**	.11	.26**	.66**	-.32**	-.33**	-.37**	-.08	-.31**	-.24*	-.25*	-.59**	-.31*	.78**	.34**	.51**									
18 T2 Global engagement	-.33**	-.16	-.28**	-.33**	.60**	.55**	.55**	.45**	.30*	.21*	.24**	.32**	.26**	-.58**	-.40**	-.51**	-.53**								
19 T2 Vigour	-.31**	-.16	-.22*	-.38**	.57**	.57**	.48**	.39**	.20**	.14	.17	.33**	.20*	-.53**	-.36**	-.44**	-.50**	.86**							
20 T2 Dedication	-.31**	-.14	-.30*	-.28*	.50**	.39**	.58**	.31**	.30*	.20*	.24**	.31**	.23*	-.60**	-.39**	-.56**	-.51**	.85**	.62**						
21 T2 Absorption	-.17	-.06	-.20*	.16	.45**	.43**	.30**	.50**	.19*	.15	.15	.15	.20*	-.35**	-.25*	-.31**	-.33**	.81**	.61**	.55**					
22 T2 Autonomy support	-.11	-.03	-.08	-.12	.13	.11	.11	.08	.64**	.51**	.35**	.13	.52**	-.26*	-.12	-.26*	-.29**	.38**	.28**	.38**	.28**				
23 T2 Social support	-.08	-.04	-.09	-.07	.03	.04	-.02	.03	.61**	.67**	.19*	.08	.61**	-.17	-.05	-.24*	-.18*	.25**	.18*	.22*	.21*	.80**			
24 T2 Autonomy	-.09	-.06	.00	-.11	.01	-.10	.06	-.07	.41**	.19*	.60**	.15	.28**	-.20*	-.09	-.18*	-.23*	.19*	.09	.23**	.11	.55**	.42**		
25 T2 Competence	-.22*	.00	-.10	-.35**	.14	.10	.19*	.03	.28*	.13	.28**	.48**	.23*	-.54**	-.30*	-.36**	-.61**	.33**	.29**	.32**	.20*	.29**	.21*	.42**	
26 T2 Relatedness	-.12	-.08	-.09	-.11	.07	.08	.02	.04	.62**	.58**	.26**	.10	.60**	-.19*	-.00	-.22*	-.24*	.31**	.22*	.28**	.25**	.85**	.90**	.49**	.26**

Note. * - *p*<.05, ** - *p*<.01.

weak, while correlations between perceptions of the tutor and the indices of burnout were negative, if weak.

Correlations between need satisfaction and the indices of burnout were negative. They ranged from weak to moderate, and were strongest for global burnout and reduced sense of accomplishment.[20] The most salient correlations at T1 were those between competence and reduced sense of accomplishment (r=-.68, p<.01), and, at T2, those between competence and reduced sense of accomplishment (r=-.61, p<.01). Correlations between need satisfaction and the indices of engagement were positive. They ranged from weak to moderate, and were strongest for global engagement and dedication. The most salient correlations at T1 were those between competence and dedication (r=.47, p<.01), and, at T2, those between competence and global engagement (r=.33, p<.01).

4.4.1.2 Hierarchical regression analyses: a longitudinal test of BPNT

Perceptions of the tutor and need satisfaction

The results are presented in Table 4.5. An increase in perceptions of autonomy support from T1 to T2 predicted significant increases in autonomy (Total R^2=.50; β=.36, p=.01), competence (Total R^2=.29; β=.34, p=.04) and relatedness (Total R^2=.90; β=.40, p<.001) over the same period of time. An increase in perceptions of social support from T1 to T2 predicted significant increases in relatedness (Total R^2=.90; β=.59, p<.001) and autonomy (Total R^2=.50; β=.30, p=.04) over the same period of time.

Table 4.5 *Hierarchical regression analyses for predicting need satisfaction*

	ΔR²	*B*	*SE B*	*β*	*p*
Autonomy					
Step 1	.28				<.001
Constant		2.67	.44		<.001
T1 Autonomy		.42	.09	.45	<.001
T1 Autonomy support		.19	.13	.20	.14

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[20] *R* values of or above .40 but lower than .70 are interpreted in Studies IIa and IIb as indicative of moderate correlations.

	ΔR^2	*B*	SE *B*	β	*p*
Step 2	.23				<.001
Constant		1.39	.41		.001
T1 Autonomy		.54	.08	.58	<.001
T1 Autonomy support		-.13	.12	-.15	.26
T1 Social support		.-25	.09	-.33	.01
T2 Autonomy support		.31	.12	.36	.01
T2 Social support		.25	.12	.30	.04
Competence					
Step 1	.26				<.001
Constant		2.52	.49		<.001
T1 Competence		.42	.07	.46	<.001
T1 Autonomy support		.13	.11	.15	.22
T1 Social support		-.02	.09	-.02	.85
Step 2	.03				.08
Constant		2.25	.52		<.001
T1 Competence		.43	.07	.48	<.001
T1 Autonomy support		-.01	.12	-.01	.97
T1 Social support		.04	.10	.05	.73
T2 Autonomy support		.28	.14	.34	.04
T2 Social support		-.16	.14	-.20	.24
Relatedness					
Step 1	.39				<.001
Constant		1.87	.46		<.001
T1 Relatedness		-.09	.19	-.09	.62
T1 Autonomy support		.42	.16	.37	.01
T1 Social support		.38	.14	.40	.01
Step 2	.51				<.001
Constant		-.04	.21		.83
T1 Relatedness		.21	.08	.21	.01
T1 Autonomy support		-.11	.07	-.10	.15
T1 Social support		-.09	.06	-.10	.15
T2 Autonomy support		.42	.07	.40	<.001
T2 Social support		.61	.07	.59	<.001

Need satisfaction and burnout

The results are presented in Table 4.6. An increase in autonomy from T1 to T2 predicted an increase in emotional/physical exhaustion (Total R^2=.50; β=.23, *p*=.02) over the same period of time. An increase in competence from T1 to T2 predicted

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decreases in global burnout (Total R^2=.60; β=-.40, p<.001), emotional/physical exhaustion (Total R^2=.50; β=-.29, p=.001), devaluation (Total R^2=.49; β=-.30, p=.001) and reduced sense of accomplishment (Total R^2=.58; β=-.39, p<.001) over the same period of time. An increase in relatedness from T1 to T2 predicted a decrease in global burnout (Total R^2=.60; β=-.17, p=.046) and approached significance as a predictor of a decrease in reduced sense of accomplishment over the same period of time (Total R^2=.58; β=-.17, p=.052).

Table 4.6 *Hierarchical regression analyses for predicting burnout*

	ΔR^2	B	SE B	β	p
Global burnout					
Step 1	.49				<.001
Constant		2.79	.44		<.001
T1 Global burnout		.43	.08	.41	<.001
T1 Autonomy		.01	.04	.01	.87
T1 Competence		-.20	.04	-.37	<.001
T1 Relatedness		-.05	.04	-.11	.17
Step 2	.11				<.001
Constant		3.02	.40		<.001
T1 Global burnout		.50	.08	.47	<.001
T1 Autonomy		-.03	.05	-.06	.48
T1 Competence		-.09	.04	-.16	.05
T1 Relatedness		.02	.04	.04	.64
T2 Autonomy		.10	.05	.17	.06
T2 Competence		-.23	.04	-.40	<.001
T2 Relatedness		-.08	.04	-.17	.046
Emotional/physical exhaustion					
Step 1	.45				<.001
Constant		2.28	.40		<.001
T1 Emotional/physical exhaustion		.55	.07	.57	<.001
T1 Autonomy		-.05	.05	-.08	.34
T1 Competence		-.14	.05	-.22	.004
T1 Relatedness		.004	.05	.01	.92
Step 2	.05				.01
Constant		2.38	.42		<.001
T1 Emotional/physical exhaustion		.59	.07	.61	<.001
T1 Autonomy		-.13	.06	-.20	.05
T1 Competence		-.05	.05	-.08	.33
T1 Relatedness		.07	.06	.12	.24
T2 Autonomy		.16	.07	.23	.02

	ΔR^2	B	SE B	β	p
T2 Competence		-.20	.06	-.29	<.001
T2 Relatedness		-.07	.05	-.13	.18
Devaluation					
Step 1	.43				<.001
Constant		2.62	.44		<.001
T1 Devaluation		.49	.08	.47	<.001
T1 Autonomy		.02	.06	.03	.73
T1 Competence		-.20	.05	-.28	<.001
Step 2	.06				.01
T1 Relatedness		-.08	.05	-.13	.11
Constant		2.97	.45		<.001
T1 Devaluation		.52	.08	.50	<.001
T1 Autonomy		-.02	.07	-.03	.74
T1 Competence		-.10	.06	-.14	.09
T1 Relatedness		-.02	.06	-.03	.77
T2 Autonomy		.10	.08	.14	.18
T2 Competence		-.22	.06	-.30	.001
T2 Relatedness		-.07	.06	-.12	.21
Reduced sense of accomplishment					
Step 1	.48				<.001
Constant		2.70	.60		<.001
T1 Reduced sense of accomplishment		.46	.09	.44	<.001
T1 Autonomy		.05	.06	.07	.39
T1 Competence		-.22	.06	-.32	<.001
T1 Relatedness		-.06	.05	-.10	.19
Step 2	.13				<.001
Constant		3.39	.54		<.001
T1 Reduced sense of accomplishment		.50	.08	.48	<.001
T1 Autonomy		.04	.06	.07	.46
T1 Competence		-.09	.06	-.14	.11
T1 Relatedness		.02	.05	.04	.68
T2 Autonomy		.03	.07	.04	.63
T2 Competence		-.28	.05	-.39	<.001
T2 Relatedness		-.10	.05	-.17	.05

Need satisfaction and engagement

The results are presented in Table 4.7. An increase in competence from T1 to T2 predicted increases in global engagement (Total R^2=.43; β=.23, p=.01), vigour (Total R^2=.42; β=.21, p=.02), dedication (Total R^2=.41; β=.19, p=.04) and absorption (Total R^2=.33; β=.20, p=.04) over the same period of time. An increase in relatedness from T1 to T2 predicted increases in global engagement (Total

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R^2=.43; β=.37, p<.001), vigour (Total R^2=.42; β=.26, p=.01), dedication (Total R^2=.41; β=.42, p<.001) and absorption (Total R^2=.33; β=.28, p=.01) over the same period of time.

Table 4.7 *Hierarchical regression analyses for predicting engagement*

	$ΔR^2$	B	SE B	β	p
Global engagement					
Step 1	.33				<.001
Constant		1.29	.32		<.001
T1 Global engagement		.48	.08	.48	<.001
T1 Autonomy		-.01	.04	-.02	.68
T1 Competence		.08	.04	.17	.046
T1 Relatedness		.03	.04	.08	.36
Step 2	.11				<.001
Constant		.62	.35		.08
T1 Global engagement		.52	.08	.51	<.001
T1 Autonomy		.02	.05	.05	.67
T1 Competence		.03	.04	.06	.48
T1 Relatedness		-.07	.04	-.17	.11
T2 Autonomy		-.06	.06	-.11	.34
T2 Competence		.12	.05	.23	.01
T2 Relatedness		.15	.04	.37	<.001
Vigour					
Step 1	.37				<.001
Constant		1.00	.32		.002
T1 Vigour		.48	.07	.50	<.001
T1 Autonomy		-.02	.05	-.04	.70
T1 Competence		.13	.04	.23	.003
T1 Relatedness		.03	.04	.07	.40
Step 2	.06				.01
Constant		.55	.36		.13
T1 Vigour		.48	.07	.50	<.001
T1 Autonomy		.02	.06	.04	.68
T1 Competence		.08	.05	.14	.10
T1 Relatedness		-.05	.05	-.11	.31
T2 Autonomy		-.08	.06	-.13	.23
T2 Competence		.12	.05	.21	.02
T2 Relatedness		.12	.05	.26	.01

	ΔR²	B	SE B	β	p
Dedication					
Step 1	.29				<.001
Constant		1.59	.34		<.001
T1 Dedication		.43	.09	.45	<.001
T1 Autonomy		-.01	.05	-.02	.87
T1 Competence		.07	.05	.14	.12
T1 Relatedness		.04	.04	.09	.34
Step 2	.12				<.001
Constant		.80	.38		.04
T1 Dedication		.48	.08	.50	<.001
T1 Autonomy		.03	.06	.06	.61
T1 Competence		.02	.05	.04	.70
T1 Relatedness		-.09	.05	-.19	.07
T2 Autonomy		-.06	.07	-.11	.35
T2 Competence		.11	.05	.19	.04
T2 Relatedness		.20	.05	.42	<.001
Absorption					
Step 1	.25				<.001
Constant		1.32	.40		.001
T1 Absorption		.52	.09	.47	<.001
T1 Autonomy		.00	.06	.004	.97
T1 Competence		.04	.05	.07	.40
T1 Relatedness		.03	.05	.06	.55
Step 2	.08				.01
Constant		.60	.45		.19
T1 Absorption		.55	.09	.49	<.001
T1 Autonomy		.02	.07	.04	.75
T1 Competence		-.01	.05	-.01	.88
T1 Relatedness		-.07	.06	-.14	.23
T2 Autonomy		-.03	.07	-.04	.72
T2 Competence		.12	.06	.20	.04
T2 Relatedness		.14	.06	.28	.01

4.4.2 Study IIb: The effects of burnout and engagement on physical health

4.4.2.1 Preliminary analyses and bivariate correlations

The differences between the T1-only and T1-T2 respondents in terms of their demographic characteristics, scores on global burnout and global engagement, and

their subscales at T1 are described in Section 4.4.1.1. Table 4.3 presents averages, standard deviations and medians for general physical health and MS pain for the T1-2 respondents at T1 and T2. The internal consistencies of the measures used were acceptable for both groups of respondents at T1 (see Table 4.2, for Cronbach's alpha coefficients for T1-2 respondents).[21] The data for general physical health and MS pain were not normally distributed for both groups of respondents at T1 and the shapes of the distributions of scores were different: T1-2 respondents scored higher than T1-only respondents for general physical health at T1 (mean ranks 131.12 versus 110.28; U=5,999.500, z=-2.32, p=.02), which means they experienced more health issues.

As stated in Section 4.3.3.3, general physical health was measured using eight of the nine items on Emmons' (1991) checklist of physical symptoms (i.e., excluding MS pain), so higher scores represent poorer health. As shown in Table 4.8, bivariate correlations between problems with general physical health at T2, and global burnout and emotional/physical exhaustion at T1 were positive but weak (r=.20, p<.05), as were those for problems with general physical health at T2, and global burnout (r=.31, p<.01), emotional/physical exhaustion (r=.33, p<.01) and reduced sense of accomplishment at T2 (r=.26, p<.01). Emotional/physical exhaustion at T1 was positively but weakly correlated with MS pain at T1 and T2 (r=.25, p<.01 and r=.18, p<.05, respectively), while emotional/physical exhaustion at T2 correlated positively and weakly with MS pain at T2 (r=.21, p<.05). There were no significant correlations between the subscales of engagement, and problems with general physical health and MS pain.

Table 4.8 *Bivariate correlations between burnout and engagement, and general physical health and MS pain at T1 and T2 for T1-2 respondents*

	T1 General health	T2 General health	T1 MS pain	T2 MS pain
T1 Global burnout	.17	.20*	.12	.17
T1 Emotional/physical exhaustion	.17	.20*	.25**	.18*
T1 Devaluation	.03	.05	-.06	.03
T1 Reduced accomplishment	.12	.13	.06	.13

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[21] The internal consistencies for the T1-only respondents are not reported.

	T1 General health	T2 General health	T1 MS pain	T2 MS pain
T1 Global engagement	-.02	-.01	.07	.00
T1 Vigour	-.06	.01	.05	.00
T1 Dedication	-.05	-.11	.09	.01
T1 Absorption	.09	.16	.03	.00
T2 Global burnout	.21**	.31**	.11	.11
T2 Exhaustion	.24**	.33**	.18	.21*
T2 Devaluation	.13	.11	.08	.06
T2 Reduced accomplishment	.15	.26**	.01	.07
T2 Global engagement	-.06	-.00	-.03	.05
T2 Vigour	-.11	-.05	-.02	.05
T2 Dedication	-.05	-.03	.03	.11
T2 Absorption	.01	-.07	-.07	.03

Note. * - *p*<.05, ** - *p*<.01.

4.4.2.2 Hierarchical regression analyses: longitudinal effects of burnout and engagement on general physical health and MS pain

Burnout and engagement, and general physical health

The results are presented in Table 4.9. An increase in reduced sense of accomplishment (i.e., heightened sense of accomplishment) (β=.26, *p*=.02) from T1 to T2 predicted an increase in problems with general physical health, and an increase in emotional/physical exhaustion from T1 to T2 approached significance as a predictor of an increase in problems with general physical health over the same period of time (β=.20, *p*=.053) (Total R^2=.46).

Table 4.9 *Hierarchical regression analyses for predicting problems with general physical health*

	ΔR^2	B	SE B	β	p
Burnout					
Step 1	.41				<.001
Constant		.18	.48		.71
Sex		.17	.20	.06	.41
T1 General physical health		.60	.07	.61	<.001
T1 Emotional/physical exhaustion		.24	.13	.14	.07
T1 Devaluation		-.02	.14	-.01	.92
T1 Reduced sense of accomplishment		.06	.14	.04	.66

	ΔR^2	B	SE B	β	p
Step 2	.05				.01
Constant		-.32	.49		.52
Sex		.08	.20	.03	.70
T1 General physical health		.57	.07	.58	<.001
T1 Emotional/physical exhaustion		.09	.16	.05	.57
T1 Devaluation		.13	.17	.08	.45
T1 Reduced sense of accomplishment		-.26	.18	-.15	.15
T2 Emotional/physical exhaustion		.34	.18	.20	.05
T2 Devaluation		-.25	.18	-.15	.16
T2 Reduced sense of accomplishment		.44	.18	.26	.02
Engagement					
Step 1	.44				<.001
Constant		.61	.69		.37
Sex		.13	.20	.05	.53
T1 General physical health		.60	.07	.60	<.001
T1 Vigour		.21	.20	.11	.29
T1 Dedication		-.52	.19	-.26	.01
T1 Absorption		.47	.21	.22	.03
Step 2	.01				.72
Constant		.35	.78		.65
Sex		.16	.20	.06	.42
T1 General physical health		.59	.07	.60	<.001
T1 Vigour		.28	.22	.14	.21
T1 Dedication		-.63	.22	-.31	.01
T1 Absorption		.50	.24	.23	.04
T2 Vigour		-.20	.25	-.10	.43
T2 Dedication		.25	.24	.12	.30
T2 Absorption		.01	.22	.01	.95

Burnout and engagement, and MS pain

The results are presented in Table 4.10. An increase in emotional/physical exhaustion (β=.24, p=.02) from T1 to T2 predicted an increase in MS pain over the same period of time, while an increase in devaluation (β=-.38, p<.001) from T1 to T2 predicted a decrease in MS pain over the same period of time (Total R^2=.46).

Table 4.10 *Hierarchical regression analyses for predicting MS pain*

	Δ*R²*	*B*	SE *B*	β	*p*
Burnout					
Step 1	.39				<.001
Constant		.54	.71		.45
Sex		.19	.28	.05	.51
Instrument		-.27	.28	-.07	.34
T1 MS Pain		.62	.08	.62	<.001
T1 Emotional/physical exhaustion		.01	.19	.00	.96
T1 Devaluation		.13	.20	.05	.54
T1 Reduced sense of accomplishment		.14	.19	.06	.47
Step 2	.06				.01
Constant		.53	.73		.47
Sex		.22	.28	.06	.42
Instrument		-.43	.27	-.12	.11
T1 MS Pain		.66	.08	.66	<.001
T1 Emotional/physical exhaustion		-.30	.23	-.13	.19
T1 Devaluation		.57	.24	.24	.02
T1 Reduced sense of accomplishment		.04	.25	.02	.87
T2 Emotional/physical exhaustion		.57	.24	.24	.02
T2 Devaluation		-.85	.26	-.38	.001
T2 Reduced sense of accomplishment		.19	.26	.08	.46
Engagement					
Step 1	.39				<.001
Constant		1.54	.95		.11
Sex		.19	.29	.05	.52
Instrument		-.32	.28	-.09	.25
T1 MS Pain		.62	.07	.62	<.001
T1 Vigour		-.06	.30	-.02	.83
T1 Dedication		-.10	.27	-.03	.73
T1 Absorption		.08	.31	.03	.79
Step 2	.03				.13
Constant		.37	1.07		.73
Sex		.30	.29	.08	.30
Instrument		-.43	.28	-.12	.12
T1 MS Pain		.63	.07	.62	<.001
T1 Vigour		-.10	.32	-.04	.76
T1 Dedication		-.40	.32	-.14	.22
T1 Absorption		.14	.34	.05	.68
T2 Vigour		.07	.35	.02	.84
T2 Dedication		.58	.35	.20	.09
T2 Absorption		-.05	.32	-.02	.87

4.5 Discussion

4.5.1 Study IIa: The application of BPNT to burnout and engagement

The aim of the study was to apply BPNT in an examination of the contribution of psycho-social factors to the development of burnout and engagement in music performance students. The results are consistent with the tenets of BPNT insofar as they provide some support for the role of perceptions of the tutor in need satisfaction, and the contribution of the degree of need satisfaction to students' burnout and engagement. Specifically, for the music performance students who took part in the study, perceptions of autonomy support from the tutor were related to satisfaction of their need for autonomy, competence, and relatedness with regard to the tutor, and perceived social support from the tutor appeared to foster relatedness with regard to the tutor and, to a lesser extent, autonomy. Decreased competence and, to a lesser extent, decreased relatedness with regard to the tutor and increased autonomy clearly contributed to burnout. This latter finding challenges the assumptions of BPNT, suggesting that high satisfaction with the need for autonomy may have negative consequences for music performance students. Relatedness with regard to the tutor and, to a lesser extent, competence contributed to the shaping of engagement with playing or singing.

4.5.1.1 Perceptions of the social environment and need satisfaction

Autonomy support

Perceived autonomy support from the tutor positively predicted the extent to which students felt that their needs for relatedness with regard to the tutor, competence and autonomy were satisfied. Tutors' support for students' autonomy is thus particularly important for the formation of a strong emotional bond between the student and their tutor. It is also likely to help students believe in their own competence as musicians, and establish a sense of personal freedom in playing or singing, since tutors show their autonomy support by trusting their students' ability, valuing their opinions, involving them in decision making and conveying respect. Taken together, the findings of the present study support those of Adie et al. (2012) and Balaguer et al. (2012), suggesting that autonomy supportive environments have the capacity to satisfy all basic psychological needs. Furthermore, the positive impact of autonomy support from the tutor correspondents with Bonneville et al.

(2013), who produced evidence for its role in fostering positive motivational outcomes and healthy involvement in music.

Social support

Perceived social support from the tutor positively predicted relatedness with regard to the tutor even more strongly than perceived autonomy support. This finding is congruent with the results from Reinboth et al.'s (2004) study of athletes and suggests that students are more likely to experience the sense of having a personal bond with tutors who show an interest in them not only as musicians but also as human beings, respecting their feelings and lives outside of music. The most likely reason perceived social support from the tutor predicted the extent to which students felt their need for autonomy was satisfied is that tutors who are supportive of their students create environments in which young musicians feel free to express themselves and flourish as independent learners. As suggested by Ryan and Solky (1996), social support can afford both relatedness and autonomy; accordingly, tutors have an important role to play in promoting the satisfaction of these needs in their students.

4.5.1.2 Need satisfaction and burnout

Competence

Perceived competence emerged as the strongest, negative predictor of global burnout, emotional/physical exhaustion, devaluation and reduced sense of accomplishment. The finding that competence is more relevant to global burnout than any other basic psychological need supports the evidence from research in dance (Quested & Duda, 2011) and sport (Lonsdale et al., 2009), and the inference that low competence is associated with increased risk of burnout accords with research in music education linking diminished competence with negative motivational (MacIntyre & Potter, 2014) and affective outcomes (Kreutz et al., 2008a). Furthermore, the findings of the present study help explain why students who feel incompetent are more likely to quit their musical training (Evans et al., 2013) and fail to develop professional identities as musicians (Burland, 2005).

The finding that competence negatively predicts emotional/physical exhaustion is in line with Van den Broeck et al. (2008), who found that employees' exhaustion is determined by the degree of their satisfaction of psychological needs.

Nevertheless, links between need satisfaction and emotional/physical exhaustion have not been found in research on dance (Quested & Duda, 2011) or sport (Hodge et al., 2008). Lonsdale et al. (2009) explain this by pointing out that physical rather than psychological factors trigger exhaustion in athletes. There are integral differences between music, on one hand, and sport and dance, on the other, so emotional/physical exhaustion is likely to unfold via different mechanisms in music performance students, and athletes and dancers. The latter are likely to feel tired mainly because of the physical demands of their training. While it is unarguable that music also makes substantial physical demands on players and singers, mental rather than physical effort is essential to both practice and performance. Accordingly, psychological factors may play a more crucial role in triggering emotional and physical exhaustion in musicians.

The finding that competence negatively predicted devaluation supports those highlighting associations between low competence and devaluation of sport (Lonsdale et al., 2009) and dance (Quested & Duda, 2011). It may be that those who feel unable to meet their goals in a particular domain protect themselves by devaluing that domain (Maslach et al., 2001).

The finding that competence negatively predicted reduced sense of accomplishment is consistent with Quested and Duda (2011), who obtained the same result with dancers: students who feel unable to meet their goals are likely to feel unsuccessful. In the present study, fluctuations in reduced sense of accomplishment were explained by a greater variance in need satisfaction than any other facet of burnout (Table 4.6).

Relatedness

Relatedness with regard to the tutor negatively predicted global burnout and approached significance as a negative predictor of reduced sense of accomplishment such that students who felt less related to, safe with and understood by their tutor were also more likely to become burned-out or develop a sense of lack of achievements. These effects were weak, however (i.e., $\beta=-.17$ for global burnout and $\beta=-.17$ for reduced sense of accomplishment), confirming the findings of research in sport (Hodge et al., 2008; Lonsdale et al., 2009) and education (Sulea et al., 2015), which suggest that low relatedness has a relatively minor role in the development of burnout. Although the results of the present study

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largely agree with the bulk of the literature emphasizing the paramount importance of the tutor in students' motivation (e.g., Evans et al., 2013) and achievements (e.g., Manturzewska, 1990), the effect of the quality of the personal relationship with the tutor on students' burnout appears less substantial.

Few studies (e.g., Perreault et al., 2007) have revealed the effects of relatedness on burnout. This could be because the majority of research applying BPNT to sport has, as discussed in Section 2.1.1.3, focused on aspects of the social environment such as the team rather than the coach. Exploring the need for relatedness with regard to the tutor specifically in the present study thus enabled the identification of the unique role played by lack of satisfaction of the need for relatedness with regard to the tutor in music performance students' burnout.

Autonomy

Autonomy emerged as a positive predictor of emotional/physical exhaustion. Although this finding contradicts BPNT, it is consistent with previous research in music education, suggesting that the role of autonomy in music students' motivation is as yet unclear (e.g., Evans et al., 2013; Gaunt, 2009). Again, the finding that the degree of psychological need satisfaction can predict emotional/physical exhaustion contradicts those of research in dance (e.g., Quested & Duda, 2011) and sport (e.g., Hodge et al., 2008), while corresponding with Van der Broeck et al. (2008)'s findings in their study of employees.

One explanation for the negative impact of autonomy on music performance students' well-being is related to their willingness and readiness to work independently. Conservatoire tutors interviewed by Gaunt (2008) claimed that one of their primary pedagogical goals was to stimulate students' autonomy in learning and their ability to think for themselves. Their students, however, tend to avoid taking ownership of their own development preferring to rely on learning from their principal study tutors (Burwell, 2006; Gaunt, 2009). This tendency seems to be associated with the nature of one-to-one instrumental and vocal tuition, in which power relationships between students and tutors are, by tradition, asymmetrical (Nerland & Hanken, 2002; in Burwell, 2015). As Gaunt (2009) points out, the tutor's effort to support the student's independence can be wrongly interpreted as lack of involvement and interest. It may also be that students often choose their own tutors

and make an informed decision to submit to their expertise. From this point of view, it may not be desirable for them to be given high levels of autonomy.

The conservation of resources theory (COR; Hobfoll, 2001) and jobs-demand resources model (JD-R; Demerouti, Bakker, Nachreiner, et al., 2001) provide further explanations for the positive association between students' autonomy and exhaustion. Gorgievski and Hobfoll (2008) argue that burnout involves a slow process whereby various resources are depleted. It could be that as tutors bestow more power on their students so the dynamics of the relationship between them change and the students perceive a decrease in the resources available to them. Given that the extent to which autonomy is satisfied does not affect students' devaluation or their sense of accomplishment, it seems plausible that they have to make more effort to maintain their standards of performance when they are expected to be more autonomous. This explanation is congruent with the JD-R model, whereby resources such as informational support may buffer the effect of high demands on the individual, so if resources are perceived as limited when increased effort is needed to meet demands, this can lead to symptoms of burnout (Bakker & Demerouti, 2006).

4.5.1.3 Need satisfaction and engagement

Relatedness

The investigation of relatedness in a particular social context, that is specifically with regard to the tutor, led to a better understanding of the impact of interpersonal relationships on performance students' engagement. Relatedness with regard to the tutor turned out to be the strongest positive predictor of global engagement, vigour, dedication and absorption; that is, students whose tutors help them feel emotionally safe and make them feel they are genuinely interested in them as people are more likely to feel positive about their musical participation. These results agree with those of Reinboth and Duda (2006), who found relatedness with regard to the coach to predict subjective vitality in athletes. They are also consistent with the music education literature pointing to the importance of a positive relationship with the tutor in the overall positive experience of musical training (e.g., Burland & Davidson; 2002) and positive learning outcomes (e.g., Manturzewska, 1990; Presland, 2005).

Competence

Competence emerged as another positive predictor of global engagement, vigour, dedication and absorption: students who perceived themselves able to meet their musical goals felt more energetic and resilient while practising and performing, and displayed higher levels of pride and enthusiasm in their playing or singing. Although the contribution of competence to engagement was relatively small, these findings are consistent with those of research involving athletes suggesting that competence has predictive value for engagement (Hodge et al., 2009) and subjective vitality (Adie et al., 2008; Reinboth et al., 2004). The relationship between competence and absorption, resembling the state of flow, could be interpreted using the theory of flow. This states that one of the conditions under which flow can be attained is the sense of ability to complete the task at hand (Csikszentmihalyi, 1990). Moreover, the relevance of competence to students who thrive as musicians is aligned with other research involving music students, highlighting the association between competence and intensity of motivation (MacIntyre & Potter, 2014), and positive affect (Kreutz et al., 2008a). Taken together, the findings of the present study can help explain why students manifesting a high sense of competence are more inclined to continue their music education (Evans et al., 2013) and make a successful transition into professional life as musicians (Burland, 2005).

4.5.1.4 Limitations

First, some limitations with respect to the generalizability of its findings must be acknowledged when interpreting this study. While attrition is common in longitudinal studies (Little & Rubin, 2002), differences between the T1-only and T1-2 respondents' scores representing burnout and engagement, and competence, could have biased the results. Thus, the findings of the study may not be generalizable to the wider population of music performance students because they may relate only to students who feel incompetent, more burned-out and less engaged than their colleagues.

A second limitation of the study concerns the ways in which the need for autonomy was defined, that is in the specific context of instrumental or vocal lessons. Nevertheless, autonomy in relation to music-making may be also satisfied in other ways. For example, since music provides a platform for self-expression, students' need for autonomy could be fulfilled by their freedom to produce their own

artistic interpretation (e.g., MacIntyre & Potter, 2014). Furthermore, although the Autonomy subscale from the Basic Need Satisfaction at Work Scale (Deci et al., 2001; Ilardi et al., 1993; Kasser et al., 1992) used in this study is designed to tap the degree of autonomy satisfaction, it, in fact, contains both positively- and negatively-worded items. Thus, it is likely to capture both the degrees of need satisfaction, and need frustration (Chen et al., 2015) or thwarting (e.g., Bartholomew, Ntoumanis, Ryan, Bosch, & Thøgersen-Ntoumani, 2011). The use of both types of items may have therefore influenced the results of the present study, which could, in part, explain why autonomy emerged as a positive predictor of indices of burnout, contrary to the premises of BPNT.

Third, BPNT posits that need satisfaction is a mediator between the perceptions of the social context and well-being, so research on the roles of competence, autonomy and relatedness in mediating between perceptions of the tutor, on the one hand, and burnout and engagement, on the other, is warranted to understand their impact better.

The final limitation concerns data analysis. Burnout is highly stable over time so, as Schaufeli, Maassen, Bakker and Sixma (2011) note, controlling for its initial levels leaves little room for the effects of other factors to be detected. The present study may have thus underestimated the power of need satisfaction in predicting burnout.

4.5.1.5 Further research

First, the study could be refined in future by modifying the methods of data collection. Including objective measures of characteristics of the social environment, such as the ratings of an independent observer, could make a valuable contribution to studies of music performance students' well-being. Furthermore, a promising avenue for further studying the role of the need for autonomy in burnout and engagement is the investigation of different ways in which autonomy is satisfied in relation to music-making, since autonomy is believed to be a multidimensional construct (Reeve, 2002). This line of research could involve exploring autonomy defined as an opportunity for free self-expression through the creation of a musical interpretation, following MacIntyre and Potter (2014) or, consistent with Evans et al. (2013), the sense of volition underlying students' decision to study music. Reinboth and Duda (2006) found that only the facets of

autonomy reflecting internal locus of control and the sense that one is the initiator of one's own actions promote athletes' well-being, while the decision-making component of autonomy is less likely to do so. In the present study, the measure of need for autonomy tapped decision-making to a greater, and internal locus of control to a lesser extent. Yet, in the light of Reinboth and Duda's findings these components are likely to have different effects on music performance students' well-being, so it would be well worth assessing them separately. Also, students' perceived competence could be measured in relation to specific musical activities such as practising (and associated tasks such as addressing technical issues and memorising) and performing. It would also be worth investigating the impact of daily fluctuations in perceived autonomy and social support on need satisfaction, and the influence of daily need satisfaction on well-being, using logs and diary methods, in line with research in other domains (e.g., Gagné, Ryan, & Bargmann, 2003; Reis, Sheldon, Gable, Roscoe, & Ryan, 2001).

Second, MacIntyre and Potter (2014) showed that musicians value the satisfaction of different psychological needs to varying degrees depending on the instrument they play. Controlling for instrument type or family or studying different groups of instrumentalists would therefore enable potential differences to be teased out between the effects of specific needs for students specialising in different instruments.

Third, with respect to data analysis, researchers are sometimes advised to try to overcome the issue of burnout's high stability (Schaufeli et al., 2011) by not controlling for its initial levels (e.g., McManus, Winder, & Gordon, 2002); doing so could be useful for obtaining better estimates of the contribution of need satisfaction to burnout.

Fourth, some researchers (e.g., Adie et al., 2008) propose that competence is a corollary of motivational climate concentrating on improvement. Hence, it would be possible to identify the conditions in which competence develops by exploring the effects of motivational climate created by the tutor.

Fifth, it may be that active thwarting or frustration of needs is more closely related to the indices of ill-being than need satisfaction (e.g., Bartholomew et al., 2011). Research into the role of need thwarting or need frustration could cast more light

on the mechanisms underlying the development of music performance students' burnout.

Sixth, it would be worth studying the influence of the peer environment on students' burnout and engagement. Kingsbury (1988) hints at typically competitive atmospheres as a potential contributor to students' psychological ill-being in his analysis of the "conservatory culture" in the USA. Although it may be that the situation has improved over the past 30 years, he suggests that the highly judgmental atmosphere characterising tertiary-level music institutions puts some students at risk of developing unhealthy lifestyles, mental problems and, ultimately, dropping out of music education. Building upon this, it would seem worthwhile studying the role of perceptions of the peer environment, particularly competition, in satisfying students' basic psychological needs. Although peer groups are most important to tertiary-level music students for providing learning opportunities (Burland, 2005; Gaunt et al., 2012), it is likely that the personal aspect of peer relationships contributes to students' burnout and engagement; this possibility could be studied in further research.

Seventh, a wider range of factors not encompassed by BPNT could be examined to explore the antecedents of burnout and engagement further. Even though need satisfaction appears to play a role in students' burnout and engagement (Sulea et al., 2015), links have been established empirically between personal characteristics, such as coping, and indices of work-related well-being (e.g., Shin et al., 2014; Kaiseler, Passos, Queirós, & Sousa, 2014) and athlete burnout (e.g., Raedeke & Smith, 2004). Ntoumanis, Edmunds and Duda (2009) put forward a model integrating coping and need satisfaction, which stresses their reciprocal relationships. It would therefore be worth studying the role of coping in music performance students' well-being, either as a separate construct or integrated into BPNT. Future work could also adopt different theoretical approaches (e.g., Demerouti, Bakker, Nachreiner, et al.'s 2001 JD-R model) to understand how burnout and engagement unfold in more detail.

