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**Listening to music to cope with everyday stressors**

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**Contributorship**

AK, SF, BF, KG, and SW collaborated to conceive and develop this research.

SF, BF, KG, and SW gained ethical approval, and conducted participant

recruitment. AK, SF, BF, KG, SW, DG, and DM conducted the data analysis. SF,

BF, KG, and SW drafted initial versions of the manuscript, with AK, DG, and

WS offering additional revision. All authors collaborated to write and

approve the final version of the manuscript.

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**Data Statement**

The Ethics approval for this project stated that the data would be destroyed after 7 years. Further, it did not permit the sharing or re-use of the collected data.

### Abstract

Everyday stressors—the irritating and disturbing events that happen in the context of everyday life—are common. The present research examined the relationship between everyday stressors and the use of music listening as a coping mechanism. In particular, it examined the use of music listening to cope with different types of everyday stressor and examined the relationship between this usage and listener characteristics, including demographics and music engagement style. Participants in the USA, Australia, and Malaysia ( $N = 553$ ) completed an online survey. A factor analysis was used to identify five types of everyday stressor: Social, Financial, Performance Responsibilities, Work-related, and Daily Displeasures. Individuals listened to music significantly more often to cope with social and work-related stressors than performance responsibilities and daily displeasures. Moreover, individuals who demonstrated a stronger affective listening style and those who reported listening to music for emotion/problem-orientated and avoidance/disengagement reasons were found to listen to music most often to cope with everyday stressors. These findings have implications, for both listeners and health professionals, when considering how music listening can be used as a self-administered tool for coping with everyday stressors.

Keywords: music listening, listening engagement, stressor, well-being

### **Listening to music to cope with everyday stressors**

Stress is typically characterised as occurring when an individual becomes unable to cope with the demands placed on them due to a lack of available resources (Fink, 2009; Lazarus & Folkman, 1984; Lundberg, 2006). Everyday stressors—the stressful, irritating, and/or disturbing events that happen in the context of everyday life—are common and occur naturally as a by-product of living (Yehuda, 2011). Such stressors include social or interpersonal difficulties and conflicts; work difficulties; home difficulties; and financial challenges (e.g., Almeida et al., 2002; Bolger & Schilling, 1991; Kohn & Macdonald, 1992). While these are often harmless and serve an important adaptive function (Dhabhar, 2014), even moderate amounts of stress, if experienced continuously, may lead to negative outcomes for health (e.g., Clark et al., 2016; Dhabhar, 2014; Dimsdale, 2008). Examples of such negative outcomes include poorer immune function and higher susceptibility to disease or illness (Ferrer et al., 2014); disruptions to personal relationships (Bodenmann et al., 2006; Lewandowski et al., 2014); and anxiety and depression (Cohen et al., 2007).

It is perhaps unsurprising, therefore, that people are increasingly interested in using easy and non-invasive approaches, such as music listening, to mitigate stress (MacDonald, 2013). Indeed, a growing body of research demonstrates the role of music in promoting health and well-being (Bradt et al., 2011; Rickard & McFerran, 2012). People often listen to music to regulate their moods (Baltazar et al., 2019; Boer & Fischer, 2012; Lonsdale, 2019; Lonsdale & North, 2011; Schäfer, 2016), reduce negative emotional states (North et al., 2004; Sloboda, 2010), and help relieve or manage everyday stress (Laukka, 2007). Indeed, music listening may function as “an escape and a comfort from the difficulties of life” (Boer & Fischer, 2012, p. 188) which could be

considered a coping strategy (Lazarus & Folkman, 1984; Miranda & Claes, 2009; Pearlin & Schooler, 1978). Attending to the music in this way shifts attention away from pain or arousal (Bradshaw et al., 2012; Radstaak et al., 2014). Researchers have investigated people's use of music listening to cope in a range of contexts, including healthcare, university, and work settings.

The utility of music for distracting the listener from perceived pain, stress and anxiety within healthcare settings is well documented (Mitchell et al., 2008; Roy et al., 2008). For example, patients who listen to music prior to surgery require less sedation (Dijkstra et al., 2010; Tam et al., 2008), report lower stress and anxiety levels (Liu et al., 2016; Thoma et al., 2015), and are more relaxed (i.e., have lower blood pressure and heart rate) after surgery (Karakul & Bolışık, 2018). Additionally, music listening reduces work-related stress (e.g., Beck et al., 2015; Haake, 2011; Lesiuk, 2008; Lima et al., 2017): music can help employees with mood regulation, relaxation, concentration and the management of workplace interruptions (Haake, 2011). Workers on stress leave or returning to work in various employment contexts have been found to benefit from music listening (Beck et al., 2015), as do those in high-stress work environments such as air traffic control (Lesiuk, 2008).

The utility of music listening has also been documented in university settings (Linnemann et al., 2015; Pelletier, 2004). For example, students who listened to music to relax experienced decreases in their levels of stress and arousal (Linnemann et al., 2015). Students who listened to music having taken a test had lower levels of stress than those who did not (Labbe et al., 2007), as did those who listened to music having being instructed to prepare to give a speech (Sandstrom & Russo, 2010).

The extent to which music listening is effective in reducing stress is unique to each individual. Both age (Galanakis et al., 2009) and gender (Dawson et al., 2014;

Verma et al., 2011) influence how individuals respond to and cope with stress. In addition, musical preferences (Jiang et al., 2016) and the genre of music to which the individual listens influence stress reduction (Chafin et al., 2004; Yehuda, 2011).

Differences in the extent to which music listening reduces stress may be accounted for by individuals' listening styles and levels of engagement with music (Greenberg & Rentfrow, 2015; Miranda & Claes, 2009). For example, those who have an affective listening style, characterised by emotional responses to music, are likely to experience catharsis and mood regulation (Greenberg & Rentfrow, 2015; Miranda & Claes, 2009).

Most research on music listening and stress has been carried out in the context of experiments (Linnemann et al., 2015; Västfjäll et al., 2012). Laboratory research has shown, for instance, that music improves participants' ability to cope with and recover from stress (e.g., De La Torre-Luque et al., 2017), and that participants who listened to classical music having carried out a stressful task experienced lowered blood pressure, unlike those who did not listen to classical music (Chafin et al., 2004). Yet the generalisability of such findings remains questionable due to their lack of ecological validity (Lewandowski et al., 2014). Indeed, both social context (Linnemann et al., 2016, 2017), and cultural environment (Chun et al., 2006; Tweed et al., 2004) have been found to influence the ways in which individuals respond and cope with stress.

### **Research questions and hypotheses**

Previous research on music listening and stress has been undertaken in settings such as work and universities, or using experimental methods in the laboratory. The present study extends this work by exploring the use of music listening to cope with stressors broadly, in everyday life. Using a survey that included three questionnaires, it addressed two overarching research questions and tested three hypotheses. The first research question (RQ1) asked (a) what types of stressors people use music listening to

cope with and (b) if music listening is used more often to cope with some types of everyday stressor than others. Previous research has categorized everyday stressors as pertaining to social conflicts, work difficulties, home difficulties, and financial changes (e.g., Almeida et al., 2002; Bolger & Schilling, 1991; Kohn & Macdonald, 1992). It is possible that these categorizations may also pertain to music listening as a coping strategy. Because previous research has shown that listening to music is commonly used to relieve work-related stress (e.g., Beck et al., 2015; Haake, 2011), it was hypothesised (H1) that participants in the research would report listening to music as a way of coping with work-related stressors.

