Does Music Matter? The Role of Music Listening and Meaning in Life in Reducing Stress of Hong Kong People

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Abstract. Music intervention have been proven with positive effect on psychological stress-related outcomes, including different emotions like nervousness, worry and anxiety. However, there is a lack of study to explore the relationship between music listening and meaning in life. It is anticipated that meaning in life is a mediator to the relationship between music listening and stress. Music listening helps individuals to perceive a sense of competency and autonomy, enhancing the feeling of well-being. People with higher level of well-being feel their life meaningful and have higher motivation to seek for meaning in life. The Perceived Stress Scale, the Music Use Questionnaire, and the Meaning in Life Questionnaire were used to measure the variables. A total of 787 Hong Kong people with music experience are targets of the study. Results of the hierarchical regression show that listening music alone was associated with high levels of stress. Moreover, search for meaning plays a partial mediating role between time involved in listening to music alone and stress. These results were different from the hypotheses. More time involved in music listening alone leads to higher stress level while time involved in music listening with others is not related to stress. Search for meaning has been found to be positively associated with stress while presence of meaning is not related with it. Listening music alone has negative effects on increasing stress via its positive relationship with search for meaning.

Keywords: Music · Presence of Meaning · Search for Meaning · Stress

1 Introduction

Music has a long history that some people even believe that music emerges before human existed. With the well development of the information and communication technology, music becomes part of the daily life. Many forms of music are distributed in different online platforms, such as Youtube music, Apple music, Sportify and Joox. People may listen to music when they are exercising, dancing, working, studying and dating. The benefits of music are supported by previous studies. Music have been found to have positive influence on the well-being of patients in alleviating stress, anxiety and depression as well as enhancing life satisfaction (Cicek et al., 2021; Hanser, 2014; Mandel et al., 2007). The effects of music are also confirmed for healthy individuals from different age

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groups in systematic review and meta-analysis (Daykin et al., 2017; Panteleeva et al., 2018). Music listening enhances emotional and cognitive functioning of individuals, positive mood and quality of life (Daykin et al., 2017).

Hong Kong people are ranked with the highest stress level in the world. A study conducted in Hong Kong to investigate the state of Hong Kong people's mental health revealed that the average score of stress of Hong Kong adult population has increased from 5.61 in 2016 to 7.20 in 2020 (Zhao et al., 2020). The stress level increased by 28.3% during the period which indicates that Hong Kong had a mental health emergency. Another population-based study in Hong Kong also revealed that 19% of the respondents had depression, 14% had anxiety and 25.4% reported their mental health had deteriorated since the pandemic (Choi et al., 2020). As shown by the above studies, mental health problem in Hong Kong has become more serious since pandemic. Such problems may affect the quality of life as a result. Therefore, the factors that affected stress level of Hong Kong people are needed to explore in the study.

Various social service agencies propose different methods to reduce stress, including having social activity, practicing mindfulness, listening to music, exercising and playing art. Previous studies have confirmed the effectiveness of music to relieve stress (Antony et al., 2018; Bradt & Dileo, 2009; Linnemann et al., 2018). Music is one of the activities that has been considered as providing significant power to help to reduce stress and anxiety, as music have the power of healing and relaxing (Bally et al., 2003). Music listening is a regulatory resource to enable individuals to regulate emotion and reach a desired hedonic outcome (Randall et al., 2014). Music listening also generates a sense of meaning for individuals (Daykin et al., 2017). Under the present stressful atmosphere in Hong Kong, the study aims to explore whether music listening can enhance the sense of meaning and reduce the stress level of individuals. The researchers expect that music experience and meaning in life are factors affecting stress of individuals. However, there is lack of research to explore the relationship between these variables in Hong Kong. The objective of this research is to explore the stress level and examine how music experience affect meaning in life and stress of Hong Kong people.