Finally, it would seem imperative to use qualitative methods to examine burnout and engagement in music performance students so as to gain more insight into these under-researched phenomena.

4.5.2 Study IIb: The effects of burnout and engagement on physical health

This study aimed to explore the consequences of burnout and engagement for music performance students' perceptions of their general physical health and MS pain. The findings suggest that burnout may have health-related implications but the role of engagement in physical health is marginal.

Reduced sense of accomplishment was the strongest, negative predictor of problems with general physical health: the students who felt less accomplished as musicians were more likely to experience a variety of physical symptoms. This is in contrast to Mohren et al.'s (2003) study of the working population, which found exhaustion to be most strongly related to issues with physical health. Music performance students thus seem particularly likely to be affected by their perceptions of lack of accomplishment. The finding linking reduced sense of accomplishment to problems with general physical health could be understood in the light of Vinokur et al. (2009), who claim that the loss of physical, cognitive and emotional resources underlying the process of burning out will inevitably lead to impaired physical health. Sense of accomplishment is an emotional resource and reduced sense of accomplishment represents the depletion of this resource, thus contributing to the deterioration of physical health. Emotional and physical exhaustion approached significance as positive predictor of problems with general physical health and positively predicted MS pain for the same reason. By contrast, students' devaluation negatively predicted MS pain, appearing to buffer against rather than contributing to it. This finding supports Maslach et al.'s (2001) and Schaufeli's (2003) proposal that mental distancing, which characterises devaluation, develops, at least initially, as an adaptive coping mechanism for protecting oneself from excessive demands and ensuing exhaustion. It should be noted that exhaustion was the only dimension of burnout affecting both general physical health and MS pain, and only a slightly weaker predictor of problems with general physical health than reduced sense of accomplishment. Hence, the findings of the present study correspond to those of Peterson et al. (2008), who found that, of the dimensions of burnout, exhaustion is the most important for explaining physical health issues.

There was no evidence for an association between engagement and general physical health. While this finding accords with the revised JD-R model (Schaufeli

& Bakker, 2004a), which suggests that engagement is less relevant than burnout to impaired physical health (e.g., Hakanen et al., 2008), it is, however, in contrast to Hakanen's and Schaufeli's (2012) proposal that engagement serves to protect from health issues. Furthermore, lack of association between engagement and physical health indicates that engagement does not necessarily have negative implications for music students' health, as Spahn et al. (2004) suggest.

4.5.2.1 Limitations

The limitations of this study are similar to those identified in Study IIa. First, generalisability to the wider population of music performance students is limited because attrition may not have been random: T1-2 respondents reported more problems with their general physical health than T1-only respondents and had different scores for burnout and engagement (see Section 4.4.1.1).

Second, since self-report data were used, emerging effects may or may not have been relevant to students' actual health; burnout could be associated only with students' perceptions of their own health. Similarly, engagement may have a different relationship with actual than perceived physical health.

Finally, while some variables were controlled for in the present study, it is possible that others such as anxiety and depressive symptoms, which have been associated with the incidence of MS pain (e.g., Jones et al., 2009) and other physical symptoms (e.g., Kroenke et al., 1994), may have been partly responsible for the findings. Accordingly, some investigations of the role of burnout in MS pain have statistically controlled for the effects of anxiety (e.g., Armon et al., 2010) and depression (e.g., Honkonen et al., 2006). Moreover, a variety of aspects of the lives of music performance students could influence their physical health, such as the number of hours practised and, for many, having to carry heavy instruments. It was beyond the scope of the present study, however, to control for anxiety, depression or factors related to being a music performance student.

4.5.2.2 Further research

First, this study – like Study IIa – could be refined in future by examining the effects of burnout and engagement on health measured objectively rather than by self-report.

Second, the design of the study could be improved by controlling for anxiety, depression and the factors specific to the music profession, as described in the previous paragraph. On the basis of the findings of research on job burnout (e.g., Armon et al., 2010; Kim et al., 2011), it would also be worth testing the long-term (lagged) effects of burnout and engagement on physical health to find out how the initial levels relate to subsequent physical health status, perhaps using longer time lags.

Third, since Vinokur et al. (2009) suggest that burnout and physical health are related reciprocally, future research could test the hypothesis that physical health is an antecedent of burnout. Evidence from the present study includes positive correlations between problems with general physical health at T1, and global burnout and emotional/physical exhaustion at T2. This is consistent with Vinokur et al.'s finding that the effects of perceived health on burnout are stronger than the effects of burnout on perceived health. Vinokur et al. draw on COR (Hobfoll, 2001) to propose that depletion of health, a vital resource, inevitably affects resources in the domain of work leading, in turn, to burnout.

Finally, qualitative inquiries are needed to produce more in-depth information regarding the consequences of burnout and engagement as experienced by music performance students. Interview studies with students categorised as burned-out or engaged are therefore reported in Chapter 5.

Chapter 5. A qualitative examination of burnout: Interviews with burned-out students (Study IIIa); A qualitative examination of engagement: Interviews with engaged students (Study IIIb)

5.1 Background

As discussed in Section 2.1.3, qualitative studies of burnout and engagement in relation to music performance are needed. These have been undertaken with athletes (e.g., Eklund & Cresswell, 2007; Gustafsson et al., 2008) and employees (e.g., Rutherford & Oda, 2014) but their findings suggest that both the processes leading to and the experience of burnout itself are, to some degree, domain-specific. Training in music performance presents unique challenges, so there is a clear need for studies addressing burnout and engagement in music performers specifically. Researchers who use qualitative methods to examine music students have added to the understanding of their motivation for music (e.g., Burland & Davidson, 2002) and musical development (e.g., MacNamara et al., 2008). Yet, there have been no attempts, to date, to fill the gap in qualitative research on students' burnout and engagement with music performance, as distinct constructs.

5.2 The present studies

Study IIIa sought to explore students' experiences associated with their burnout in relation to playing an instrument or singing, and Study IIIb was designed to shed some light on their experiences of engagement. The studies are reported together or separately, as appropriate.

As discussed in Section 2.2, qualitative methods are particularly useful for studying under-researched issues. Interviews are a valuable research tool to explore phenomena that cannot be directly observed, because they enable investigators to enter the inner world of interviewees and elicit information as to their current, and past thoughts and feelings (Patton, 2015; Wellington, 2015). Furthermore, interviewees are free to share the knowledge they consider meaningful as experts on their own views and experiences (Perkins, in preparation). Braun and Clarke (2013) recommend interviews as an effective method for studying experiential states. For these reasons, I considered interviews the most effective way of gaining insight into students' experiences of burnout or engagement.

Another advantage of interviews is that, when open or semi-structured formats are used, the researcher is able to follow up on the important or interesting issues that interviewees bring up (Patton, 2015). Accordingly, I conducted semi-structured interviews, whereby the researcher has a clear idea of the issues they wish to examine but, at the same time, wants to stay open to new emergent ideas (Perkins, in preparation).

To ensure the credibility of a qualitative inquiry, participants should be those who represent the topic of the study best or have a good knowledge of it (Morse, Barret, Mayan, Olson, & Spiers, 2002). To that end, following Patton (2015), I considered it essential to give a voice to the students who had experienced the issues under investigation. I therefore selected information-rich cases via purposeful sampling of participants (Patton, 2015) on the basis of their scores on measures of burnout or engagement in Studies I and/or II, or two additional small-scale online data collections in Poland. Respondents classed as burned-out or engaged were interviewed in Studies IIIa and IIIb, respectively. I referred to two criteria when establishing the sizes of the samples. First, I considered whether I had reached the saturation point at which additional data did not generate new information (Bowen, 2008). Second, I followed the recommendation made by Braun and Clarke (2013) that sample sizes between six and 10 participants are sufficient to identify patterns across a dataset but small enough to retain a focus on the experiences of individual interviewees.

5.3 Methods

The account of the methods used refers to both Studies IIIa and IIIb unless indicated otherwise.

5.3.1 Interviewees

5.3.1.1 Study IIIa

Seven music performance students were interviewed. Five were studying at a conservatoire and two were enrolled at a university. They represented different course levels, instruments (with the majority playing the piano) and genres (with the majority specialising in classical music). Table 5.1 provides an overview of the characteristics of the burned-out interviewees (note that they are all referred to by pseudonyms). All interviewees were recruited on the basis of their scores in Study

I and/or II. They met the criteria of burnout described in Section 3.4.2.1 and did not meet the criteria for high or very high engagement outlined in Section 3.4.3.1. Five interviewees met the criteria set for athletes by Eklund and Cresswell (2007), in that they scored 3 or more on each of the three subscales of the ABQ. All interviewees scored at or above the cut-off points that had been established for each of the three subscales of the ABQ in Study I by dividing the sample into three equally sized groups on the basis of their scores.

Table 5.1 *Study IIIa: Characteristics of the interviewees and details of the interviews*

Pseudonym	School	Course	Instrument	Genre	Age	Status	Country of study	Time elapsed between questionnaire completion and interview (in months)	Length of interview (in minutes)
Alicia	Con	UG	Piano	Classical	21	Local	Poland	4	76
Caroline	Con	UG	Piano	Classical	23	Local	Poland	4	88
Charles	Uni	UG	Piano	Classical	26	Local	UK	4	75
Matt	Uni	PG	Electric bass	Jazz	26	Local	UK	2	64
Monica	Con	UG	Voice	Jazz	23	Local	Poland	4	77
Oliver	Con	UG	Euphonium	Classical	23	International	UK	5	62
Paulina	Con	PG	Piano	Classical	25	International	UK	9	55

Note. Con: conservatoire, Uni: university; UG: undergraduate, PG: postgraduate.

5.3.1.2 Study IIIb

Seven music performance students at conservatoires were interviewed. They represented a range of course levels, instruments and genres. Table 5.2 provides an overview of the characteristics of the engaged interviewees (note that they are all referred to by pseudonyms). Five interviewees were selected on the basis of their scores in Studies I and/or II, and Darren and Kate were recruited in the additional data collections in Poland (see Section 5.3.2). Two were classed as highly engaged because they scored at or above the 75th percentile on global engagement measured on the UWES-S. Three were very highly engaged, scoring at or above the 95th percentile on global engagement assessed by the UWES-S (see Section 3.4.3.1). The remaining two scored above the 66th percentile on global engagement tapped by UWES-S. All had scores of 4 or above on all three subscales of UWES-S, meaning that they experienced the symptoms characteristic

of engagement frequently or more often. The interviewees did not meet the criteria for burnout described in Section 3.4.2.1.

Table 5.2 *Study IIIb: Characteristics of the interviewees and details of the interviews*

Pseudonym	Course	Instrument	Genre	Age	Status	Country of study	Time elapsed between questionnaire completion and interview (in months)	Length of interview (in minutes)
Darren	UG	Trumpet	Jazz and popular	22	Local	Poland	1	91
Eve	PG	Voice	Classical	26	Local	UK	9	58
Gemma	UG	Saxophone	Classical	24	Local	UK	9	55
Helen	UG	Flute	Classical	21	Local	UK	3	65
Kate	PG	Accordion	Classical	22	International	Poland	1	63
Kyle	UG	Piano	Jazz	23	Local	UK	9	51
Michelle	PG	Voice	Popular	30	International	UK	9	42

Note. UG: undergraduate, PG: postgraduate.

5.3.2 Procedure

The ethical issues involved in the procedures in Studies IIIa and IIIb are discussed in Section 2.4.2. In mid- and late 2016 I conducted additional online data collections to identify potential interviewees. The information about the study and link to the survey were shared via social media of one conservatoire in Poland. In addition, I received a list of e-mail addresses of students interested in the study from a staff member at another conservatoire in Poland, and e-mailed the link and PIS informing them about the aim of the study and further procedures to them. Twenty-five performance students at conservatoires completed the questionnaire.

During the recruitment process, I circulated invitation e-mails to the students I had identified as highly burned-out or engaged, and made appointments with those who expressed interest in taking part. All but Kate, whose interview was partly conducted face-to-face, were interviewed over Skype. This is recognised as an adequate medium for collecting interview data (Deakin & Wakefield, 2014; Hanna, 2012), but in order to sustain a good Internet connection I did not use the video function. The interviews thus shared similarities with those carried out over the telephone in studies of burnout in athletes (Gould et al., 1996) and motivation in

young musicians (Burland & Davidson, 2002). As Bryman (2012) notes, audio interviews can have their advantages:

> In personal interviews, respondents' replies are sometimes affected by characteristics of the interviewer . . . or indeed by his or her mere presence . . . The remoteness of the interviewer in telephone interviewing removes this potential source of bias to a significant extent. (p. 214)

I recorded the Skype interviews with Amolto Call Recorder and used a portable voice recorder as a back-up. The face-to-face interview was recorded with a portable voice recorder. Throughout the interviews, I avoided using the terms "burnout" and "engagement" but debriefed all interviewees afterwards. I transcribed all interviews verbatim using Express Scribe. Before analysing the data, I assigned pseudonyms to the interviewees and removed any details that could identify them.

5.3.2.1 Study IIIa

The interviews took place two to nine months after the participants completed the ABQ. All seven interviews were conducted over Skype and lasted between 55 and 88 minutes. Due to the poor Internet connection, I conducted a small part of the interview with Paulina using the chat function of Skype. Table 5.1 gives information as to the time elapsed between each participant completing the questionnaire and taking part in the interview, and the lengths of the interviews.

5.3.2.2 Study IIIb

The interviews took place one to nine months after the participants completed the UWES-S. Six interviews were conducted over Skype, the other (with Kate) was carried out initially over Skype and then, because it was impossible to sustain a good Internet connection, face-to-face. The interviews lasted between 42 and 91 minutes. Table 5.2 presents information as to the time elapsed between each participant completing the questionnaire and taking part in the interview, and the lengths of the interviews.

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5.3.3 Interview guide

I developed the interview guide (see Appendix T) having reviewed the literature on athlete burnout (e.g., Gould et al., 1996) and engagement (e.g., Lonsdale, Hodge, & Raedeke, 2007), burnout and engagement at work (e.g., Schaufeli & Bakker, 2004a), and the personal and social factors forging music students' experiences and motivation (e.g., Burland & Davidson, 2002; Gaunt, 2009). The interview guide was designed to elicit responses reflecting interviewees' self-perceptions of themselves as performers and their attitudes towards practising and performing, their experiences of and reactions to their social environment and the demands they faced. The format of the interview guide was semi-structured, in that I determined the main questions in advance but was prepared to change the interview schedule so as to be able to ask interviewees to clarify or elaborate on issues of particular interest in relation to the study aims.

I pilot tested the first version of the interview guide with a single music performance student at a conservatoire in the UK. She reported that the questions I asked allowed her to cover her study- and music-related experiences to the fullest extent. Nevertheless, following this pilot interview, I shortened questions she found too long and thus confusing, and changed the wording, where necessary.

In the interviews reported below, I used a naturalistic approach, which puts emphasis on flexibility of the design (Patton, 2015): I adjusted the wording and order of the questions depending on the turn of each interview. Some aspects of functional and personal reflexivity should be considered in relation to the semi-structured character of the interview schedule (see Section 2.3, for a more detailed discussion of reflexivity in Studies IIIa and IIIb): both the choice of questions and the issues I followed up on were likely to be influenced by my personal experiences, and have an impact on the information that the interviewees shared, thus shaping the knowledge generated.

Patton (2015) claims that "finding out from people what they know works best once some rapport and trust have been established in the interview" (p. 446). I therefore followed the recommendations made by King and Horrocks (2010) by beginning interviews with non-sensitive questions, such as asking for the interviewee's age or the instrument played. Next, I proceeded to ask questions that should have been relatively easy to answer pertaining to their current actions and

experiences. I then asked questions requiring some degree of reflection and interpretation on the interviewees' part, such as those regarding their current views and feelings, before inquiring about their experiences, thoughts and feelings in the past. I aimed to facilitate rapport by asking interviewees for clarification and elaboration when required, and making sure that the questions were easily understandable since those perceived by an interviewee as unclear or ambiguous may leave them feel uncomfortable and confused (Patton, 2015). As a piano teacher and a former piano student, I am familiar with the terminology used in music performance settings, which helped me build rapport with the interviewees. It was crucial, however, that I remained neutral throughout the interviews (Patton, 2015). With respect to personal reflexivity, it should be acknowledged that the interviewees' attitudes towards me may have affected their responses although this is likely to have been mitigated by the way most interviews were carried out, i.e. over Skype.

5.3.4 Data analysis

I analysed the interviews using Thematic Analysis (TA; Braun & Clarke, 2006), which aims to provide a rich description of the whole dataset rather than focusing on selected aspects only: as Braun and Clarke suggest, this approach is useful when analysing under-researched areas. Nevertheless, Tesch (1990) notes:

> Successful qualitative data reduction . . . presents us . . . with an image that we
>
> can grasp as the 'essence', where we otherwise would have been flooded with
>
> detail and left with hardly a perception of the phenomenon at all. (p. 304)

I therefore tried to deliver a convincing description without going into too much detail. As recommended by Joffe and Yardley (2004) when investigating under-explored topics, the analysis was inductive, closely associated with the data, thus enabling identification of new emergent themes.

Different levels of qualitative data can be analysed using TA. The "semantic" level (Braun & Clarke, 2006) refers to the description and interpretation of the surface meaning of the data, while the "latent" level refers to the ideas behind the explicit contents of the data. I paid close attention to both semantic and latent codes

with a view to capturing the richness of information provided by interviewees. It should be noted here that I was analysing the results of Studies IIa and IIb at the same time I was analysing the interviews. I may have been biased by the findings of these studies, which thus was likely to have shaped the codes, subthemes and themes I identified, to some degree at least.

During the process of analysis, I followed the six steps outlined by Braun and Clarke (2006). First, I familiarised myself with the data while transcribing the interviews, and then read and re-read them multiple times. Second, I searched the data in order to discover recurrent patterns that formed initial codes, and created tables of excerpts coded the same way. Initially, I generated a great number of narrow codes but, after some consideration, I combined some of them into broader codes. Third, I wrote down the name of each code on a different piece of paper; this helped me collapse groups of codes into provisional subthemes or themes, and consider the inter-relations between them. In addition, I took steps to enhance the reliability of the codes by examining the same piece of information on several different occasions, as recommended by Joffe and Yardley (2004). Fourth, I reviewed the provisional subthemes and themes, making sure that the extracts of data representing each one conveyed a similar meaning. I also read the whole dataset again so as to check that the subthemes and themes were accurately represented, and reorganised them where necessary. In line with Patton (1990; in Braun & Clarke, 2006), Braun and Clarke claim that themes should be internally homogenous and externally heterogeneous. It was therefore crucial to ensure that the subthemes and themes were coherent, and distinctions between different subthemes and themes were clear-cut. Accordingly, I broke the candidate subthemes and themes into separate categories or combined them where necessary. At this stage, I reconsidered any information that I had missed in earlier phases in relation to the emerging thematic map, which, again, led me to introduce further modifications to the tentative subthemes and themes. Fifth, I made sure that the subthemes and themes were clearly defined and not too complex, and considered the names that would most accurately reflect the data. The final phase of the analysis involved writing up the findings: several qualitative researchers consider writing an inherent part of the analytic process (e.g., Braun & Clarke, 2006;

Horvat, 2013). The process of writing up helped me refine the themes further and understand the relationships between them better.

As Braun and Clarke (2006) point out, thematic analysis is a "recursive" (p. 86), rather than linear process, in that the researcher moves flexibly between different phases of analysis. This relates to the "organic ongoing process" of coding (p. 91), which takes place over time as the analysis proceeds. In the analytical process, I therefore moved back and forth between the phases delineated by Braun and Clarke.

5.4 Analysis and discussion

5.4.1 Burned-out students

5.4.1.1 Theme I: Maladaptive motivation

This theme relates to the interviewees' motives for their involvement in music and their music-related goals.

Subtheme 1: Maladaptive reasons for involvement

For some interviewees, the decision to study music at the tertiary level did not seem to be well-informed: "I never really wanted to study piano at a conservatoire, I never really wanted to study music at all" (Caroline). This was perhaps related to the fact that they had been involved in an intense musical training for several years and, as a result, the scope of their self-identity outside of music was limited:

> Honestly, I don't know why I decided to study music at a conservatoire. I can't
>
> really tell, it just happened like that, I guess I didn't have other options. Nothing
>
> else came to my mind. (Alicia)

These comments mirror the processes involved in young athletes' burnout described by Coakley (1992), who proposes that the social organisation of high performance sport limits their experiences outside of sport, whereby they perceive little control over their lives. This forms a basis for the development of a unidimensional self-concept based on solely on sport. Likewise, musicians usually start their musical training when very young and some of them attend specialist music schools prior to entering tertiary education. These experiences are likely to

restrict their opportunities for self-realisation outside music, giving rise to the feeling of being burned-out. The interviewees' comments also reflect their feelings of entrapment, described in the sport literature as involvement motivated by perceptions of obligation, and associated with burnout (e.g., Raedeke, 1997). According to researchers using SDT (e.g., Sheldon & Kasser, 1995), people's actions are driven by either autonomous or controlled motives (e.g., Deci & Ryan, 2008a), underpinned by internal or external perceived locus of causality (PLOC, deCharms, 1968), respectively. Autonomous motives are represented by intrinsic (i.e., enjoyment and interest) or identified (i.e., rooted in one's personal values and convictions although not necessarily enjoyable) motivations, aligned with the self, while controlled motives include introjected (i.e., internal pressure) and external (i.e., pressure from others) goals (e.g., Deci & Ryan, 2008a; Sheldon & Elliot, 1998). From this perspective, Alicia's and Caroline's decisions to undertake tertiary training appear to have been fuelled by introjected motives, whereby they felt some degree of pressure to continue, perhaps to avoid feeling guilty or anxious (e.g., Sheldon & Elliot, 1999), or to protect or boost their self-esteem (Deci & Ryan, 2008a). Previous research has associated this type of motivation with higher levels of markers of psychological malfunctioning, including the symptoms of anxiety and depression (Ryan, Rigby, & King, 1993), and athlete burnout (Lonsdale & Hodge, 2011).

Some students, however, mentioned intrinsic reasons for their involvement in music, such as interest and enjoyment (e.g., Sheldon & Elliot, 1999). Paulina, for instance, said: "I really think I'm just interested in it and I enjoy playing to people and playing music." Oliver agreed, saying: "I really enjoyed playing euphonium as well because it's quite unique in a way, it's not known round and around the world so I thought it would be interesting to study the euphonium". Similarly, Monica's decision to undertake tertiary education clearly emanated from herself, as she claimed: "this is what I always dreamt of studying". The goals emerging from these comments correspond with what Sheldon and Elliot (1998, 1999) define as self-concordant goals, pursued for intrinsic reasons (i.e., endorsed for their own sake), in accord with one's true self.

Notably, only Charles, Matt and Monica made explicit references to their studies as a means to making a career in music: "I sort of had it as a hobby and something that I enjoyed doing for the last few years so I decided to take it up again as a career"

(Charles). Sheldon and Kasser (1995) propose that lower level goals consistent with those representing higher levels contribute to a vertical coherence of a goal system, enabling an integrated personality and resultant well-being. Since the integration of different goals into a coherent system facilitates a sense of meaningfulness (e.g., Emmons, 1996), the failure to develop coherent goals is likely to have led to the interviewees' perceptions that their involvement in music had little meaning or purpose, contributing to their burnout. Yet, is also seems plausible that shifts in career goals resulting from burnout caused a lack of transparent coherence between the interviewees' proximal and distal goals. The finding that burned-out students fail to define meaningful goals corresponds to Hamann and Daugherty's (1985) finding that music students reporting "lack of personal goals" tended to feel emotionally exhausted.

Figure 5.1 Maladaptive reasons for involvement

Subtheme 2: Dysfunctional motivational pattern

The fear of being negatively assessed by both teachers and other students was evident in the interviewees' accounts. Monica, for example, admitted: "I would be really scared to sing anything in front of other students in case they think 'Oh God, she's so bad, she can't do it'." Oliver also articulated his fear of negative evaluation: "when you listen to someone, you form your opinion . . . and I think I shouldn't be thinking about it but I just get really affected by people thinking that when they listen to me". These comments echo the findings of Gustafsson, Sagar and Stenling (2016)'s quantitative study showing that adolescent athletes who reported fear of experiencing shame and embarrassment were more likely to feel burned-out.

The interviewees clearly compared themselves to their peers, and, since these comparisons tended to be in favour of their colleagues, this evoked negative

emotions: "The stressfulness was because, just because I, almost everyone in the department can play up high and compared to everyone else I was lacking that few notes up" (Oliver). Charles hinted at his tendency to compare his skills to those demonstrated by other students throughout his interview, saying, for example: "I definitely felt that I had a long way to go to play to the same standards as some of their [i.e., the department's] students". These comments support previous literature pointing to social comparison as a contributory factor to burnout (e.g. Buunk, Zurriaga & Peíro, 2010, in a longitudinal study of nurses, and Halbesleben & Buckley, 2006, with priests).

Frequent allusions to social comparisons suggest that the interviewees used normative rather than self-referenced performance standards when defining their competence (Ames & Archer, 1988; Elliot & McGregor, 2001). Achievement goals theory (AGT; e.g., Pintrich, 2000) proposes that such a tendency determines striving towards performance goals, related to foci on external judgments (e.g., Ames & Archer, 1988) and social comparisons (e.g., Elliot & McGregor, 2001). Elliot and Harackiewicz (1996) propose that performance goals can be underpinned by either approach or avoidance motives. Performance-approach goals mean showing ability, while performance-avoidance goals imply avoiding demonstration of incompetence. The type of goals one adopts determines one's cognition, behaviour and affect (e.g., Linnenbrink & Pintrich, 2002). Some interviewees in the present study clearly held performance-avoidance goals. Alicia, for instance, admitted: "I feel I need to practise . . . to avoid embarrassment in front of the assessment panel". Caroline conveyed her concern about performing worse than other students: "I was really stressed because I played in the session with people from a different year, really good ones so I was worried that it's going to make me look bad." It was clear that Monica attempted to make a good social impression at the cost of improving her singing expertise: "I would find pieces that I had already sung so that I didn't need to work on them too much . . . the assessment panel didn't know that I'd already sung them", adding: "it really helped and made things easy for me". Charles showed his preference for performance-approach goals, admitting that, in his last exam, he aimed to perform "to very good standards to get a good mark". Burned-out athletes interviewed by Gustafsson et al. (2008) reported having goals similar to those described by Charles in the period preceding their dropout due to burnout.

Despite the prevalence of performance goals in the interviewees' accounts, there was some evidence for their adoption of mastery goals, however. Paulina, for example, said: "I still want to play and I want to improve, like now I don't feel like I get my degree, finish the college and I'm sorted, no, like I want to improve all my life in music". Often, however, mastery goals were endorsed alongside the performance goals discussed above.

Reid (2001) considers students' approaches to learning as a hierarchy of sophistication in terms of communication of musical meaning and self-expression. Concentration on technical elements is characteristic of the most basic level of learning, followed by a more sophisticated focus on certain musical elements, musical meaning and the ways of communicating it, and, finally, expression of the personal meaning of music. In terms of the content of their goals, the interviewees usually referred to those reflecting a relatively low level of sophistication: it appeared that they mainly intended to avoid mistakes and did not place much importance on expressive or aesthetic aspects of music-making. When talking about his last exam, Charles admitted: "My main goal was just to really perform correctly without making any mistakes and being able to play from memory". Similarly, Oliver said: "I just wanted to make sure that I played everything fine like especially notes and rhythm, that's the first things I can think of." Bonneville-Roussy, Lavigne and Vallerand (2011) linked performance-avoidance and performance-approach goals, such as those described by Charles and Oliver, respectively, to lower accomplishments, measured by the number of performances reported, among expert classical musicians. Furthermore, performance goals may have an impact on music students' well-being and motivation: Lacaille, Gaudreau and Koestner (2007) showed that the pursuit of performance-avoidance and performance-approach goals is related to negative outcomes in performing arts students. Specifically, they found that performance-approach goals were associated with greater anxiety during public end-of-year performances, while performance-avoidance goals were related to lower life satisfaction and intentions to quit the domain reported after the performance. The findings from research involving music performers are in line with the general literature that tends to underline the association between performance goals (especially avoidance goals) and ill-being (e.g., Kaplan & Maehr, 1999), including burnout (Adriaenssens, De Gucht, & Maes, 2015).

Confirming the tenets of AGT (e.g., Elliot & Harackiewicz, 1996), perhaps as a result of their preoccupation with self-presentation determining their performance-avoidance goals, the interviewees clearly felt intimidated by upcoming exams and performances. Alicia, for example, admitted: "I'm worried, counting days and weeks, checking how much time there's left". Monica described her feelings during the weeks before her last exam as "an accumulation of fear, anxiety and stress". The interviewees thus were similar to the students who failed to develop professional identity based on music in Burland's study (2005).

To sum up, the fear of negative evaluation expressed by the interviewees, set alongside their tendency to define their competence in relation to others meant that they were not able to take full advantage of learning opportunities available to them. Instead, their attempts to protect their self-esteem seemed to restrict their development in music. This was especially clear in Monica's account as she avoided negative judgements by not performing in front of her peers, and choosing to sing pieces she already knew for her assessment.
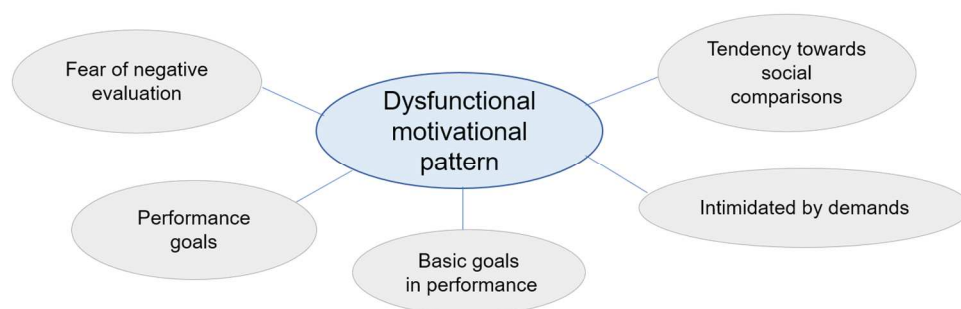
Figure 5.2 Dysfunctional motivational pattern

Figure 5.3 Maladaptive motivation

5.4.1.2 Theme II: Negative perceptions of the learning environment

This theme deals with the interviewees' perceptions of the tutors and a wider learning environment.

Subtheme 1: Problems in interactions with the tutor

There was little evidence of emotional connection between students and tutors. Indeed some students openly described their tutors as not friendly or supportive. Oliver, for example, commented on his tutor's behaviour: "sometimes he gets really frustrated and he is quite harsh". Caroline mentioned that her principal study tutor expressed her disbelief in Caroline's musical abilities:

> Every other class she would say 'I'm not going to tell you how to play it because you won't be able to do it anyway. Maybe you should really think of studying French instead because you're never going to be a pianist', things like that.

Unfriendly attitudes demonstrated by tutors could explain, in part, why some interviewees were not satisfied with the quality of their relationship with them. Caroline, for instance, admitted: "when I see my tutor, my hands start shaking and I don't feel safe at all, even when we talk about unimportant things . . . definitely I don't feel happy to see her". Oliver admitted, when referring to the time when he was found to be burned-out: "I find my relationship with my previous teacher wasn't that good." Paulina, by contrast, had a positive personal relationship with her tutor: "he's always very understanding, and he was trying to help me how to inspire myself". Similarly, Alicia talked about her principal study tutor as "friendly and understanding" and had a good relationship with him although, as she said, "he speaks so little".

In some instances, the interviewees recalled their instrumental and vocal lessons as difficult emotionally, as Oliver put this, "a rollercoaster emotionally". Alicia described her accompaniment tuition as "very stressful", and said they often left her feeling "down". Likewise, Oliver confessed that he was "stressed" and "very nervous" attending his euphonium classes.

Brandfonbrener and Lederman (2002) note that the interpersonal dynamics in one-to-one classes can be healthy or unhealthy for both the student and the tutor. There is also some evidence that music students' perceptions of lack of recognition from teachers are related to the higher levels of exhaustion and reduced sense of accomplishment they experience (Hamann & Daugherty, 1985). While tertiary music students value tutors who are caring (Gaunt, 2009) and open to honest communication (Presland, 2005), the excerpts above evoke tutors who are distant and not necessarily supportive. Similarly, burned-out athletes interviewed by Gustafsson et al. (2008) described open conflict or poor communication with their coach, and low levels of emotional support from the supervisor were found to positively predict emotional exhaustion and depersonalisation in medical residents (Prins et al., 2007). Furthermore, the findings of the current study correspond with the research grounded in BPNT, described in Section 2.1.1.3, which has recognised the role of low relatedness in burnout (e.g., Perreault et al., 2007).
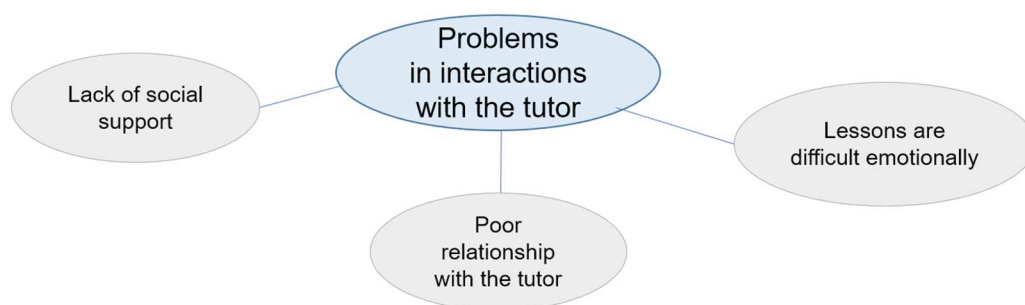

Figure 5.4 Problems in interactions with the tutor

Subtheme 2: Issues related to teaching

Dissatisfaction with principal study tutors' approaches to teaching and specific methods were recurrent threads. The students clearly felt they needed more detailed advice but there was little evidence that they asked for it, which, in some cases, was perhaps related to the difficulties in their interpersonal relationships. This highlights the role of effective communication in the learning process, an issue discussed in the music education literature (e.g., Gaunt, 2011; Presland, 2005).

Some interviewees felt they could not rely on their tutors to help them make progress. Caroline said that she "can't count on her", and Paulina was not eager

to talk to her tutor about her issues with playing because, as she felt, "he wouldn't be helpful in that anyway."

Others described guidance from the tutor as limited, particularly in relation to the scarce advice they received as to the specific ways in which they could attain the goals discussed in classes. This was evident in Charles' comment: "she would actually expect you to like make improvements straight away without her showing how to improve". Oliver touched upon a similar issue:

It wasn't helpful to me . . . he would demonstrate it to me and then he would say

'I want you to play like this' so it's he tells me where to go but he doesn't like teach

me . . . how to get there.

These excerpts from the interview data point to the tension arising from the goals imposed by the tutors, on the one hand, and the failure to provide the tools needed for the interviewees to achieve them, on the other.

In some cases, the interviewees believed that their tutor's pedagogical methods did not resonate with their own style of learning and approach to music, or that tutors' expectations of their students did not reflect their abilities. Charles, for instance, said: "Her approach like her teaching method was less suited to the way I learn". Caroline expressed her frustrations about her principal study tutor neglecting artistic aspects in playing the piano, and focusing solely on technical issues. Their different outlooks on the most important aspects of music caused "misunderstandings" in Caroline's interactions with her tutor. Paulina's teacher insisted on her playing in a way that was suitable for him because of his big hand size but that she considered beyond her physical capacity. Taken together, these comments suggest that tutors were seen as somewhat inflexible in their expectations and teaching methods, showing little consideration for their students' individual needs and predispositions. The somewhat impersonal attitude of the tutors as described by the interviewees contrasts with the approach valued by tertiary music students, whereby tutors recognise them as individuals (Gaunt, 2009).

There was also little acknowledgement in some of the interviewees' descriptions of their tutor's approach to autonomy that students are unique and independent

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individuals; rather, tutors tended to impose musical goals, restricting students' opportunities to make decisions regarding their own playing:

Sometimes it's like differences of opinions in like articulation and the way I was playing it so whether I was playing it louder or quieter uhm yeah so and that was like some of the main things I felt that I'll just do it one way but my teacher was quite insisting like on articulating music differently instead. (Charles)

Likewise, Oliver said that his tutor wanted him to do "a ton of exercise" but "he doesn't explain that to me like why you're supposed to do these exercises like he does but it's not clear", thus failing to behave in the autonomy-supportive way (e.g., Reeve, Jang, Hardre, & Omura, 2002). Bonneville-Roussy et al. (2013) found that lack of autonomy support from the instrumental or vocal tutor is related to obsessive passion, reflecting unhealthy involvement in music. This finding confirms the literature in other domains linking lack of autonomy support both directly (e.g., Adie et al., 2012) and indirectly, via basic psychological need satisfaction, to indices of ill-being (e.g., Quested & Duda, 2011).