The second research question (RQ2) asked if style of musical engagement is related to the general use of music listening as a way of coping with everyday stressors, once individual differences are accounted for. Musical engagement was defined in relation to both Greenberg and Rentfrow's (2015) five styles of engagement (narrative, affective, physical, cognitive, and social) and Miranda & Claes' (2009) three styles of coping (avoidant, emotional, and problem-orientated). Because of the links between affective listening style and emotional state, and prior support for the notion that individuals listen to music for emotional regulation (e.g., Miranda & Claes, 2009; Saarikallio, 2011; Schäfer, 2016), it was hypothesized that a) affective listening style (H2) and b) emotion-orientated coping style (H3) would be positively associated with the use of music listening to cope with everyday stress.

## **Method**

### **Participants**

Ethical approval for the study was sought and granted by the Curtin University Human Research Ethics Committee (Approval number: RDHS-100-16). There were 553 participants of whom 301 (54.40%) lived in the United States of America, 146 (26.40%)



in Australia, and 106 in Malaysia (19.20%), selected as a reference group. Participants were aged 17-79 ( $M = 24.49$ ,  $Mdn = 21$ ,  $SD = 9.90$ ); 383 (69.26%) of the sample identified as female, 169 (30.56%) as male, and one (0.18%) as non-binary. Participants were recruited using snowball sampling via social media posts (e.g., Facebook and Twitter), a university research participation scheme (online), and flyers posted around a university campus. As an incentive to take part in the study, participants who were students accessing the survey through the university research participant scheme were eligible to obtain credit toward their coursework. All other participants had the opportunity to enter a prize draw to win a \$50 AUD gift voucher.

### Measures

The survey consisted of demographic questions and three standardized questionnaires. First, participants were asked to provide information as to their age, gender, nationality, occupation and country of residence. They rated the importance of music in their life (1 = *Not at all important*; 7 = *Extremely important*) and reported the average number of hours they spent listening to music each day. Participants answered a single question using a yes/no response as to whether they considered themselves to be an “active musician.” The question was deliberately phrased broadly and did not include a definition so as to embrace all types of musical participation and encourage participants to define themselves as musicians or otherwise (Krause, et al., 2019).

**Survey of Recent Life Experiences (SRLE).** The SRLE (Kohn & Macdonald, 1992) was chosen because it concerns people’s experience of 51 day-to-day stressors in six categories: social and cultural difficulties (issues to do with gossip and interpersonal problems), work (job-related stressors), time pressure (not having enough leisure time, or having inadequate time to finish tasks), finances (conflicts surrounding money), social acceptability (social isolation and rejection), and social victimisation (feeling

taken for granted, cheated, or disrespected). Past studies employing the original version of the SRLE (e.g., Goldstone et al., 2011) and a subsequent, amended version (e.g., Brenner et al., 2018) have reported that the six subscales have satisfactory reliability. Participants were asked to say how often they listen to music as a way of coping with each stressor using a seven-point scale from 1 = *Never* to 7 = *Always*.

To assess the underlying structure of the amended SRLE measure, an exploratory Principal Components Analysis with Promax rotation was used. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy of the correlation matrix was .966, Barlett's test of sphericity was statistically significant ( $p < .001$ ), and Measures of Sampling Adequacy (MSA) were all acceptable (.939). A parallel analysis determined that five factors should be retained; thus, the analysis was re-run forcing a five-factor solution that accounted for 58.846% of the variance (detailed in Table 1).

Given the pattern of loadings in Table 1, the factors were labelled Social, Financial, Performance Responsibilities, Work-related, and Daily Displeasures, respectively. Items contributing to Factor 1, Social stressors, included "having your trust betrayed by a friend" and "social rejection." The highest loadings for Factor 2 were associated with "getting ripped off or cheated in the purchase of goods," so it was labelled Financial stressors. Factor 3's label, Performance Responsibilities, denotes feelings of having "too many things to do at once" or having "a lot of responsibilities." Work-related stressors, Factor 4, included "finding work uninteresting" and "unwanted interruptions of your work." Finally, Factor 5, Daily Displeasures, referred to items such as "disliking your daily activities." This factor structure is congruent with types of everyday stressor identified in previous work, such as categories of stressor related to interpersonal tension and work (e.g., Almeida et al., 2002; Bolger & Schilling, 1991; Kohn & Macdonald, 1992).

-Table 1 Here-

**Musical Engagement Test (MET).** The MET comprises 23 items defining five styles of musical engagement: narrative (e.g., “music creates a story or narrative in my mind”), affective (e.g., “music magnifies my emotions”), physical (e.g., “music makes me want to dance”), cognitive (e.g., “when listening to music, I tend to concentrate on the melodies and counter-melodies”), and social (e.g., “when listening to live music, I feel in-tune with the musicians”). Responses to each item are made using a seven-point scale from 1 = *Not at all characteristic* to 7 = *Very characteristic*. Scores for each dimension derive from the original authors’ coding of items on each subscale (Greenberg & Rentfrow, 2015). Higher scores on a dimension indicate the participant’s style of musical engagement. Cronbach’s alpha values were .881, .889, .842, .888, and .856 for the cognitive, affective, physical, narrative, and social dimensions respectively.

**Music Listening Coping Style Scale (MLCSS).** The ten-item scale measures three music listening coping styles: emotion-orientated (e.g., “help myself to let off steam”), problem-orientated (e.g., “help myself study or work better”) and avoidance/disengagement (e.g., “avoid thinking of my problem”). Participants respond using a five-point scale from 1 = *Never* to 5 = *Always*. The original questionnaire was in French, as it was developed for use by French-Canadian adolescents, and demonstrated robust reliability (subscale Cronbach alphas of .69 - .88; Miranda & Claes, 2009). To ensure its applicability to Australian, Malaysian, and American adults, an English-language version of the measure was used, with only minor changes to the wording (e.g., “at university” rather than “at school”).

A Principal Components Analysis with Promax rotation examined the structure of the amended measure. The Kaiser-Meyer-Olkin value was .905, Barlett’s test of sphericity was statistically significant ( $p < .001$ ), and Measures of Sampling Adequacy

(MSA) were greater than .805. Together, the two components accounted for 67.417% of the total variance (Table 2). The first dimension reflected the combination of Miranda and Claes' emotion-orientated and problem-orientated styles (Cronbach's alpha = .904) and was labelled Emotion/problem-orientated. The second dimension demonstrated the avoidance/disengagement style (Cronbach's alpha = .880) and was therefore labelled accordingly.

*-Table 2 Here-*

### **Procedure**

The survey was hosted by Qualtrics and accessed online by participants using a direct web-link to the participant information web-page. After giving informed consent, indicated by clicking *Yes* or *No* on the consent web-page, participants moved through a further series of web-pages to complete the survey, which took around 20 minutes. On completion, participants were thanked for their participation and debriefed. If applicable, they were then able to enter their contact details to receive the participation incentive.

### **Results**

#### **Music listening to cope with everyday stressors**

As outlined in the Method, the factor analysis of responses to the SRLE showed that listening to music may be used to cope with five types of everyday stressor (RQ1a): Social, Financial, Performance Responsibilities, Work-related, and Daily Displeasures. A To find out whether music listening was indeed used to cope with specific types of everyday stressor more often than others (RQ1b), a one-way repeated-measures analysis of variance (ANOVA) was conducted, with a statistically significant result,  $F(3.774, 2082.978) = 212.95, p < .001, \eta_p^2 = 0.278$ . The Hyunh-Feldt statistic is reported because Mauchly's test indicated that the assumption of sphericity was violated.

Pairwise comparisons using a Bonferroni adjustment (see Table 3) indicated that participants reported listening to music significantly more often to cope with certain types of stressor than others. In particular, the pattern of results indicated that participants listened to music more often to cope with social stressors than financial stressors, performance responsibilities, and daily displeasures; less often to cope with financial stressors than the other four types of stressor; more often to cope with work-related stressors than performance responsibilities and daily displeasures; and more often to cope with performance responsibilities than daily displeasures.