Stress is the feeling of being overwhelmed or unable to cope with mental or emotional pressure (Mental Health Foundation, 2021). It is also the physical response to pressure. Experiencing something new and unexpected, or something affect our self-efficacy will trigger the stress. Also, when individuals feel a situations or life events are unmanageable and uncontrollable, it may cause a high level of stress. Stress are related to some emotions, the psychological signs of stress are being anxious, afraid, sad, frustrated and depressed. The physical signs are experiencing headaches, digestive problems, heart palpitations and sweating. Music has positive effects on stress. Previous study has found that there is a medium effect of music intervention on psychological stress-related outcomes, including different emotions like nervous, worry and anxiety (Jäncke, 2008). Listening to music can reduce systolic blood pressure and physiological anxiety levels (Schaal et al., 2021). Music can arouse physical reactions and have impact on people's emotional states. It is because different elements of music including the rhythms, melody and pulse stimulate different brain areas like amygdala which are responsible for emotional processes. Moreover, pleased music experience increases the feeling of happiness and facilitates the production of dopamine that have an effect on

reducing stress level (de Witte et al., 2020). Listening to music distracts people from stress that has a positive effect on psychological stress related outcomes (Bernatzky et al., 2011). The distraction reduces the thoughts related to stress that decrease the effect of stress. Based on the findings of previous studies, it is expected that there is a negative relationship between music listening and stress.

Only a few studies support the relationship between music listening and meaning in life (Gupta & Singh, 2020). Meaning in life is one of the important contributors to individual well-being (Heintzelman & King, 2014). A meaningful life has a sense of purpose, possesses significance and allows individuals to make sense to their life (Martela & Steger, 2016). Meaning in life has two dimensions, the first one is the "Presence of Meaning", which means how much human feel their lives is meaningful (Steger et al., 2006). Another dimension is "Search for Meaning", which means how much human strive to seek their lives' meaning and understanding (Steger et al., 2006). Individuals with higher sense of meaning in life represents that they understand their life's meaning and has a clear sense of purpose where they may also seek purpose or mission for their life. Music listening makes life more vital, rich and fulfilling. A systematic review revealed that music enhances sense of purpose in individuals (Daykin et al., 2017). Engaging in music regularly as a routine creates a sense of coherence for participants. A coherent life enables individuals to make sense of their life experiences and promote the feeling of meaningful (Martela & Steger, 2016). Music participation also helps individuals to meet three basic psychological needs, including sense of competency, relatedness and autonomy (Welch et al., 2020). All these three elements are important to facilitate the sense of worthwhileness and value of one's life which contribute to the development of significance in life. Music also enhances the social cohesion that fulfil people's social needs and the feeling of well-being. Having reliable connections are a source of meaning in life and enable individuals to comprehend their experience (Heintzelman & King, 2014). People with higher level of well-being feel their life meaningful and have higher motivation to seek for meaning in life (Steger, 2017). Hence, music can enhance well-being and then promote meaning in life of individuals. Music appreciation is one source of meaning in the Chinese cultural context which emphasise the cultivation of oneself (Zhang et al., 2016). Therefore, it is anticipated that more time involved in music listening, individuals will have a higher level of meaning in life.

The presence of meaning has been proven as a resource to support individual well-being (Hurst & Carson, 2021). Meaningful life is a buffer against stress (Park & Baumeister, 2017). Meaning in life is associated to daily-life and life events. Individuals who lack meaning in life would be more threatened by stress than those with a strong sense of meaning. Individuals with greater sense of meaning in life have less stressor-related distress and repetitive negative thinking (Ostafin & Proulx, 2020). Meaning also plays a significant role for the reconstruction of a person's worldview and lead to better adaptation after traumatic events (Wong, 2008). It is a protective factor against psychological distress at the end of life (Bernard et al., 2017). Individuals with high sense of meaning in life can prevent negative coping and stress disorder (Hurst & Carson, 2021). Individuals have a better coping strategy with a meaningful life is easier for them to reduce stress level. (Halama, 2014). Therefore, it is anticipated that individuals with higher level of

meaning in life, have less stress. Based on the results of previous studies, this study formulated the following hypotheses:

1 The more time involved in music listening, the lower level of stress and higher level of meaning in life.
2 The higher level of meaning in life, the lower level of stress.
3 Meaning in life is a mediator to the relationship between time involved in music listening and stress.