Furthermore, some interviewees believed that their tutors' methods and lack of sufficient guidance were responsible for their difficulties making a progress:

I probably needed more guidance from someone and just to really to notice where I was going wrong and how to change my playing to improve it, like I feel I can do a lot quicker if I have someone there the whole time rather than just going over it myself in practice sessions. (Charles)

I found it's not really helpful because it's not that I'm not working hard at all it's just that what he was doing wasn't resonating with me and then that's why I wasn't playing as well yeah compared to my current teacher. (Oliver)

In some instances, interviewees described their tutors' reactions to their performance in class as inadequate. For example, Oliver's tutor was unpredictable:

A lot of time it depends on his mood so when I go to my lesson I'm really prepared, he can still be very angry with you because he's not in a good mood but there were times when I go to my lesson and I'm not prepared at all and it ends he says really nice things and then you know it doesn't reflect properly, and like I don't know what's going on in the lesson.

By contrast, Alicia claimed that her accompaniment teacher was critical no matter how hard Alicia had worked for the class: "It doesn't make a difference if I put effort to do well and prepare, she will pick on me anyway". Maslach and Leiter (1997) propose that job burnout results from a "mismatch" between a person and the nature of their job. Among the discrepancies that could contribute to burnout are lack of fairness and insufficient rewards, illustrated in the comments above.

Burned-out students' lack of satisfaction with the way they are taught mirrors the findings of research in the workplace linking burnout with the perception that supervisory support is limited (e.g. Kalliath & Beck, 2001, found that low supervisory support predicts emotional exhaustion and depersonalisation in nurses in New Zealand). It is also possible that, as in studies of employee burnout (e.g., Schaufeli et al., 2009; Vander Elst et al., 2016), that the issues described by the interviewees in the present study gave rise to their dissatisfaction with the learning opportunities they were offered.
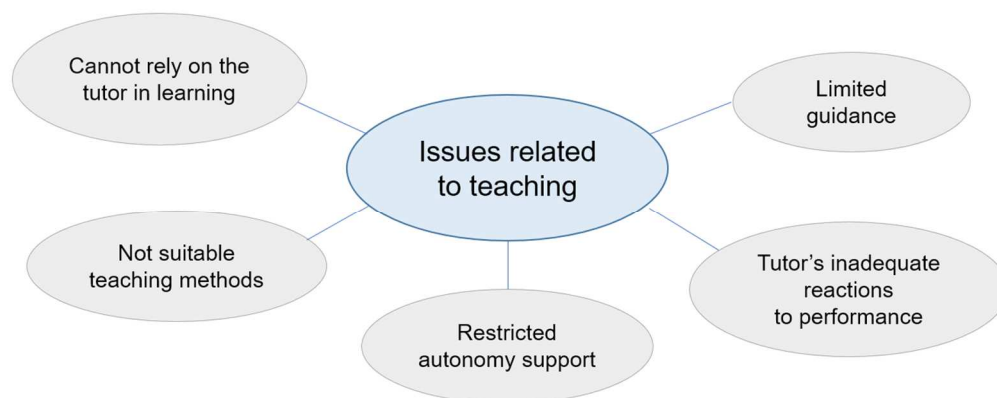

Figure 5.5 Issues related to teaching

Subtheme 3: Negative perceptions of the wider learning environment

While Monica, for instance, described the wider institutional environment using terms such as "friendly" and "professional", some of the interviewees perceived their institutional contexts in negative ways; unfavourable comments rarely referred to other students, however. It appears that burned-out students perceived the wider college environment as impersonal and did not feel acknowledged as human beings. Alicia, for example, talked about "organisational chaos":

> I was really unhappy that someone did something wrong again, that we were ignored again and this kind of things . . . it was very annoying when it turned out that there were some ECTS points missing, classes were cancelled but we didn't know about it, this kind of organisational problems that can cause lots of problems.

This comment echoes the finding of Hamann and Daugherty (1985) that music students who perceived unclear directions given by the administration were more likely to feel emotionally exhausted. The assessment system was sometimes perceived as not entirely clear or fair. Alicia, for instance, believed that teachers' personal likes and dislikes influenced them since her exam marks varied widely and did not reflect her own opinions. This left her feeling resigned and demotivated. Paulina was also not happy with how students' performances were assessed:

> I was a bit disappointed about the teachers at college like especially the head and deputy, you know, the main people in the department just because it was so upsetting because if you played badly once, they assumed that you're not good and they just don't put you anywhere [e.g., in ensembles and concerts].

This comment reflects Paulina's perception that the institution lacks understanding of her weaknesses as a human being; as she said: she is not "a robot". Again, such comments illustrate students' perceptions of the lack of fairness and insufficient rewards that are proposed by Maslach and Leiter (1997) to contribute to burnout.

Some students talked about the limited opportunities for solo performance offered at the institution. Paulina claimed: "college didn't give me any performance opportunities". Alicia found it "bizarre" and was "worried that there's hardly any chance for performance students to perform in front of an audience". These comments can be seen as reflecting students' perceptions of limited learning opportunities, found in previous research to be related to burnout (e.g., Schaufeli et al., 2009).

Alicia described how her perceptions of the wider college environment influenced her attitude towards music: "the atmosphere at the college is very important to how much I enjoy playing the piano . . . when I don't feel well at the college, I don't feel like playing". The finding that perceptions of the wider institutional environment may influence students' burnout is in line with the findings of music education research that points to the impact of the institution on the student's experience (e.g., Burland & Davidson, 2002; MacNamara et al., 2006; Papageorgi et al., 2010ab), including their academic burnout (Salmela-Aro et al., 2008).
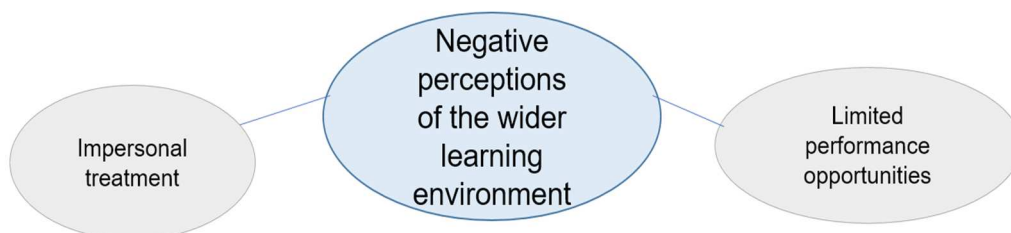

Figure 5.6 Negative perceptions of the wider learning environment

Although perceptions of tutors and the wider institutional environment seem to play a role in students' burnout, from the perspective of COR theory (Hobfoll, 2001), their burnout was likely, in turn, to influence their perceptions of their social context. Integral to the COR theory is that people strive to obtain resources, including personal characteristics and energies. Stress occurs when people anticipate or experience loss of resources. Moreover, since resources are inter-related, a decrease in one or more of them will be followed by further losses since the individual's capability to deal with demands will be depleted (Hobfoll & Shirom, 2001). Thus, Ten Brummelhuis, ter Hoeven, Bakker and Peper (2011) found in

their longitudinal study that baseline burnout predicted perceptions of less social and informational support at work.
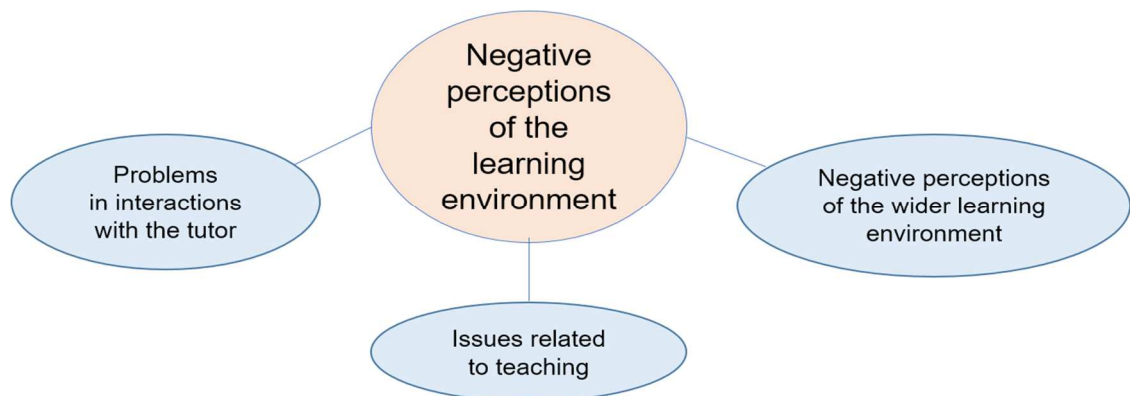

Figure 5.7 Negative perceptions of the learning environment

5.4.1.3 Theme III: Ineffective coping

This theme relates to the interviewees' general coping resources.

Coping is a prerequisite for making a successful transition from training to the performing profession: in their studies, people who withdrew from music training or were interested in a career outside of performing or music did not show any signs of coping. Although the interviewees in the present study attempted to cope with the demands of studying music, their strategies seemed ineffective. They appeared to have difficulties assessing their abilities realistically and as a consequence set unmanageable goals for themselves. Monica, for example, admitted: "I just wanted to do too much at once, I always do it". Similarly, Paulina said:

> I wanted to do it with [a piece] [laugh] which is a bit ambitious and I didn't manage
>
> like to learn the text basically so it made me feel very bad that I had to cancel it,
>
> so I just constantly gave myself too short periods of time you know to learn things
>
> and then I was disappointed so I had to cancel things and yeah, that's why I didn't
>
> have many performances, just I had to cancel them because I didn't feel ready.

In stressful situations the interviewees tended to express their negative emotions. Alicia, for example, said: "there are moments that I'm so stressed . . . that I can't do anything except for moaning". Paulina admitted she cried in her piano classes and

practice sessions, and Monica reported that she would often burst into tears after classes or exams.

Furthermore, the data suggest that burned-out students struggle to take their mind off negative emotions, thus demonstrating a limited ability to relax. Oliver, for example, said:

It was like a burdening feeling that like even when I'm not practising, when I'm doing random stuff, it's like at the back of my mind, so like a burden kind of weight that's affecting me maybe like I'm reading a story book, watching a movie or something but I still have that nagging thought in the back of my mind.

This was also apparent in Paulina's narrative, for example, as she admitted that she could spend a lot of time "thinking and worrying about playing". Alicia expressed apprehension about not being able to manage her study-related commitments and achieve her goals in piano playing. She said, for example: "I always worry a lot that I won't be able to memorise the pieces". Inclination to worry – a concentration on future-oriented and negatively laden thoughts and images (e.g., Borkovec, Robinson, Pruzinsky, & DePree, 1983; Nolen-Hoeksema, Wisco, & Lyubomirsky, 2008) – has been linked to negative outcomes, including athlete burnout (Moen, Myhre, & Sandbakk, 2017). The interviewees in the present study also showed some tendency towards rumination – a passive, present or past-oriented focus on problems and associated feelings, their causes and consequences (Nolen-Hoeksema, 1991; Nolen-Hoeksema et al., 2008) – which is associated with indices of maladjustment such as employee burnout (Vandevala et al., 2017). Matt, for instance, said: "sometimes I'd go to bed and I just lie there thinking 'why haven't I practised?'" Alicia reported: "when I haven't done what I was supposed to do . . . it can spoil the whole evening for me". The interviewees' fixation on difficult emotions was likely to exacerbate them. Geurts and Sonnentag (2006) argue that rumination and anticipation require constant activation of psychophysiological systems, preventing full recovery from work, leading to tiredness and difficulty achieving goals, and ultimately deterioration of health. The findings of Sonnentag, Binnewies and Mojza's (2010) longitudinal study of professionals working with people with

special needs show that lack of ability to detach oneself from work psychologically during off-job time is related to an increase in emotional exhaustion over time.

It is clear from the comments above that the interviewees turned to emotion-focused coping in the attempt to reduce distress resulting from stress (Lazarus & Folkman, 1984). There is some empirical evidence that coping responses determine a range of well-being and adjustment outcomes across domains (Carver & Connor-Smith, 2010; Skinner, Edge, Altman, & Sherwood, 2003). Past empirical work has linked a range of emotion-focused coping strategies to burnout (e.g., Shin et al., 2014; Wilkerson, 2009).[22] Nevertheless, in certain circumstances, particularly those that cannot be controlled, emotion-focused strategies can be beneficial (Austenfeld & Stanton, 2004). They can also facilitate problem-focused strategies: taking actions to modify the source of stress (Lazarus & Folkman, 1984). There was, however, limited evidence for the interviewees' use of problem-focused strategies although Oliver, for example, changed tutors because he was not satisfied with his previous one and read psychology books to find out about strategies to combat performance anxiety. Likewise, Alicia attempted to "still keep doing things despite feeling stressed".

Furthermore, some interviewees described the tendency to become disengaged from situational demands, perhaps because they perceived lack of resources to manage them. Monica, for instance, admitted: "I would always get distracted by Facebook or something else, I would watch or read something instead of practising. I practised every other day, very rarely really, there was always something else to do". Caroline also got easily distracted from her music-related commitments:

I didn't have any schedule, any plan like 'now I do this, and later I do something else'. I thought 'OK, I'm going to practise now, oh, actually I should get dinner instead', and there were also other things that I had to do and after all I would end up not practising at all.

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[22] A meta-analysis by Shin et al. (2014) showed that emotion-focused coping taken as one construct correlated positively with burnout. Among specific emotion-focused strategies, seeking support, reappraisal and religious coping correlated with burnout negatively, while acceptance correlated with burnout positively.

Such strategies could be seen a form of avoidance (e.g., Altshuler & Ruble, 1989) or disengagement coping (e.g., Skinner et al., 2003), aimed at escaping problems and related emotions (Carver & Connor-Smith, 2010).[23] The general psychological literature has associated disengagement coping with maladaptive outcomes, such as burnout (Schellenberg et al., 2013), negative affect and academic achievement (Bonneville-Roussy et al., 2017). Moreover, Bonneville-Roussy et al. examined music students and found that disengagement coping predicted lower intentions to have a career in music, albeit only among women. This could be because such coping, rather than help solve problems, exacerbates them by generating new stressors (Holahan, Moos, Holahan, Brennan, Schutte, 2005). Alternatively, disengagement coping demonstrated by the interviewees could be seen as their response to burnout-related symptoms or a consequence of their negative feelings towards music, as in Gustafsson et al.'s (2008) analysis of interviews with burned-out athletes. While this type of coping could be initially adaptive, it becomes dysfunctional if applied habitually as it hinders performance and serves to perpetuate further development of burnout (Schaufeli, 2003).
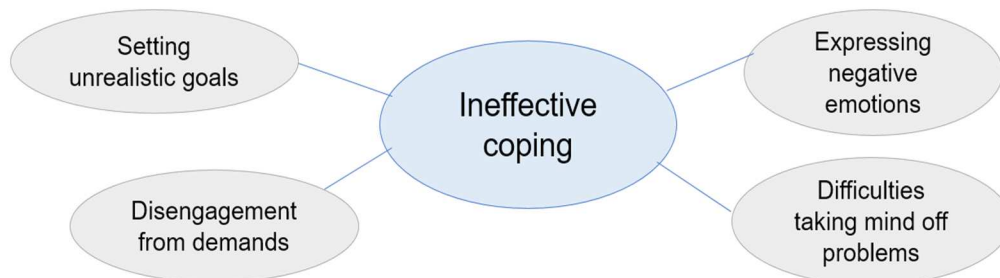

Figure 5.8 Ineffective coping

5.4.1.4 Theme IV: Challenges

This theme addresses the demands students faced and struggled with when entering and studying at the tertiary level.

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[23] Emotion-focused strategies can represent either engagement or disengagement coping. For example, according to Carver and Connor-Smith (2010), acceptance, cognitive restructuring and emotion regulation could be seen as forms of engagement coping, while denial and wishful thinking characterise disengagement coping.

Subtheme 1: Difficulties adapting to the new learning environment

Adaptation to the new learning environment at the tertiary institution was problematic for some interviewees. Such issues were mainly related to adapting to new teaching methods and entering a new peer context. Alicia, for instance, admitted that, at first, she "didn't know what to think" about the new teacher giving her very general comments. Similarly, Paulina said:

> I changed my teacher so it was a shock a bit because, you know, I was so used to my previous teacher, I knew what he wanted from me and having someone new and, yeah, it just felt like he's more demanding and he wants results quicker so it was a bit stressful and that I took some difficult pieces and with the new teacher, and it didn't do that well because, you know, it takes time to get used to your new teacher and new working methods so I just struggled and it was so difficult . . . and at the end I just, yeah, didn't feel like playing.

A few interviewees felt apprehensive about the requirement to be more independent in learning. Caroline admitted that it was not her "strength", adding: "I don't quite know yet how to direct myself so I kind of need to experiment with things". Likewise, Charles found it difficult to take more responsibility for his own learning: "Playing the piano last year, it was challenging, I found the school, because it was very independent, because I expected to have more piano lessons and be more involved with the teacher". Musicians interviewed by MacNamara et al. (2008) recognised the importance of the ability to learn autonomously for successful transition into full-time music education. The interviewees in the current study, however, clearly struggled to be independent in their learning, perhaps due to their limited practice and coping skills.

Being surrounded by other talented students, the interviewees felt unsure about their own performance; some of them articulated their concerns about not being able to meet the standards set by other students. The process of introduction to the new peer environment was exacerbated by the interviewees' tendency to make social comparisons. Matt said:

I'm a performance student I should be dedicating a lot of my time to practising, and I just wasn't and it felt just really bad and I felt like, almost like an imposter because I thought every PhD student who studies you know music performance, they will be practising for many hours a day and I just wasn't doing anything, or if I was, I was doing very little, yeah. I felt very negatively about myself and my, and my playing as well so yeah it was not so nice.

Monica's self-esteem also suffered as she faced the new peer environment:

Now I study with people who are at a similar level as me, who are as good as me, before I felt really self-confident because I knew no one was as good as me at pop music because they were classical singers [i.e., in her previous school] so I guess that's why I felt so anxious that I need to face people who are as good as me and I had less self-confidence.

Perhaps for the reasons described above, some interviewees developed feelings of inadequacy as they believed that they are in tertiary music education "by accident" (Caroline):

I told my friend that I shouldn't be at the college. Once I was sitting in a car for 1.5 hours crying because I felt that I just don't suit here, this is not my world and I don't know what I'm doing here. (Monica)

Students encounter an array of stressors when making a transition into tertiary-level education (e.g., Bitsika, Sharpley, & Rubenstein, 2010). When entering music college, they are likely to feel concerned about not being able to meet institutional expectations or perform to the same standards as other students (Burt & Mills, 2006). Moreover, over the course of their education, they need to deal with several micro-transitions, such as changing teachers. The ability to adapt is therefore crucial both during transition into tertiary music education (MacNamara et al., 2008) and full-time training (MacNamara et al., 2006). Nevertheless, it seems that

adaptation of burned-out students was hampered by their focus on social comparison, limited support from the tutor and lack of general coping and practice resources (discussed later).
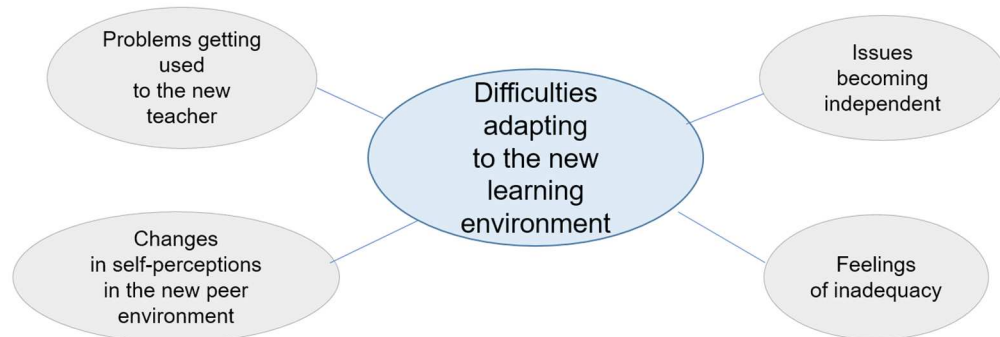

Figure 5.9 Difficulties adapting to the new learning environment

Subtheme 2: Workload

Some interviewees described the excessive workloads they faced when studying at the tertiary level. Matt, for instance, admitted: "In the last year I was really overwhelmed by the amount of academic work". Monica, who had a job outside college, frequently referred implicitly to her feelings of being overworked.

In a few instances, the interviewees described a conflict between their studies and other commitments, associated with restricted time and energy resources needed for practice. Matt said:

I was gigging quite a lot and that meant having to go to rehearsals quite a lot, and I think that genuinely contributed to a high level of stress because if you are doing that it takes up a lot of time travelling, and that time is time that I am not spending doing either my thesis or practising.

Monica also found it difficult to combine her studies with professional work: "I had very little time and I always thought that when I get back from work, I'm going to practise but I was just too tired". Charles described the conflict between his practice time and other commitments at the university:

It was quite difficult to find the balance to be honest 'cause I had to make sure that I practise every day so sometimes that did take away from like reading hours or like the hours that I had to put in to essays and like writing and or revising for exams.

Since Bernhard (2010) found no correlations between number of hours of various classes, practice and non-school work in a study of music students, it may be perceptions of rather than actual workload and time limitations that are relevant to burnout. This idea is supported by Hamann and Daugherty (1985), who found that music students who perceived their academic workload as high with unmanageable time constraints as a result tended to feel emotionally exhausted and unaccomplished.

The challenges described by burned-out students could be understood using the JD-R model, which attributes the development of burnout to high demands and low resources to deal with them (e.g., Schaufeli & Bakker, 2004a). When entering tertiary music training, students encounter new and increased demands, such as those related to new teaching methods, adjustment to the peer environment and time limitations, and they are likely, at least initially, to have insufficient personal resources (i.e., motivational characteristics and coping skills) to manage them. The process of adaptation is further hindered by the limited availability to students of social resources or students' lack of awareness of those available to them in these unfamiliar circumstances. The findings of the present study thus seem to confirm MacNamara et al. (2006), who draw upon Fimian and Cross (1986; in MacNamara et al., 2006), suggesting that "an inability to cope with the stressors of full-time music education can lead to burn out and an inability to fulfil a promising future" (p. 294).

The possibility cannot be ruled out, however, that interviewees' perceptions of some of the challenges they described were exacerbated by their burnout, in line with the COR theory, which proposes that diminished resources associated with burnout contribute to higher sensitivity to stressors. This idea is supported by research findings that confirm the effects of employee burnout on the perceptions of work pressure (Demerouti, Bakker, & Bulters, 2004; Ten Brummelhuis et al., 2011).
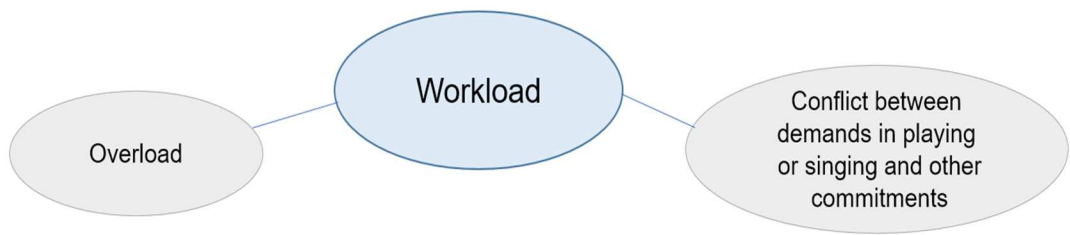
Figure 5.10 Workload

Figure 5.11 Challenges

5.4.1.5 Theme V: Negative perceptions of own expertise

This theme pertains to students' perceptions of their own competence and performance.

Subtheme 1: Perceptions of limited control over practice and performance

The interviewees commonly perceived having little control over their development. They believed that they were not given clear directions and as a result felt "lost" (Paulina) in their attempts to improve their playing or singing. Paulina, for example, admitted: "I just didn't know what to do in my practice sessions." Similar issues are evident in Oliver's comment:

With the previous teacher [i.e., the one who taught him at the time when he was

burned-out] I had to experiment with the stuff that I didn't know how to do . . . the

current teacher actually tells me the way to do it so I know what I'm doing in the

practice room is correct.

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Some students talked about their difficulties practising effectively. Caroline, for example, reported: "My enthusiasm is rather short-lived. I suddenly think that I'm going to practise but then I don't feel like it . . . I find it difficult to practise regularly". Also Matt said: "I wasn't trying to think of strategies to be more efficient. It took a little while for me to figure that out for myself." Successful negotiation of transition into full-time music training is dependent upon an ability to engage with autonomous deliberate practice (MacNamara et al., 2008), which burned-out students clearly lacked.

Because they had restricted tools required for effective practice, some interviewees developed a sense of "going to many different directions with no results" (Paulina) or "trying to do too much and not achieving anything" (Matt). Caroline also described a lack of results despite the effort she invested: "I felt extremely lost, I practised but I couldn't see any results at all". Likewise, burned-out athletes interviewed by Gustafsson et al. (2008) described their feelings of "fighting a losing battle" associated with a sense of ineffectiveness of their training. These findings could be seen through the lens of the effort-reward imbalance model (Siegrist, 1996), which proposes that lack of reciprocity in terms of the high effort exerted, on the one hand, and the low rewards gained, on the other, triggers emotional distress associated with health consequences. This model has been shown to be relevant to nurses' burnout (Bakker, Killmer, Siegrist, & Schaufeli, 2000; Schulz et al., 2009).

The interviewees often talked about their learning processes as being slow. Charles, for instance, admitted: "It was difficult because at first I didn't think there was any improvement". Monica agreed: "I got stuck and didn't make any progress". This echoes Gould et al. (1996) and Gustafsson et al. (2008), who described a sense of lack of improvement as one of the main characteristics of burnout in athletes.

Furthermore, some students' perception that they had little control extended beyond practice to performing situations. Oliver's performance anxiety affected his ability to play well in front of an audience: "I lack the stability in performances so maybe I could play it in my practice room, I could play it in front of my teacher but in performance situation it doesn't happen." He perceived having a low impact on the quality of his own performance: "there're some strange moments when I go to the

class and I feel nothing and I play amazingly and I'm really confused about how it goes about and how it happens". Caroline recalled similar experiences:

> It was the only time when I managed to play it so well, it never happened again. It's really weird how I can play it so well in front of a stranger but then two days later I play it in a lesson and it turns out that I can't.

These comments align with Cresswell and Eklund's (2006b) finding that a sense of low control over performance characterised burned-out rugby players. Similarly, Maslach and Leiter (1997) posit that lack of control over the resources needed to do one's job is one of major determinants of burnout.

In qualitative research on athlete burnout, lack of results despite an investment of effort (Gustafsson et al., 2008) and limited control over one's performance (Cresswell & Eklund, 2006b) are classed as symptoms of burnout representing athletes' reduced sense of accomplishment. There are, however, some indications in the quantitative literature informed by BPNT (see Section 2.1.1.3) that incompetence, defined in this line of research as a limited ability to meet one's goals, contributes to reduced sense of accomplishment and devaluation among athletes (Hodge et al., 2008; Lonsdale et al., 2009) and dancers (Quested & Duda, 2011). In addition, Lonsdale et al. provide evidence that lack of competence can underpin physical and emotional exhaustion.
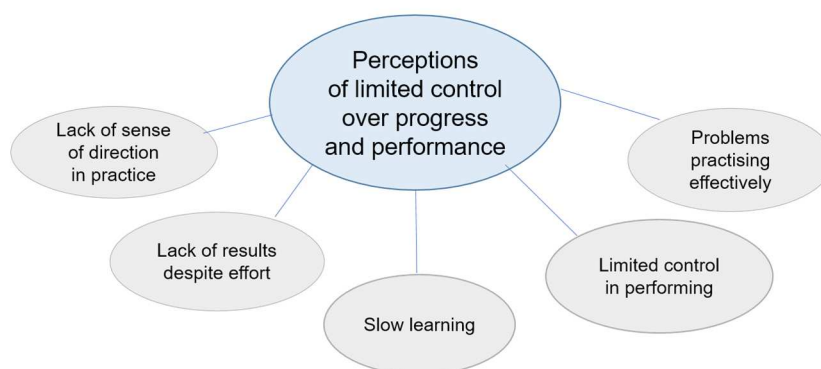

Figure 5.12 Perceptions of limited control over progress and performance

Subtheme 2: Reduced sense of accomplishment

Almost universally, the interviewees made negative comments about themselves as performers. Paulina, for example, said: "I also started having memory issues, I couldn't memorise music and it made me feel disabled." Some interviewees described not being happy with the quality of their playing or singing. Caroline, for example, was not satisfied with her technical skills. Paulina assessed her own performances negatively: "I think I just like I had few performances which didn't go well like, I don't know, I had memory lapses or I wasn't, I didn't feel comfortable technically, you know, I just didn't feel well."

As described in Section 5.4.1.1, the interviewees tended to compare themselves to their peers, and these comparisons left them feel inferior in relation to other students. Charles felt "slightly less capable than other people on the piano". Alicia believed that other students "were better" and "had a much wider knowledge of music" when compared to her.

Furthermore, a few interviewees doubted whether they possessed the essential attributes and skills required to succeed as musicians. Monica, for instance, said: "I felt anxious because I thought I took up a career that I'm not suited for". Oliver expressed some apprehension about whether his skills would be sufficient to allow him to work as a professional performer in the future: "I'm not sure yet [i.e., about his future career] because so far I still try to find out how far I can take my euphonium playing". As a result, the interviewees saw their prospects in music in a rather gloomy way, as illustrated in Paulina's comment: "I thought 'OK, I will never play anywhere, nobody will hire me, I will not find a job'." Caroline was also pessimistic about her future as a musician, saying: "At the moment I can't imagine that I could become a pianist." The interviewees were thus similar to the burned-out athletes interviewed by Cresswell and Eklund (2006b), who felt uncertain about their ability to perform at a high level. Likewise, Gustafsson et al. (2008) identified worries about the future as a stressor contributing to athlete burnout.

Taken together, the findings from the present study echo those from Evans et al. (2013), who found that the people who quit their training in music reported feeling unsuccessful prior to making this decision. Furthermore, in their unfavourable perceptions of their own skills, the interviewees resembled burned-out athletes interviewed by Gustafsson et al. (2008), and Cresswell and Eklund (2006b).

Self-belief is an important resource aiding smooth transition into full-time music training (MacNamara et al., 2008) and dealing with the demands of being a tertiary music student (MacNamara et al., 2006). The perceptions of lacking skills in music may thus have impeded the interviewees' ability to deal effectively with the challenges they faced. Moreover, because musical training is usually embarked on in early childhood, music is likely to develop as the key component of music students' self-identity. Hence, a sense of failure at music can be particularly harmful for their self-esteem, fuelling negative emotions and frustration, perhaps exacerbated by the tendency to worry. The development of full-blown burnout in music students is therefore likely to be stimulated by their negative self-perceptions. Indeed Paulina's reduced sense of accomplishment contributed to her feeling tired: "I would be worrying all day about my playing and listening to a lot of music for few hours in a row, I would often have a migraine, so also wouldn't be able to sleep and I would feel really exhausted on the next day." Similarly, it appeared that Oliver's problems improving in music underpinned his tiredness: "it's just plaguing me the entire night so I found it really hard to sleep." In addition, his negative self-assessment evoked thoughts reflective of his devaluation of music: "sometimes when I listen to other students practise, listen to them perform, I feel . . . I want to give up." Research on athlete burnout (Cresswell & Eklund, 2006b; Gustafsson et al., 2008) has identified similar processes leading from reduced sense of accomplishment to exhaustion and, finally, devaluation of sport.
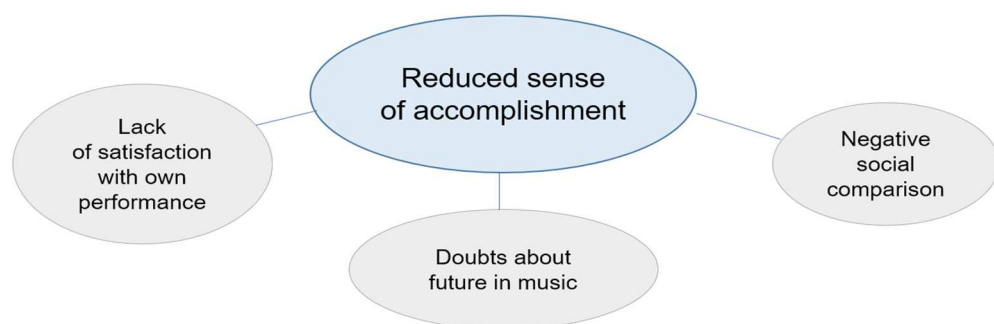

Figure 5.13 Reduced sense of accomplishment
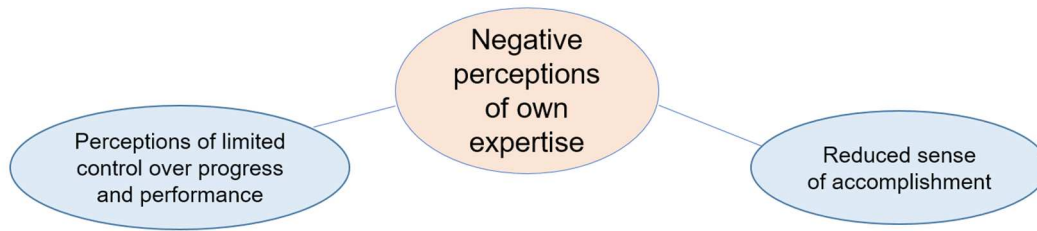
Figure 5.14 Negative perceptions of own expertise

5.4.1.6 Theme VI: Impaired physical and mental functioning

This theme relates to psychosomatic and psychological symptoms associated with students' burnout.

Subtheme 1: Motivational issues

The interviewees frequently raised issues relating to their diminished motivation for music. Matt, for example, said: "I felt that, for example, it was . . . more difficult to motivate myself to work". Diminished motivation was sometimes associated with lack of enjoyment derived from musical activities. Paulina, for instance, admitted that "there wasn't any excitement" for her in playing the piano, and as a result, she "wasn't enthusiastic, found it hard to practise". Similarly, Charles said: "some days like I'd be playing it very low and hardly enjoying the practice". Oliver, however, seemed to continue being motivated, and was proactive in his search for resources needed for further improvement, for example seeking information on how to manage performance anxiety.

Decreased motivational resources were evident in some interviewees' avoidance of making efforts to develop as musicians. This was reflected in Alicia's comment: "I'm not that determined to organise some concerts for myself, I just don't feel like thinking about it." Paulina said: "I didn't want to practise at all, yeah. I was just postponing it"; she also admitted frequently skipping piano lessons. Effort avoidance could be seen both as a contributor to students' burnout and its manifestation.

Moreover, some interviewees expressed doubts in the significance of their involvement in music. Alicia said: "All the time, since I went to high school, I've been wondering why I play and asking myself this fundamental question whether it's

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worth all the hassle, tiredness and stress". Caroline touched upon a similar issue: "From time to time I think there is no point in it at all".

In some cases, the interviewees had considered quitting their training in performance to embark on alternative careers. Oliver expressed uncertainty regarding his future as a performer: "I'm hoping to do performance, also hoping to do some conducting so I probably want to study some more masters in either euphonium or conducting depending on where the next year takes me." Paulina also thought of changing her educational path: "I just thought that I need to get another degree like university in a proper profession".

Figure 5.15 Motivational issues

The motivational issues discussed above reflect a cynical attitude towards one's domain (see Section 2.1.1.1), one of the central features of burnout in athletes (e.g., Raedeke, 1997), students (e.g., Sulea et al., 2015) and employees in professions involving interpersonal relationships (e.g., Hall et al. 2015). Likewise, in accounts provided by burned-out athletes, Cresswell and Eklund (2006b), and Gustafsson et al. (2008) identified symptoms characterising sport devaluation such as aversion to training, loss of enthusiasm and career doubts. The findings of the present study confirm that devaluation of music rather than depersonalisation is relevant to the experiences of burned-out music students. Such a negative and cynical attitude towards music is clearly communicated in Paulina's reference to music as not a "proper profession".

Subtheme 2: Negative feelings

Like the burned-out athletes interviewed by Gould et al. (1996), the interviewees frequently described feeling nervous and stressed. Alicia, for example, said: "I noticed that I was always felt stressed". Monica was "extremely stressed" and experienced "growing tension". Similarly, Melamed et al. (1999) found heightened

levels of self-reported somatic arousal measured by tension, listlessness and post-work irritability in factory workers with high burnout. Chronic stress is believed to deplete one's energy resources, eventually leading to exhaustion (e.g., Maslach et al., 2001; Ursin & Eriksen, 2004). While the present study does not point to cause-and-effect in the relationship between stress and burnout, the literature suggests that they are reciprocal (Demerouti et al., 2004; Houkes, Janssen, de Jonge, & Bakker, 2003), which could be explained using the COR theory (Hobfoll, 2001). Stress and the inability to relax could hence be seen as both contributors to, and, depending on one's definition of burnout, its symptoms or consequences (Schaufeli, 2003).