*-Table 3 Here-*

### **Listener characteristics and listening to cope with everyday stressors**

A Generalized Linear Model (GLM) analysis was used to assess the associations between a) the tendency to use music to cope with everyday stressors and b) musical engagement and c) coping style (RQ2, Hypotheses 2 and 3). For this analysis, each participant's overall coping score, indicating their use of music to cope with everyday stressors, was calculated by averaging their responses to the 46 items pertaining to the five factors. Gender, age, country of residence, musician status, music importance rating, daily listening amount, the five MET scores representing music engagement, and the two music listening coping style scores were entered as predictor variables, with the overall coping score entered as the dependent variable. The single participant who identified themselves as having a non-binary gender was excluded from the analysis.

The overall model was statistically significant, adjusted  $R^2 = .360$ ,  $F(14, 442) = 19.350$ ,  $p < .001$ ,  $\eta_p^2 = .380$ . When controlling for the other variables in the model, there was a significant association between country of residence and use of music listening for coping with everyday stressors. As can be seen in Table 4, individuals living in the USA and Australia did not differ significantly from the reference group, individuals

living in Malaysia, in terms of their overall coping via music listening. The pairwise comparison of estimated marginal means indicated that individuals living in the USA were significantly more likely to use music to cope with everyday stress than individuals living in Australia ( $p = .011$ ). Three additional variables were significantly and positively associated with listening to music to cope with everyday stressors: scores on the MET affective dimension, and both emotion/problem-orientated and avoidance/disengagement listening coping styles.

GLM analyses were run again with the same predictor variables listed above but using music listening to cope with each of the five types of stressor (social, financial, performance-related, work-related, and daily displeasures) as the dependent variable in five separate analyses. Due to limitations of space, the parameter estimates for each of the five models are shown in Tables 1-5 in the Supplementary Materials. The MET affective score was positively associated with music listening to cope with all but financial stress, while the MET cognitive score was positively associated with music listening to cope with financial stress and the MET social score was negatively associated with music listening to cope with work-related stress.

Avoidance/disengagement coping style was positively associated with music listening to cope with all five types of stressor. Emotion/problem-orientated coping style was positively associated with music listening to cope with three types of stressor: financial, performance-related and work-related.

*-Table 4 Here-*

## **Discussion**

The present study used an amended version of the SRLE to investigate the use of music listening to cope with stressors, broadly, in everyday life. The first research

question (RQ1a) asked what types of everyday stressor people use music listening to cope with. The factor analysis produced the following categories of stressor: Social, Financial, Performance Responsibilities, Work-related, and Daily Displeasures. The second research question (RQ1b) asked if music listening is used more often to cope with certain types of stressor than others. The findings indicate that it is used most often to mitigate social stressors. The first hypothesis (H1), that participants in the research would report listening to music as a way of coping with work-related stressors, was supported. This is consistent with the results of previous experimental and laboratory-based research (e.g., Linnemann et al., 2015), at least insofar as participants reported listening more often to music to cope with work-related stressors (e.g., Beck et al., 2015; Haake, 2011) than to cope with performance responsibilities and daily displeasures. It can be inferred from these findings that not every kind of everyday stressor might be mitigated by music listening. Rather, it seems that people are more likely to manage social conflict and work stresses by listening to music. This is perhaps not surprising, given that Schäfer et al. (2013) identified three reasons for listening to music: to regulate arousal and mood, to achieve self-awareness, and as an expression of social relatedness.

The second research question (RQ2) asked if style of musical engagement is related to the general use of music listening as a way of coping with everyday stressors, once individual differences are accounted for, and it was hypothesized a) that affective listening style (H2) and b) emotion-orientated coping style (H3) would be positively associated with the use of music listening to cope with everyday stress. H2 was supported in that having an affective listening style was positively associated with the overall use of music listening to cope with everyday stressors and, specifically, social stressors and those associated with performance responsibilities, work, and daily

displeasures. H3 was partially supported in that both emotion/problem-orientated and avoidance/disengagement listening coping styles were positively associated with the overall use of music listening to cope with everyday stressors; these too were shown to have significant relationships with most of the individual types of stressor. These findings support the results of previous research showing that emotion regulation is the main reason why people listen to music (e.g., Boer & Fischer, 2012; Schäfer et al., 2013). Given that the affective dimension of the MET is characterised by “emotional processes involved with cathartic and expressive engagement” (Greenberg & Rentfrow, 2015, n.p.), it may be that people are seeking catharsis when they listen to music to cope with stressors, as well as an outlet that supports the expression of emotions to process stress. Although the significant association found between music listening and avoidance/disengagement coping style suggests that people’s strategies may also involve distraction and avoidance, it would be interesting in future research to examine the relative effectiveness of different types of strategy for dealing with different stressors.

### **Implications, limitations, and future directions**

The present study builds upon previous research that has examined the use of music listening to cope not only in particular settings (e.g., work, university) but also more broadly, in everyday life. The findings have the potential to be applied in practice: as people report using music more often to cope with certain types of everyday stressor, listening to music might be a low-cost and effective method of reducing both psychological and physiological stress (de Witte et al., 2020). In particular, people may find it easier to modify the ways in which they react to and deal with stress in everyday life if they are aware of what triggers it for them and can learn to use effective coping



techniques that, in turn, can lead to healthier coping patterns. Indeed, young people generally experience reduced stress and improved mood as a result of their unconscious selection of music (McFerran & Saarikallio, 2014; Saarikallio et al., 2015). However, it is important to note that listening to certain types of music can also be associated with negative outcomes (Saarikallio et al., 2015; Garrido, et al., 2020), and that individuals' use of music, as well as the type of music listened to, should be considered (Baltazar et al., 2019). To these findings can be added those of the present study, particularly in relation to people who use music for self-regulation: that in addition to considering type of coping strategy it is also important to consider type of stressor.

Given the negative association between stressors and health (Cathcart & Pritchard, 2008; Hertig et al., 2007; Kanner et al., 1981; Lu, 1991), the present findings also have implications for clinicians such as music therapists and allied health professionals who may be interested in helping clients by recommending non-pharmacological strategies for mitigating stress. For example, clinicians could promote music listening as a self-administered tool for coping with social and emotional conflict. The everyday use of music listening could be extended into medical and/or mental health interventions (de Witte et al., 2020).

The present study is not without its limitations. First, while the study was specifically aimed at the experience of everyday stressors, participants' self-reported responses were limited to Likert-scale responses. As stress is a multidimensional construct and experienced subjectively, future research is needed to explore in more detail the use of music as a coping mechanism in everyday life. Second, no measures of generalised stress or mental health issues were included. Anxiety or depression, for example, may be linked to everyday stressors, or influence people's reactions to these

stressors. Third, while we examined how often music listening was used, we did not investigate how effective it was for coping with everyday stressors in comparison with other coping strategies. It is possible that using music in this way is merely habitual, or that it has a placebo effect. Further research could address the effectiveness of music for coping with each of the five types of stressor identified in the present study. Fourth, while we included individuals' styles of music engagement in our analyses, other variables representing individual differences could also be considered. These include personality, in particular, given that previous studies have found associations between specific personality traits and the use of music listening to regulate emotions (e.g., Liljeström et al., 2013; Miranda & Blais-Rochette, 2020) and respond to stress (e.g., Lesiuk, 2008). Finally, while a strength of the present study is that we were able to recruit a cross-cultural sample with participants from the USA, Malaysia, and Australia, and although the results indicate an influence of country of residence on music listening behaviours, we did not take into account potential cultural differences between these three countries. The prevalence and/or effects of everyday stressors may vary from one country to another, and this offers another possible direction for future research.