2 Methods

2.1 Participants

Online survey was used to collect data in this study. A cross-sectional design was adopted and successfully collected 787 responses. Student assistants helped to spread the online questionnaire to their relatives, friends, classmates and colleagues in Hong Kong. Participants joined the online survey voluntary. Of the participants, 306 were male (38.9%) and 481 were female participants (61.1%). Participants were aged between 16 and 62 years old with a mean age of 33.33.

2.2 Measurements

In this research, two scales were adopted to reflect participant's the level of stress and meaning in life. The Perceived Stress Scale (PSS) was employed to collect data about participants' stress level (Cohen et al., 1983). There are 10 items in the scale with 5 response options, they are (0) never, (1) almost never, (2) sometimes, (3) fairly often, (4) very often. There are four reverse items in the scale. A summated score of the 10 items was computed, with higher scores indicating higher perceived stress. The Cronbach alpha of this scale in this study is .81, which shows that the perceived stress scale has a good internal consistency.

The Meaning in Life Questionnaire (MLQ) was adopted in this study to reflect meaning in life (Steger et al., 2006). There are 10 items to measure two dimensions of meaning in life, "presence of meaning" and "search for meaning". Respondents answer each questions on a 7 point scale, (1) absolutely untrue, (2) mostly untrue, (3) somewhat untrue, (4) can't say true or false, (5) somewhat true, (6) mostly true and (7) absolutely true. Item 9 is reverse scored. The "presence of meaning" subscale includes item 1, 4, 5, 6 and 9 while the "search for meaning" subscale includes item 2, 3, 7, 8 and 10. With higher scores represent higher levels of presence of meaning or search for meaning in life. The two subscales are both reliable that the Cronbach alpha value is between 0.86 and 0.88.

About the music experience, the researchers made reference to The Music Use Questionnaire (MUSE; Chin & Rickard, 2012) to develop the indictors to reflect music experience. Based on the subsection of the questionnaire about the intensity of music listening which measures the weekly frequency and daily duration of intentional music listening, four items were developed into two categories about listening music alone or with other

people in this study. Each category consisted of two items which used to collect how often spent on music listening in a week and how many minutes spent on intentional music listening in a day. The items were considered as separate variables in performing correlation or regression analyses.

3 Results

3.1 Correlation Among Variables

SPSS (version 26) was used to conduct the data analyses of this study. Correlations were used to investigate the relationships between variables. Table 1 shows that stress is positively associated with search for meaning ($r = .12$, $p = .001$), the average number of days per week listening to music alone ($r = .09$, $p = .01$), and the average number of hours per day listening to music alone ($r = .09$, $p = .01$), as well as negatively associated with presence of meaning ($r = -.412$, $p < .001$), indicating that individuals with higher level of presence of meaning have lower stress but those who have higher level of search for meaning and higher engagement in listening to music alone have greater stress. These results are different from our hypothesis that listening to music and meaning in life have a negative relationship with stress. Presence of meaning is also positively associated with search for meaning ($r = .13$, $p < .001$) and the average number of days per week listening to music with other people ($r = .09$, $p = .02$), implying that more involvement in listening to music with other people may enhance individuals' sense of

Table 1. Correlation matrix of Stress and independent variables

Variable	Variable						
	1	2	3	4	5	6	7
1 Stress	-						
2 Presence of meaning	-.417***	-					
3 Search for meaning	.121**	.126***	-				
4 The average number of days per week listening to music alone	.090*	.026	.135***	-			
5 The average number of hours per day listening to music alone	.088*	-.041	.099**	.385***	-		
6 The average number of days per week listening to music with other people	-.006	.085*	.041	.210***	.124**	-	
7 The average number of hours per day listening to music with other people	.028	.004	.058	.064	.193***	.585***	-

Note. * p < .05; ** p < .01; *** p < .001

meaning. Positive relationships were also found between search for meaning and the average number of days per week listening to music alone ($r = .14$, $p < .001$), and the average number of hours per day listening to music alone ($r = .10$, $p = .01$), indicating that individuals involve more in listening to music alone have higher level of search for meaning.