The interviewees' negative affect was a marked aspect of the data. The issues they described included mood swings and depressive symptoms such as feeling down, empty, unreal and lost. Monica, for example, reported: "My mood would change all the time and I was depressed, I mean not clinically depressed but I felt down very often, cried a lot and worried a lot", adding: "I felt down all the time because I was so tired mentally, physically, and emotionally". Oliver struggled emotionally as a result of not being able to meet his goals in playing:

I felt really depressed because there's so much music that I want to play and I

can play almost everything in the music, just maybe in the middle of the music

there's just one and then at the end of the piece there's an extremely high note

and then that's it.

The relationship between burnout and depressive symptoms is corroborated in the literature although the ways in which they relate to each other remain unclear. It has been proposed both that they develop in parallel, independently of each other (McKnight & Glass, 1995) and that they are interdependent (e.g., Ahola & Hakanen, 2007). Paulina's case supports the latter: she had been diagnosed with major depression, which she attributed to, among other factors, the fact that "piano things were not going well". Her condition seemed to have a further negative impact on her willingness to practise because, as she asked rhetorically, "why would you think about practice in this state?" Nevertheless, more compelling empirical evidence emerges from both the comments above and the previous literature that burnout

leads to decreased psychological well-being rather than the opposite; longitudinal studies involving Finnish dentists show that burnout predicted their depressive symptoms (Hakanen et al., 2008, Hakanen & Schaufeli, 2012) and dissatisfaction with life (Hakanen & Schaufeli, 2012) but not vice versa.

Some interviewees described negative emotional states besides depression. Paulina, for instance, talked about her frustration associated with "wasted effort": "I felt frustrated. I was listening to many recordings, orchestral music, so let's say if I was working on [a piece], I would listen to all [the composer's] compositions but the learning process was very slow." Oliver referred to frustration too: "when I'm practising and then if I can't get a note or I can't get sort of phrase, I get really frustrated". Frustration can be seen as a symptom of exhaustion, as suggested by Cresswell and Eklund (2006b). In line with the classic frustration-aggression hypothesis (Dollard, Doob, Miller, Mowrer, & Sears, 1939), the interviewees' frustration produced aggression. This was mostly self-directed: Oliver, for example, said that he tended to get "angry" with himself during practice, and Monica reported: "I was really angry with myself for being useless and not managing things", which suggests that her self-esteem was also affected. Schaufeli (2003) notes that such atypical symptoms of distress could be interpreted either as symptoms or consequences of burnout.

Interviewees' experiences of negative emotions were similar to those of burned-out adolescent athletes who described frustration, moodiness and negative affect as manifestations of their burnout (Gould et al., 1996; Gustafsson et al., 2008).
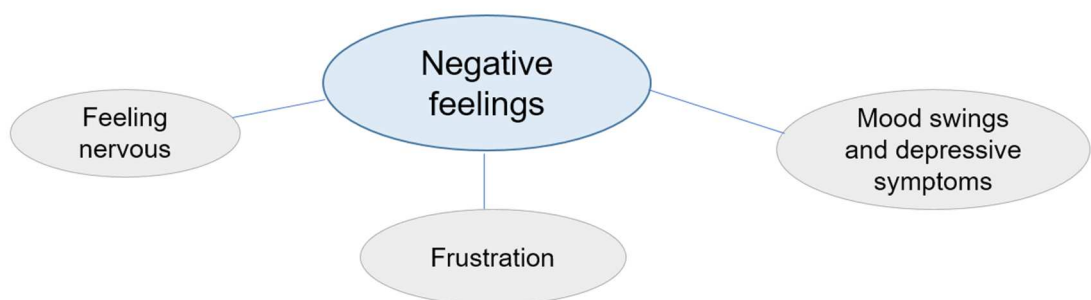

Figure 5.16 Negative feelings

Subtheme 3: Cognitive and social issues

Some interviewees reported cognitive symptoms such as lack of focus or memory problems but this theme was not prevalent in the data. Paulina, for example, said that she "wasn't there" and "just couldn't focus generally". These issues affected her piano performance: "I also started having memory issues, I couldn't memorise music". Likewise, Alicia recalled: "I would make mistakes that I'd never had a problem with, I just couldn't remember anything".

Gould et al. (1996) identified cognitive issues in burned-out athletes such as failure to concentrate in sport and other contexts. Furthermore, a meta-analysis of 15, mainly cross-sectional, studies, conducted by Deligkaris, Panagopoulou, Montgomery and Masoura (2014) corroborated the association between burnout and deterioration of objectively measured cognitive abilities such as executive functions (i.e., mental set shifting, information updating and inhibition of prepotent responses), attention (sustained and control) and memory (working, short-term and long-term). Again, the impairment of cognitive functioning in burnout can be explained using the framework of COR, whereby a loss of cognitive resources emerges as a corollary of drained energy resources.

While the negative and cynical attitudes expressed by burned-out students were mostly directed towards music, some interviewees remarked on their difficulties in interpersonal interactions. Paulina's attitude towards other people reflected depersonalisation as described in the early burnout literature: "I wouldn't focus when I was talking to them, I was so much obsessed with myself and my problems that I wasn't a good friend, you know I just didn't care about other people". Both Monica and Paulina began to avoid other people: "My social life suffered because I couldn't focus on developing relationships with other students and after classes I'd just leave as soon as possible instead of talking to other people" (Monica). Although burnout in athletes is manifested by a cynical attitude towards sport rather than other people (e.g., Raedeke, 1997), burned-out athletes interviewed by Gould et al. (1996) and Gustafsson et al. (2008) described similar changes to those experienced by Monica and Paulina: they tended to withdraw from social interactions as result of their burnout.

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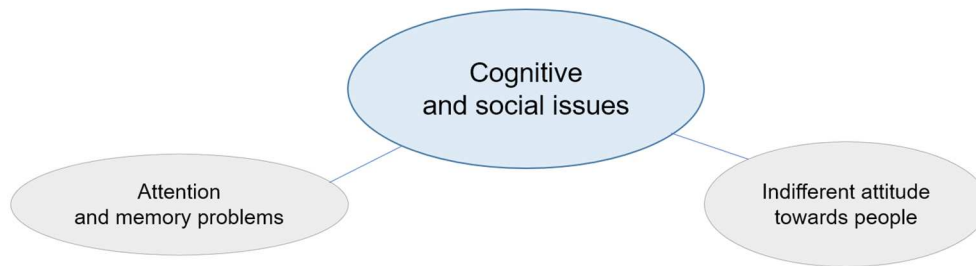
Figure 5.17 Cognitive and social issues

Subtheme 4: Psychosomatic symptoms

The interviewees experienced various psychosomatic symptoms. They frequently felt sleepy and physically tired. Monica, for instance, reported: "I was just exhausted, really tired physically" and Paulina agreed: "I was feeling always tired and always sleepy". While physical tiredness appeared to be more common, Monica described being both physically and mentally exhausted. Exhaustion is considered to be the central component of burnout (Maslach et al., 2001), and it was a common feature in the experiences of the interviewees. In line with the findings from interviews with athletes (Gould et al., 1996; Gustafsson et al., 2008), burned-out music students described being physically and mentally tired. Consistent with Cresswell and Eklund (2006b), however, their descriptions of exhaustion appeared to lean towards its physical rather than emotional component.

Tiredness clearly affected the interviewees' ability to practise effectively. Matt felt worn out as a result of having too many commitments and this exerted a negative influence on his learning: "It made me feel just exhausted . . . and that was negative because at the end of the day I wouldn't have done enough writing or reading and then not enough practice as well". Monica described a similar issue:

I felt that I didn't make any improvement at all because in every class I'd fight with

myself not to fall asleep. I'd think that I want the class to be over because I'm

exhausted so it was just pointless and made feel worse and worse because I

didn't see any progress.

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In addition, this comment from Monica illustrates a path from exhaustion to diminished sense of accomplishment. Monica's and Matt's burnout was initially manifested by exhaustion associated with their limited ability to practise effectively and resultant sense of incompetence. Cresswell and Eklund (2007) found a parallel developmental mechanism in athlete burnout, suggesting that devaluation usually follows exhaustion and reduced sense of accomplishment. The direct link between exhaustion and devaluation was evident in Alicia's comment, for example: "there are days when I come back home really tired, lie down and I don't even look at the piano, I just don't care".

The interviewees reported various physical symptoms. Alicia, for instance, described MS issues: "Often when I come back home from the college, my whole body is sore and when I lie down I feel like I can't move at all". Monica experienced pain in her chest and dizziness. Paulina suffered from migraines and regularly caught colds, attributing them to her negative emotional state: "when you're like you don't feel well and you just have a very low mood, and you easily catch like cold and things I think". This attribution corresponds with the findings of much quantitative research associating burnout with physical health issues (e.g., Armon et al., 2010; Kim et al., 2011). Similarly, in their interview study, Gould et al. (1996) identified physical issues as symptoms of burnout among adolescent athletes although, once again, these could be also interpreted as its consequences (Schaufeli, 2003).

Some interviewees talked about their difficulties falling asleep. According to Oliver: "I lost a lot of sleep because there were just some nights when I just couldn't sleep". Monica had a similar problem: "My emotions and my psyche made it difficult for me to go to bed and fall asleep so I tended to go to bed late". Sleep disturbances described by the interviewees echo research suggesting the role of employee burnout in sleep problems, confirmed in research using self-reports (e.g., Melamed et al, 1999) and polysomnography (Ekstedt et al., 2006; Söderström, Ekstedt, Åkerstedt, Nilsson, & Axelsson, 2004) to assess the degree of sleep issues. Although it is often hypothesised that sleep problems are a symptom or a consequence of burnout (e.g., Schaufeli, 2003; Söderström et al., 2004), there is also some evidence that they occur in the early stages of burnout (Melamed et al., 1999); by restricting one's ability to recover from stressors and fatigue (e.g., Sonnenschein, Sorbi, van Doornen, Schaufeli, & Maas, 2007), they are likely to

propel the development of burnout. This seemed to be the case for Oliver and Paulina, who felt tired because of their insomnia, triggered by their negative self-perceptions.

A few students commented on loss of appetite. Oliver "didn't have a lot of appetite" and "didn't want to eat". Paulina admitted: "I wouldn't like to eat", adding "I lost some kilos". Changes in appetite and weight are common in depressed individuals (Engel et al., 2011; Maxwell & Cole, 2009) but there is little indication in the literature for their association with burnout. It may be, therefore, that they developed in parallel with Oliver's and Paulina's burnout as corollaries of their depressive mood.
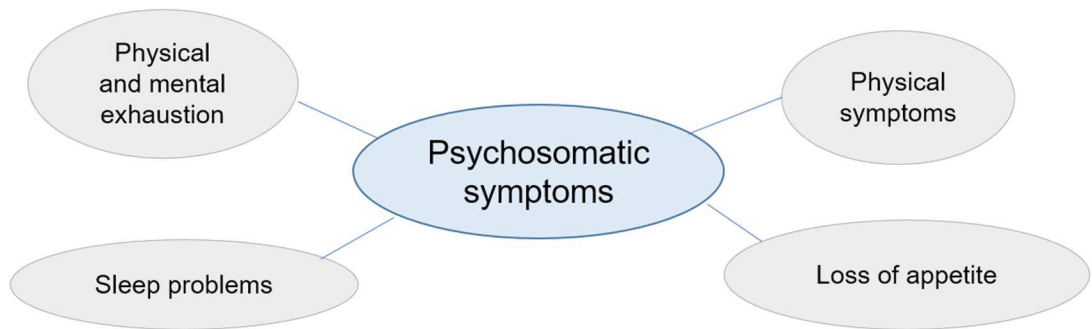

Figure 5.18 Psychosomatic symptoms
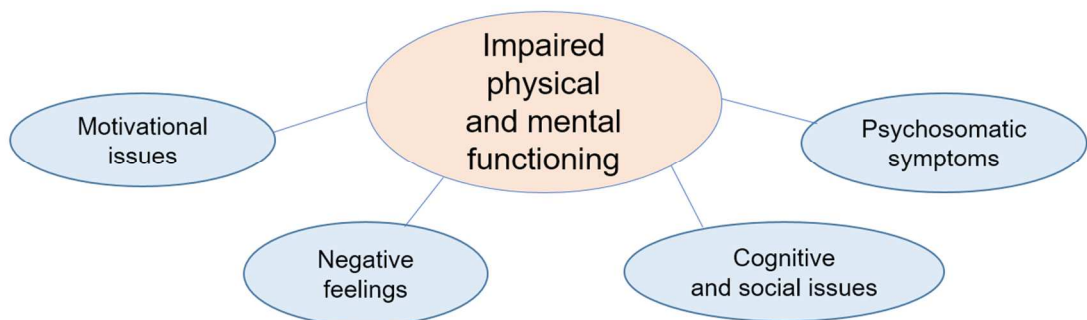


Figure 5.19 Impaired physical and mental functioning
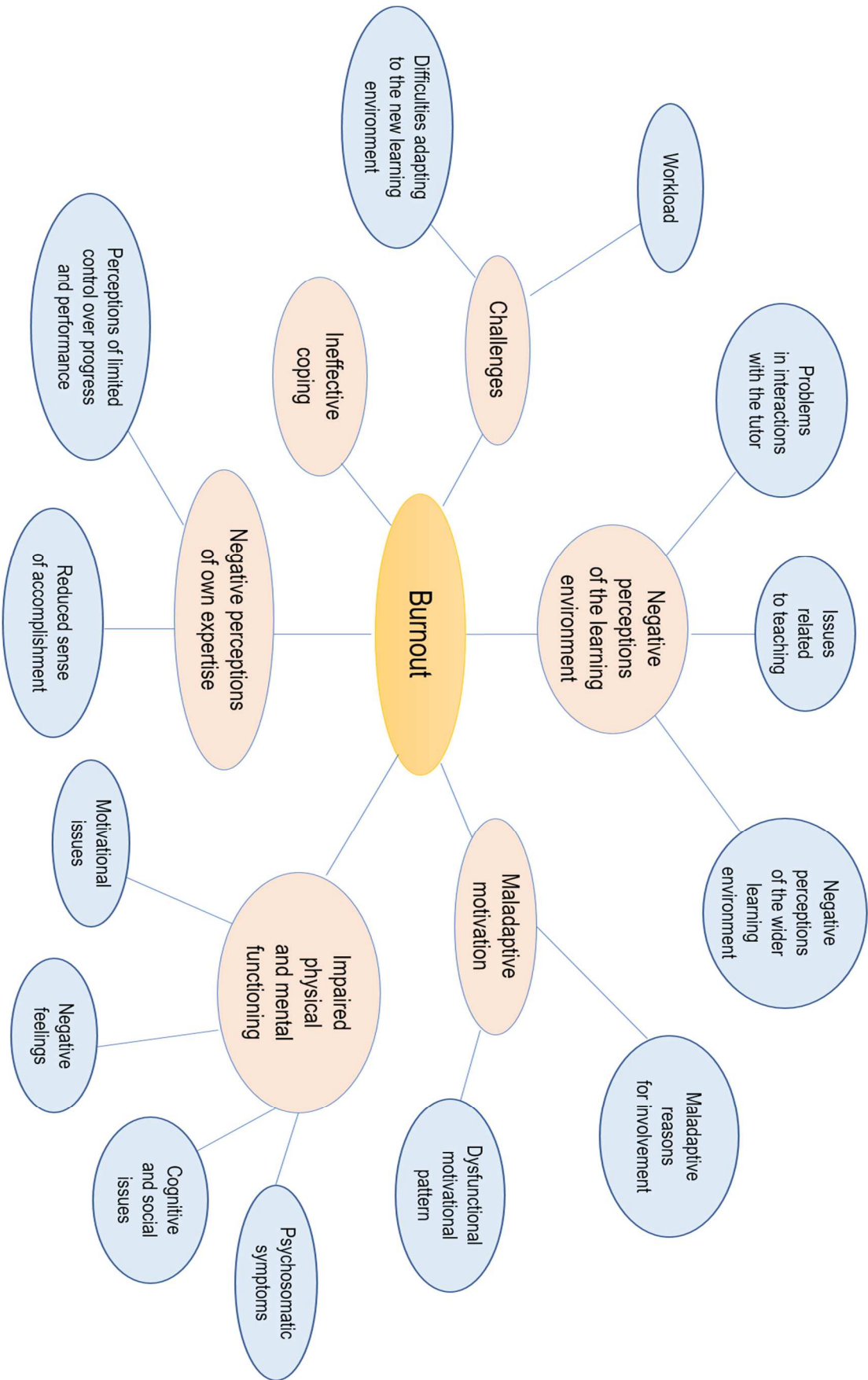
Figure 5.20 A thematic map of burnout in music performance students

5.4.2 Engaged students – "I knew what I wanted and I went ahead and did it" (Kyle)

5.4.2.1 Theme I: Adaptive motivation

This theme addresses the reasons for interviewees' motivation and its quality.

Subtheme 1: Autonomous involvement

Engaged students' motivation for music was underpinned primarily by autonomous reasons (e.g., Deci & Ryan, 2008a; Ryan & Connell, 1989). Researchers in other domains have associated this type of involvement with psychological well-being (e.g., Fernet, Guay, & Senecal, 2004; Reis et al., 2000) and persistence (e.g., Pelletier, Fortier, Vallerand, & Briére, 2001). The interviewees took ownership of their decision to undertake music training at the tertiary level. Gemma, for example, said: "I really wanted to and still want to perform for the rest of my life so when I came to deciding what to do at university, I chose to do a performance course." Kyle reported: "I knew that I wanted to perform and play instruments". Moreover, students of popular music commented on the sense of freedom afforded by this genre:

> After I graduated, I did my undergrad in musical theatre and felt like there were too many rules what you're supposed to be like and what your voice was supposed to sound like . . . I thought that pop music is the most free . . . so you can sound whatever you want to sound like. (Michelle)

Darren had similar thoughts: "In pop music, I can do things my own way".

The interviewees' autonomous involvement was further reflected by the intrinsic nature of their motivation, or "doing something because it is inherently interesting or enjoyable" (Ryan & Deci, 2000a; p. 55); in this they resembled Burland and Davidson's (2002) interviewees who made a successful transition into the performing profession. Intrinsic motives clearly underlay some decisions to study music at the tertiary level. Helen, for example, said: "It was the only subject that I really felt like I enjoyed learning" and Kate claimed: "I enjoyed playing so I decided that I need to continue it". Some interviewees talked about their positive feelings

towards specific musical activities; for instance, Michelle particularly loved singing with a band.

Other interviewees, however, described negative feelings towards practising. Michelle said she "wasn't enjoying it that much" and found it "a little bit hard" to focus on technical work. Likewise, Darren and Kate both admitted that practising is "tiring". Nevertheless they emphasised the importance of practice even though they did not necessarily enjoy it, which points that they identified motives (see Section 5.4.1.1) for practising. Darren said:

> Technical exercises are boring but without them it's impossible to play well . . . practice can be quite tedious but despite this you need to try hard to be consistent and work on a regular basis if you want to make a progress.

The intrinsic and identified motives described by the interviewees suggest that their music-related goals represented their real values and interests, which formed the basis for their autonomous involvement (Sheldon & Kasser, 1998). In line with the self-concordance model, stemming from SDT, such goals have a motivational effect since they provide the impetus for sustained investment of effort (e.g., Sheldon & Elliot, 1998; Sheldon & Elliot, 1999).

In addition to being autonomously motivated, both Darren and Kate reported feeling internal pressure to continue their musical training. Darren said: "if you started in your childhood and, often unknowingly, you made a decision to stay involved back then, and if you still love it, you need to continue." Kate suggested that she had already invested too much in her musical development to give up: "If you'd already dedicated so much to music, it would be a shame to quit." In relation to athletes, Schmidt and Stein (1991) propose that a sense of entrapment, whereby one feels obliged to stay involved, may evolve into burnout. Although Darren and Kate may have felt "obliged", this was outweighed by their love of music, which protected them from burnout.
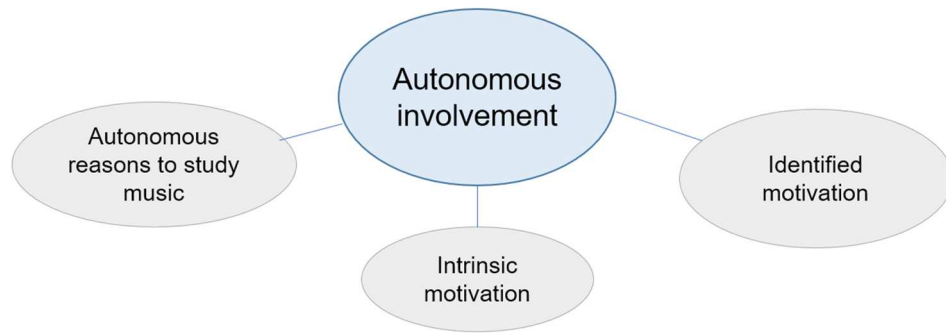
Figure 5.21 Autonomous involvement

Subtheme 2: Important role of music

Music clearly played an essential role for the engaged students. Some referred to it as a vehicle for self-expression, echoing Burland and Davidson's (2002), and Burland's (2005) interviewees who were successful in forming a "performer" identity and who used music to express their emotions, unlike those who pursued alternative careers. Music appeared to be an extension of Kyle's self: he believed that playing the piano was "the easiest way" to express himself. Burland and Davidson's interviewees who made a successful transition to the performing profession, described above, reported a personal affinity with their instruments; similarly, Kyle talked about the strong connection he had with the piano, encapsulating the role of music in his self-expression with reference to John Coltrane:

> He saw jazz as a way of just crying out 'cause if you listen to his music it's all just like it's really so raw, I mean just howls and stuff in jazz, it's amazing like what he does but I see jazz as a way of just channelling your voice into notes and chords and compositions and, yeah, it is an amazing thing.

Their unique musical style served as a medium for some interviewees to express their individuality. Michelle, for example, aspired to find her "own voice" while Gemma was beginning to form her "musical voice as a soloist". References to music as a means of self-expression were more salient in the accounts of students of popular music, however. Darren, for instance, said: "Pop music gives me the

opportunity to express what's on my mind and in my heart". This echoes Dobson (2010), who interviewed students and professionals, and found that while jazz musicians feel free to express themselves through music, issues arise in relation to self-expression in classical music, which restricts performers' artistic freedom by placing primary importance on the accuracy of executing composers' ideas.

Music had a therapeutic effect on some of the interviewees. Kate described how playing the accordion helped her relax and maintain a positive mood. Kyle shared a similar experience: "if I hadn't practised the piano, I'd be really frustrated and I'd feel very tense". These comments once again echo those of Burland and Davidson's (2002) interviewees who made a successful transition into professional life as performers and who stressed the role of music as an outlet for their negative emotions. It could therefore be that students have positive attitudes towards music because of its therapeutic effects.

Because music was an important channel for the interviewees' expression of emotions and individuality, they often talked about it as a means of interpersonal communication and building relationships. As Darren said: "this is how we communicate with other people". For Gemma, playing in an ensemble was "an exciting experience because there's so much communication between all of us and so we really enjoyed that." Darren touched upon the value of music for communicating with others, including non-musicians: "music is a universal language, you don't need to speak all languages to be able to communicate with people from all over the world". He also believed that people's perceptions are influenced by his involvement in music: "when people find out that I play an instrument, they change their opinion of me." Burland and Davidson's (2002) "performer" interviewees also saw music as a means of communication and Burland (2005) claims that the formation of the "performer" identity is accompanied by an increased focus on communication through music.

It was apparent that music was central to interviewees' thoughts about themselves and their lives. Kate, for instance, claimed: "without music my day would be empty", adding that it is "like a drug" that she could not live without. Darren viewed music as a vital aspect of his interactions with other people: "it would be difficult for me if I couldn't play, I could compare it to someone losing their voice, and not being able to speak and communicate with other people." Being a music

student contributed to the ways in which Kate constructed her self-concept, in that it made her feel "different" and "special". Both Darren and Kate described music as a "passion" which gives them a sense of fulfilment. Such comments reflect the great significance they attach to music, their pride to be involved in it and their dedication to it.

Taken together, these findings confirm the tripartite model of success proposed by Burland and Davidson (2002) in which the importance of music to a musician's self-concept is seen as one of the critical determinants of their success in transition from training as performers into professional life. Living in accordance with one's authentic needs and nature brings about eudaimonic well-being. In the present study, for these students who were thriving as musicians, music clearly functioned as a medium for the expression of their "true" selves.
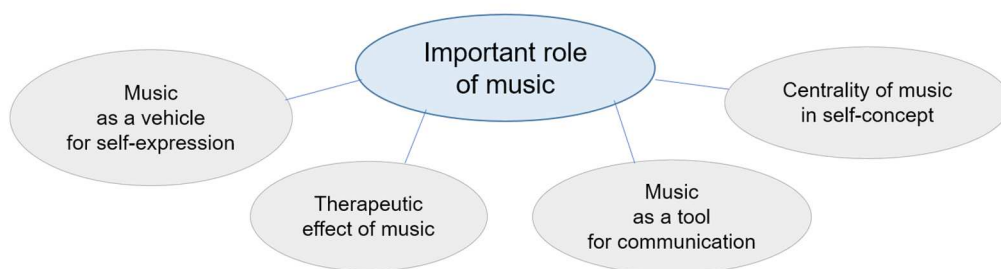
Figure 5.22 Important role of music

Subtheme 3: Future music-related goals

The interviewees had clearly-defined musical goals. Kyle, for instance, said: "I want to influence music, I want to influence what is going on, I want to maybe put a positive message to music and I want to maybe bring something new to jazz or not jazz". Michelle was looking for her own style: "just trying to find my own sound so I don't sound, I don't try to sound like somebody". For some, the decision to study at the tertiary level was motivated, in part, by their desire to achieve these goals. Helen, for example, entered the conservatoire with the intention to refine her performance skills, and she "wanted to learn about specifically being able to perform".

By contrast with the conservatoire students interviewed by Gaunt (2009), whose ideas about the future, post-graduation, were vague, nearly all the engaged interviewees aspired to work as professional musicians, often having a clear idea

of their future musical roles; having specific goals may be characteristic of engaged students. Helen was an exception, planning to engage with music as "a hobby rather than a job". Kyle was typical of those who intended to be involved in a variety of musical activities such as composing and singing in addition to playing and arranging music for the piano. Gemma's vision for the future involved performing as a chamber and orchestral musician, and teaching. This finding corresponds with research linking work engagement to lower intention to change jobs (Korunka et al., 2009; Schaufeli & Bakker, 2004a). Indeed, those interviewees who had already graduated were still involved in music: Michelle performed, taught singing and promoted her album, and Kyle was just starting his new band, while still working on his musical skills.

The interviewees were likely to intend to embark a career in music because they had positive feelings towards it but the reverse is also possible. Mikkonen, Ruohoniemi and Lindblom-Ylänne (2013), for example, interviewed students of humanities and veterinary sciences at a Finnish university, and discovered that clear future goals enhanced their motivation, while lack of these had a negative impact on their commitment. Future goals form the basis for students' possible selves, reflecting "how individuals think about their potential and about their future" (Markus & Nurius, 1986; p. 954): what they could, hope to or fear to become. Possible selves have a motivating effect through their capacity to direct one's actions (Cross & Markus, 1991). It is thus plausible that "hoped for" possible selves, reflected in the accounts of engaged students, activated their energy resources for music, helping them maintain their high engagement by providing a context for interpreting their current behaviour and adding meaning to it (Markus & Nurius, 1986). Furthermore, the coherence between the interviewees' lower level goals such as learning a piece and those representing higher level goals, such as having a career in music, was likely to validate their distal, career goals as being partly realised in their everyday activities (Bauer & McAdams, 2004), thus having a positive impact on their engagement. This idea is in line with Burland (2005), who argues that the possible selves based on music-related goals that characterise "performers" help them maintain high motivation despite setbacks. Hock, Deshler and Schumaker (2006) carried out an intervention to activate the short- and long-term goals of primary and secondary school pupils, and found that it improved

students' academic performance and rates of retention, thus providing further support for the association between goals and sustained motivation. Furthermore, coherent goals characterise the harmonious integration of personality that is necessary for psychological growth and well-being (e.g., Deci & Ryan, 1991; in Sheldon & Kasser, 1995). In line with this notion, Sheldon and Kasser, for example, showed that vertical goal coherence positively predicts positive affect and subjective vitality. The interviewees' coherent vertical goal system was therefore likely to contribute to their high levels of engagement in relation to music.

Figure 5.23 Future music-related goals

Subtheme 4: Mastery orientation in learning

The interviewees manifested mastery orientation (e.g., Ames & Archer, 1988), characterised by concentration on learning outcomes. Although Kate was explicit about her strong desire to learn, saying: "that is the point to keep learning new things I think", for the most part, the interviewees expressed it implicitly in the ways they talked about their study-related experiences. Helen, for example, valued "the learning aspect" offered by the college, and Michelle's narrative regarding her experiences at the college revolved around her achievements in learning.

The students' mastery orientation was underpinned by their sense of control over their development reflected in their belief in the role of practice in achievements. Kyle, for example, said: "I was doing . . . a lot of refined practising so I really felt that my playing improved a lot over last year." In a similar vein, Michelle felt that "things became easier" because she "practised so much". Dweck, Chiu and Hong (1995) notice that people differ in the ways they perceive human attributes: while some consider them as fixed ("entity theorists"), others believe they can be changed ("incremental theorists"). The remarks above suggest that the interviewees held an incremental theory of their skills, which is associated with mastery orientation (Dweck & Leggett, 1988) and adaptive reaction to failure, whereby attention and

energy are invested to make necessary improvements (Molden & Dweck, 2006). Shih (2011), for example, discovered that incremental beliefs predicted positive emotions experienced at school and academic persistence among Taiwanese junior high school students. Similarly, the "performers" in Burland's (2005) study expressed incremental beliefs, which, as she suggests, helped them stay determined and cope effectively.

Some students' mastery orientation was evident in their preference for challenges. Kate, for example, said: "I like when something doesn't quite work well in performance, it challenges me." Darren explained why he preferred playing in a big band than symphony orchestra: "There are some challenges of playing in the big band like complex rhythms and in general things that are difficult to play so I can learn a lot."

Researchers in education have linked mastery orientation, such as that demonstrated by the interviewees, with positive outcomes, including an increased interest and intrinsic motivation (e.g., Harackiewicz, Barron, & Elliot, 1998), and the use of self-regulatory learning strategies (e.g., Vrugt & Oort, 2008). Furthermore, as Kaplan and Maehr (1999) argue, the type of goal endorsed can have emotive consequences in stressful situations. Specifically, those who hold primarily mastery goals react adaptively to failure, which explains why, in their study, mastery goals reported by pre-tertiary students predicted their positive affect at school. Furthermore, mastery goals predict higher academic (e.g., Phan, 2014) and work engagement (Adriaenssens et al., 2015).

Although the interviewees' mastery orientation was likely to indicate high levels of engagement, they also sought opportunities to develop musical expertise that kept them excited about playing or singing. Kate, for instance, claimed:

There is no point playing things the same way, not to discover anything new, it's just boring and I don't like being bored so I look for things that will get me interested and broaden my knowledge of things that I am interested in.

Michelle was also enthusiastic about gaining new skills:

Towards the end of the year I actually learnt new things and I was so excited, I felt like I was learning something new every week, every lesson I learnt something new so I was just really sort of, I was really excited.

It could also be that making use of opportunities to expand knowledge of their instruments and acquire new skills fostered students' sense of competence as they strove to achieve their goals as musicians. Research informed by BPNT points to the satisfaction of competence as a predictor of engagement in academic (Sulea et al., 2015) and sport settings (Hodge et al., 2009).
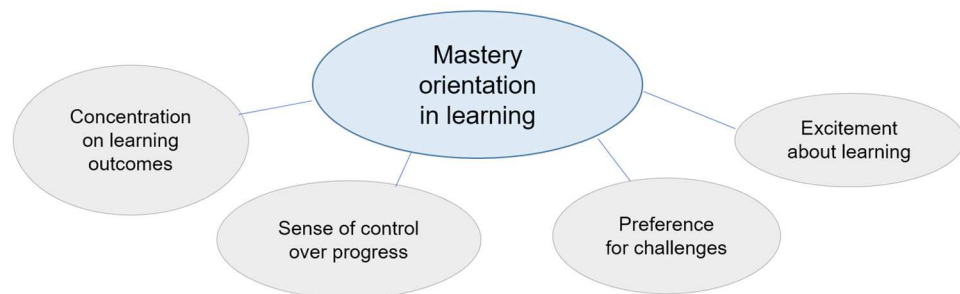
Figure 5.24 Mastery orientation in learning

Subtheme 5: Adaptive goals in performance

The importance that the interviewees placed on learning, discussed above, could be also seen in the references that some of them made to performance as a learning situation. Gemma, for example, claimed that every recital made her more aware of what she needed to work on further. Kate described a similar approach, focusing on aspects of performances that had improved or needed further improvement. Moreover, she did not attach much significance to being successful in competitions since, as she believed, there is always room for musicians to learn and improve. Michelle's learning goals were evident as she valued being given "brutally honest" feedback from her tutor. This suggests her primary focus was on learning outcomes rather than being treated nicely by the teacher, which, as she believed, would hamper actual improvement:

He was also really like a no-nonsense guy so he was really brutally honest and some people don't like him because of that but I . . . don't care 'cause I know he's being honest so that, for my own good . . . obviously when you start singing it's good to have people who are quite positive but at some point you need someone who's just very honest with you so I was happy about that.

In terms of AGT (e.g., Pintrich, 2000), these comments represent interviewees' mastery goals (e.g., Ames, 1992), in that they reflect their definition of competence based on intrapersonal standards, associated with the focus on improving expertise (Elliot & McGregor, 2001). Although they focused primarily on mastery goals, there was also some evidence in the data for their adoption of performance-approach goals. Kate, for example, admitted that she cares about achieving good results in competitions. The simultaneous endorsement by students of mastery and performance-approach goals has been associated with positive outcomes including higher levels of motivation, self-regulated learning (e.g., Bouffard, Boisvert, Vezeau, & Larouche, 1995), and greater enjoyment of an activity (e.g., Dela Rosa & Bernardo, 2013), in line with the multiple goal perspective (e.g., Harackiewicz, Barron, Pintrich, Elliot, & Thrash, 2002).

Some interviewees made remarks implying their focus in performance on intrinsic goals such as communicating with the audience and enjoyment (Lacaille et al., 2007). Kyle "wanted to make a change to make it interesting for the audience". Gemma aspired to "engage the audience", similar to Darren, whose primary goal in performance was to "make the audience enjoy it". These comments, again, confirm the reports of Burland and Davidson's (2002) "performer" interviewees in that they used music for interpersonal communication. When performing, Michelle was "basically, having fun, and basically making music, and enjoying it." In addition to placing importance on bringing joy to the audience, Darren wanted to derive some pleasure from performing himself. Adopting such intrinsic goals in performance may have a positive impact on students' well-being: Lacaille et al. showed that such goals correlated positively with performers' life satisfaction and negatively with their intention to quit following their performance. Similarly, in the context of professional

performance, Ascenso et al. (2017) found that musicians' perceptions of sharing with the audience contributed to their positive emotions.

Figure 5.25 Adaptive goals in performance
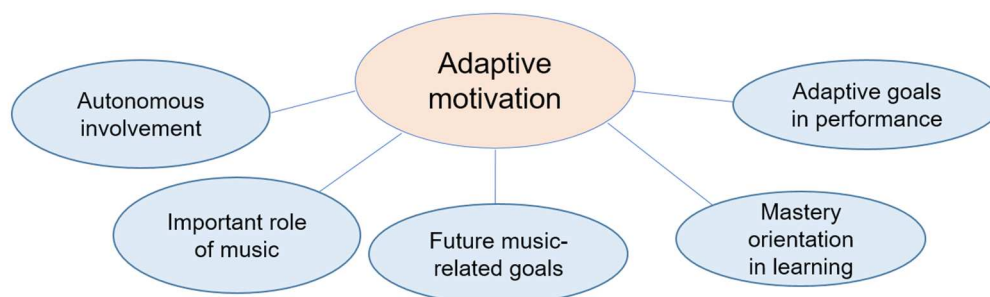
Figure 5.26 Adaptive motivation

5.4.2.2 Theme II: Effective coping

This theme deals with the interviewees' general coping strategies and the actions they undertook to achieve their musical goals.