Further work could address the lack of research surrounding long-term interventions involving music (see de Witte et al., 2020 for a review of recent research), using methods of data collection that permit longitudinal reporting as well as the monitoring of actual usage. For example, diary and/or experience sampling methods (e.g., Randall & Rickard, 2017) would provide more detailed data. Moreover, mapping the uses and functions of music (e.g., Groarke & Hogan, 2016) to (potentially coincidental) motivations for music listening would contribute greatly to an understanding of the use of music listening to cope with everyday stressors. Finally, consideration of the contextual features of everyday stressors and music listening (e.g.,

Greb et al., 2018; Krause et al., 2015) would also help to identify any relationship between music selection behaviours and stress-related outcomes.

In summary, this study contributes to an understanding of how people use music to adapt to the challenges of daily life, particularly the use of music listening to cope with everyday stressors. The findings show that people report using music more often to cope with everyday social and work stress than other kinds of stressor and that the tendency to use music listening as a coping strategy is related to broader styles of music engagement. With advances in technology leading to an increase in music listening that is, in turn, increasingly under our own control, it is of great importance to continue working to understand the effects that our everyday experiences with music may have on us, particularly in regard to influences on our health and well-being.

### References

- Almeida, D. M., Wethington, E., & Kessler, R. C. (2002). The daily inventory of stressful events: An interview-based approach for measuring daily stressors. *Assessment, 9*(1), 41-55.  
<https://doi.org/10.1177/1073191102091006>
- Baltazar, M., Västfjäll, D., Asutay, E., Koppel, L., & Saarikallio, S. (2019). Is it me or the music? Stress reduction and the role of regulation strategies and music. *Music & Science, 2*, 1-16.  
<https://doi.org/10.1177/2059204319844161>
- Beck, B. D., Hansen, A. M., & Gold, C. (2015). Coping with work-related stress through guided imagery and music (GIM): Randomized controlled trial. *Journal of Music Therapy, 52*(3), 323-352.  
<https://doi.org/10.1093/jmt/thv011>
- Bodenmann, G., Pihet, S., & Kayser, K. (2006). The relationship between dyadic coping and marital quality: A 2-year longitudinal study. *Journal of Family Psychology, 20*(3), 485-493. <https://doi.org/10.1037/0893-3200.20.3.485>
- Boer, D., & Fischer, R. (2012). Towards a holistic model of functions of music listening across cultures: A culturally decentred qualitative approach. *Psychology of Music, 40*(2), 179-200.  
<https://doi.org/10.1177/0305735610381885>
- Bolger, N., & Schilling, E. A. (1991). Personality and the problems of everyday life: The role of neuroticism in exposure and reactivity to daily stressors. *Journal of Personality, 59*(3), 355-386.  
<https://doi.org/10.1111/j.1467-6494.1991.tb00253.x>
- Bradshaw, D. H., Chapman, R. C., Jacobson, R. C., & Donaldson, G. W. (2012). Effects of music engagement on responses to painful stimulation. *The Clinical Journal of Pain, 28*(5), 418-427.  
<https://doi.org/10.1097/AJP.0b013e318236c8ca>
- Bradt, J., Dileo, C., Grocke, D., & Magill, L. (2011). Music interventions for improving psychological and physical outcomes in cancer patients. *Cochrane Database of Systematic Reviews*.  
<https://doi.org/10.1002/14651858.CD006911.pub2>
- Brenner, A. B., Diez-Roux, A. V., Gebreab, S. Y., Schulz, A. J., & Sims, M. (2018). The epidemiology of coping in african american adults in the Jackson Heart Study (JHS). *Journal of Racial and Ethnic Health Disparities, 5*(5), 978-994. <https://doi.org/10.1007/s40615-017-0445-y>
- Cathcart, S., & Pritchard, D. (2008). Daily stress and pain sensitivity in chronic tension-type headache sufferers. *Stress and Health, 24*(2), 123-127. <https://doi.org/10.1002/smi.1167>

- Chafin, S., Roy, M., Gerin, W., & Christenfeld, N. (2004). Music can facilitate blood pressure recovery from stress. *British Journal of Health Psychology*, 9(3), 393-403. <https://doi.org/10.1348/1359107041557020>
- Chun, C.-A., H. Moos, R., & Cronkite, R. (2006). Culture: A fundamental context for the stress and coping paradigm. In P. T. P. Wong & L. C. J. Wong (Eds.), *Handbook of multicultural perspectives on stress and coping* (pp. 29-53). Springer. [https://doi.org/10.1007/0-387-26238-5\\_2](https://doi.org/10.1007/0-387-26238-5_2)
- Clark, M. M., Jenkins, M. S., Hagen, T. P., Riley, A. B., Eriksen, A. C., Heath, L. A., Vickers Douglas, S. K., Werneburg, L. B., Lopez-Jimenez, P. F., Sood, D. A., Benzo, D. R., & Olsen, D. K. (2016). High stress and negative health behaviors: A five-year wellness center member cohort study. *Journal of Occupational and Environmental Medicine*, 58(9), 868-873. <https://doi.org/10.1097/JOM.0000000000000826>
- Cohen, S., Janicki-Deverts, D., & Miller, G. E. (2007). Psychological stress and disease. *Journal of the American Medical Association*, 298(14), 1685-1687. <https://doi.org/10.1001/jama.298.14.1685>
- Dawson, M. A., Hamson-Utley, J. J., Hansen, R., & Olpin, M. (2014). Examining the effectiveness of psychological strategies on physiologic markers: Evidence-based suggestions for holistic care of the athlete. *Journal of Athletic Training*, 49(3), 331-337. <https://doi.org/10.4085/1062-6050-49.1.09>
- De La Torre-Luque, A., Caparros-Gonzalez, R. A., Bastard, T., Vico, F. J., & Buéla-Casal, G. (2017). Acute stress recovery through listening to Melomics relaxing music: A randomized controlled trial. *Nordic Journal of Music Therapy*, 26(2), 124-141. <https://doi.org/10.1080/08098131.2015.1131186>
- de Witte, M., Spruit, A., van Hooren, S., Moonen, X., & Stams, G.-J. (2020). Effects of music interventions on stress-related outcomes: A systematic review and two meta-analyses. *Health Psychology Review*, 14(2), 294-324. <https://doi.org/10.1080/17437199.2019.1627897>
- Dhabhar, F. (2014). Effects of stress on immune function: The good, the bad, and the beautiful. *Immunologic Research*, 58(2), 193-210. <https://doi.org/10.1007/s12026-014-8517-0>
- Dijkstra, B. M., Gamel, C., Van Der Bijl, J. J., Bots, M. L., & Kesecioglu, J. (2010). The effects of music on physiological responses and sedation scores in sedated, mechanically ventilated patients. *Journal of Clinical Nursing*, 19(7-8), 1030-1039. <https://doi.org/10.1111/j.1365-2702.2009.02968.x>
- Dimsdale, J. E. (2008). Psychological stress and cardiovascular disease. *Journal of the American College of Cardiology*, 51(13), 1237-1246. <https://doi.org/10.1016/j.jacc.2007.12.024>