Subtheme 1: Problem-focused coping

The coping methods employed by the interviewees included the application of problem-focused strategies (Lazarus & Folkman, 1984), whereby they focused on achieving their goals rather than their process-related emotional experiences. Kyle did not enjoy being around other students but he was able to put up with it, placing primary importance on completing his degree in music. Kate found practising her instrument tiring but this did not seem to discourage her: "when I want to achieve something, I don't think too much about the emotions on the way".

Some interviewees were able to concentrate their efforts on achieving their goals, even if this meant giving up other things. When asked how she dealt with all her commitments, Gemma said "I think there was no other option really so I just had to,

yeah, focus on them." She also reported that when she needs to practise more, she is ready to get up very early and stay at the college until late. Kyle was prepared to invest a lot of effort and "work extra hard" to achieve his musical goals. He also changed his lifestyle to benefit from his course to the fullest extent:

I didn't want to go out and get drunk in my last year, I was in the class myself. I had to understand it was the last year of my degree, and then I had to go and get a job and start my life probably and take it all seriously. So I didn't really have any interest in sort of doing all those things anymore.

Similarly, Darren understood that he needed to give up certain things so as to achieve his goals:

Since I decided to study music and I naturally want to get better at it, I need to devote my personal time to this . . . Sometimes I need to forget about pleasures and practise instead, and I'm fine with it.

A few interviewees demonstrated good time management skills using available time most efficiently. Gemma, for instance, said: "I basically just had to fit in the time that I needed". Planning was one of the strategies employed by engaged students: Helen used a diary to manage all her obligations, and Eve designated practice time in advance so as to manage all her work commitments and still ensure that she was fit to practise efficiently. Some interviewees adhered to a structured schedule, which helped them organise their time better. Kate, for example, followed a fixed daily routine and Kyle had a roughly-outlined weekly schedule. Helen claimed that having a fixed schedule "always benefits everyone."

Some interviewees did sport to aid their music performance. Gemma referred to her preparation for the end-of-year recital: "there's just some elements of kind of really long phrases with nowhere to breathe and I needed to increase my lung capacity so running definitely helped." Kate did sports because "it is important in this profession to be physically fit".

These findings correspond with those of Burland (2005), who showed the importance of problem-focused coping in facilitating the formation of professional identity as a performer. Similarly, Rothmann, Jorgensen and Hill (2011) found that problem-focused coping predicted work engagement as reported by nurses, policemen and technicians in South Africa. Nonetheless, problem-focused coping could also be a manifestation of engagement, whereby engaged students are more likely to maintain their focus on the goals particularly important to them.
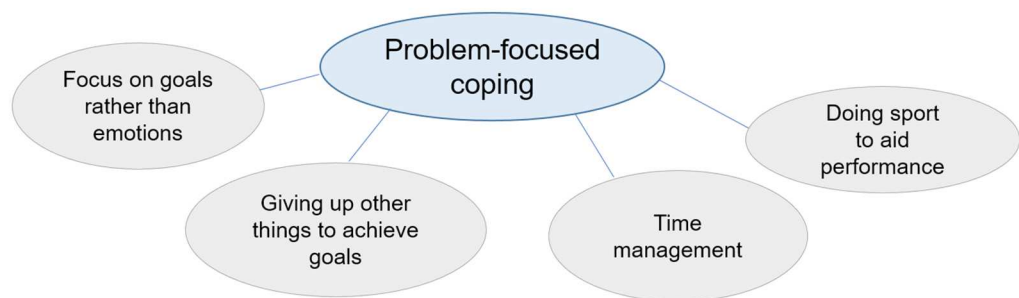
Figure 5.27 Problem-focused coping

Subtheme 2: Emotion-focused coping

Emotion-focused (Lazarus & Folkman, 1984) strategies for coping were also used but not as frequently as problem-focused methods. These strategies included engagement coping, which involves dealing with the stressor-related emotions (Carver & Connor-Smith, 2010), for example by using negative emotions in positive ways to benefit learning and performing. Kyle, for example, admitted that he "channelled" the tension that he experienced in his personal life into practice, which helped him "just to focus and become a better player". Others used positive reinterpretation to deal with performance anxiety, considering it conducive to successful performance because "otherwise it's just a bit bland" (Michelle) and "it helps focus" (Kate).

Some comments reflected interviewees' ability to accept issues as they arose, for example acknowledging the need to "prioritise certain things at the cost of others" (Gemma) and accepting that "some things do kind of slip" (Eve). Difficult aspects of musicians' lives were also accepted:

Sometimes I feel bad about performing but in general I think that if I want to be a musician, I need to accept it and even like it. So I wouldn't say I feel great about it but I'm getting more and more positive about it. (Kate)

As Darren said: "being a professional musician is not easy . . . but even if it will be hard, I still want to do it".

While the students' activities revolved around music, they managed to build time for relaxation into their daily or weekly schedules. Going out, sport and entertainment were part of Kate's typical day. For Eve, socialised with her friends either at or outside the college, while Kyle tended to take Sundays off. Some were involved in extra-musical activities: Kyle assisted with community projects and Eve had a non-music related job. They appeared to have balanced lifestyles, identified by Burland and Davidson (2002) as a way of gaining a fresh outlook on music, supporting the successful transition from education to the performing profession. The findings from the present study also corroborate the literature suggesting the crucial role of psychological detachment from work and ensuing recovery from work demands in fostering well-being (Sonnentag & Bayer, 2005), including work engagement (Sonnentag, 2003).

There was also some evidence for the interviewees using other emotion-focused strategies. Kate, for example, vented her difficult emotions by spending time alone and going for walks. Kyle turned to religion, which, as he believed, helped him "all the way through."
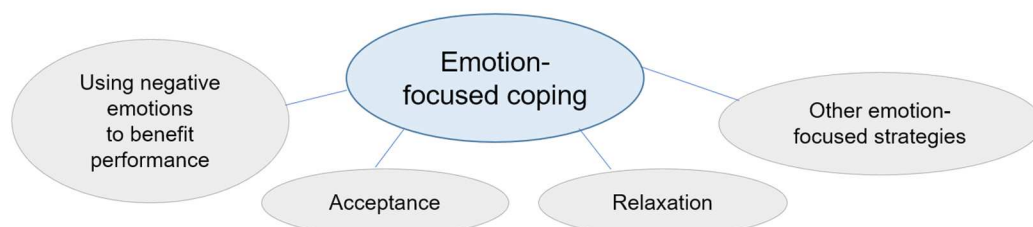

Figure 5.28 Emotion-focused coping

The problem- and emotion-focused coping strategies described by the interviewees represented, for the most part, engagement coping (i.e., active coping, planning, positive reinterpretation). Such coping has been linked to positive psychological outcomes, including lower levels of depressive symptoms (Mosley Jr. et al., 1994), eudaimonic well-being (Bryden, Field, & Francis, 2015) and adaptation to the college (Perera & McIlveen, 2014). Burland and Davidson (2002) note that the ability to take physical measures to change the environment or use it in a positive way can partly explain why some students make successful transitions into the performing profession. Their interview study showed that students who wanted to continue their career in music after graduation coped with the difficulties related to their musical training by changing the situation (e.g., by choosing a different instrument), accepting the disappointments in musicians' lives and recognising the need for a healthy balance between different areas of life for harmonious personal development. Similarly, students classed as "performers" by Burland (2005) used problem- and emotion-focused coping methods, such as reframing negative or difficult experiences in a positive way, seeking support from peers, maintaining a positive outlook on their involvement in music and becoming involved in activities outside music. While qualitative studies in music education (e.g., Burland & Davidson, 2002; Burland, 2005) did not identify the role of time management skills, Bonneville-Roussy et al. (2017) point to the relevance of planning to positive outcomes for music students: in their cross-sectional, questionnaire study, engagement coping predicted stronger performing career intentions reported by male (although not female) undergraduate music students.

Subtheme 3: Proactive approach to learning

Proactivity in learning was a common feature of the data. Crant (2000) defines "proactive behaviour" as "taking [the] initiative in improving current circumstances or creating new ones", which "involves challenging the status quo rather than passively adapting to present conditions" (p. 436). The interviewees took advantage of the learning opportunities available to them and sought new ones, which shows their proactive approach (London & Mone, 1999), captured in Kyle's comment: "in terms of my work and the amount of effort I'd put in every single day that was the best, I was doing the most out of three years."

The engaged students were involved in a range of musical projects, in some cases explicitly to push their skills further: "I try to perform whenever and wherever I can, after all that's how you develop, by playing with different people, in different places, different pieces, it really helps" (Darren). Helen took part in various projects at the college "to keep herself going". Like Kyle, Kate referred to her previous year at the college as "crazily intense" but "fruitful" in terms of the musical activities she took part in. The interviewees thus had the opportunity to experience a variety of activities and settings, associated by professional performers in Ascenso et al.'s study (2017) with engagement.

In addition, the engaged students demonstrated a proactive approach in seeking opportunities to perform and expand their career prospects. Helen used the college booking system, for example, to identify performance opportunities. Eve found opportunities herself to take part in external concerts. Likewise, Gemma and the other members of her ensemble organised and gave several recitals; in addition, Gemma run a concert series to enhance her future career opportunities.

The drive to learn and readiness for action to advance musical skills were also evident as the interviewees talked about their fellow students, referring to them mainly in terms of a learning resource. One of Kyle's colleagues gave him informational support in exploring and expanding his job prospects. Gemma talked about her quartet as a space to improve her playing:

I think the most useful thing is, especially as saxophone quartet is, although of different sizes, you're playing the same instrument and . . . you really basically learn everything off each other . . . you need to be able to match them, you just have to learn it to match them. So, you know, it's a really nice environment to learn off each other, you're teaching each other at the same time as learning something else from someone.

While acknowledging the benefits of interacting with peers for learning, some students struggled to connect with their colleagues at the personal level. Kate, for example, admitted: "My relationships with other students got worse, I didn't feel any support from them, especially from other accordion students". Similarly, Kyle felt

rather isolated in his peer environment: "I just felt like music college was really sort of cliquey, that's what I felt like, if you know what I mean, and I couldn't really do the things that they were all doing."

The interviewees thus resembled Burland and Davidson's (2002) and Burland's (2005) "performer" interviewees in that they were mostly focused on the learning rather than personal aspects of their interactions with fellow students. The beneficial impact of peer learning, often discussed in the music education literature (e.g., Gaunt et al., 2012), may have a positive effect on engagement via its contribution to the development of students' coping skills (Burland, 2005), and boosting their musical competence rather than its provision of emotional support.

Building upon the self-concordance model, self-concordant goals, such as those endorsed by the interviewees (Section 5.4.2.1), encourage expenditure of sustained effort aimed at attaining them (e.g., Sheldon & Elliot, 1998; Sheldon & Elliot, 1999). The ensuing sense of competence is likely to enhance engagement, as shown by the researchers using BPNT (e.g., Hodge et al., 2009). The findings of research with workers, however, suggest that the associations between engagement and proactive behaviour are reciprocal: engagement can encourage proactivity in solving problems (Salanova & Schaufeli, 2008; Sonnentag, 2003) and active learning (Bakker et al., 2012).
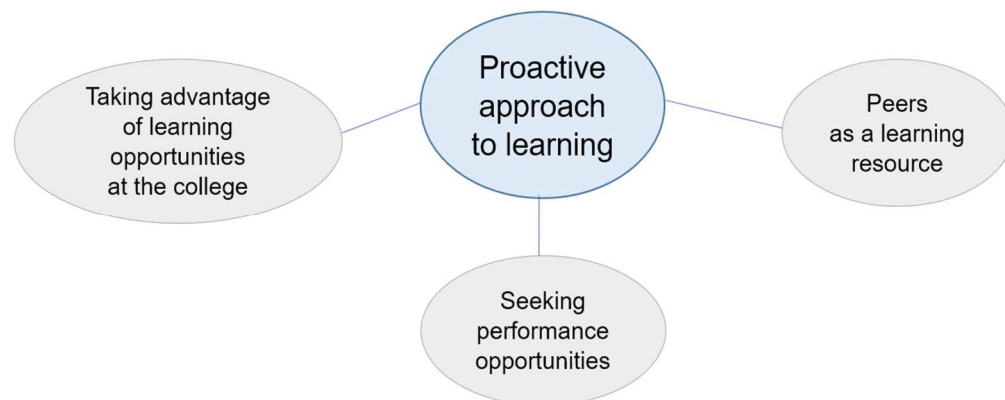
Figure 5.29 Proactive approach to learning
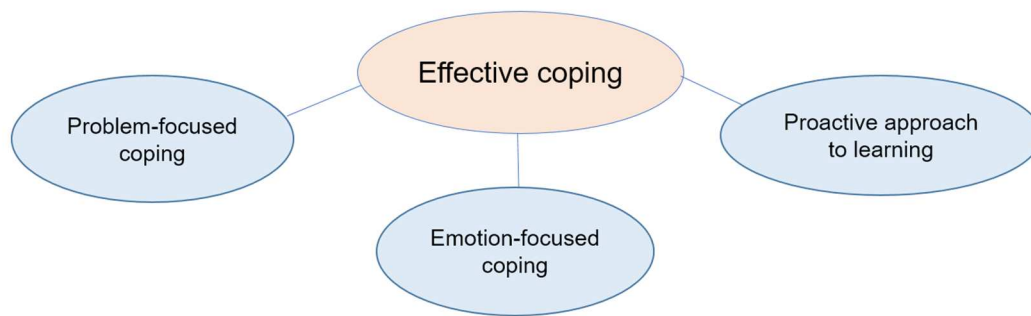
Figure 5.30 Effective coping

5.4.2.3 Theme III: Positive experiences of the learning environment

This theme deals with the interviewees' most salient experiences of the social environment at the conservatoire and their feelings in relation to them.

Subtheme 1: Good personal relationship with the tutor

Universally, the interviewees enjoyed good personal relationships with their main instrumental or vocal tutors. Gemma believed that her tutor knew her "very very well" and considered him a "close friend". Eve also talked about an emotional connection with her vocal teacher. Nonetheless, the descriptions of the student-tutor relationships differed in terms of the personal boundaries set: while all the interviewees described their teachers using positive terms, they did not all share strong emotional bonds with their tutors. This echoes Gaunt (2009, 2011) and Presland (2005), who note that students have differing views on the importance of having a social relationship with the tutor.

Some interviewees felt that their tutors were genuinely interested in them as people, and not only as students. Gemma's tutor showed interest in her life outside music: "it's not just, you know, he doesn't just care about my practising and playing, he actually cares about me as a person, performer and yeah, everything really". Kate also described her tutor's concern about her everyday life: "we talk about normal things, not only about music . . . about what's going on in our lives". Similarly, the students interviewed by Gaunt (2009) believed that tutors' interest in their daily lives was conducive to their learning.

In some cases, tutors showed empathy and understanding for students' difficulties. Eve's tutor, for example, demonstrated care and sensitivity in supporting Eve's decision, associated with her increasing issues with anxiety while singing, to take time away from her studies. Gemma's tutor understood that, due to other commitments, she was sometimes unable to devote enough time to her solo repertoire: "he'd always understand if I hadn't done as much work on my solo work as I would have liked to, he'd understand if I have quartet things on my list to be the priority at that time". Similarly, Helen said that her tutor was "quite understanding if . . . you've had a busy schedule". Gaunt et al. (2012) found that such an attitude can have a positive impact on tertiary students, who perceive the tutor's sensitivity to their "personal ups and downs", and their empathy and understanding for such issues as facilitators of their learning.

The tutors respected their students' independence, and trusted them to handle their own development by involving them in decision-making. Michelle referred to her experience of vocal lessons: "you can choose, and you decide whatever you want to do." Kate's tutor gave her a lot of freedom to choose her repertoire and how she played it. While Helen's tutor recognised the importance of letting her contribute to repertoire choices, he showed his care by considering how her musical strengths could best be demonstrated in performances. Similarly, Bonneville-Roussy et al.'s (2013) study showed that autonomy support from the tutor predicted music students' "harmonious passion". The present data also highlights the positive impact of autonomy support on music students.

To sum up, student-tutor relationships were characterised by mutual trust and respect. While the interviewees described different degrees of personal intimacy, none experienced interpersonal difficulties with their tutor in the context of one-to-one tuition. This accords with Reinboth and Duda (2006), who linked athletes' satisfaction of relatedness to their subjective vitality, a state akin to vigour. Furthermore, the tutors' characteristics as depicted by the interviewees mirror those identified by students in Gaunt's (2009) research as particularly conducive to learning. The belief that having good personal relations with the tutor facilitates learning is illustrated by Eve's comment: "my singing lesson, it's like of a safe space type thing . . . it's very freeing atmosphere that tends to mean that I can sing far

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better." Darren expressed similar views when comparing his current tutor to the previous one:

> The relations with the present tutor are friendly and there's no stress so it has a good effect on my learning . . . with the previous tutor, the atmosphere in the classes wasn't good, we were scared to go to the classes . . . and because I was stressed it was obvious that I couldn't think in a productive way.

These remarks correspond with those of Collens and Creech (2013), who argue that "the capacity to create, sustain and manage the interpersonal complexities of a relatively private one-to-one relationship between two adults over a period of years underpins progression in this learning situation" (p. 152). Yet, it could also be that the tutors are more friendly towards students who demonstrate high engagement with playing or singing, and show more trust in their ability to deal with study demands. Indeed, the findings of a questionnaire study of beginning teachers by Bakker and Bal (2010) showed that their engagement predicted perceived social support at work although it is not clear from the article if this is from colleagues or the supervisor.
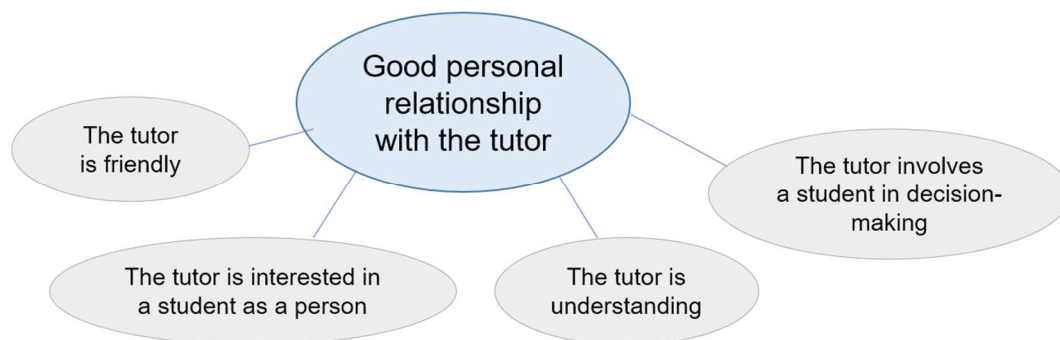

Figure 5.31 Good personal relationship with the tutor

Subtheme 2: Teaching resources

All the interviewees were happy with the quality of teaching they received at the college. Helen, for instance, said it was "very good" that the college gave her the opportunity to work with "specialised teachers who they often get in from different

countries of different parts of the UK". She was also content with the 'local' tutors: "we've got very good teachers at college which makes it a lot better to learn." Michelle, who was taught by several tutors, was "really happy" with the teaching. Even though she was not satisfied with the classes given by one of them, claiming that "he spent a big amount of time talking about himself", the work she did with other teachers seemed to compensate for it.

The interviewees often commented on their admiration for their teachers as performers. Kyle, for example, looked up to his tutor as a "great player", describing his skills as "fascinating". Gemma also expressed her appreciation for her tutor as a performer, claiming that he "shaped the saxophone playing in the UK a lot". Such admiration for the musical competencies of the tutors seems to be common in tertiary students (e.g., Presland, 2005).

According to the interviewees, instrumental or vocal tutors invested in their students' development as well-rounded musicians, and viewed their progress in a broad context instead of focusing solely on transmitting musical skills per se. Some teachers helped their students hone their stage skills. One of Michelle's tutors taught her "about emotion and performance skills, and everything that's got to do with performance." He also offered career advice: "he basically got me . . . to create my brand and my artist name." Helen mentioned that her instrumental teacher encouraged her to build up stamina by performing frequently in preparation for her end-of-year recital.

Teaching sometimes extended beyond issues directly related to music, incorporating elements of counselling (described by Renshaw, 2009, as a discussion of, or advice on personal issues arising from professional practice). Thus, Cara's lessons were "a lot about how to manage emotion", helping her tackle her performance anxiety. Eve, who also struggled with stage fright, said that thanks to her tutor she became less dependent on other people's opinions, and, as a result, less anxious. She went on to claim that "learning not to really care has been one of the best things" passed on by her teacher. One of Michelle's tutors helped her leave her perfectionistic self-expectations behind, which, in turn, contributed to her deriving more enjoyment from performing. Eve and Michelle associated the encouragement they received from their tutors with their boosted musical self-

confidence; Michelle's teacher also helped her become more optimistic about her future in music.

Some interviewees alluded to their tutors' attempts to promote their awareness of processes involved in successful playing or singing, perhaps undertook with a view of helping them gain a sense of competence and guiding them towards more independence. Gemma said:

His main goal is that students really understand what they're doing rather than just doing what he tells them to do so we're talking in great depths about how the saxophone works, how you make it work, what exactly is going on when something goes wrong and yeah, he's a great teacher.

Rather than giving him clear directions, Darren's tutor assisted in decisions regarding the interpretation of music:

We spend 1.5 or 2 hours every week trying to figure it out which note to play and if it's going to suit, and how to develop the music to make it interesting. It's important that my teacher . . . directs us so that we come to conclusions by ourselves, knowing that we made our own way and that we achieved it by ourselves.

Gaunt (2009) found that students may feel demotivated when faced with high levels of autonomy in the context of instrumental or vocal coaching but this did not apply to the present interviewees. Nevertheless, the traditional teaching model, whereby the authority is invested primarily in the tutor (e.g., Jørgensen, 2000), clearly benefits students at certain stages of their development. Michelle was happy with her tutor's "authoritative" approach:

If I had a problem, she could just address the problem and then, then that was the problem fixed with one thing that was maybe just change a vowel and I was like 'Oh, that's it!' So she sort of had all the technical answers. (Michelle)

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Music students react in different ways when encouraged by their tutors to take more responsibility for their own learning (Burwell, 2005; Gaunt et al., 2012), perhaps because they have different levels of musical skill. Yet, the tutors described by the interviewees seemed able to adjust their levels of guidance according to their students' current level of expertise, thus enabling their optimal development. This was captured by Gemma, who described a gradual progression from being reliant on the tutor towards a higher degree of autonomy:

> I basically do have lots of the knowledge now, which I especially learnt last year really and now, so now it's not so much that he's teaching me these new things but I'll take piece and we'll discuss options of what I will do, and then suggest some ways of doing it but it's very much a dialogue between us both rather than before, I'd go along with his ideas far more.

The engaged students perceived their tutors as catalysts for achieving musical excellence. This was possible because the tutors provided rich learning advice: they not only assisted with the development of instrument-specific skills but also facilitated students' independence, and offered advice on dealing with psychological issues and building a successful career. There are some indications in the literature that supervisory support (i.e., support provided in completing work-related tasks) contributes to work engagement (Korunka et al., 2009; Schaufeli & Bakker, 2004a). At the same time, however, it could be that students' engagement encourages the tutor to be more supportive or that students' positive attitude influences their perceptions of the tutor. This idea corresponds with Bakker and Bal (2010), who confirmed the effect of employees' engagement on their levels of perceived supervisory coaching and job autonomy.

In addition, some interviewees perceived the wider institutional environment to have a positive impact on their development by providing them with the opportunities to take part in several projects or otherwise aiding their transition into professional life. Learning and performing opportunities available at the institution were ample for some:

There was always lots going on so a lot of extra-curricular with the orchestras and being able to play with other musicians but also the learning aspect that we got we get a lot more one on one time with teachers than a lot of other universities or conservatoires. We you know get to play in ensembles and the teaching aspect was what I liked best when choosing to go to the college but the atmosphere there's there're always things going on, there's always events that you can be taking part. (Helen)

Kate also perceived several performance opportunities: "There were lots of projects, solo and for accordion ensemble [at college]". The variety of learning and performing activities available to the interviewees both provided opportunities for development and was likely to prevent them from feeling bored. Perhaps for similar reasons in Ascenso et al.'s (2017) study performers' engagement was associated with their involvement in a range of musical projects. These findings are in line with Sulea et al. (2015), who found a moderate and weak correlation between lack of boredom reported by students and their engagement. Michelle was grateful for the facilities provided:

I'm releasing my album so I've got to do that for free at college, so use what the college, use all the college studios for free, and the full album is at least 24 hours in the studio, and if I did that on my own, that would cost me thousands of thousands of pounds.

Eve, however, felt that she did not receive sufficient support, since she had to combine her studies with a part-time job: "it can be very difficult for them at the college to understand that you need to work to have money." She also talked about her difficulties in interactions with the head of school, who, according to Eve, showed little empathy when she struggled with anxiety problems. Eve's negative comments, however, did not refer to learning opportunities and facilities at the college.

To reiterate, the interviewees admired the musical achievements of their tutors, and felt that they learnt a lot from them. In addition, various learning opportunities

were available for them at the college. In line with JD-R model, engagement among employees is fostered by job resources – the characteristics of the job that facilitate goal achievement and personal growth (Bakker & Demerouti, 2006). Supporting this assumption, Bakker and Bal (2010) demonstrated that perceptions of opportunities for development predicted engagement reported by beginning teachers a week later. A longitudinal survey by Schaufeli et al. (2009) also showed that perceived resources for learning predicted engagement among telecom managers measured a year later. In light of these findings, the learning resources provided by tutors and the institution described by the interviewees are likely to contribute to their engagement, perhaps having a direct impact on their competence in achieving their music-related goals, in line with BPNT, and a more complete self-realisation through music. Furthermore, the learning opportunities available facilitate students' advancement towards their self-concordant goals, which researchers have associated with athletes' (Smith, Ntoumanis, & Duda, 2007; Smith, Ntoumanis, Duda, & Vansteenkiste, 2011) and students' well-being (e.g., Sheldon & Elliot, 1999).
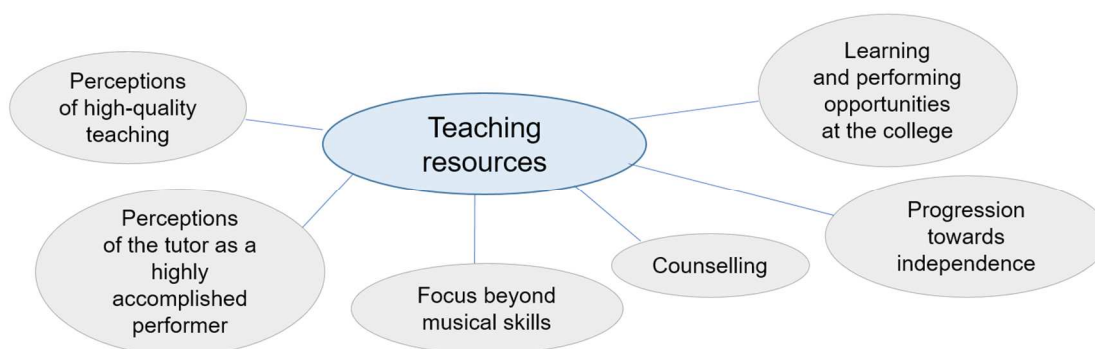
Figure 5.32 Teaching resources

Subtheme 3: Positive experiences of making music with peers

The interviewees frequently talked about their positive feelings with respect to making music with other people, with most comments referring to both formal and informal playing or singing situations involving other students. Helen, for instance, "really enjoyed playing in the ensemble". Michelle was even more enthusiastic: "I love singing with a band, it's much nicer than just singing on your own, I love it." Similarly, Gemma claimed: "it's been actually one of the best experiences I had whilst being at music college to be involved in that quartet". Moreover, informal

opportunities to play with peers were sought by some interviewees, such as Kyle and Michelle, who enjoyed "jamming" with them.

The opportunities for development afforded by playing with fellow students were sometimes mentioned. Darren, for example, claimed that being the leader of a group improved his skills. Gemma valued being a part of a saxophone quartet because "it's a really nice environment to learn off each other".

The possibility of working towards and achieving mutual goals through ensemble music-making had motivating effects. Darren felt "inspired" by being able to lead his instrumental group in a big band, and said the sense of responsibility motivated him to prepare for rehearsals:

> I know that if I give 100%, I'll encourage my colleagues to work hard so that we
> sound like one instrument. I feel satisfied when we all play well, I feel like we're
> a family that did something together and did it well, and it motivates me to keep
> working.

Also Helen described her positive feelings associated with cooperating with her peers in progressing towards common goals:

> It was really exciting 'cause I got to play with people who were on my course and
> we all had a similar interest in music so it was really enjoyable. We would have
> the same, you know, learning aspect and planning extra rehearsals, we were all
> interested and we did a lot of outside performing which helped with performing
> for our assessment.

These comments echo Ascenso et al.'s (2017) finding that being a part of a musical group contributed to professional performers' engagement as well as other aspects of their well-being, generally and in relation to music. Opportunities to play with colleagues were likely to serve as a platform for satisfying the interviewees' basic psychological needs of competence and relatedness, associated in the literature with indices of psychological adjustment (e.g., Baard et al., 2004; Deci et al., 2001). Their sense of competence was enhanced through the learning aspect of these

situations. Furthermore, since music acted as a channel for communication and self-expression for the interviewees, opportunities to cooperate with fellow students facilitated their sense of relatedness. The informal learning practices described by students specialising in non-classical genres nurtured their autonomy because of their focus on free expression and "having fun" (Michelle) rather than achieving high standards, and by giving them a chance to decide what they wanted to learn and how (Smilde, 2009).
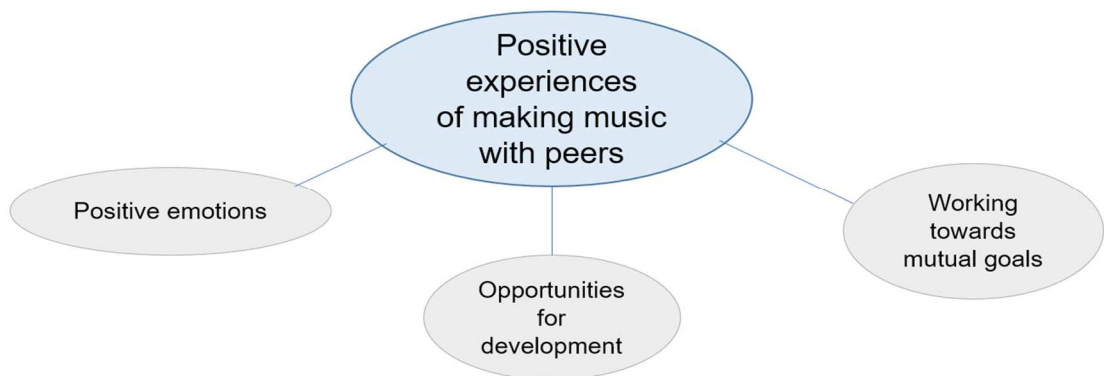
Figure 5.33 Positive experiences of making music with peers
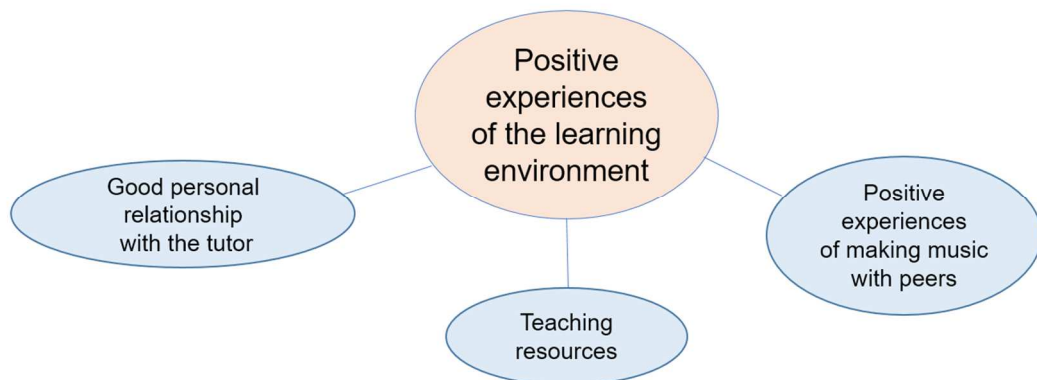
Figure 5.34 Positive experiences of the learning environment

5.4.2.4 Theme IV: Musical expertise

This theme deals with students' perceptions of their own skills, and their individual resources for further musical development.

Subtheme 1: Effective practice

Some interviewees made explicit comments about their enhanced ability to practise effectively: "I think, the one thing that music college taught me was . . . how to practise properly" (Kyle). Similarly, Gemma discovered "how to practise more efficiently and learn things faster". The perceptions of improved practice skills were likely to contribute to the interviewees' belief in their ability to achieve their musical goals.

In many cases, the learning strategies described by the interviewees suggested their use of self-regulated learning (Zimmerman & Schunk, 1989), whereby students set goals and regulate their cognitive, affective and motivational resources in order to achieve them (e.g., Zimmerman & Schunk, 2011). One key element of self-regulated learning is metacognition (e.g., Pintrich, 2000), a consideration of one's skills, actions and feelings (e.g., Hacker, 1998). The interviewees' use of metacognition in practice was evident as they talked about the organisation of their practice time. Eve, for instance, practised at different times of the day to "mix that up because of kind of the variety that comes with performing." Helen realised that she "worked better doing shorter, more intense, packed sessions of practice a day." Furthermore, the interviewees were aware of and focused in their learning on specific issues. In their practice sessions they therefore tended to work on their weaknesses:

> For me I guess learning how to practise properly was identifying my worst areas, what I really struggled with, which was probably time, which was probably my accompaniment, my left hand playing, all that stuff, and finding out the exercise how to improve that. (Kyle)

> Doing a lot of exercises around "m" and "n" vowels 'cause that's the main thing that it tends to be that if I'm stressed, then I put more pressure with my lips, then that is what locks off my throat. So I tried to do a lot of work with consonants. (Eve)

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In relation to work on specific musical pieces, the interviewees tended to "target specific areas" (Gemma). In her practice sessions, Eve went through her pieces identifying difficulties that she then attempted to master. Both approaches suggest significant levels of cognitive involvement during practice. In their use of metacognition, the interviewees resembled the professional musicians interviewed by Hallam (2001) and advanced students observed by Nielsen (2001). Kate, by contrast, admitted that her practice is not always as goal-oriented and efficient as she would like it to be: "it could be better because sometimes I just want to play around with the sounds and then I don't focus on practising effectively and achieving my goals". Yet, introducing elements of fun may play a role in regulating motivation, as suggested by Lehmann and Ericsson (1997), who note that it can contribute to maintaining interest during practice.

Some interviewees turned to a range of methods to aid their learning, sometimes moving beyond traditional approaches to practising. Kyle, for example, described a variety of strategies that he applied to improve his rhythmic accuracy and sense of pulse; these included using an innovative "sound engine percussion system". Kyle and Gemma listened to recorded music as part of their practice. The application of a range of approaches in practice was likely to be aimed at maintaining high levels of motivation. Kate articulated this as follows: "when I work on my pieces, I try different practice methods so that I don't feel bored because it's not the same all the time."

The practice behaviour characterised by the use of metacognitive and cognitive strategies described by the interviewees indicates high levels of engagement as they invested a great deal of mental energy in improving their musical skills. Nevertheless, the relationship between practice and engagement could be reciprocal: self-regulated practice is conducive to goal progress, promoting students' competence, which in turn enhances their positive attitudes towards music and fuels active involvement in practice. Moreover, the use of a variety of learning methods promotes students' engagement through combating the monotony of undertaking the same practice activities on a daily basis and thereby preventing boredom.
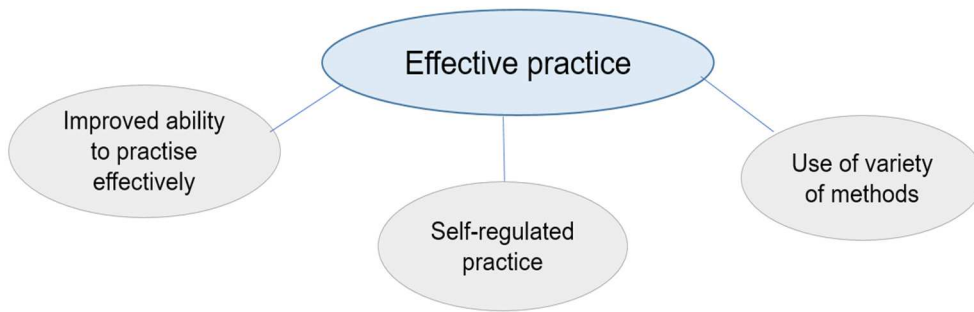
Figure 5.35 Effective practice

Subtheme 2: Improved musical skills

Most interviewees emphasised the substantial progress they had recently made in their playing or singing, which was partly, perhaps, because they had discovered how to practise more effectively. Their emphasis on progress rather than objective measures of success further highlights their focus on learning goals described in Sections 5.4.2.1 and 5.4.2.2. Helen, for instance, believed that her playing had improved dramatically during her time at the college. Eve believed that she made "real progress, in a really quite a short period of time." Likewise, Kate was more and more happy with "both the quantity and the quality" of her recitals. Although all the interviewees perceived themselves to have improved, Gemma admitted that for her "it wasn't as consistent as I would have liked it to be."