- Ferrer, E., Lew, P., Jung, S. M., Janeke, E., Garcia, M., Peng, C., Poon, G., Rathod, V., Beckwith, S., & Tam, C. F. (2014). Playing music to relieve stress in a college classroom environment. *College Student Journal*, 48(3), 481-494. <https://eric.ed.gov/?id=EJ1045337>
- Fink, G. (2009). Stress: Definition and history. In L. R. Squire (Ed.), *Encyclopedia of neuroscience*, Vol. 9 (pp. 549-555). Academic Press. <http://link.galegroup.com/apps/doc/CX4098501392/GVRL?u=curtin&sid=GVRL&xid=33b5370f>
- Galanakis, M., Stalikas, A., Kallia, H., Karagianni, C., & Karela, C. (2009). Gender differences in experiencing occupational stress: The role of age, education and marital status. *Stress and Health*, 25(5), 397-404. <https://doi.org/10.1002/smi.1248>
- Garrido, S., Dunne, L., Stevens, C. J., & Chang, E. (2020). Music playlists for people with dementia: Trialing a guide for caregivers. *Journal of Alzheimer's Disease*, 77(1), 219-226. <https://doi.org/10.3233/JAD-200457>
- Goldstone, E., Farhall, J., & Ong, B. (2011). Life hassles, experiential avoidance and distressing delusional experiences. *Behaviour Research and Therapy*, 49(4), 260-266. <https://doi.org/10.1016/j.brat.2011.02.002>
- Greb, F., Schlotz, W., & Steffens, J. (2018). Personal and situational influences on the functions of music listening. *Psychology of Music*, 46(6), 763-794. <https://doi.org/10.1177/0305735617724883>
- Greenberg, D. M., & Rentfrow, P. J. (2015). *Rules of engagement: The structure of musical engagement and its personality underpinnings* [Paper Presentation]. Proceedings of the Ninth Triennial Conference of the European Society for the Cognitive Sciences of Music, Manchester, UK. <https://www.davidmgreenberg.com/wp-content/uploads/2018/11/Greenberg-Rentfrow-escom-2015-Rules-of-engagement-The-structure-of-musical-engagement-and-its-personality-underpinnings-1.pdf>
- Groarke, J. M., & Hogan, M. J. (2016). Enhancing wellbeing: An emerging model of the adaptive functions of music listening. *Psychology of Music*, 44(4), 769-791. <https://doi.org/10.1177/0305735615591844>
- Haake, A. B. (2011). Individual music listening in workplace settings: An exploratory survey of offices in the UK. *Musicae Scientiae*, 15(1), 107-129. <https://doi.org/10.1177/1029864911398065>
- Hertig, V., Cain, K., Burr, R., & Heitkemper, M. (2007). Daily stress and gastrointestinal symptoms in women with irritable bowel syndrome. *Nursing Research*, 56(6), 399-406. <https://doi.org/10.1097/01.NNR.0000299855.60053.88>

- Jiang, J., Rickson, D., & Jiang, C. (2016). The mechanism of music for reducing psychological stress: Music preference as a mediator. *The Arts in Psychotherapy, 48*, 62-68. <https://doi.org/10.1016/j.aip.2016.02.002>
- Kanner, A. D., Coyne, J. C., Schaefer, C., & Lazarus, R. S. (1981). Comparison of two modes of stress measurement: Daily hassles and uplifts versus major life events. *Journal of Behavioral Medicine, 4*, 1-39. <https://doi.org/10.1007/BF00844845>
- Karakul, A., & Bolışık, Z. B. (2018). The effect of music listened to during the recovery period after day surgery on the anxiety state and vital signs of children and adolescents. *Journal of Pediatric Research, 5*(2), 82-87. <https://doi.org/10.4274/jpr.24892>
- Kohn, P. M., & Macdonald, J. E. (1992). The survey of recent life experiences: A decontaminated hassles scale for adults. *Journal of Behavioral Medicine, 15*(2), 221-236. <https://doi.org/10.1007/BF00848327>
- Krause, A. E., North, A. C., & Davidson, J. W. (2019). Individual difference correlates of continuing versus ceasing musical participation. *Psychology of Music, 49*(3), 462-478. <https://doi.org/10.1177/0305735619874109>
- Krause, A. E., North, A. C., & Hewitt, L. Y. (2015). Music-listening in everyday life: Devices and choice. *Psychology of Music, 43*(2), 155-170. <https://doi.org/10.1177/0305735613496860>
- Labbe, E., Schmidt, N., Babin, J., & Pharr, M. (2007). Coping with stress: The effectiveness of different types of music. *Applied Psychophysiology and Biofeedback, 32*, 163-168. <https://doi.org/10.1007/s10484-007-9043-9>
- Laukka, P. (2007). Uses of music and psychological well-being among the elderly. *Journal of Happiness Studies, 8*: 215. <https://doi.org/10.1007/s10902-006-9024-3>
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer.
- Lesiuk, T. (2008). The effect of preferred music listening on stress levels of air traffic controllers. *The Arts in Psychotherapy, 35*(1), 1-10. <https://doi.org/10.1016/j.aip.2007.07.003>
- Lewandowski, G. W., Mattingly, B. A., & Pedreiro, A. (2014). Under pressure: The effects of stress on positive and negative relationship behaviors. *The Journal of Social Psychology, 154*(5), 463-473. <https://doi.org/10.1080/00224545.2014.933162>
- Liljeström, S., Juslin, P. N., & Västfjäll, D. (2013). Experimental evidence of the roles of music choice, social context, and listener personality in emotional reactions to music. *Psychology of Music, 41*(5), 579-599. <https://doi.org/10.1177/0305735612440615>
- Lima, D. S. d., Alves Farias, J., Cartaxo Gomes de Arruda, A. J., Cavalcanti da Silva, C., Caxias de Souza, M., Fernandes Braga, J. E., de Cássia Tavares

- da Fonseca, L., Alves, A. B. d. R., Oliveira, L. R. F. A. d., Carvalho da Silva, I., Araújo, M. C. M. d., Azevedo da Silva, T. C., Soares de Lima, L. K., Costa de Santana, S., & Anderson de Oliveira Cruz, R. (2017). Music as a therapeutic assistant: Strategy to reduce work stress. *International Archives of Medicine*, *10*(29), 1-12. <https://doi.org/10.3823/2299>
- Linnemann, A., Ditzen, B., Strahler, J., Doerr, J. M., & Nater, U. M. (2015). Music listening as a means of stress reduction in daily life. *Psychoneuroendocrinology*, *60*, 82-89. <https://doi.org/10.1016/j.psyneuen.2015.06.008>
- Linnemann, A., Strahler, J., & Nater, U. M. (2016). The stress-reducing effect of music listening varies depending on the social context. *Psychoneuroendocrinology*, *72*, 97-105. <https://doi.org/10.1016/j.psyneuen.2016.06.003>
- Linnemann, A., Strahler, J., & Nater, U. M. (2017). Assessing the effects of music listening on psychobiological stress in daily life. *Journal of Visualized Experiments*, *120*: e54920. <https://doi.org/10.3791/54920>
- Liu, Y.-H., Lee, C. S., Yu, C.-H., & Chen, C.-H. (2016). Effects of music listening on stress, anxiety, and sleep quality for sleep-disturbed pregnant women. *Women & Health*, *56*(3), 296-311. <https://doi.org/10.1080/03630242.2015.1088116>
- Lonsdale, A. J. (2019). Emotional intelligence, alexithymia, stress, and people's reasons for listening to music. *Psychology of Music*, *47*(5), 680-693. <https://doi.org/10.1177/0305735618778126>
- Lonsdale, A. J., & North, A. C. (2011). Why do we listen to music? A uses and gratifications analysis. *British Journal of Psychology*, *102*(1), 108-134. <https://doi.org/doi:10.1348/000712610X506831>
- Lu, L. (1991). Daily hassles and mental health: A longitudinal study. *British Journal of Psychology*, *82*(4), 441-447. <https://doi.org/10.1111/j.2044-8295.1991.tb02411.x>
- Lundberg, U. (2006). Stress, subjective and objective health. *International Journal of Social Welfare*, *15*(s1), 41-48. <https://doi.org/10.1111/j.1468-2397.2006.00443.x>
- MacDonald, R. A. R. (2013). Music, health, and well-being: A review. *International Journal of Qualitative Studies on Health and Well-being*, *8*: 20635. <https://doi.org/10.3402/qhw.v8i0.20635>
- McFerran, K. S., & Saarikallio, S. (2014). Depending on music to feel better: Being conscious of responsibility when appropriating the power of music. *The Arts in Psychotherapy*, *41*(1), 89-97. <https://doi.org/10.1016/j.aip.2013.11.007>
- Miranda, D., & Blais-Rochette, C. (2020). Neuroticism and emotion regulation through music listening: A meta-analysis. *Musicae Scientiae*, *24*(3), 342-355. <https://doi.org/10.1177/1029864918806341>