The interviewees frequently associated their sense of having made progress with the formation of a strong technical foundation:

> I would spend a lot of time focusing on articulation and the clarity of that, and kind of just getting into habits of performance and then what's that kind of, kind of established better level of overall technique, particularly articulation but also sound and finger work and things like that. (Gemma)

Eve described a similar experience: "this was the same when I left college and for the whole year, for six months when I wasn't officially studying, I made a big, huge really progress technically". Improved technique helped the interviewees feel physically comfortable while playing or singing:

I guess as a musician it's so important to understand your instrument and understand how to play your instrument properly, and without, you know, any physical difficulties like how to be comfortable whilst practising or playing . . . I got taught really well by the teachers, and by year three I was really comfortable playing and practising for that amount of time in a relaxed way, I think it's the most important thing. (Kyle)

Confidence in their technique and physical ease made the interviewees feel less restricted, allowing them to redirect their attention towards artistry and self-expression. Eve described herself as "more vocally able now", adding: I can really experiment with what I can do with the piece and bring a lot more to it that way." Michelle perceived a similar shift in her singing skills:

That was probably the first term, when I was very technical . . . it was a little bit hard, but then towards the end the things I just started, I probably just learnt 'cause I practised so much so things became easier and I started to find my own voice like I said I wanted to do. (Michelle)

These comments illustrate Jarvin and Subotnik's (2010) argument that technical proficiency is a prerequisite for attaining expressive goals and a crucial factor in the development of musical talent. Engaged students' progress in terms of communication and self-expression corresponds to Reid's (2001) description of the evolution of learning towards the most sophisticated level. Burland's (2005) "successful" students underwent a similar process: "the performers had developed different priorities for their performing with an emphasis on communicating their musical ideas and expressing themselves, rather than a focus on technique" (p. 149).

The interviewees not only attended more to expressive goals but also gained the knowledge and skills to express themselves more fully:

You take a scale or a mode which is a jazz thing, that's like an arrangement of

notes, and then basically take that through all 12 keys, and that's opened up. So

if you wanted to improvise, that'd give you a better foundation on which to

improvise. (Kyle)

Likewise, Kate said: "I learnt about violin techniques and how to use them on accordion", which, as she believed, helped her look at the music she played "in new ways".

Some interviewees talked about a leap in their skills performing in front of the audience. Michelle and Helen, for instance, made references to their enhanced performance skills attained through a more effective management of performance anxiety:

I gained a lot of performance experience, which has helped with playing in front

of crowds because sometimes I can get a bit nervous but I feel like I am getting

better at performing in front of people, which has helped with my quality of

playing. (Helen)

Michelle felt more confident with respect to her stage skills as she learnt how to work with a microphone and incorporate elements of dance and drama in her performance. She said: "the second recital was already, I was just more open, I was moving a lot, and I was talking more to the audience more between the songs, I just felt more comfortable basically."

The development of musical expertise described by the interviewees was a catalyst for forming their individualities as musicians. Helen, for example, discovered the type of music she enjoyed playing most. Michelle was becoming increasingly aware of her own musical personality as she stated: "I just concentrate on what I'm saying, and concentrate on my style". Gemma made a deliberate decision to "make performances exciting" by taking risks and playing with more spontaneity. Kyle said: "I sort of chose a different approach to my playing. I chose a different style to what everyone else is doing so my respect is a little bit different."

The more attention the interviewees were able to pay to their expressive goals, once they felt technically and psychologically comfortable, the more enjoyment they derived from learning and making music:

> It changed . . . from doing a very technical work in the room on my own, that's basically how I started, to in the end practising more with the band, and not worrying so much . . . about the technical approach but rather think about the emotion, and trying to always keep the emotion in there. And just, basically, having fun, and basically making music, and enjoying it. (Michelle)

Similarly, Helen said: "I've really been enjoying sort of mastering the flute instead of, learning more about performing a lot more musically rather than just technique". Similarly, Ascenso et al. (2017) found that opportunities for self-expression afforded by music enhanced positive emotions experienced by professional performers.

On the basis of their comments, taken together, the interviewees were increasingly satisfied with the range of their musical skills, as a consequence feeling more competent to achieve their self-concordant goals. This, in turn, promoted the positive emotions and attitudes they experienced in relation to music, in line with the self-concordance model. The findings support the fundamental role of competence satisfaction in engagement, advocated by researchers using BPNT to study athletes (e.g., Hodge et al., 2009) and students (Sulea et al., 2015). Specifically, the capacity to surpass technical and emotional concerns in performance, facilitating the shift of attention towards interpretation, may have underpinned the interviewees' engagement in two ways. First, their enhanced ability to shape music the way they wanted enabled them to express themselves more completely through music, thus promoting their eudaimonic well-being. This supposition builds upon the evidence of Lacaille et al. (2007), who, as described in Section 5.4.2.1, produced some evidence for the relationship between performers' focus on intrinsic goals such as expression, and their well-being and positive motivation. Second, according to the self-concordance model, the interviewees' heightened skills and associated progress towards a professional future in music may have fostered their sense of competence and hence psychological well-being.

An alternative explanation for these findings is that the interviewees' progress was influenced by their high levels of engagement: engaged students are likely to be more eager to invest energy and time in improving, and thereby developing their musical skills, which maximises their chances of attaining their musical goals. Evidence for reciprocal interplay between engagement and competence is provided by a study of secondary school teachers carried out by Llorens-Gumbau and Salanova-Soria (2014), who showed a reciprocal relationship between engagement and self-efficacy over time.
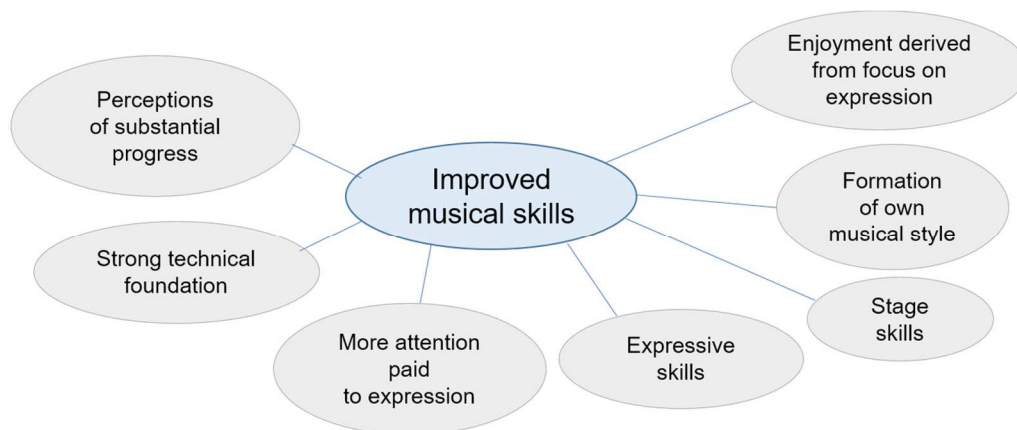
Figure 5.36 Improved musical skills
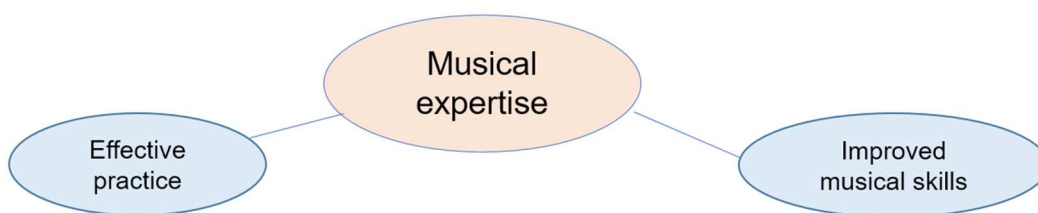
Figure 5.37 Musical expertise
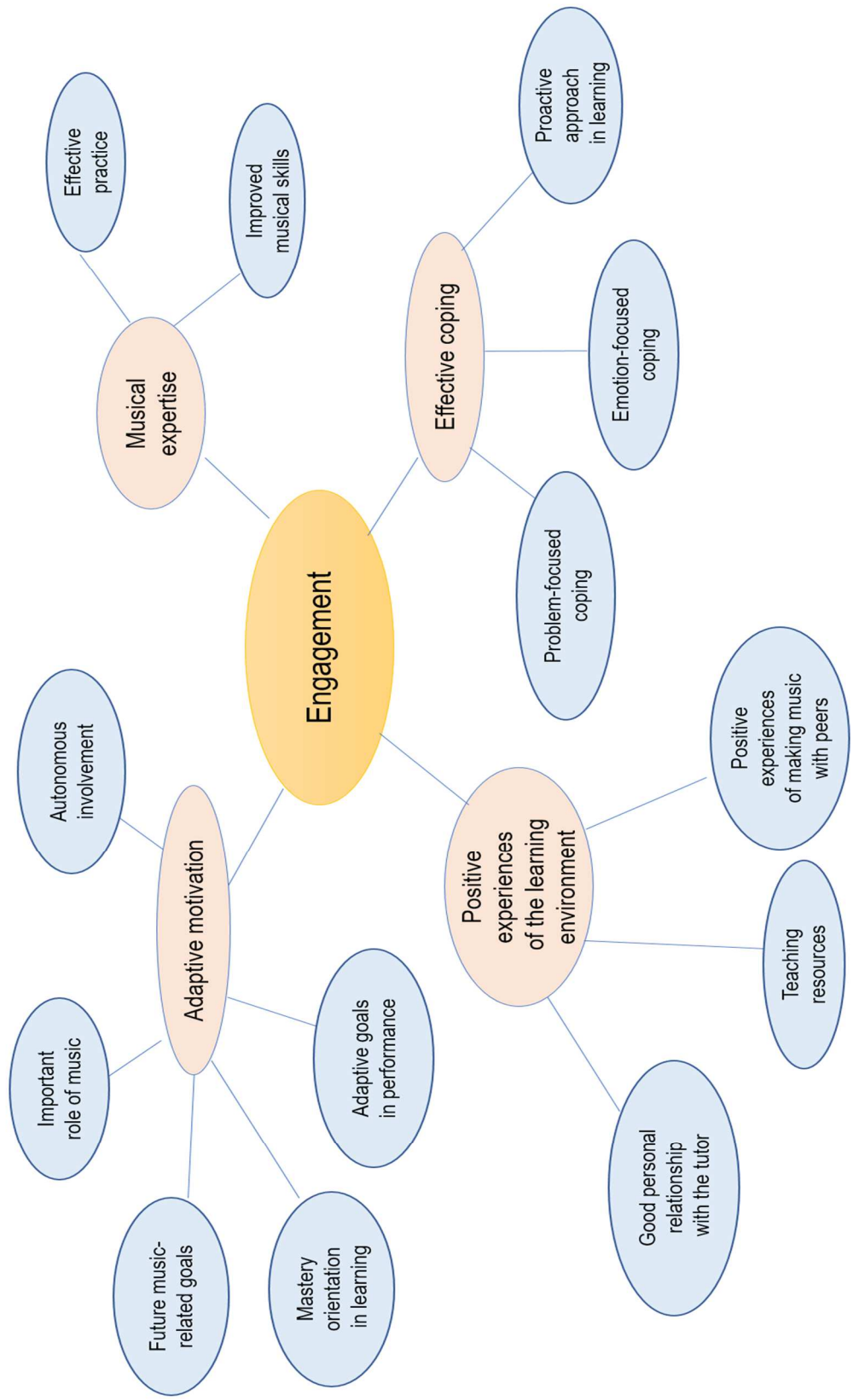
Figure 5.38 A thematic map of engagement in music performance students

5.5 General discussion

5.5.1 Summary of findings

The study aimed to explore the experiences of burned-out (Study IIIa) and engaged (Study IIIb) performance students, relating them to the self-concordance model, the revised JD-R model, and BPNT framework for their further understanding. These theories propose unidirectional associations, however, which may be overly simplistic (Schaufeli & Taris, 2014), and COR theory (Hobfoll, 2001) provides the more plausible explanation students' experiential states are reciprocally related. These theoretical approaches are integrated in the following sections to guide the discussion of the findings from the present studies.

5.5.1.1 Study IIIa

The mechanisms found to prompt the development of burnout in Study IIIa could be understood through the lens of self-concordance model (e.g. Sheldon & Elliot, 1999; Figure 5.39).
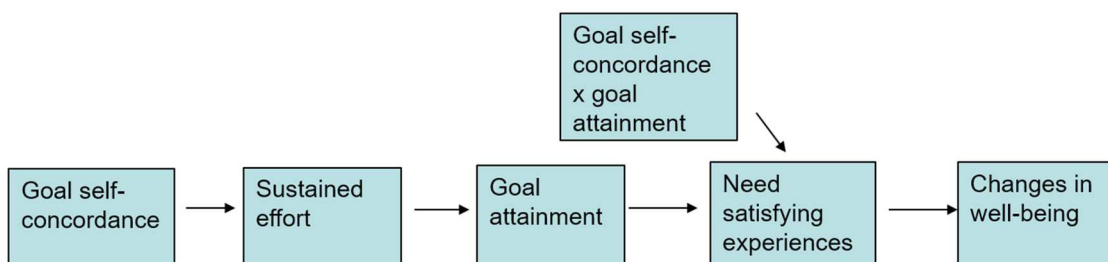
Figure 5.39 The self-concordance model (reprinted from Sheldon & Elliot, 1999)

Burnout in music performance students evolves because music-making does not contribute to the realisation of their true selves and as a consequence they pursue goals incongruent with their authentic selves; those involved in music for extrinsic or introjected reasons are less eager to invest effort in their development and therefore less likely to achieve their goals. Alternatively, music students' burnout may arise as a response to disrupted progress towards their self-concordant goals, driven by intrinsic or identified motives for music-making. In this case, the key developmental process fuelling burnout is a compromised sense of competence, linked in BPNT research to burnout reported by athletes (e.g., Hodge et al., 2008), dancers (Quested & Duda, 2011) and students (e.g., Sulea et al., 2015). Lack of

competence, represented by students' lack of control over their progress and performance, is likely to contribute to their sense of reduced sense of accomplishment, which can produce other burnout-related symptoms. Difficulties adopting meaningful goals or attaining self-concordant goals at music thus prevent students from achieving eudaimonic well-being embodied by the sense of living in congruence with one's real values and interests (e.g., Norton, 1976; in Waterman, Schwartz, & Conti, 2008) and actualisation of one's potential (e.g., Ryff, 1995; Waterman et al., 2008). Vasalampi, Salmela-Aro and Nurmi (2009) provide evidence for this interpretation from the findings of a longitudinal study of secondary-level students in Finland: for girls but not boys, relationships between self-concordant goals and burnout were inverse, as were relationships between goal progress and burnout.
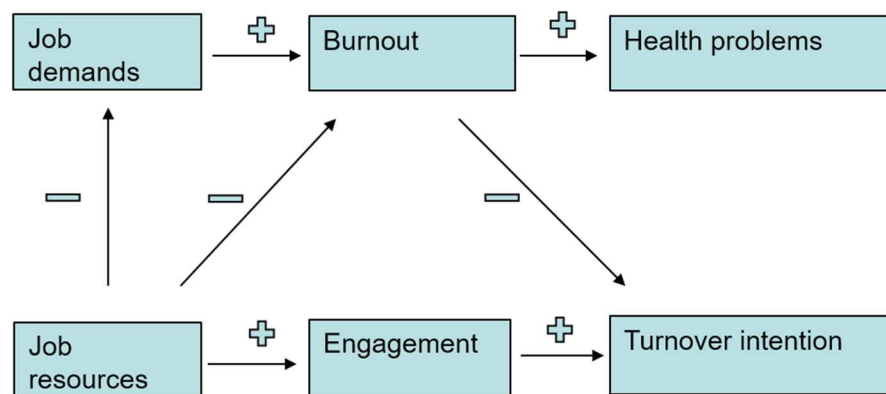
Figure 5.40 The revised Job Demands-Resources Model (reprinted from Schaufeli & Bakker, 2004a)

The revised JD-R model (Figure 5.40) offers another framework for understanding the interview data. The model assumes that high job demands combined with poor job and personal resources are responsible for the development of burnout, which in turn leads to impaired health. Job demands are defined as "negatively valued physical, social, or organizational aspects of the job that require sustained physical or psychological effort and are therefore associated with certain physiological and psychological costs" and resources as "positively valued physical, social, or organizational aspects of the job that are functional in achieving work goals, reduce job demands, or stimulate personal growth and development" (Schaufeli & Taris,

2014; p. 56). Although the revised JD-R model is relatively recent, research informed by it has focused on the role of job resources, recognising that limited personal resources are also important in burnout (e.g., Lorente Prieto, Salanova-Soria, Martínez Martínez, & Schaufeli, 2008). The data discussed above suggests that, as proposed by the revised JD-R model, the presence of demands and poor resources to manage them underlie music students' burnout. Interviewees described demands including workload, the need to adapt to a new environment and conflict with teachers. They lacked the personal resources to manage these demands, demonstrating maladaptive motivational pattern and ineffective coping. In addition, tutors could provide little in the way of learning resources and social support. As a result, the students felt exhausted, and they had limited control over their progress and performance, and thus a diminished sense of accomplishment. Burnout led to impaired health such as physical complaints and affective symptoms.

The COR theory (e.g., Hobfoll, 2001) is helpful, however, in further interpreting the findings of Study IIIa in that it adds to the understanding of the relationships between specific experiential aspects of music-related burnout. Gorgievski and Hobfoll (2008) describe burnout as "the end state of a long-term process of resource loss that gradually develops over time depleting energetic resources" (p. 3). This definition builds on the fundamental principle of COR that resources are organised in an inter-dependent system whereby loss of one entails further losses, following the principle of spirals of loss (Gorgievski & Hobfoll, 2008). This helps explain why, in the present study, diminished sense of accomplishment led to further burnout-related changes such as devaluation, representing a loss of motivational resources. It also explains why a negative shift in energy resources prompted a further decrease in the interviewees' sense of accomplishment. Perceptions of poor personal and social capital could both lead to burnout, with their initially low levels exacerbating the drainage of energy and competence resources, and be its by-products. So the compromised physical well-being and affective symptoms evident in burned-out students are likely to both contribute to and arise from their burnout although the findings of the present study favour the former view. Figure 5.41 integrates the theoretical approaches discussed above to explain burnout in music performance students.

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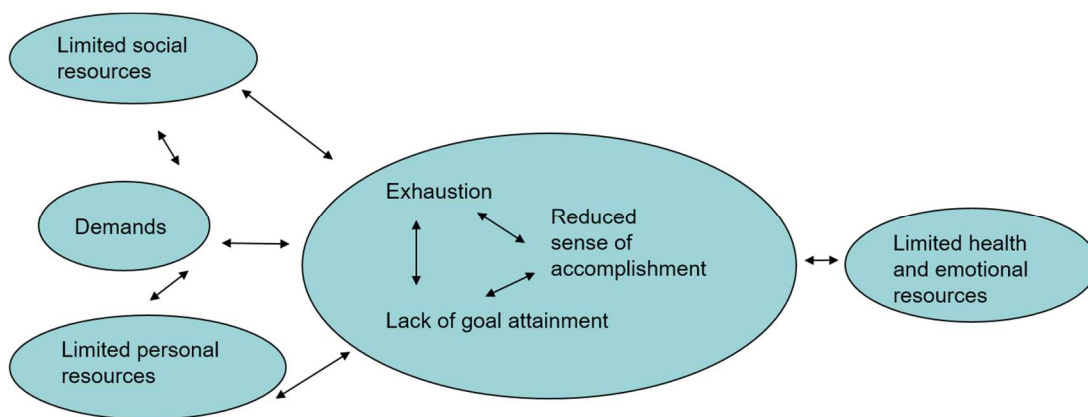
Figure 5.41 A simplified model of burnout in music performance students

5.5.1.2 Study IIIb

Drawing upon the self-concordance model, music students' engagement is likely to develop when music constitutes a part of their true selves and when they perceive that they are progressing towards fulfilling their musical potential. These experiences have the capacity to foster students' eudaimonic well-being through their positive impact on their self-actualisation. These findings are in accordance with those of Vasalampi et al. (2009), who applied the self-concordance model to burnout in the educational context, and confirmed the associations between self-concordant goals and school engagement, and goal progress and school engagement in female Finnish secondary students. While the self-concordance model proposes that attainment of self-concordant goals contributes to the accumulation of experiences nurturing all basic psychological needs (e.g., Sheldon & Elliot, 1999), increased satisfaction of competence and artistic autonomy fuelled by positive learning outcomes is crucial to music students' engagement.

The progression towards more complete self-realisation through music, eliciting the anticipation of attaining or actually attaining music-related goals, is facilitated by personal resources conducive to learning, such as adaptive motivational patterns, effective coping, proactivity and practising skills. Social resources – social support from the tutor, the tutor's expertise and informational support from other students – also play a role. Van den Broeck et al. (2008) found that resources have an intrinsic motivational effect, in that they foster basic need satisfaction. Consistent with this finding, personal and social resources aided students' learning, promoting

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their satisfaction of competence and autonomy, as they felt more free to express their true selves. Similarly, BPNT research conducted with athletes (Hodge et al., 2009) and students (Sulea et al., 2015) has associated competence and autonomy with engagement. Although some engaged students described the challenges they faced when at the college, these descriptions were scarce and did not affect their attitudes towards music. They also suggest that students perceived the workload and tiredness in positive ways, associating them with desired learning outcomes. Lending support to a body of research utilising the JD-R model to examine employees (e.g., Schaufeli & Bakker, 2004a; Schaufeli et al., 2009), the findings of the present study thus suggest that resources have more important implications for students' engagement than the absence of study-related challenges. It is also plausible, however, that the availability of resources alleviates the negative influence of study demands (Bakker, Hakanen, Demerouti, & Xanthopoulou, 2007).
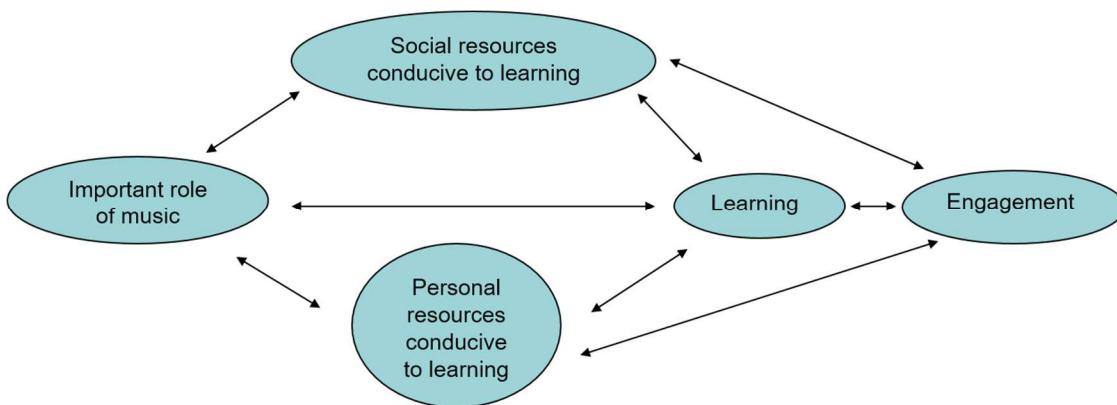
Figure 5.42 A simplified model of engagement in music performance students

The findings of Study IIIb, like those of Study IIIa can also be explained by COR, which proposes that engagement develops as a consequence of the accumulation of intrinsic energy resources following an initial investment of capital (Gorgievski & Hobfoll, 2008). In line with the literature combining the COR theory and JD-R model (e.g., Xanthopoulou et al., 2009), personal, social and energy resources are likely to operate in a dynamic system of spiral gains (e.g., Gorgievski & Hobfoll, 2008; Salanova, Schaufeli, Xanthopoulou, & Bakker, 2010). Thus, positive shifts in proactivity or competence, for example, increase the probability of acquiring other resources such as engagement, which in turn entails further gains in proactivity and

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competence. Figure 5.42 presents a simplified model integrating the theoretical approaches discussed above to explain engagement in music performance students.

5.5.2 The findings in the light of qualitative research on burnout and engagement: a summary

5.5.2.1 Study IIIa

The main body of qualitative research on burnout has been done in the medical (e.g., Picard et al., 2016) and sport domains (e.g., Cresswell & Eklund, 2007). As discussed in Section 3.3.2.2, both music and sport place high demands on the bodies of those involved. Moreover, these domains are comparable in terms of their strong focus on achievements. For these reasons, it is worth discussing the present findings in the light of qualitative studies of athlete burnout.

The experiences of burned-out music students and athletes clearly overlap, although music performance students' burnout has some unique characteristics. Both qualitative research on athlete burnout (e.g., Cresswell & Eklund, 2006b; Cresswell & Eklund, 2007) and the present study identify domain-specific demands as contributors to burnout. The pursuit of ego-goals characterises both burned-out music students and athletes (e.g., Gustafsson et al., 2008). As noted by Gustafsson et al., endorsement of such goals, particularly in conjunction with the sense of being entrapped in sport, may put athletes at the risk of burnout. Unidimensional identity (e.g., Gould et al., 1996) and the feelings of entrapment (e.g., Cresswell & Eklund, 2007; Raedeke, 1997), documented in qualitative literature on athlete burnout, are also implied in the experiences of burned-out music students. Furthermore, young musicians displaying high levels of burnout resemble burned-out athletes (Gustafsson et al., 2008) in their coping, characterised mainly by avoidance and withdrawal. In addition to the similarities between young musicians and athletes with respect to their personal characteristics, consistent with data from interviews with burned-out athletes (e.g., Gustafsson et al., 2008; Gould et al., 1996), the present study suggests that the social environment is highly relevant to music students' burnout. Yet, the role of limited informational and social support from the principal study tutor seems even more important than the role played by the coach in athlete burnout.

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Both burned-out athletes (e.g., Cresswell & Eklund 2006b; Gustafsson et al., 2008) and music students experience reduced sense of accomplishment, physical and emotional exhaustion and devaluation of the domain of involvement. As in Gustafsson et al.'s research, the present study identifies two main developmental patterns of burnout. It is manifested initially by either reduced sense of accomplishment or exhaustion, and next by devaluation. As in qualitative studies of athlete burnout (e.g., Gould et al., 1996; Gustafsson et al., 2008), the burned-out music students in the present study displayed psychosomatic symptoms. They also resembled the athletes interviewed by Gould et al., in that they described a range of signs of negative affect. Schaufeli (2003) notes these could be seen as symptoms, concomitants or consequences of burnout, depending on the definition of burnout adopted.

5.5.2.2 Study IIIb

Even though athlete engagement has received some attention from researchers (e.g., Lonsdale, Hodge, & Raedeke, 2007), there is limited qualitative literature on the topic. Likewise, although there is a body of quantitative research on work engagement (e.g., Salanova & Schaufeli, 2008; Schaufeli et al., 2009), qualitative examinations of this phenomenon are scarce, and focus mainly on its components rather than its underlying causes and consequences. Given the relative paucity of qualitative research on engagement, the present study thus offers a valuable addition to the current literature.

Like the highly-engaged employees interviewed by Schaufeli et al. (2001; in Schaufeli & Bakker, 2004b), the engaged music students in the present study took the initiative and were proactive in their involvement in music. Schaufeli et al. highlight the importance for employee engagement of effective coping and taking time off. Similarly, the interviewees employed a range of coping methods and were able to detach themselves from music. They also described their tiredness in positive terms, echoing Schaufeli and Bakker's claim that "it appeared from interviews and discussions with employees and supervisors that rather than by efficacy, engagement is particularly characterized by being immersed and happily engrossed in one's work – a state that we have called absorption" (p. 5). While Lonsdale, Hodge and Raedeke (2007) interviewed elite athletes in New Zealand and found little evidence for their absorption, and absorption was not explicitly

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mentioned by interviewees in the present study, they may well have experienced it. Lonsdale et al. suggest, however, that athletes' confidence in achieving their desired goals is more characteristic of activities evoking engagement. Although the process of enhancing musical skills is key to the experiences of engaged music students, their main focus is on the actual improvement itself rather than the self-confidence that arises from it. Furthermore, progress seemed to elicit interviewees' positive emotions and attitudes towards music, including vigour and dedication, rather than merely accompanying them.

5.5.3 The findings in the light of the qualitative research in music education: a summary

The present studies add to the knowledge of optimal development of music, while making a novel contribution to the music education literature by using qualitative methods focusing on aspects of music students' well-being rather than their motivation or achievements. The findings are largely consistent with Burland and Davidson (2002), who suggest that students who successfully make the transition into the performing profession are likely to be those for whom music constitutes an important part of their self-concept and who have coping skills. The findings also confirm those of MacNamara et al. (2006, 2008) by highlighting the importance of students' ability to adapt to the college environment. Mastery orientation demonstrated by engaged students corresponds with a willingness to make mistakes and the ability to learn from them, which MacNamara et al. (2006) identified as one of the Psychological Characteristics of Developing Excellence (PCDE; Abbott & Collins, 2004) during musical training at the tertiary level. Burned-out students in the present research, by contrast, clearly lacked these PCDEs, being focused primarily on managing social impressions instead. These findings are also in agreement with those of Burland (2005), who found students who subsequently had "performer" identities to be mastery-oriented, whereas those with "amateur" identities were more concerned with others' opinion of their musical competencies. In the present study, students' perceived competence was crucial for shaping their music-related well-being. Evans et al. (2013)'s research suggests that diminished competence accounts for students' demotivation to continue their musical training but the present study found that students' suboptimal experiences leading to burnout arose from their failure to make progress despite investing time

and energy. This finding is supported by MacNamara et al. (2006)'s interviews with musicians, which underline the significance of the ability to practise, that burned-out students seemed to lack. The present research makes another novel contribution in its recognising the role of perceived accumulation of competence in students' optimal experience. While MacNamara et al. identified "self-belief", an associated construct, as a determinant of a successful transition to full-time music education and professional life (2008), and in dealing with the challenges of training at the tertiary level (2006), it is not clear if it includes students' perception that they have made progress in developing their musical skills. A new insight from the present research is that engagement is promoted specifically by a positive shift in the sense of competence acquired as a result of enhanced ability to overcome technical issues, thereby forming the basis for more complete self-expression through music.

Echoing Burland and Davidson (2002), the present study highlights the role of experiences of the social environment in students' development. It places primary importance on teachers and peers as resources for learning, however, rather than the emotional support they provide. Resources for learning afforded by tutors appear to be even more important than those afforded by peers in preventing students' burnout and fostering their engagement. The personal aspects of students' interactions with the tutors seem to be of instrumental value, in that they facilitate the creation of an environment conducive to acquiring new skills. The research only partly supports Evans et al. (2013), therefore, since the findings of their qualitative survey suggest that thwarting of relatedness in relationships with teachers and peers contributes to students' decision to quit musical training.

The study adds to the existing music education literature by suggesting that problems experienced by students in relation to playing their instrument or singing influence their general well-being. Specifically, this work highlights the potential contribution of students' burnout to negative affective outcomes and the deterioration of their physical health. The latter finding complements quantitative findings (e.g., Leaver et al., 2011; Steinmetz et al., 2015) by providing qualitative evidence for an association between the psychological and physical welfare of music performance students.

5.5.4 Methodological limitations

First, interviewees were recruited using arbitrary criteria for high burnout and engagement (Section 3.3.2.1); they may not have been the best representatives of burned-out and engaged groups. Although Braun and Clarke (2006) suggest collecting data from homogenous samples for the purposes of generating themes, a heterogenous sample insofar as interviewees were studying a range of musical genres associated with different attitudes towards learning and self-perceptions (e.g., Creech et al., 2008; Welch et al., 2008)

Second, using existing measures of burnout and engagement may have biased the way they were shown to be manifested in the context of music performance, the processes leading to, and the consequences of burnout and engagement.

Third, the study's design was retrospective: some interviews were conducted as many as nine months after the interviewees were found to be burned-out or engaged. Such designs rely on participants' recall being accurate, although memories are inevitably filtered through interviewees' recent experiences and current beliefs (e.g., de Vaus, 2006; Grotpeter, 2008). Cresswell and Eklund (2006b), for example, note that both subjective and objective performance outcomes may influence recall for burnout-related experiences. Faulty memory may affect descriptions of particular behaviours and events more than others, although negative experiences such as burnout may be less susceptible because they tend to be remembered in more detail (e.g., Kensinger, 2007; Kensinger, 2009), particularly by people with major depression (e.g., Whalley, Rugg, & Brewin, 2012). Since some burned-out interviewees manifested depressive symptoms, they may have been more inclined to remember negative past experiences thus biasing the findings of the study. Furthermore, retrospective designs do not allow researchers to track the evolution of interviewees' experience, which can be an issue when examining processes such as burnout that develop over time (Cresswell & Eklund, 2006b).

Finally, interviews were conducted over the Internet using the audio function thereby making it impossible to observe the potentially informative non-verbal responses.

5.5.5 Further research

For the purposes of future qualitative research on burnout, instrumental and vocal tutors could be asked to nominate those of their current students whom they believe to be burned-out, or former students who withdrew from their courses on the grounds of symptoms reflecting burnout.

Researchers could triangulate interview data by complementing it with observation of participants during lessons or rehearsals, and interviews with their tutors, for instance.

Although burnout and engagement involve spirals of losses and gains, the dynamic interplay between specific factors, and their consequences, could be explored more effectively in studies using prospective longitudinal designs.

Finally, the models of burnout and engagement discussed in this chapter offer a range of opportunities for quantitative research in music education. Researchers could test them using path analysis or examine potentially reciprocal relationships between their components; generalisations could thus be made to a wider population of music performance students.

Chapter 6. General discussion

6.1 Summary and triangulation of findings

6.1.1 Research question 1: What levels of a) burnout and b) engagement are experienced by music performance students?

The levels of burnout identified in Study I (quantitative) were comparatively low while levels of engagement were moderate to high. Although music-making promotes the well-being of music performance students nevertheless one in ten of them is at risk of feeling burned-out.

6.1.2 Research question 2: To what extent are differences in levels of burnout and engagement, if any, attributable to a) differences between the countries in which music performance students undertake their training and b) the sex of the student?

Study 1 found cross-national differences in burnout such that students in Australia and the UK reported higher levels of emotional and physical exhaustion and devaluation than those in Poland. In addition, the UK respondents were more globally burned-out than those in Poland. Students in Poland and the UK reported feeling unsuccessful more often than their Australian counterparts. Furthermore, Polish respondents were more globally engaged, felt more vigorous and were more dedicated to playing their instrument or singing than those in the UK. These variations in music-related well-being could be attributable to different educational practices in these countries but the influence of cultural influences shaping students' attitudes cannot be ruled out.

Women reported higher levels of global burnout and emotional and physical exhaustion, and felt less accomplished than men although these differences are of little practical importance. They are likely to be related to their differing experiences of socialisation, on the one hand, and of teachers' gendered expectations, on the other. No differences emerged, however, between male and female students' levels of engagement.

6.1.3 Research question 3: What factors contribute to burnout and engagement in music performance students?

The qualitative Study IIIa showed that students can develop the symptoms of burnout both when music does not represent their "true selves" (i.e. their values and interests) and when it does. In this latter case burnout may be experienced when students find it hard to adapt to and deal with the demands of life at music college, or, as suggested by the findings of the quantitative Study IIa, because their sense of competence is undermined by difficulties achieving musical goals, perhaps exacerbated by concentration on social comparison and impression management, and poor coping skills. Also evident in Study IIIa was students' tendency to protect their ego by focusing on basic goals when they perform, such as not making mistakes, rather than goals more conducive to positive psychological states such as self-expression and communication (Lacaille et al., 2007). Burned-out students perceive that the teaching resources available to them, which ought to facilitate their learning, are limited. They therefore fail to adapt successfully to college life, feeling that they cannot rely on their tutors especially when their teaching approaches or methods are not suited to the individual student or – echoing the finding from Study IIa that increased autonomy predicts burnout – when the tutor gives insufficiently clear instructions. The tutor who does not encourage students' autonomy is likely to have a negative impact on their sense of competence and relatedness. The tutor therefore has to strike a delicate balance between leaving students to feel unguided and providing the optimal degree of autonomy support. Limited social support from the tutor, which may result in the student having a poor relationship with him or her, can also have an impact on students' burnout, as Study IIa indicates. Study IIIa further suggests that interpersonal issues in one-to-one tuition can be detrimental to learning as they affect students' sense of competence. Furthermore, stress and sleep problems can both contribute to and occur as corollaries of burnout.