- Miranda, D., & Claes, M. (2009). Music listening, coping, peer affiliation and depression in adolescence. *Psychology of Music, 37*(2), 215-233. <https://doi.org/10.1177/0305735608097245>
- Mitchell, L. A., MacDonald, R. A. R., & Knussen, C. (2008). An investigation of the effects of music and art on pain perception. *Psychology of Aesthetics, Creativity, and the Arts, 2*(3), 162-170. <https://doi.org/10.1037/1931-3896.2.3.162>
- North, A. C., Hargreaves, D. J., & Hargreaves, J. J. (2004). Uses of music in everyday life. *Music Perception: An Interdisciplinary Journal, 22*(1), 41-77. <https://doi.org/10.1525/mp.2004.22.1.41>
- Pearlin, L. I., & Schooler, C. (1978). The structure of coping. *Journal of Health and Social Behavior, 19*(1), 2-21. <https://doi.org/10.2307/2136319>
- Pelletier, C. L. (2004). The effect of music on decreasing arousal due to stress: A meta-analysis. *Journal of Music Therapy, 41*(3), 192-214. <https://doi.org/10.1093/jmt/41.3.192>
- Radstaak, A. E. M., Geurts, F. S., Brosschot, A. J. J., & Kompier, A. J. M. (2014). Music and psychophysiological recovery from stress. *Psychosomatic Medicine, 76*(7), 529-537. <https://doi.org/10.1097/PSY.0000000000000094>
- Randall, W. M., & Rickard, N. S. (2017). Reasons for personal music listening: A mobile experience sampling study of emotional outcomes. *Psychology of Music, 45*(4), 479-495. <https://doi.org/10.1177/0305735616666939>
- Rickard, N. S., & McFerran, K. (2012). *Lifelong engagement with music: Benefits for mental health and well-being*. Nova Science Publishers. <http://search.ebscohost.com/login.aspx?direct=true&db=nlebk&AN=541688&site=ehost-live>
- Roy, M., Peretz, I., & Rainville, P. (2008). Emotional valence contributes to music-induced analgesia. *Pain, 134*(1-2), 140-147. <https://doi.org/10.1016/j.pain.2007.04.003>
- Saarikallio, S. (2011). Music as emotional self-regulation throughout adulthood. *Psychology of Music, 39*(3), 307-327. <https://doi.org/10.1177/0305735610374894>
- Saarikallio, S., Gold, C., & McFerran, K. (2015). Development and validation of the healthy-unhealthy music scale. *Child and Adolescent Mental Health, 20*(4), 210-217. <https://doi.org/10.1111/camh.12109>
- Sandstrom, G. M., & Russo, F. A. (2010). Music hath charms: The effects of valence and arousal on recovery following an acute stressor. *Music and Medicine, 2*(3), 137-143. <https://doi.org/10.1177/1943862110371486>

- Schäfer, T. (2016). The goals and effects of music listening and their relationship to the strength of music preference. *PloS ONE*, 11(3), Article e0151634. <https://doi.org/10.1371/journal.pone.0151634>
- Schäfer, T., Sedlmeier, P., Städtler, C., & Huron, D. (2013). The psychological functions of music listening. *Frontiers in Psychology*, 4: 511. <https://doi.org/10.3389/fpsyg.2013.00511>
- Sloboda, J. (2010). Music in everyday life: The role of emotions. In P. N. Juslin & J. A. Sloboda (Eds.), *Handbook of music and emotion: Theory, research, applications* (pp. 493-514). Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780199230143.003.0018>
- Tam, W. W. S., Wong, E. L. Y., & Twinn, S. F. (2008). Effect of music on procedure time and sedation during colonoscopy: A meta-analysis. *World Journal of Gastroenterology*, 14(34), 5336-5343. <https://doi.org/10.3748/wjg.14.5336>
- Thoma, M. V., Zemp, M., Kreienbühl, L., Hofer, D., Schmidlin, P. R., Attin, T., Ehlert, U., & Nater, U. M. (2015). Effects of music listening on pre-treatment anxiety and stress levels in a dental hygiene recall population. *International Journal of Behavioral Medicine*, 22, 498-505. <https://doi.org/10.1007/s12529-014-9439-x>
- Tweed, R. G., White, K., & Lehman, D. R. (2004). Culture, stress, and coping: Internally- and externally-targeted control strategies of european canadians, east asian canadians, and japanese. *Journal of Cross-Cultural Psychology*, 35(6), 652-668. <https://doi.org/10.1177/0022022104270109>
- Västfjäll, D., Juslin, P. N., & Hartig, T. (2012). Music, subjective wellbeing and health: The role of everyday emotions. In R. A. R. MacDonald, G. Kreutz, & L. A. Mitchell (Eds.), *Music, Health, and Wellbeing* (pp. 405-423). Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780199586974.003.0027>
- Verma, R., Balhara, Y., & Gupta, C. (2011). Gender differences in stress response: Role of developmental and biological determinants. *Industrial Psychiatry Journal*, 20(1), 4-10. <https://doi.org/10.4103/0972-6748.98407>
- Yehuda, N. (2011). Music and stress. *Journal of Adult Development*, 18(2), 85-94. <https://doi.org/10.1007/s10804-010-9117-4>

**Table 1.***Principal Components Analysis with Promax Rotation of Stressor Items (N = 553)*

Item	Component <sup>a</sup>				
	1	2	3	4	5
Having your trust betrayed by a friend	.837				
Being let down or disappointed by friends	.771				
Conflicts with friend(s)	.751				
Separation from people you care about	.746				
Social rejection	.724				
Decisions about intimate relationship(s)	.690				
Social isolation	.650			.416	
Being ignored	.624				
Being taken advantage of	.614				
Gossip about yourself	.568	.494			
Conflicts with family member(s)	.560				
Conflicts with in-laws or boyfriend's/girlfriend's family	.559				.539
Dissatisfaction with your physical appearance	.546				
Being taken for granted	.502		.449		
Getting "ripped off" or cheated in the purchase of goods		.795			
Car problems		.791			
Trying to secure loan(s)		.769			
Difficulty dealing with modern technology (e.g., computers)		.752			
Failing to get money you expected		.731			
Gossip about someone you care about		.621			
Cash-flow difficulties		.582			
Financial burdens		.539			
Financial conflicts with friends or fellow workers		.509			
Hard work to look after and maintain home		.500			
Unsatisfactory housing conditions		.496			
Dissatisfaction with your physical fitness		.443			
Lower evaluation of your work than you think you deserve		.409			
Too many things to do at once			.839		
A lot of responsibilities			.777		

Not enough time to meet your obligations			.715		
Struggling to meet your own standards of performance and accomplishment			.666		
Not enough leisure time			.634	.427	
Struggling to meet other people's standards of performance and accomplishment			.531		
Having your actions misunderstood by others			.520		
Having your contributions overlooked			.488		
Dissatisfaction with your mathematical ability	.446		.474		
Hard effort to get ahead			.460		
Finding your work too demanding			.455	.408	
Finding work uninteresting				.639	
Unwanted interruptions of your work				.622	
Experiencing high levels of noise				.599	
Adjustments to living with unrelated person(s) (e.g., roommate)				.473	
Disliking your daily activities				.450	.427
Conflict with supervisor(s) at work					.638
Ethnic or racial conflict					.613
Disliking your work				.466	.513
Financial conflicts with family members					
Dissatisfaction with your ability at written expression					
Dissatisfaction with work					
Lower evaluation of your work than you hoped for					
Lack of privacy					
Eigenvalue	21.297	3.126	2.365	1.759	1.465
% of Variance	41.758	6.130	4.636	3.448	2.873
Cronbach's alpha	.940	.915	.916	.783	.703

*Note.* Loadings < .4 suppressed.

<sup>a</sup>The dimensions were labelled as: social, financial, performance responsibilities, work-related, and daily displeasures, respectively.

**Table 2.**

*Factor Loadings for the Principal Components Analysis with Promax Rotation of Listening Coping Style Items (N = 553)*

Item	Component	
	Emotion/ Problem- orientated	Avoidance/ Disengage- ment
Motivate myself to do what I am supposed to do (e.g., study, clean, etc.)	.854	
Help increase more positive emotions, such as joy, happiness, and hope	.843	
Help to reduce my stress, to relax, to calm down	.841	
Help myself vent or let off steam	.775	
Help to reduce my negative emotions, such as frustration, anger, or aggressiveness	.764	
Help myself work/study	.734	
Help reduce my negative emotions, such as depressed feelings, anxiety, or fear	.708	
Help reflect on and find solutions to my problems	.573	
Avoid thinking about my problems		.963
Avoid thinking about people that are causing me problems		.949
Eigenvalue	5.688	1.054
% of Variance	56.877	10.541
Cronbach's alpha	.904	.880

*Note.* Loadings < .3 suppressed.

**Table 3.***ANOVA Means, Standard Deviations, and Pairwise Contrasts*

Stressor type	<i>M</i>	<i>SD</i>	Stressor pairwise contrast	Mean Difference	95% CI		SE	<i>p</i>
Social	4.036	1.532	Social – Financial	1.197	1.058	1.058	0.049	< .001
			Social – Performance Responsibilities	0.247	0.125	0.125	0.043	< .001
			Social – Work-related	0.089	-0.067	-0.067	0.055	1
			Social – Daily Displeasures	0.856	0.705	0.705	0.053	< .001
Financial	2.839	1.267	Financial – Performance Responsibilities	-0.950	-1.073	-1.073	0.044	< .001
			Financial – Work-related	-1.108	-1.261	-1.261	0.054	< .001
			Financial – Daily Displeasures	-0.341	-0.483	-0.483	0.050	< .001
Performance Responsibilities	3.789	1.404	Performance responsibilities – Work-related	-0.159	-0.295	-0.295	0.048	.011
			Performance responsibilities – Daily Displeasures	0.608	0.458	0.458	0.053	< .001
Work-related	3.947	1.460	Work-related – Daily Displeasures	0.767	0.616	0.616	0.054	< .001
Daily Displeasures	3.180	1.422						

*Note.* SE = Standard Error; CI = Confidence interval; repeated pairwise contrasts have been excluded from the table.

**Table 4.***Parameter Estimates for the GLM Model with Overall Coping Score as the Dependent Variable*

Parameter	<i>B</i>	95% CI		<i>SE</i>	<i>t</i>	<i>p</i>	$\eta_p^2$
Intercept	0.729	0.031	1.427	0.355	2.054	.041	.009
Gender							
Male	-0.044	-0.256	0.168	0.108	-0.410	.682	.000
Female <sup>a</sup>							
Country of residence							
USA	0.146	-0.112	0.403	0.131	1.113	.266	.003
Australia	-0.147	-0.426	0.133	0.142	-1.030	.304	.002
Malaysia <sup>a</sup>							
Active musician status							
Musician	-0.009	-0.229	0.210	0.112	-0.084	.933	.000
Non-musician <sup>a</sup>							
Age	-0.009	-0.018	0.001	0.005	-1.773	.077	.007
Music importance rating	-0.041	-0.140	0.057	0.050	-0.829	.407	.002
Daily average listening amount (hours)	0.026	-0.003	0.054	0.015	1.766	.078	.007
MET cognitive score	0.005	-0.010	0.020	0.008	0.689	.491	.001
MET affective score	0.043	0.018	0.068	0.013	3.383	.001	.025
MET physical score	-0.002	-0.024	0.020	0.011	-0.181	.856	.000
MET narrative score	0.007	-0.012	0.026	0.010	0.735	.463	.001
MET social score	0.005	-0.015	0.025	0.010	0.469	.639	.000
Emotion/Problem-orientated score	0.233	0.057	0.410	0.090	2.596	.010	.015
Avoidance/Disengagement score	0.227	0.123	0.330	0.053	4.313	<.001	.040

*Note.* SE = Standard Error; CI = Confidence Interval.<sup>a</sup> Reference category

## Supplemental Materials

**Supplementary Table 1.***Parameter Estimates for the GLM Model with Social Stressor Score as the Dependent Variable*

Parameter	<i>B</i>	95% CI		<i>SE</i>	<i>t</i>	<i>p</i>	$\eta_p^2$
Intercept	0.453	-0.416	1.322	0.442	1.024	.306	.002
Gender							
Male	-0.293	-0.557	-0.029	0.134	-2.184	.029	.011
Female <sup>a</sup>							
Country of residence <sup>b</sup>							
USA	0.449	0.128	0.769	0.163	2.749	.006	.017
Australia	0.078	-0.270	0.427	0.177	0.442	.658	.000
Malaysia <sup>a</sup>							
Active musician status							
Musician	0.034	-0.240	0.308	0.139	0.244	.807	.000
Non-musician <sup>a</sup>							
Age	-0.013	-0.025	-0.001	0.006	-2.103	.036	.010
Music importance rating	0.005	-0.117	0.128	0.062	0.087	.930	.000
Daily average listening amount (hours)	0.007	-0.028	0.043	0.018	0.406	.685	.000
MET cognitive score	-0.010	-0.028	0.009	0.009	-1.036	.301	.002
MET affective score	0.065	0.034	0.096	0.016	4.116	< .001	.037
MET physical score	0.003	-0.025	0.030	0.014	0.189	.850	.000
MET narrative score	0.017	-0.007	0.040	0.012	1.399	.163	.004
MET social score	0.004	-0.021	0.029	0.013	0.326	.745	.000
Emotion/Problem-orientated score	0.150	-0.070	0.370	0.112	1.341	.181	.004
Avoidance/Disengagement score	0.277	0.148	0.406	0.065	4.232	< .001	.039

Overall model: adjusted  $R^2 = .375$ ,  $F(14, 442) = 20.524$ ,  $p < .001$ ,  $\eta_p^2 = .394$ *Note.* SE = Standard Error; CI = Confidence Interval.<sup>a</sup> Reference category<sup>b</sup> The USA-Australia pairwise comparison: Mean difference = 0.370 [0.091, 0.649],  $SE = 0.142$ ,  $p = .009$ .