As shown in the qualitative study IIIb, music appears to reflect the true selves of engaged students, and to be a crucial element of their self-concept. Self-actualisation, a prerequisite for achieving eudaimonic well-being, arises from their focus on expression and communication through music. Their sense of making substantial progress in relation to their music-making boosts their sense of

competence, which is associated with engagement (Study IIa). The development of musical skills permits more complete self-expression, which further contributes to students' perceptions of competence. Study IIa found no relationship between the satisfaction of autonomy in one-to-one tuition and engagement but the findings of Study IIIb suggest that students' autonomy increases as they become more able to express themselves through their music-making. Progress is facilitated by their coping skills, endorsement of mastery goals and proactive approach to learning. Playing with other students also has a positive impact because it promotes learning and can satisfy students' need for relatedness. Teaching should therefore transcend a narrow focus on skills to support other aspects of students' music-related functioning. The most salient predictor of students' engagement found in Study IIa was the degree to which their need for relatedness with regard to the tutor was satisfied. The findings of Study IIIb show that this is because it helps to create an environment conducive to learning by promoting students' sense of competence. Both studies suggest that relatedness and competence are underpinned by the tutor's autonomy supportive behaviour, encouraging students' independence while still providing options for learning in the context of one-to-one tuition. Both studies indicate that relatedness is also fostered by the tutor's willingness to provide students with social support. While a good relationship with the tutor may increase students' engagement via its influence on their sense of competence, it could also be that engaged students feel related to their tutors because they experience them as catalysts for their developing musical competence.

6.1.4 Research question 4: How do music performance students experience burnout and engagement?

The findings of Study IIIa suggest that burned-out music performance students feel tired, mostly physically, and have a low sense of achievement. Perceptions of being unaccomplished are thus important in music students' experience of burnout, which provides support for definitions of burnout that include lack of accomplishment (e.g., Schaufeli et al., 1996). Although the students who took part in Study I reported devaluation less frequently than emotional and physical exhaustion and reduced sense of accomplishment, there was some evidence from Study IIIa that burnout is characterised by negative attitudes towards music and, to a lesser extent, a cynical attitude towards other people.

Studies IIb and IIIa both show that burnout has a negative impact on students' general physical health, via the exhaustion and reduced sense of accomplishment (Study IIb), although devaluation of music protects against it. Burnout may be associated with the sleep disturbances experienced by burned-out students, congruent with the effects of stress and negative affective responses, and have an impact on students' cognitive functioning, affecting their attention and memory, and on general psychological well-being (Study IIIa).

The majority of engaged students who took part in Study IIIb demonstrated their dedication to music by saying they intended to work as professional musicians. Their high levels of vigour were reflected in their proactive approach to learning, although they did not refer to vigour directly; nor did they refer to absorption directly although it was reported in Study I. Lonsdale, Hodge and Jackson (2007) propose that confidence is a component of athlete engagement. Engaged students feel self-confident as musicians (Study IIIb) but competence is an antecedent of, rather than a feature of engagement (Study IIa).

Engagement does not, however, appear to protect students from physical health problems or MS pain (Study IIb), but neither does it have negative implications for their physical health status. Proactivity in learning, general coping skills and enhanced competence, which contribute to engagement (Study IIIb) may also be seen as its concomitants or consequences.

6.2 Practical applications

The research reported in this thesis aimed to contribute to the practical knowledge of how to prevent music performance students' ill-being and cultivate their well-being in relation to music-making. First, it could form the basis for developing interventions to foster students' engagement with playing or singing and help them avoid or manage burnout. Second, its findings could be used to detect the signs of potential burnout in music performance students. This would be extremely valuable since, in its early stages, burnout is a minor issue, still easily reversible (e.g., Maslach, 1982).

The thesis has shown that students' music-related well-being involves the interplay of personal (e.g., coping strategies, competence) and social factors (e.g., teaching approach, relationship with the tutor). Jørgensen (2014) postulates that

tertiary-level institutions, teachers and students themselves all bear responsibility for students' development and learning. Indeed, research conducted in work contexts indicates that collaborative approaches may be particularly useful for preventing burnout: Awa, Plaumann and Walter (2010), for example, reviewed 25 studies and concluded that combined person- and organisation-directed interventions have the longest-lasting effects. The advice of all stakeholders should therefore be taken when planning interventions to help music performance avoid or prevent burnout.

6.2.1 Practical advice for students

Unlike music performance students at risk of burnout, who may have started studying music because they enjoyed it but were not committed to being professional musicians, or perhaps as a result of their long-standing involvement perceived no alternative to studying music, engaged students clearly treat music as a tool for self-actualisation. Young musicians should therefore be encouraged to reflect, so far as they are able, on the underlying motives for their decision to study performance at the tertiary level. This could involve considering the degree to which they identify with music and its potential role in their professional future. Students who concentrate on self-expression through music so as to articulate their artistic personality and communicate with other people, as recommended by Altenmüller and Jabusch (2010), rather than focusing on maladaptive ego goals, are likely to have healthier attitudes towards music. Defining goals to be achieved at college and thereafter in relation to music also helps students boost and direct their energy resources, thus promoting their psychological well-being in relation to playing an instrument or singing.

Prioritising learning goals helps students cultivate a sense of being competent, which contributes to music-related well-being. Competence relies, however, on the acquisition of the technical skills that enable students to focus on the artistic elements of performance. Gaunt (2011) found little evidence that the students in her study pursued extracurricular learning or career development opportunities. Nevertheless, it is crucial for students' engagement that they accumulate the personal and social resources required to facilitate the development of their musical expertise: these could be gained by participation in performances and masterclasses, for example.

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Students should ensure that they are clear about how to practise so as to meet both their own goals and their teachers' requirements, and hence it is vital that they ask their tutor questions. Good communication in one-to-one tuition is crucial and more possible when students feel emotionally safe with their tutors. They should therefore attempt to enter their teacher's studio with a positive attitude and contribute to creating a friendly atmosphere in instrumental or vocal lessons. Where such endeavours fail, and there seems no possibility of building a positive relationship between the student and the tutor, it is sensible to seek an alternative tutor. It is essential for students to communicate any issues arising in relation to playing or singing to the tutor both when adapting to the demands of the college, such as the need for being more independent, and in the later stages of tertiary training.

Students should also be encouraged to seek informational support from their peers: older and/or more experienced students could offer advice on independent practice and managing student-tutor relationships. Collaborative music-making is a fruitful way of enhancing musical competence and thus well-being at music. Nielsen (2004) found little evidence, however, of young musicians making use of peer learning although conservatoire students are aware of its benefits (e.g., Gaunt et al., 2012). This may be because playing or singing with or for their peers is intimidating for those who adopt primarily performance and competitive goals since such situations put their self-esteem at risk. It would help these students to redirect their attention from the aspects of these situations that they find difficult emotionally to concentrate on the learning aspect of group music-making, and to view other students as colleagues who could be going through similar difficulties.

Coping skills are necessary to deal successfully with the demands of tertiary music education and thus thrive as a musician. A particularly helpful approach to enhancing well-being in music performance students is to encourage them to use time management strategies for focusing their efforts on achieving music-related goals and maintain a healthy balance by taking time off their studies as appropriate.

Since the early detection of burnout is crucial, students should not ignore its early signs, such as experiencing diminished self-confidence and feeling exhausted. Those who suffer from MS pain or other atypical physical issues should consider the possibility that these are caused by exhaustion. It is therefore important for

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students to monitor both their emotional and bodily symptoms and, if they feel distressed or physically unwell, turn to college counsellors for support. Students should also seek professional advice if they experience difficulties adjusting to life at college and/or to learn and expand their coping skills so as to increase their chances of enjoying their studies and their music-making.

Attempts to enhance personal and social resources may not be sufficient, however, for students to experience well-being in relation to music if this does not constitute a part of their true selves. Careful contemplation of the underlying fundamentals of healthy involvement in music is therefore vital.

6.2.2 Practical advice for teachers

Norton (2016) concludes on the basis of her research with instrumental and vocal teachers that they believe they "have a responsibility to safeguard, and preferably enhance, their pupils' health and well-being" (p. 190). Although the tertiary-level students who took part in the studies reported in the present thesis said they valued their tutors' professional skills above all, the interpersonal dimension of one-to-one tuition should not be neglected, if students' healthy involvement in music is to be protected and enhanced. Tutors play a role in prevention of their students' burnout and promotion of their engagement by building good relationships with them. The quality of personal tutor-student interactions is particularly important because of its impact on students' sense of competence: a friendly atmosphere is likely to encourage students to raise potential issues, express their expectations and doubts, and ask questions designed to improve their learning without running the risk of being negatively emotionally affected. Tutors should therefore attempt to build a friendly learning environment, accepting their students as human beings who have lives outside of music and understanding their weaknesses.

In terms of approaches to teaching, teachers should make sure that they give their students specific directions that they can embrace in their daily practice. Gaunt (2008) suggests that while tutors at the tertiary level recognise that their role includes providing instructions for practice, they may in fact have little knowledge of their students' actual practice behaviour. It is therefore worthwhile for them to discuss students' practice behaviour with them so as to gain insights into the problems they encounter during practice and any habits that may hinder their learning.

Negotiating the balance between providing sufficient support while leaving enough space for students' autonomy to develop may pose challenges for teachers because it requires them to consider and monitor students' learning with utmost care. On the one hand, students are likely to need clear directions, at least initially, so as to become capable, ultimately, of taking ownership of their own learning and working autonomously. Yet, on the other hand, they need to be granted some degree of independence to develop a sense of competence. The tension between passing on musical knowledge and skills, on the one hand, and cultivating students' independence, on the other, has been raised by music education researchers, who point to the discrepancy between tutors' aspirations to support their students' autonomy, and their use of strategies that militate against students' development of independent thinking (e.g., Burwell, 2005; Gaunt, 2008). Critical self-reflection on the tutor's part and modification of teaching methods as necessary would help teachers strike this balance. Rather than providing solutions, teachers should use strategies encouraging students to undertake self-reflection and take an active role in their own learning. Burwell (2005) recommends using questions, especially those that prompt students' thought processes when exploring possible answers. It is nevertheless vital that the tutor monitors their students' developing skills and learning closely in order to be able to assess their current needs accurately, and adjust the levels of guidance and autonomy granted accordingly. Successful teaching could thus be described using the metaphor of "scaffolding" (Bruner, 1978), whereby the tutor provides support the learner needs to acquire understanding and achieve goals, but gradually withdraws their guidance as the learner becomes more independent (Hammond & Gibbons, 2005); "scaffolding" is also relevant to music teaching at the tertiary level (Jørgensen, 2014).

Exploring and discussing diverse approaches to interpretation, and analysing recordings by different artists during classes helps boost students' musical creativity and contribute to the formation of their own artistic voice. Encouraging students to listen to and learn from others' performances also supports them to set and achieve their own musical goals, thus fostering their sense of competence. Of course students with limited technical capability are likely to feel frustrated by their inability to attain interpretative and expressive goals so teachers must also help students to develop an understanding of technique and how they could deal with specific

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technical problems. The literature provides no definitive answer as to whether technique or artistry should be focused on first (e.g., Gaunt, 2008), so teachers must consider the individual needs and expectations of their students.

Teachers should also be flexible in their demands and adjust their methods depending on each student's unique needs: their physical abilities, personality, expectations, preferred approach to learning, and musical persona. Such flexibility can improve students' relationships with their tutors and aid their learning.

Encouraging students to view their peers as a resource for learning could enhance their well-being in relation to music-making. Teachers could organise schemes whereby pupils in their studio teach one another, and provide opportunities for both formal and informal group music-making, while remaining sensitive to their students' emotional responses in such situations since some of them may be affected adversely.

Successful teaching involves more than transmitting musical skills, however. If students' engagement is to be enhanced, tutors should offer them advice on stage skills and career development, besides that which is offered in classes delivered to whole cohorts or smaller groups of instrumentalists and singers. Some researchers (e.g., Norton, 2016; Patston, 2014; Wristen, 2013) argue that tutors have a duty to address students' psychological health problems, and others (e.g., Altenmüller & Jabusch, 2010; Patston, 2014) that they educate their students on healthy diet, exercise and other living habits. Gaunt et al. (2012) advocate adopting a mentoring approach (Renshaw, 2009), whereby tutors attend to students' personal as well as professional development, and consider the broad context of their learning. The counselling aspect of mentoring would mean, for instance, facilitating the general coping resources that are conducive to students' optimal development in relation to music-making (Wristen, 2013). Tutors could assist their students to shift their attention from increasing their grades and winning competitions by encouraging them to see failure adaptively, as an opportunity for learning. Teachers can also support their students by helping them to see performance as an opportunity to communicate and share emotional experiences with an audience (Altenmüller & Jabusch, 2010; Lacaille et al., 2007) instead of focusing on protecting or enhancing their self-esteem when they play or sing.

Teachers need to consider the underlying causes of students' difficulties when they provide social support and promote coping skills. Difficulties could be related to the nature of their earlier involvement in music education, particularly where their personal autonomy and thus awareness of potential alternatives outside music were restricted. Coakley (1992) refers to a similar issue in sport as "psychodoping" (p. 283). It is therefore worthwhile for tutors to discuss and explore students' innermost motivations with them, an approach that lies at the heart of mentoring.

When experiencing problems related to performance tertiary-level students are likely to turn to their instrumental or vocal tutors for advice in the first instance (Petty, 2012; Williamon & Thomson, 2006) placing them in a privileged position to be aware of their students' early signs of burnout. Nonetheless, teachers need to be aware of their professional boundaries and refrain from stepping into the role of a counsellor to deal with their students' psychological problems (e.g., Patston, 2014; Wristen, 2013). Rather, they should alert students to the significance of their symptoms and ensure they are aware of the psychological support available to them through the college, and (in the UK) the National Health Service and BAPAM. This is crucial given recent evidence that relatively few music performance students are treated for other psychological conditions (Wristen, 2013), either because they are reluctant to seek help or because they do not know support is available. Early symptoms of emerging burnout include diminished musical self-efficacy and excessive tiredness; students with these symptoms should be monitored closely, as should students who skip classes, react poorly to critical feedback, avoid their peers and often have problems with their physical health. When students experience MS pain, potential explanations could include burnout as well as other factors including inappropriate technique.

6.2.3 Practical implications for institutions

The institutional culture shapes students' self-perceptions, and attitudes towards learning (Papageorgi et al., 2010a) and performing (Papageorgi et al., 2010b). As noted in 6.2, combined person- and organisation-directed interventions have the longest-lasting effects (Awa et al., 2010) so much of what has been said above about what students can do, on the one hand, and tutors on the other, is relevant to the practical implications of the research for tertiary-level institutions of music such as conservatoires. When targeting actions to promote students' well-being,

they should see teachers, as well as students, as influential agents in promoting educational outcomes (Jørgensen, 2000).

Entrance auditions should, if they do not do so already, include interviews designed to ensure that candidates are genuinely interested in studying performance or at least to explore their motivations for applying to undertake training at the tertiary level. They should, if they do not do so already (see Ginsborg, Matei & Broad, 2017), help students adapt to their new study environment and dealing with the challenges they are likely to face throughout their training by organising workshops or projects aimed specifically at enhancing students' musical skills (e.g., effective practice strategies) as well as the general resources that are conducive to their optimal musical development (e.g., communication with the tutor, general coping, strategies to manage performance anxiety, career skills). Provision of ample opportunities for improving such as masterclasses and ensemble projects do not just help students improve their musical skills but can have a positive effect on their sense of competence and thus contribute to their music-related well-being.

Furthermore, institutional staff development could include sessions encouraging tutors to reflect on and refine their teaching approaches specifically to support students' engagement and prevent them from burning out, since institutions have a crucial role in health promotion by fostering awareness of the symptoms of burnout and ensuring it is seen as a treatable condition.[24] Sport researchers note that athletes may be unwilling to admit they are burned out because it has negative connotations in sport communities (e.g., Cresswell & Eklund, 2006b; Gould et al., 1996), and the same may be true of young musicians. Wristen (2013) suggests that institutions should make sure that seeking support in dealing with psychological conditions should become, if it is not already, culturally acceptable. Tertiary music institutions should therefore attempt to normalise experiences of burnout as an issue affecting a variety of populations including students in general education as well as those studying for degrees in performance. The detection and prevention of burnout could be topics for workshops or psychology lectures, already offered at a number of tertiary music institutions (Patston, 2014), or information could be

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[24] Although this thesis does not provide a direct evidence for the effectiveness of specific approaches, the general literature suggests the effectiveness of cognitive behaviour therapy (Korczak, Wastian, & Schneider, 2012), for example.

disseminated in the form of a leaflet, for instance. As Jørgensen (2014) suggests that it is the institution's responsibility to provide counselling for both study-related and personal issues, students and teachers should also be informed of that which is normally available from both college and external counsellors,

6.3 Limitations of the research

The specific limitations of the three main studies were discussed in the relevant chapters but I will consider some of the conceptual and methodological shortcomings that need to be considered in relation to the research project as a whole. First, Maslach and Schaufeli (1993) point out that although burnout was originally documented in people whose jobs revolved around other people, the term has been applied uncritically in other contexts, with little attention being paid to the specific experiences of the employees working in different professions. It could therefore be asked if the conceptualisations of burnout and engagement used in the present research are appropriate to music performance students. In this thesis, burnout is defined as a syndrome of emotional and physical exhaustion, devaluation and reduced sense of accomplishment, in line with the ABQ (Raedeke & Smith, 2001; see Section 2.1.1.1). Engagement is defined according to Schaufeli, Martínez, et al. (2002; see Section 2.1.1.2), who saw work engagement (including non-music students' engagement) as a combination of vigour, dedication and absorption (Schaufeli, Salanova, et al., 2002). While the results of the pilot study reported in Chapter 3 indicated that these definitions are relevant to music performance students, it may also be that burnout and engagement in tertiary-level music institutions are demonstrated in other ways that were not measured in the current work.

Second, although the analyses reported in this thesis used the original dimensions of the ABQ and the UWES-S, no attempt was made to validate the measures, once they had been adapted for administration to music performance students, to confirm their factorial structure.

Third and fourth, the findings of the research may not be generalisable to the wider population of music performance students for two reasons: 1) because the students who took part were at a limited number of tertiary music institutions, with unique institutional cultures (Papageorgi et al., 2010ab) and 2) because it focused

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on students in selected countries (i.e., Study I examined the experiences of students in Australia, Poland and the UK, Study II was conducted in Australia and the UK, and Study III involved students in Poland and the UK). Based on the results of Study I, it seems that there are cross-national differences in students' music-related well-being that echo those found in previous research suggesting cross-national differences in music students' motivations and attitudes (e.g., Brand, 2001; see Section 3.1). As there are cross-national differences in psychological well-being, so it may be that there are cross-national differences in the development of burnout and engagement. This supposition is supported by Deci et al. (2001), who applied BPNT to the experiences of employees in Bulgaria and the USA and found that need satisfaction and anxiety were more strongly associated in the Bulgarian sample.

Fifth, the research used a convergent parallel design, which could be viewed as a limitation. It might have been better to use an exploratory sequential design (Creswell, 2014) since music-related burnout and engagement are relatively new research areas and Creswell and Plano Clark (2011) recommend it when there is little theoretical guidance available and it is not known which are the most important variables to examine. This would have involved carrying out the qualitative phase first and testing the generalisability of the findings using quantitative methods. Given the limited time-scale of the project and the longitudinal design employed in Study II, quantitative data needed to be collected early on: they were used in Studies I and II, and as the means of recruiting participants to be interviewed in Study III. The choice of convergent parallel design was thus partly related to the time and resource constraints involved.

Sixth, the use of BPNT (see Section 2.1.1.3) in Study II provided limited insight into the antecedents of burnout and engagement in performance students. While there is a strong case for exploring burnout and engagement through the framework of BPNT (see Section 2.1.1.3), other factors not encompassed by this theoretical framework are also likely to play a role. Drawing upon music education research (e.g., Burland, 2005; Burland & Davidson 2002) and the findings from Study III, it appears that coping, for example, is relevant to music students' burnout and engagement but its examination was beyond the scope of Study II.

6.4 Further research directions

Recommendations as to how future studies could overcome the limitations of Studies I, II and III were discussed in relevant chapters. In this section, the opportunities for further research arising from the research project as a whole are considered.

First, validation work could be conducted to test and, if required, improve the psychometric properties of the ABQ and the UWES-S adapted to music performance students. Studies conducted in different countries could test the properties of the English and Polish versions of these measures and examine their factorial invariance, thus providing international researchers with tools to study burnout and engagement further.

Second, research on burnout and engagement could be extended to include performance students in a wider range of countries. This would help shed more light on the levels of students' music-related well-being, which are likely to vary internationally. Furthermore, the strengths of relationships between perceptions of the social environment and need satisfaction, and between need satisfaction and well-being, may vary depending on a country (Deci et al., 2001; see Section 6.3). Extending the research to involve students in other countries would contribute to a better understanding of the role of perceptions of the social environment in need satisfaction, and the role of need satisfaction in burnout and engagement, in specific countries.

Third, quantitative methods employing a theoretical approach other than BPNT could be employed to examine burnout and engagement in music performance students enabling a focus on different aspects of their characteristics or experiences. The JD-R model (e.g., Schaufeli & Bakker, 2004a) could be used, for example. It would be worth testing reciprocal effects using longitudinal designs in order to disentangle causal relationships between the variables of interest. Furthermore, since there is some evidence for the role of personality in the development of burnout (e.g., Alarcon, Eschleman, & Bowling, 2009) and engagement (e.g., Woods & Sofat, 2013), the associations between these aspects of students' well-being and their personality traits could be investigated.

Fourth, future quantitative studies could build upon the triangulated findings of Study II and Study III, and aim to generalise them to a wider population of music

performance students. This line of research could explore whether specific aspects of musical competence such as technical and expressive skills, and perceptions of the effectiveness of practice, influence students' burnout and engagement differently. Satisfaction of autonomy could be conceptualised as students' sense that involvement in music is consistent with their life goals and values, for example, or as their perceptions of expressive freedom.

Fifth, further research could examine the relationships between students' burnout and engagement, and their possible performance-related outcomes, including both objective and subjective measures of students' practice behaviour and achievements.

Finally, intervention studies aimed at preventing and combating students' burnout and enhancing their engagement are warranted. Such programs could aim to increase students' sense of musical competence by helping them improve their practice skills, and embrace adaptive goals for learning and performing, for instance. Interventions could also educate students about relaxation, effective coping and communication skills. Those designed for tutors could disseminate information about the processes shaping students' burnout and engagement, and equip teachers with the communication and teaching skills they need to support, as effectively as possible, their pupils' healthy involvement in music.

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Appendices

Appendix A: Peer-reviewed conference proceedings (SysMus14)

Engagement and burnout among music performance students

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The psychological and physical demands of the music profession can take their toll, putting musicians' health and wellness at risk. Despite its potential impact on the changes in attitudes towards music-making, well-being remains under-researched in the context of tertiary music education.

The current paper reports a study of two facets of well-being: engagement with performance and burnout among music performance students at conservatoires. The study aimed to establish and compare the levels of engagement and burnout in music students in the UK and Australia, exploring their potential social-environmental determinants and health and performance-related consequences. In line with the literature on sport and dance, Basic Psychological Need Theory (Deci & Ryan, 2000), which seeks to explain the role of satisfaction of autonomy, competence and relatedness in well-being, was used as the theoretical framework for studying the possible determinants of engagement and burnout. A cross-sectional design and questionnaire methods were employed in the study. Data were collected from 146 performance students from several conservatoires in the UK and a single conservatoire in Australia. The results revealed that while burnout was not prevalent in the sample, the respondents tended to experience moderate to high levels of engagement. Overall, there were no differences between the students in the UK and Australia in terms of engagement and burnout. Only weak correlations were found between engagement and burnout, and health issues, musculoskeletal pain and practice strategies employed by respondents. The findings of the study suggest that the social context of the conservatoire and the sense of competence may play a major role in the psychological well-being of music performance students, confirming the basic tenets of Basic Psychological Need Theory.

The study sheds light on determinants and consequences of well-being in music education setting, thus contributing to the better understanding of healthy careers in music and forming the basis of practical advice for institutions and principal studies tutors on how to enhance music-related well-being in conservatoire students.

Keywords: music education, psychological well-being, engagement, burnout, Basic Psychological Need Theory

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Appendix B: Peer-reviewed conference proceedings (ESCOM 2015)

Engagement with performance and burnout among music performance students

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ABSTRACT

Background

Long hours spent practising and performing can take their toll, impairing the psychological and physical well-being of music students and thereby affecting their performance. Of various aspects of well- and ill-being, engagement and burnout, reflecting the attitudes towards music-making, seem to be prime candidates for further study. The interest in engagement stems from 'positive psychology' that centres on human strengths and optimal functioning. Engagement has been defined as a positive state of mind that involves vigour, dedication and absorption (Schaufeli & Bakker, 2004). Research has linked engagement to the lack of physical symptoms (Korunka, Kubicek, Hoonakker, & Schaufeli, 2009) and enhanced job performance (Bakker & Bal, 2010). Burnout is a multidimensional syndrome characterized by emotional exhaustion, devaluation and the sense of reduced accomplishment (Raedeke & Smith, 2001). Burnout has been associated with impaired physical health, musculoskeletal pain (Peterson et al., 2008) and decreased performance (Hillhouse, Adler, & Walters, 2000). In line with research showing differences in engagement and burnout experienced by employees across the world (Taipale, Selander, Anttila, & Nätti, 2011), it seems that students studying in different countries may differ in terms of their music-related well-being. Not much is known about the determinants of engagement and burnout in the context of music education. Basic Psychological Need Theory (BPNT; Deci & Ryan, 2000) has emerged as a useful framework to explain well- and ill-being in work, sport and dance environments. One of the central tenets of BPNT is that satisfaction of basic psychological needs: autonomy, competence and relatedness, affects well-being. Need satisfaction, in turn, is influenced by perceptions of the social environment. Numerous studies have confirmed the importance of competence and social relationships, and, to a lesser extent, autonomy, for optimal development in music. It therefore seems worthwhile studying the associations between need satisfaction, and engagement and burnout in music.

Aims

The study aimed to establish and compare levels of engagement and burnout among performance students at conservatoires in Australia and the UK. Another aim of the study was to test the usefulness of BPNT in explaining engagement and burnout in performance students. In particular, the relationships between perceptions of the social environment (i.e., autonomy and social support from the tutor, social support from other students and competitive atmosphere among students), need satisfaction (autonomy, competence, relatedness with regard to the tutor and relatedness with regard to other students), and engagement and burnout were studied. The study also explored the associations between engagement and burnout, and physical symptoms, musculoskeletal pain and practice strategies.

Method

The data were collected using a questionnaire combining several well-established psychological measures that were first adapted to the context of music. Engagement was captured using the Utrecht Work Engagement Scale - Student Survey (Schaufeli, Martinez, Pinto, Salanova, & Bakker, 2002). Burnout was measured via the Athlete Burnout Questionnaire (Raedeke & Smith, 2001). 146 performance students (N=146) at a single conservatoire in Australia (n=54) and various conservatoires in the UK (n=92) responded to the questionnaire. A series of t-tests and Mann-Whitney U tests were performed to compare the levels of engagement and burnout of students in the UK and Australia. R-Spearman's rho coefficients were computed to establish the strengths of associations between the variables of interest.

Results

While respondents tended to report moderate to high levels of engagement, burnout was rather low in the sample. There were no differences between students in Australia and the UK in terms of total scores on engagement and burnout. Students in Australia displayed higher levels of dedication, while the UK respondents scored higher on reduced accomplishment. Perceptions of the tutor as being socially and autonomy supportive, and social support from other students, correlated moderately to weakly with all need satisfaction. Moderate to weak positive correlations emerged between satisfaction of all needs and engagement. Associations between engagement and need satisfaction were strongest for need for competence. Burnout correlated with the satisfaction of all needs negatively and moderately, revealing the strongest correlations with competence and relatedness with regard to other students. Correlations between engagement and burnout, and practice, were weak or not significant, respectively. Burnout correlated positively and weakly with physical symptoms and musculoskeletal pain.

Conclusions

The sense of competence, and, to a lesser extent, relatedness and autonomy satisfaction may play a role in engagement among performance students. It seems that lack of satisfaction of competence and relatedness with regard to other students may contribute to the development of burnout. Longitudinal

studies are needed in order to determine the directions of cause in the relationships between engagement and burnout, and need satisfaction, and in order to explore their possible effects on health and practice over time.

Shedding light on the potential determinants of music-related well-being in performance students, the findings of the current study can serve as a basis for advice for music tutors and musical institutions on enhancing engagement and preventing burnout in their students.

Keywords

BPNT, burnout, engagement, conservatoires, well-being

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Appendix C: Certificate of ethical approval from the RNCM Research Ethics Committee

RNCM

ROYAL NORTHERN
COLLEGE *of* MUSIC

This is to confirm that the application made by Anna Zabuska to the
Royal Northern College of Music's Research Ethics Committee was
APPROVED.

Project title: *Motivational issues among music performance students*

Date approved: 30/04/12

Signed: ....Dawn f Edwards........ Date: 30 April 2012

Dr Dawn Edwards *(on behalf of the Research Ethics Committee)*

Appendix D: Certificate of ethical approval from the RNCM Research Ethics Committee for the pilot study of questionnaires

RNCM
ROYAL NORTHERN
COLLEGE of MUSIC

This is to confirm that the application made by Anna Zabuska to the Royal Northern College of Music's Research Ethics Committee was APPROVED.

Project title: **Motivational issues among music performance students: pilot study**

Date approved: 4 September 2012

Signed: _Dawn f Edwards_ Date: 4 September 2012
Dr Dawn Edwards (*Acting Chair of Research Ethics Committee*)

Appendix E: Certificate of ethical approval from the University of Sydney Human Research Ethic Committee

Research Integrity
Human Research Ethics Committee

Wednesday, 1 May 2013

Motivational issues among music performance students
Dr Jennifer Rowley
Music Education Unit; Sydney Conservatorium of Music
Email: jennifer.rowley@sydney.edu.au

Dear Jennifer

I am pleased to inform you that the University of Sydney Human Research Ethics Committee (HREC) has approved your project entitled "**Motivational issues among music performance students**".

Details of the approval are as follows:

Project No.: 2013/271

Approval Date: 22 April 2013

First Annual Report Due: 22 April 2014

Authorised Personnel: Rowley Jennifer; Ginsborg Jane; Zabuska Anna;

Documents Approved:

Date Uploaded	Type	Document Name
23/03/2013	Participant Consent Form	Human Ethics Consent Form
18/04/2013	Participant Info Statement	Participant Information Statement
23/03/2013	Questionnaires/Surveys	Questionnaire to be used in both data collections
23/03/2013	Recruitment Letter/Email	Recruitment e-mail- follow-up study
23/03/2013	Recruitment Letter/Email	Recruitment e-mail for the first data collection

HREC approval is valid for four (4) years from the approval date stated in this letter and is granted pending the following conditions being met:

Condition/s of Approval

- Continuing compliance with the National Statement on Ethical Conduct in Research Involving Humans.

- Provision of an annual report on this research to the Human Research Ethics Committee from the approval date and at the completion of the study. Failure to submit reports will result in withdrawal of ethics approval for the project.

- All serious and unexpected adverse events should be reported to the HREC within 72 hours.

Research Integrity
Research Portfolio
Level 6, Jane Foss Russell
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NSW 2006 Australia

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sydney.edu.au

ABN 15 211 513 464
CRICOS 00026A

Appendix F: Certificate of ethical approval from the CUK Research Ethics Committee for the quantitative data collection in the academic year 2013/2014

Conservatoires UK

CERTIFICATE OF ETHICAL APPROVAL

This certificate confirms that the application made by Anna Zabuska to the CUK Research Ethics Committee was APPROVED.

Project title: Engagement with performance and motivation issues among music performance students

Date approved: 1 October 2013

Signed: *Aaron Williamon*   Date: 01 October 2013

Prof. Aaron Williamon (*Co-chair of CUK Research Ethics Committee*)

Appendix G: Certificate of ethical approval from the CUK Research Ethics Committee for the quantitative data collection in the academic year 2014/2015

Conservatoires UK

CERTIFICATE OF ETHICAL APPROVAL

This certificate confirms that the application made by Anna Zabuska to the CUK Research Ethics Committee was APPROVED.

Project title:
Engagement with performance and motivation issues
among music performance students

Date approved: 26 September 2014

Signed: *Aaron Williamon*   Date: 26 September 2014

Prof. Aaron Williamon (*Chair of CUK Research Ethics Committee*)

Appendix H: Certificate of ethical approval from the CUK Research Ethics Committee for the qualitative data collection

Conservatoires UK

CERTIFICATE OF ETHICAL APPROVAL

This certificate confirms that the application made by Anna Zabuska to the CUK Research Ethics Committee was APPROVED.

Project title:
Motivational attitudes towards music-making among performance students

Date approved: 26 September 2014

Signed: *Aaron Williamon*   Date: 26 September 2014
Prof. Aaron Williamon (*Chair of CUK Research Ethics Committee*)

Appendix I: PIS for the respondents in Australia

Motivational issues among music performance students
PARTICIPANT INFORMATION STATEMENT

(1) What is the study about?

You are invited to participate in a study of motivational issues among music performance students.

High motivation is essential to musical success but there is evidence from research in many disciplines that strong initial involvement in a particular activity is not always maintained, potentially leading to serious consequences such as dropping out and health issues. Motivation remains under-researched in the context of music performance in tertiary education and the early years of the profession. Not much is known, therefore, about individuals' experiences of changing attitudes towards music performing, their origins and outcomes. The goal of my research project is therefore to shed some light on the issues by examining the factors contributing to young performers' approaches to music making. The project also explores the relationship between performers' perspectives on music making, and health- and performance-related measures. It is possible that your principal study tutor's teaching style and the relationships that you have with her/him and other students may be related to your motivation. This could, in turn, be related to your health and music performance.

(2) Who is carrying out the study?

The study is being conducted by Anna Zabuska (student) and Jennifer Rowley (Sydney Conservatorium of Music), and it will form the basis for the degree of PhD at the Royal Northern College of Music (RNCM) in Manchester, United Kingdom under the supervision of Jane Ginsborg, RNCM.

(3) What does the study involve?

In this part of study, you will be asked to complete a set of questionnaires either in person or via college e-mail. The questions to be answered refer to your motivation towards music making, your relationship with your principal study tutor and other students at the college, your practice strategies, general health and memory. The questionnaire could be completed either in the college or at the location that is the most convenient for you. At the end of the academic year you will be asked to complete the same set of questionnaires either via e-mail, in the college or at the location that is the most convenient for you. After completion, the questionnaires can be handed to the researcher or put in a designated box. In order for the researcher to be able to re-contact you and ask to complete the questionnaire again, you will be asked to provide them with your college e-mail address on a separate piece of paper. The piece of paper will be immediately separated from the questionnaire and it will be impossible to identify your answers by it.

There are no lifestyle restrictions as a result of participating in the research project, and no particular risks or disadvantages of taking part of it. You will, however, be asked to answer questions concerning your attitudes to performing music, and any changes in motivation that you may have experienced, which may have affected your health. You may find it distressing to write about these issues. I am not a qualified psychotherapist but I will be able to advise you of support that is available from Counselling and   Psychological   Services   at   the   University   of   Sydney   (website:

http://sydney.edu.au/current_students/counselling/get-help/index.shtml; e-mail:
caps.admin@sydney.edu.au), for example.

(4)   How much time will the study take?

The questionnaire completion can take approximately 30-35 minutes. When possible, brief versions of
existing questionnaires have been chosen in order to make the completion of the survey less time-
consuming. At the end of the academic year you will be asked to participate in the study in which the
same set of questionnaires will be used.

(5)   Can I withdraw from the study?

Being in this study is completely voluntary – you are not under any obligation to consent and – if you do
consent – you can withdraw at any time without affecting your relationship with the Sydney
Conservatorium of Music, University of Sydney, and the Royal Northern College of Music in
Manchester, United Kingdom.

(6)   Will anyone else know the results?

All aspects of the study, including results, will be strictly confidential and only the researchers will have
access to information on participants. A report of the study may be submitted for publication, but
individual participants will not be identifiable in such a report.

(7)   Will the study benefit me?

We cannot and do not guarantee or promise that you will receive any benefits from the study, it is
however hoped that this work will help young musicians to maintain positive attitudes towards music
making and become well-rounded musicians who derive pleasure from musical participation.

(8)   Can I tell other people about the study?

There are no reasons for you not to tell other people about the study.

(9)   What if I require further information about the study or my involvement in it?

When you have read this information, Anna Zabuska will discuss it with you further and answer any
questions you may have. If you would like to know more at any stage, please feel free to contact Anna
Zabuska, student at the Sydney Conservatorium of Music, University of Sydney,
azab6335@uni.sydney.edu.au or anna.zabuska@rncm.ac.uk.

(10)   What if I have a complaint or any concerns?