**Supplementary Table 2.***Parameter Estimates for the GLM Model with Financial Stressor Score as the Dependent Variable*

Parameter	<i>B</i>	95% CI	<i>SE</i>	<i>t</i>	<i>p</i>	$\eta_p^2$
Intercept	0.720	-0.086 1.527	0.410	1.755	.080	.007
Gender						
Male	0.118	-0.127 0.363	0.125	0.947	.344	.002
Female <sup>a</sup>						
Country of residence <sup>b</sup>						
USA	-0.040	-0.338 0.257	0.151	-0.266	.790	.000
Australia	-0.304	-0.628 0.019	0.165	-1.85	.065	.008
Malaysia <sup>a</sup>						
Active musician status						
Musician	-0.125	-0.379 0.129	0.129	-0.968	.333	.002
Non-musician <sup>a</sup>						
Age	0.004	-0.007 0.015	0.006	0.749	.454	.001
Music importance rating	-0.120	-0.234 -0.007	0.058	-2.084	.038	.010
Daily average listening amount (hours)	0.041	0.008 0.074	0.017	2.444	.015	.013
MET cognitive score	0.020	0.003 0.037	0.009	2.251	.025	.011
MET affective score	0.019	-0.010 0.048	0.015	1.275	.203	.004
MET physical score	0.001	-0.025 0.027	0.013	0.076	.940	.000
MET narrative score	-0.002	-0.023 0.020	0.011	-0.142	.887	.000
MET social score	0.010	-0.013 0.033	0.012	0.857	.392	.002
Emotion/Problem-orientated score	0.278	0.074 0.482	0.104	2.675	.008	.016
Avoidance/Disengagement score	0.150	0.030 0.269	0.061	2.464	.014	.014

Overall model: adjusted  $R^2 = .188$ ,  $F(14, 442) = 8.566$ ,  $p < .001$ ,  $\eta_p^2 = .213$ *Note.* SE = Standard Error; CI = Confidence Interval.<sup>a</sup> Reference category<sup>b</sup> The USA-Australia pairwise comparison: Mean difference = 0.264 [0.005, 0.523],  $SE = 0.132$ ,  $p = .045$ .

**Supplementary Table 3.***Parameter Estimates for the GLM Model with Performance Responsibilities Stressor Score as the Dependent Variable*

Parameter	<i>B</i>	95% CI		<i>SE</i>	<i>t</i>	<i>p</i>	$\eta_p^2$
Intercept	0.817	0.022	1.612	0.404	2.019	.044	.009
Gender							
Male	0.001	-0.241	0.242	0.123	0.004	.997	.000
Female <sup>a</sup>							
Country of residence <sup>b</sup>							
USA	0.101	-0.192	0.395	0.149	0.678	.498	.001
Australia	-0.253	-0.571	0.066	0.162	-1.558	.120	.005
Malaysia <sup>a</sup>							
Active musician status							
Musician	0.073	-0.177	0.324	0.127	0.574	.566	.001
Non-musician <sup>a</sup>							
Age	-0.017	-0.028	-0.006	0.006	-3.074	.002	.021
Music importance rating	-0.035	-0.147	0.077	0.057	-0.613	.540	.001
Daily average listening amount (hours)	0.031	-0.002	0.063	0.017	1.856	.064	.008
MET cognitive score	0.003	-0.014	0.020	0.009	0.364	.716	.000
MET affective score	0.047	0.019	0.076	0.014	3.269	.001	.024
MET physical score	-0.012	-0.037	0.013	0.013	-0.949	.343	.002
MET narrative score	0.009	-0.013	0.031	0.011	0.819	.413	.002
MET social score	0.014	-0.009	0.037	0.012	1.223	.222	.003
Emotion/Problem-orientated score	0.287	0.086	0.488	0.102	2.806	.005	.018
Avoidance/Disengagement score	0.228	0.110	0.345	0.060	3.801	< .001	.032

Overall model: adjusted  $R^2 = .371$ ,  $F(14, 442) = 20.248$ ,  $p < .001$ ,  $\eta_p^2 = .391$ *Note.* SE = Standard Error; CI = Confidence Interval.<sup>a</sup> Reference category<sup>b</sup> The USA-Australia pairwise comparison: Mean difference = 0.354 [0.099, 0.609],  $SE = 0.130$ ,  $p = .007$ .

**Supplementary Table 4.***Parameter Estimates for the GLM Model with Work-Related Stressor Score as the Dependent Variable*

Parameter	<i>B</i>	95% CI		<i>SE</i>	<i>t</i>	<i>p</i>	$\eta_p^2$
Intercept	1.370	0.427	2.312	0.480	2.856	.004	.018
Gender							
Male	0.048	-0.238	0.334	0.146	0.331	.741	.000
Female <sup>a</sup>							
Country of residence <sup>b</sup>							
USA	-0.069	-0.417	0.279	0.177	-0.392	.696	.000
Australia	-0.139	-0.517	0.239	0.192	-0.722	.470	.001
Malaysia <sup>a</sup>							
Active musician status							
Musician	-0.052	-0.348	0.245	0.151	-0.341	.733	.000
Non-musician <sup>a</sup>							
Age	-0.019	-0.032	-0.006	0.007	-2.905	.004	.019
Music importance rating	0.010	-0.123	0.142	0.067	0.146	.884	.000
Daily average listening amount (hours)	0.017	-0.022	0.056	0.020	0.859	.391	.002
MET cognitive score	0.014	-0.006	0.034	0.010	1.348	.178	.004
MET affective score	0.039	0.005	0.072	0.017	2.257	.024	.011
MET physical score	-0.001	-0.031	0.029	0.015	-0.081	.935	.000
MET narrative score	0.004	-0.021	0.030	0.013	0.335	.738	.000
MET social score	-0.028	-0.055	-0.001	0.014	-2.054	.041	.009
Emotion/Problem-orientated score	0.258	0.019	0.496	0.121	2.124	.034	.010
Avoidance/Disengagement score	0.327	0.188	0.467	0.071	4.608	< .001	.046

Overall model: adjusted  $R^2 = .215$ ,  $F(14, 442) = 9.898$ ,  $p < .001$ ,  $\eta_p^2 = .239$ *Note.* SE = Standard Error; CI = Confidence Interval.<sup>a</sup> Reference category<sup>b</sup> The USA-Australia pairwise comparison: Mean difference = 0.070 [-0.233, 0.372],  $SE = 0.154$ ,  $p = .651$ .

**Supplementary Table 5.***Parameter Estimates for the GLM Model with Daily Displeasures Stressor Score as the Dependent Variable*

Parameter	<i>B</i>	95% CI	<i>SE</i>	<i>t</i>	<i>p</i>	$\eta_p^2$
Intercept	0.670	-0.266 1.606	0.476	1.408	.160	.004
Gender						
Male	0.097	-0.187 0.381	0.145	0.672	.502	.001
Female <sup>a</sup>						
Country of residence <sup>b</sup>						
USA	0.061	-0.284 0.407	0.176	0.348	.728	.000
Australia	-0.137	-0.512 0.239	0.191	-0.715	.475	.001
Malaysia <sup>a</sup>						
Active musician status						
Musician	0.058	-0.237 0.352	0.150	0.384	.701	.000
Non-musician <sup>a</sup>						
Age	0.003	-0.010 0.016	0.007	0.491	.624	.001
Music importance rating	-0.028	-0.160 0.104	0.067	-0.417	.677	.000
Daily average listening amount (hours)	0.041	0.002 0.079	0.020	2.088	.037	.010
MET cognitive score	0.006	-0.014 0.026	0.010	0.569	.570	.001
MET affective score	0.036	0.003 0.070	0.017	2.120	.035	.010
MET physical score	-0.001	-0.031 0.028	0.015	-0.084	.933	.000
MET narrative score	-0.003	-0.029 0.022	0.013	-0.242	.809	.000
MET social score	0.005	-0.022 0.032	0.014	0.392	.695	.000
Emotion/Problem-orientated score	0.190	-0.046 0.427	0.120	1.581	.115	.006
Avoidance/Disengagement score	0.156	0.017 0.294	0.071	2.206	.028	.011

Overall model: adjusted  $R^2 = .161$ ,  $F(14, 442) = 6.065$ ,  $p < .001$ ,  $\eta_p^2 = .161$ *Note.* SE = Standard Error; CI = Confidence Interval.<sup>a</sup> Reference category<sup>b</sup> The USA-Australia pairwise comparison: Mean difference = 0.198 [-0.102, 0.498],  $SE = 0.153$ ,  $p = .196$ .