Any person with concerns or complaints about the conduct of a research study can contact The
Manager, Human Ethics Administration, University of Sydney on +61 2 8627 8176 (Telephone); +61 2
8627 8177 (Facsimile) or ro.humanethics@sydney.edu.au (Email).

This information sheet is for you to keep

Appendix J: Introductory paragraph of the online questionnaires in the UK

Research project title

Engagement with performance and motivation issues among music performance students

Introductory paragraph

Anna Zabuska (RNCM), Eleanor Quested (University of Birmingham/Curtin University and Joan Duda (University of Birmingham) are investigating engagement and motivational issues among music performance students.[25,26] The purpose of the study is to establish levels of engagement and motivational issues, their social and personal determinants, and performance- and health-related consequences for performance students. Data from students studying in the UK, Australia and Poland will be compared, and used to develop a new psychological measure.

Respondents to the questionnaire used in the main study will be undergraduate and postgraduate music performance students at CUK conservatoires/and universities in the UK. For the purposes of the study, instrumental and vocal students will be invited to take part. You have been chosen since you are a student at a CUK conservatoire/university in the UK.

If you have any questions please contact Anna Zabuska at anna.zabuska@student.rncm.ac.uk or Jane Ginsborg at jane.ginsborg@rncm.ac.uk.

Informed consent

Your participation in the study is voluntary and you can withdraw from the study at any point up to one month after the questionnaire is completed with no consequences. You can also skip the question/questions that you do not wish to answer.

We will infer from your submission of the completed questionnaire to which you respond that you have given you consent to take part in the study.

Confidentiality and anonymity

All information that is collected about you during the course of the research will be kept strictly confidential. For the purposes of the study, your answers will be linked to your e-mail address. Your e-mail address will be separated from the questionnaire data before analysis and linked to it only when necessary, however. Any information about you that is disseminated will have your name and e-mail address removed so that you cannot be identified by it.

Dissemination

The results of the study will be reported in Anna Zabuska's PhD research and will be disseminated in her thesis and other publications, and in the course of conference presentations.

Thanks

Thank you for completing and submitting the questionnaire.

---

[25] In the academic year 2013/2014 Eleanor Quested was hired by the University of Birmingham, and in the academic year 2014/2015, she was hired by the Curtin University.
[26] The data collected by these researchers were not used in this dissertation.

Appendix K: Informed consent form for the respondents in Studies I and II in Australia

THE UNIVERSITY OF SYDNEY

Discipline of Music Education
Sydney Conservatorium of Music

ABN 15 211 513 464

CHIEF INVESTIGATOR / SUPERVISOR NAME **Dr Jennifer Rowley**	Room 2082 Sydney Conservatorium of Music C41
Chief Investigator /Supervisor Title *PhD; Senior Lecturer & Professional Experience Academic Coordinator*	The University of Sydney NSW 2006 AUSTRALIA Telephone: +61 2 9351 1328 Facsimile: +61 2 9351 1287 Email: jennifer.rowley@sydney.edu.au Web: http://www.sydney.edu.au/

PARTICIPANT CONSENT FORM

I, ...[PRINT NAME], give consent to my participation in the research project

TITLE: Motivational issues among music performance students

In giving my consent I acknowledge that:

1.   The procedures required for the project and the time involved have been explained to me, and any questions I have about the project have been answered to my satisfaction.

2.   I have read the Participant Information Statement and have been given the opportunity to discuss the information and my involvement in the project with the researcher/s.

3.   I understand that being in this study is completely voluntary – I am not under any obligation to consent.

4.   I understand that my involvement is strictly confidential. I understand that any research data gathered from the results of the study may be published however no information about me will be used in any way that is identifiable.

5.   I understand that I can withdraw from the study at any time, without affecting my relationship with the researcher(s) or the Sydney Conservatorium of Music, University of Sydney, and Royal Northern College of Music in Manchester, United Kingdom now or in the future.

Motivational issues among music performance students
Version 1, 22 March 2013

Page 1 of 2

6. I consent to:

Receiving Feedback   YES ☐   NO ☐

If you answered YES to the "Receiving Feedback" question, please provide your details i.e. mailing address, email address.

Feedback Option

Address: _____

_____

Email: _____

Signature

Please PRINT name

Date

301

Appendix L: PIS for the interviewees

21 May 2014
Participant Information Sheet
Motivational attitudes towards music-making among performance students

Invitation
You are being invited to take part in an interview study. The data that you will provide will be used to inform Anna Zabuska's PhD project. Before you decide whether to take part or not, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully, discuss it with others, and ask researchers for further information if you wish.

What is the purpose of the project?
People who enjoy their work/study tend to have better psychological and physical well-being, and achieve superior results. Music students face various demands that can potentially lead to serious consequences, such as a negative attitude towards music performance and dropping out. Motivational attitudes towards music-making remain under-researched in the context of tertiary education and the early years of the profession. Not much is known, therefore, about individuals' experiences of changing attitudes towards music performing, their origins and outcomes. The goal of the research project is therefore to shed some light on the issues by examining the factors that contribute to motivation for music-making in performance students, and exploring the symptoms and outcomes of different motivational attitudes towards performing music. It is hoped that contributing to the understanding healthy careers in music, the project will help young musicians to enjoy their musical participation. The project is planned to be finished in October 2015.

Why have I been chosen?
On the basis of your responses to in the questionnaire study 'Engagement with performance and motivational issues among music performance students' conducted by the researchers at the beginning of this academic year, it seems that your views may be particularly insightful in the study of motivational attitudes towards music performance. Up to 20 students will be interviewed.

Do I have to take part?
It is up to you to decide whether to take part or not. Refusal to take part will involve no penalty and you will not lose any benefits to which you are otherwise entitled. If you decide to take part, you will be given a copy of this information sheet to keep and asked to sign a consent form. If you decide to take part you can still withdraw at any time up to one month after data collection, without a penalty or loss of benefits, and without giving a reason.

What will happen to me if I take part?
If you decide to participate, you will take part in a one-to-one interview that will be audio-recorded. The interview will be conducted via Skype or at a location suggested by you. You will be asked questions regarding your experiences concerning playing your instrument or singing.

What do I have to do?
There are no lifestyle restrictions as a result of participating in the research project.

What are the possible disadvantages and risks of taking part?
There are no particular risks or disadvantages of participating in the study. You will, however, be asked to answer questions concerning your attitudes to performing music, and any changes in motivation that you may have experienced. You may find it distressing to talk about these issues. The researchers will be able to advise you of support that is available for you. In the event that you experience distress as a result of the interview, you should please contact your college counsellor (please see the list on the last page).

What are the possible benefits of taking part?
If you take part in the interview, you will be given a gift card of your choice worth £10 or £15 for the interviews lasting up to 60 minutes and up to 90 minutes, respectively. It is hoped that this work will help young musicians to maintain positive attitudes towards music making and become well-rounded musicians who derive pleasure from musical participation.

What happens if the study has to be terminated?
There are no particular reasons for the research to be terminated. You can however withdraw from it without any repercussions up to one month after the interview and/or refuse to answer to the questions you do not wish to answer.

Will my taking part in this project be kept confidential?
All information which is collected about you during the course of the research is strictly confidential. Your name will not be used in any study reports and publications.

What happens immediately after data collection?

After the interview, you will have the opportunity to ask questions and will be given more details regarding the study.

What will happen to the results of the research project?

If you would like to obtain a copy of the research results, please contact Anna Zabuska at *anna.zabuska@student.rncm.ac.uk* The data collected during this study will be used to inform Anna Zabuska's PhD project. It will be disseminated in Anna Zabuska's PhD thesis and other study reports and/or publications. It can also be presented in conferences. The data will be retained for no more than five years after Anna Zabuska's PhD is awarded so that the researchers can report them in publications once the thesis is complete.

Who has reviewed the project?

The project has been reviewed by the CUK Conservatoires Ethics Committee and RNCM Ethics Committee.

Contacts for further information

Anna Zabuska; Royal Northern College of Music, 124 Oxford Road, Manchester, M13 9RD; *anna.zabuska@student.rncm.ac.uk* or Jane Ginsborg; Royal Northern College of Music, 124 Oxford Road, Manchester, M13 9RD; *jane.ginsborg@rncm.ac.uk*

<div align="center">Thank you for taking part in the research!</div>

For the UK participants only:

<u>**Counselling Services:**</u>

Guildhall School of Music and Drama: Student Affairs; *student.affairs@gsmd.ac.uk*

Birmingham Conservatoire; *www.smile-online.co.uk/birmingham-city.html*

Leeds College of Music: Counselling Service; 011 3222 3451; *counseling@lcm.ac.uk*

Royal Academy of Music: Dani Singer; 020 7873 7303 *counsellor@ram.ac.uk*; *d.singer@ram.ac.uk*

Royal College of Music: Imperial College Health Centre; 40 Princes Gardens London SW7 1LY; *www.imperialcollegehealthcentre.co.uk* ; 020 7594 9375/6 or 020 7584 6301; Fax: 020 7594 9390

Royal Conservatoire of Scotland: Dr Jane Balmforth; Room 1.21; 0141 2708 282; *j.balmforth@rcs.ac.uk*

Royal Northern College of Music: Bryan Fox; 078 1130 2143; *bryan.fox@rncm.ac.uk* ; Mags Casey; 078 0057 3306 ;*mags.casey@rncm.ac.uk*

Royal Welsh College of Music and Drama: 029 20391321; *studentservices@rwcmd.ac.uk*

Trinity Laban Conservatoire of Music and Dance: Sarah Hall; 020 8305 3884 or 077 1819 8937; *s.hall@trinitylaban.ac.uk*

Appendix M: Informed consent form for the interviewees

Participant Consent Form

Title of Project: Music-related well-being among music performance students

Names of Researcher: Anna Zabuska

Please initial box

1. I confirm that I have read and understand the information sheet dated *21st of May 2014* for the project in which I have been asked to take part and have had the opportunity to ask questions. ☐

2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason. ☐

3. I understand that my responses will be anonymised before analysis. I give permission for members of the research team to have access to my anonymised responses. I understand that all personal data aboutme will be kept confidential. ☐

4. I understand that the investigator(s) must adhere to the BPS Code of Human ☐

   Research Ethics.

5. I agree to take part in the above research project. ☐

Name of Participant	Date	Signature

Name of person taking consent	Date	Signature
(*if different from lead researcher*)		

Researcher	Date	Signature

Appendix N: The quantitative questionnaire used in Studies I and II in Australia and the UK

Respondent ID (please insert the 2nd and 3rd letters of your mother's first name followed by the 2nd and 3rd letters of your father's first name, e.g. Mary and John = AROH)_____

Date of birth (please insert): _____

Sex (please circle):   Female   Male   Prefer not to disclose

Year of study (please circle): UG1   UG2   UG3   UG4   PG1   PG2   Artist Diploma or equivalent

Mode of study (please circle):   Full-time   Part-time

Principal study (please circle and specify):   Instrument: _____OR
          Voice:_____

Questionnaire A
A number of statements that musicians may use to describe their **feelings and/or thoughts about music performance** are given below. If you are a singer, please ignore references in the statements to "playing my instrument"; if you are an instrumentalist, please ignore references to "singing". Please indicate **how often over the last month you have had the feelings and/or thoughts described in each statement** by placing an "X" in the box that best describes your experiences.

	Almost never	Rarely	Sometimes	Frequently	Almost always
1. I am accomplishing many worthwhile things in playing my instrument/singing.	☐	☐	☐	☐	☐
2. I feel so tired from playing my instrument/singing that I have trouble finding energy to do other things.	☐	☐	☐	☐	☐
3. When I am playing my instrument/singing, I feel mentally strong/empowered.	☐	☐	☐	☐	☐
4. The effort I spend in playing my instrument/singing would be better spent doing other things.	☐	☐	☐	☐	☐

	Almost never	Rarely	Sometimes	Frequently	Almost always
5. I feel overly tired from music-making.	☐	☐	☐	☐	☐
6. I find my principal study/playing my instrument/singing to be full of meaning and purpose.	☐	☐	☐	☐	☐
7. I am not achieving much in playing my instrument/singing.	☐	☐	☐	☐	☐
8. Time flies when I'm playing my instrument/singing.	☐	☐	☐	☐	☐
9. I don't care as much about my music performance as I used to.	☐	☐	☐	☐	☐
10. When I get up in the morning, I feel like playing my instrument/singing.	☐	☐	☐	☐	☐
11. I am not performing to my best ability in music.	☐	☐	☐	☐	☐
12. I can carry on playing my instrument/singing for a very long time.	☐	☐	☐	☐	☐
13. I feel 'wiped out'/fatigued from playing my instrument/singing.	☐	☐	☐	☐	☐
14. I find my principal study positively challenging/playing my instrument/singing challenging in a positive way.	☐	☐	☐	☐	☐
15. I am not into playing my instrument/singing like I used to be.	☐	☐	☐	☐	☐
16. My principal study/playing my instrument/singing inspires me.	☐	☐	☐	☐	☐

	Almost never	Rarely	Sometimes	Frequently	Almost always
17. I feel physically worn out from playing my instrument/singing.	☐	☐	☐	☐	☐
18. When I am playing my instrument/singing, I forget everything else around me.	☐	☐	☐	☐	☐
19. I feel less concerned about being successful in music/playing my instrument well/singing well than I used to.	☐	☐	☐	☐	☐
20. I am enthusiastic about my principal study/playing my instrument/singing.	☐	☐	☐	☐	☐
21. I am exhausted by the mental and physical demands of playing my instrument/singing.	☐	☐	☐	☐	☐
22. When I am playing my instrument/singing, I feel like I am bursting with energy.	☐	☐	☐	☐	☐
23. I feel happy when I'm playing my instrument/singing intensively.	☐	☐	☐	☐	☐
24. It seems that no matter what I do, I don't perform as well as I should.	☐	☐	☐	☐	☐
25. I feel successful at playing my instrument/singing.	☐	☐	☐	☐	☐
26. When playing my instrument/singing, I feel strong and vigorous.	☐	☐	☐	☐	☐
27. I have negative feelings toward playing my instrument/singing.	☐	☐	☐	☐	☐

	Almost never	Rarely	Sometimes	Frequently	Almost always
28. I am proud of my principal study/the fact that I play my instrument/sing.	☐	☐	☐	☐	☐
29. I can get carried away by/very excited about my principal study/playing my instrument/singing.	☐	☐	☐	☐	☐

Questionnaire B

The following questions concern your **thoughts and/or feelings about your principal study during the last month**. Please indicate how much you agree with each of the following statements in relation to **your principal study**.

When it comes to my principal study:

	Strongly disagree			Neutral			Strongly agree
1. I am capable of learning the repertoire I play on my principal study instrument/sing.	☐	☐	☐	☐	☐	☐	☐
2. I feel pressured/forced to do things that I do not want to do.	☐	☐	☐	☐	☐	☐	☐
3. I am free to express my ideas and opinions.	☐	☐	☐	☐	☐	☐	☐
4. When I am in my lessons, I have to do what I am told.	☐	☐	☐	☐	☐	☐	☐
5. I am able to achieve my goals in my principal study.	☐	☐	☐	☐	☐	☐	☐

	Strongly disagree			Neutral			Strongly agree
6. I feel like I can pretty much be myself.	☐	☐	☐	☐	☐	☐	☐
7. I feel able to meet the challenge of performing well on my principal study instrument/as a singer.	☐	☐	☐	☐	☐	☐	☐
8. There is not much opportunity for me to decide for myself.	☐	☐	☐	☐	☐	☐	☐
9. I feel like I can make a lot of input to decision-making.	☐	☐	☐	☐	☐	☐	☐
10. My feelings are taken into consideration.	☐	☐	☐	☐	☐	☐	☐
11. I feel confident in my ability to learn the repertoire I play/sing at the moment and perform it well.	☐	☐	☐	☐	☐	☐	☐

Questionnaire C

Here is a list of statements concerning **the typical atmosphere in your principal study tutor's class during the last month**. Please indicate how much you agree with each of them, thinking about the **atmosphere in your principal study tutor's class and the relationships between the principal study tutor, and you and his or her other students.** *UK only:* If you have more than one main tutor or you regularly attend classes given by a tutor who is not your own principal study tutor, please select one of them and think of him/her while responding to items across the questionnaire.*

	Strongly disagree			Neutral			Strongly agree
1. My principal study tutor's students can really count on her/him to be there when they need help.	☐	☐	☐	☐	☐	☐	☐
2. My principal study tutor listens to how I would like to do things.	☐	☐	☐	☐	☐	☐	☐
3. My principal study tutor accepts her/his students totally, including both their worst and best points.	☐	☐	☐	☐	☐	☐	☐
4. In my relationship with my principal study tutor, I feel listened to.	☐	☐	☐	☐	☐	☐	☐
5. My principal study tutor's students can really count her/him to help them feel better when they are feeling down.	☐	☐	☐	☐	☐	☐	☐
6. In my relationship with my principal study tutor, I feel valued/appreciated/ respected.	☐	☐	☐	☐	☐	☐	☐
7. My principal study tutor really appreciates students as people, not just as musicians.	☐	☐	☐	☐	☐	☐	☐
8. My principal study tutor listens openly and uncritically to the students' innermost feelings.	☐	☐	☐	☐	☐	☐	☐

	Strongly disagree			Neutral			Strongly agree
9. My principal study tutor's students can really count on her/him caring about them, no matter what happens (to them).	☐	☐	☐	☐	☐	☐	☐
10. My principal study tutor conveys confidence in my ability to do well at music.	☐	☐	☐	☐	☐	☐	☐
11. In my relationship with my principal study tutor, I feel emotionally safe.	☐	☐	☐	☐	☐	☐	☐
12. My principal study tutor's students can really count on her/him to help them feel more relaxed when they are under pressure.	☐	☐	☐	☐	☐	☐	☐
13. In my relationship with my principal study tutor, I feel supported as a person.	☐	☐	☐	☐	☐	☐	☐
14. My principal study tutor encourages me to ask questions.	☐	☐	☐	☐	☐	☐	☐
15. In my relationship with my principal study tutor, I feel understood.	☐	☐	☐	☐	☐	☐	☐
16. I feel that my principal study tutor provides me with choices and options.	☐	☐	☐	☐	☐	☐	☐

	Strongly disagree			Neutral			Strongly agree
17. My principal study tutor's students can really count on her/him to console/comfort them when they are very upset.	☐	☐	☐	☐	☐	☐	☐
18. My principal study tutor tries to understand how I see things before suggesting a new way to do things.	☐	☐	☐	☐	☐	☐	☐

Questionnaire D

Please indicate to which degree you have experienced the following symptoms **during the last month**:

	Not at all						Very much
1. Headaches	☐	☐	☐	☐	☐	☐	☐
2. Stomachache/pain	☐	☐	☐	☐	☐	☐	☐
3. Chest/heart pain	☐	☐	☐	☐	☐	☐	☐
4. Runny or congested nose	☐	☐	☐	☐	☐	☐	☐
5. Coughing/sore throat	☐	☐	☐	☐	☐	☐	☐
6. Faintness/dizziness	☐	☐	☐	☐	☐	☐	☐
7. Shortness of breath	☐	☐	☐	☐	☐	☐	☐
8. Acne/pimples/spots	☐	☐	☐	☐	☐	☐	☐
9. Neck pain/discomfort	☐	☐	☐	☐	☐	☐	☐

	Not at all						**Very much**
10. Back pain/discomfort	☐	☐	☐	☐	☐	☐	☐
11. Arm pain/discomfort	☐	☐	☐	☐	☐	☐	☐
12. Shoulder pain/discomfort	☐	☐	☐	☐	☐	☐	☐

Thank you for completing the survey.

A

- ABQ (Raedeke & Smith, 2001):

Emotional/physical exhaustion: items 2, 5, 13, 17, 21

Devaluation: items 4, 9, 15, 19, 27

Reduced sense of accomplishment: items 1 (reverse scoring), 7, 11, 24, 25 (reverse scoring)

- UWES-S (Schaufeli, Martínez, et al., 2002)

Vigour: items 3, 10, 12, 22, 26

Dedication: items 6, 14, 16, 20, 28

Absorption: items 8, 18, 23, 29

B

- Perceived Competence Scale (Williams & Deci, 1996); items 1, 5, 7, 11
- Basic Need Satisfaction at Work Scale - Autonomy subscale (Deci et al., 2001); items 2 (reverse scoring), 3, 4 (reverse scoring), 6, 8 (reverse scoring), 9, 10

C

- Social Support Questionnaire (Sarason et al., 1983): items 1, 3, 5, 7-9, 12, 17
- Need for Relatedness - Acceptance subscale (Richer & Vallerand, 1998): items 4, 6, 11, 13, 15
- Health Care Climate Questionnaire (short version) - Autonomy support (Williams & Deci, 1996; Williams et al., 2005); items 2, 10, 14, 16, 18

D

- Physical symptoms checklist (Emmons, 1991); items 1-8
- Musculoskeletal pain (Williamon & Thompson, 2006); items 9-12

Appendix O: Polish adaptations of the ABQ and UWES-S used in Study I

Poniżej przedstawiony jest szereg stwierdzeń, którymi muzycy mogą opisać swoje **odczucia i/lub myśli dotyczące gry na instrumencie lub śpiewu**. Jeśli Twoim głównym kierunkiem studiów jest śpiew, zignoruj sformułowanie „gra na instrumencie", skupiając się na Twoich doświadczeniach związanych ze śpiewem. Jeśli studiujesz instrumentalistykę, zignoruj sformułowanie „śpiew", koncentrując się na Twoich doświadczeniach związanych z grą na instrumencie. Jeśli studiujesz oba kierunki, wybierz jeden i ustosunkuj się do stwierdzeń w kwestionariuszu w odniesieniu do niego.

Zaznaczając odpowiednie „okienko", wskaż **jak często w ciągu ostatniego miesiąca miałeś/aś odczucia i/lub myśli związane z grą na instrumencie/śpiewem** przedstawione w każdym stwierdzeniu.

W ciągu ostatniego miesiąca czułem/am lub myślałem/am, że:

	Prawie nigdy	Rzadko	Czasem	Często	Prawie zawsze
1. Osiągam wiele korzyści dzięki grze na instrumencie/śpiewowi.	☐	☐	☐	☐	☐
2. Czuję się tak zmęczony/a grą na instrumencie/śpiewem, że z trudem znajduję energię na robienie czegokolwiek innego.	☐	☐	☐	☐	☐
3. Kiedy gram/śpiewam, czuję, że rozpiera mnie energia.	☐	☐	☐	☐	☐
4. Wysiłek, który wkładam w grę na instrumencie/śpiew, byłby lepiej wykorzystany, gdybym spożytkował/a go na coś innego.	☐	☐	☐	☐	☐
5. Czuję się nadmiernie zmęczony/a grą na instrumencie/śpiewem.	☐	☐	☐	☐	☐
6. Gra na instrumencie/śpiew jest dla mnie pełna/pełen sensu i celowości.	☐	☐	☐	☐	☐
7. Moje osiągnięcia w grze na instrumencie/śpiewie nie są znaczące.	☐	☐	☐	☐	☐

	Prawie nigdy	Rzadko	Czasem	Często	Prawie zawsze
8. Czas szybko płynie, kiedy gram/śpiewam.	☐	☐	☐	☐	☐
9. Nie zależy mi tak bardzo jak kiedyś na osiągnięciu dobrego poziomu gry/śpiewu.	☐	☐	☐	☐	☐
10. Kiedy wstaję rano, mam ochotę grać/śpiewać.	☐	☐	☐	☐	☐
11. Nie wykorzystuję w pełni moich możliwości w zakresie gry na instrumencie/śpiewu.	☐	☐	☐	☐	☐
12. Jestem w stanie grać/śpiewać przez bardzo długi czas.	☐	☐	☐	☐	☐
13. Czuję się wyczerpany/a grą na instrumencie/śpiewem.	☐	☐	☐	☐	☐
14. Gra na instrumencie/śpiew jest dla mnie pozytywnym wyzwaniem.	☐	☐	☐	☐	☐
15. Nie pasjonuję się grą na instrumencie/śpiewem tak jak kiedyś.	☐	☐	☐	☐	☐
16. Gra na instrumencie/śpiew jest dla mnie natchnieniem.	☐	☐	☐	☐	☐
17. Czuję się fizycznie wycieńczony/a grą na instrumencie/śpiewem.	☐	☐	☐	☐	☐
18. Kiedy gram/śpiewam, zapominam o wszystkim dokoła mnie.	☐	☐	☐	☐	☐

	Prawie nigdy	Rzadko	Czasem	Często	Prawie zawsze
19. Mniej niż kiedyś zależy mi na odnoszeniu sukcesów w grze na instrumencie/śpiewie.	☐	☐	☐	☐	☐
20. Jestem oddana/oddany grze na instrumencie/śpiewowi.	☐	☐	☐	☐	☐
21. Jestem wyczerpany/a psychicznymi i fizycznymi wymogami związanymi z grą na instrumencie/śpiewem.	☐	☐	☐	☐	☐
22. Kiedy gram/śpiewam czuję się silny/a i pełen/pełna energii.	☐	☐	☐	☐	☐
23. Czuję się szczęsliwy/szczęśliwa, kiedy intensywnie gram/śpiewam.	☐	☐	☐	☐	☐
24. Niezależnie od tego, jak bardzo się staram, nie gram/nie śpiewam tak dobrze, jak powinnam/powinienem.	☐	☐	☐	☐	☐
25. Czuję, że odnoszę sukcesy w grze na instrumencie/śpiewie.	☐	☐	☐	☐	☐
26. Kiedy gram/śpiewam, mam świadomość swojej dużej wydajności intelektualnej.	☐	☐	☐	☐	☐
27. Mam negatywne odczucia dotyczące grania na moim instrumencie/śpiewania.	☐	☐	☐	☐	☐
28. Jestem dumny/a z faktu, że gram/śpiewam.	☐	☐	☐	☐	☐
29. Zapominam się, kiedy gram/śpiewam.	☐	☐	☐	☐	☐

Dziękuję za wypełnienie kwestionariusza!

- ABQ (Raedeke & Smith, 2001):

Emotional/physical exhaustion: items 2, 5, 13, 17, 21

Devaluation: items 4, 9, 15, 19, 27

Reduced sense of accomplishment: items 1 (reverse scoring), 7, 11, 24, 25 (reverse scoring)

- UWES-S (Schaufeli, Martínez, et al., 2002)

Vigour: items 3, 10, 12, 22, 26

Dedication: items 6, 14, 16, 20, 28

Absorption: items 8, 18, 23, 29

Appendix P: Levels of global burnout and its subscales among men and women by country

	Global burnout			Emotional/physical exhaustion			Devaluation			Reduced sense of accomplishment		
	Mean (SD)	Median	Mean rank	Mean (SD)	Median	Mean rank	Mean (SD)	Median	Mean rank	Mean (SD)	Median	Mean rank
Australia												
Men	2.38 (.46)	2.33	28.78	2.69 (.62)	2.80	29.67	1.92 (.56)	1.80	28.22	2.52 (.74)	2.60	32.48
Women	2.58 (.52)	2.57	36.40	2.91 (.60)	3.00	35.68	2.28 (.74)	2.30	36.85	2.61 (.67)	2.60	33.42
Poland												
Men	2.21 (.63)	2.07	59.46	2.24 (.73)	2.40	64.07	1.74 (.84)	1.40	65.71	2.65 (.76)	2.60	57.96
Women	2.41 (.64)	2.33	75.29	2.43 (.81)	2.40	73.84	1.87 (.84)	1.60	73.32	2.92 (.75)	2.90	75.76
UK												
Men	2.47 (.54)	2.53	54.91	2.44 (.70)	2.40	51.46	2.17 (.81)	2.20	57.33	2.81 (.69)	2.80	61.70
Women	2.66 (.63)	2.67	65.48	2.77 (.79)	2.80	66.84	2.35 (.83)	2.20	64.53	2.85 (.73)	2.80	62.81

Appendix Q: Levels of global engagement and its subscales among men and women by country

	Global engagement			Vigour			Dedication			Absorption		
	Mean (SD)	Median	Mean rank	Mean (SD)	Median	Mean rank	Mean (SD)	Median	Mean rank	Mean (SD)	Median	Mean rank
Australia												
Men	3.83 (.52)	3.93	35.93	3.59 (.57)	3.60	36.79	4.12 (.84)	4.20	34.31	3.77 (.54)	3.75	36.66
Women	3.66 (.60)	3.68	30.64	3.39 (.65)	3.40	29.94	4.07 (.68)	4.00	31.94	3.50 (.62)	3.50	30.06
Poland												
Men	3.83 (.63)	3.93	70.19	3.68 (.74)	3.60	73.34	4.19 (.73)	4.30	71.47	3.58 (.66)	3.63	62.87
Women	3.88 (.56)	4.00	71.91	3.64 (.64)	3.60	70.92	4.20 (.68)	4.40	71.51	3.78 (.61)	3.75	74.22
UK												
Men	3.58 (.57)	3.64	62.91	3.30 (.66)	3.40	63.71	3.92 (.64)	4.00	64.21	3.49 (.62)	3.50	56.64
Women	3.60 (.63)	3.57	62.34	3.29 (.53)	3.20	62.02	3.86 (.60)	4.00	61.83	3.66 (.53)	3.75	64.80

Appendix R: Study IIa: Pre-regression data treatment – removal of univariate and multivariate outliers

Perceptions of the tutor and need satisfaction

Two highly influential univariate outliers, one multivariate outlier with high leverage value, eight additional highly influential points and three additional high leverage points were detected in the preliminary regression with T2 autonomy as the criterion variable.

Two highly influential univariate outliers, one multivariate outlier with high leverage value, two additional highly influential points with high leverage values and two additional high leverage points were detected in the preliminary regression with T2 competence as the criterion variable. Removing one of the highly influential univariate outliers had a substantial effect on the β coefficient for autonomy support so the observation was removed from the relevant regression.[27]

Three univariate outliers, two of them highly influential, two multivariate outliers with high leverage values, one of them highly influential, six additional highly influential points, two of them with high leverage value, and two additional high leverage points were identified in the preliminary regression with T2 relatedness as the criterion variable.

Removing each unusual observation detected in the preliminary regressions with autonomy and relatedness at T2 serving as the criterion variables did not influence the regression coefficients substantially so they were kept in the relevant regression analyses.

Need satisfaction and burnout

Two highly influential univariate outliers who were also multivariate outliers with high leverage values, one additional highly influential multivariate outlier with high leverage value, eight additional influential points and one additional high leverage point were detected in the preliminary regression with T2 global burnout as the criterion variable.

Three multivariate outliers with high leverage values, one of them highly influential, and nine additional highly influential points, one of them with high

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[27] The results of the original regression with the highly influential univariate outlier included were as follows for the variables at T2: ΔR^2=.02, p=.29; T2 Autonomy support: B=.20 SE B=.15, β=.24, p=.16; T2 Social support: B=-.10, SE B= .15, β=-.12, p=.51.

leverage value were identified in the preliminary regression with T2 emotional/physical exhaustion as the criterion variable.

Two highly influential univariate outliers, two highly influential multivariate outliers with high leverage values, eight additional highly influential point, one of them with high leverage value, were detected in the preliminary regression with T2 devaluation as the criterion variable.

One highly influential univariate outlier, three highly influential multivariate outliers with high leverage values, eight additional highly influential points, one of them with high leverage value, were detected in the preliminary regression with T2 reduced sense of accomplishment as the criterion variable.

Excluding each unusual observation detected in the preliminary regressions with the indices of burnout at T2 serving as the criterion variables did not influence the regression coefficients substantially so they were retained in the relevant regression analyses.

Need satisfaction and engagement

Two highly influential univariate outliers, three multivariate outliers with high leverage values, two of them highly influential, nine additional highly influential points, one of them with a high leverage value, were detected in the preliminary regression with T2 global engagement as the criterion variable.

Three multivariate outliers with high leverage values, two of them highly influential, and eight additional highly influential points were detected in the preliminary regression with T2 vigour as the criterion variable.

One highly influential univariate outlier with high leverage value, three highly influential multivariate outliers with high leverage values, and six additional highly influential points were detected in the regression with T2 dedication as the criterion variable.

One highly influential univariate outlier, three multivariate outliers with high leverage values and seven additional highly influential points were detected in the preliminary regression with T2 absorption as the criterion variable.

Removing each unusual observation detected in the preliminary regressions with the indices of engagement at T2 acting as the criterion variables did not influence the regression coefficients substantially so they were kept in the relevant regression analyses.

Appendix S: Study IIb: Pre-regression data treatment – removal of univariate and multivariate outliers

Burnout and engagement, and general physical health

One highly influential univariate outlier, eight highly influential points and one high leverage point were detected in the preliminary regressions with the subscales of burnout at T2 entered as the predictor variables.

One highly influential univariate outlier, one highly influential multivariate outlier and five additional highly influential points were detected in the preliminary regression with subscales of engagement at T2 entered as the predictor variables.

Removing each unusual observation detected in the preliminary regressions with subscales of burnout and engagement at T2 entered separately as the predictor variables did not influence the regression coefficients substantially so they were kept in the relevant regression analyses.

Burnout and engagement, and MS pain

One highly influential univariate outlier and four additional highly influential points were detected in the preliminary regression with subscales of engagement at T2 entered as the predictor variables.

Two highly influential univariate outliers, three additional highly influential points and one high leverage point were detected in the preliminary regression with subscales of engagement at T2 entered as the predictor variables.

Removing each any of the unusual observations detected in the preliminary regressions with subscales of burnout and engagement at T2, entered separately as the predictor variables did not influence the regression coefficients substantially so they were retained in the relevant regression analyses.

Appendix T: Interview guide

Exemplary prompts: "Please tell me more about it", "How did you feel about it?", "How did you deal with it?", "Please give me an example"

A) For students classed as burned-out or engaged recently

1. Background information (age, year and programme of study, international/local student status, instrument/voice, length of time played/sung, age started).

2. What were your reasons choose to study music at the tertiary level?

3. What would you like to do in the future in terms of music-making?

4. How have you been recently, generally?

5. What does a typical week look like for you this academic year?

6. How is it for you at the college this academic year?

7. Please tell me about your experiences as a performer this academic year.

8. How has your principal study has been going this academic year?

9. How do you feel about playing your instrument/singing, generally, this academic year?

10. How do you feel about the quality of your playing this academic year?

11. Please tell me about one of your last performances this academic year (if you had any).

12. How do you feel about practising your instrument/singing, generally, this academic year?

13. How do you usually practise this academic year? Please describe your typical practice session.

14. How do you feel about the quality of your practising this academic year?

15. Please describe your relationship with your principal study tutor this academic year.

16. Please describe your relationships with other students this academic year.

17. How do you feel now, facing the upcoming months of this academic year?

18. Is there anything else you would like to add that we did not talk about?

B) Retrospective (for students classed as burned-out or engaged at the end of the last academic year)

I Still students:

1. Background information (age, year and programme of study, international/local student status, instrument/voice, length of time played/sung, age started)

2. What were your reasons to choose to study music at the tertiary level?

3. What would you like to do in the future in terms of music-making?

4. Please tell me about how your principal study has been going this academic year.

5. How, generally, do you feel about playing your instrument/singing this academic year?

6. How do you feel about the quality of your playing/singing this academic year?

7. How, generally, do you feel about practising this academic year?

8. How do you usually practise this academic year?

Now, I would like to ask you about your experiences in the last academic year.

9. How was it for you at the college last academic year?

10. What did a typical week look like for you last academic year?

11. Please tell me about the experience of your principal study last academic year.

12. How did you feel about playing your instrument/singing last academic year?

13. What were your thoughts on the quality of your playing/singing last academic year?

14. Please describe one of your performances last academic year.

15. How did you feel about practising your instrument/singing last academic year?

16. How did you usually practice last academic year? Please describe your typical practice session.

17. How did you feel about the quality of your practice last academic year?

18. Please describe your relationship with your principal study tutor last academic year.

19. Please describe your relationships with other students last academic year.

20. Is there anything else you would like to add that we did not talk about?

II Former students

1. Background information (age, year and programme of study, international/local student status, instrument/voice, length of time played/sung, age started)

2. What were your reasons for choosing to study music at the tertiary level?

3. What would you like to do in the future in terms of music-making?

4. Please tell me how you have been, generally, since you graduated.

5. Please tell me about how your playing/singing has been going since you graduated.

6. How, generally, have you felt about playing your instrument/singing since you graduated?

7. How have you felt about practising your instrument/singing since you graduated, generally?

- *If still playing/singing* - Tell me about one of your recent practice sessions.

8. *If still playing/singing* - Can you tell me how you have practised since you graduated?

9. *If still playing/singing* - How effective has usually your practice been since you graduated?

10. How have you felt about performing, generally, since you graduated?

11. *If still playing/singing* How well do you think you have played/sung since you graduated?

- Please tell about one of your last performances, if you have had any, since you graduated?

Now, I would like to ask you about your experiences in the last academic year.

Remaining questions as questions 9-20 in B) I