3.2 Testing the Mediating Effects of Meaning in Life

Hierarchical regression procedures were employed to examine the mediating effect of meaning in life on the relationship between music listening and stress. Since listening to music with other people was not significantly related with stress and presence of meaning was not significantly related with listening music alone, listening to music with other people and presence of meaning were not included in the regression analysis. In the regression analysis, time involved in listening to music alone was entered into the regression as predictor in the first step. Scores of search for meaning was entered into the analysis as the second step in order to test the mediation. Results of the analysis are summarized in Table 2 and Table 3. The results show that the average number of days per week listening to music alone and the average number of hours per day listening to music alone significantly affect stress ($\beta = .080$, $\beta = .090$). The addition of search for meaning leads to a significant increase in variance explained by the model (.012 and .013) with associated reduction in the standardized beta value of time involved in listening to music alone (-.011 in the average number of days per week listening to music alone and -.015 in the average number of hours per day listening to music alone). The above findings suggest that search for meaning plays a partial mediating role between time involved in listening to music alone and stress although the time involved in listening music alone still has a direct effect on stress ($\beta = .077$, $\beta = .075$). Sobel test was also used to determine whether the reduction in the effect of music listening on stress is significant after including meaning in life in the model. The unstandardized regression coefficient and the standard error for the association between the music listening and search for meaning, and the unstandardized regression coefficient and the standard error

Table 2. Multiple regression analyses: the average number of days per week listening to music alone, search for meaning, and stress

Variables	Stress		
	B (Coefficients)	β (Standardized beta)	t
the average number of days per week listening to music alone	.005	.088	2.460*
R^2	.008*		
the average number of days per week listening to music alone searching for meaning	.005 .130	.077 .110	2.156* 3.081**
R^2	.020**		

Note. *$p < .05$; **$p < .01$

Table 3. Multiple regression analyses: the average number of hours per day listening to music alone, search for meaning, and stress

Variables	Stress		
	B (Coefficients)	β (Standardized beta)	t
the average number of hours per day listening to music alone	.209	.090	2.525*
R^2	.008*		
the average number of hours per day listening to music alone searching for meaning	.174 .134	.075 .113	2.094* 3.140**
R^2	.021**		

Note. $*p < .05$; $**p < .01$

for the association between search for meaning and stress were inputted into an online tool to test whether the indirect effect of music listening on stress via search for meaning is significantly different from zero (Preacher & Hayes, 2008). Results of the Sobel test confirmed that search for meaning is a significant mediator to the relationship between the average number of days per week listening to music alone and stress ($t = 2.399$, $p = .016$) as well as the relationship between the average number of hours per day listening to music alone and stress ($t = 2.154$, $p = .031$).

4 Discussion

Results of this study are inconsistent to the hypotheses that music listening can lower the stress level of individuals and meaning in life can serve as a mediator to the positive relationship between music listening and stress. This study revealed that more time involved in music listening alone leads to higher stress level while time involved in music listening with others is not related to stress. This indicates that music listening can engender negative rather than positive effects on individual well-being. Despite the well-documented positive effects of music, a few studies have also reported its negative effects on increasing sadness, depression, suicidal thoughts and other psychopathological symptoms (Martin et al., 1993; Miranda & Claes, 2007). Exposure to negative or sad music may evoke painful memories and facilitate rumination (Miranda et al., 2012). Sadness can be amplified in the solitary listening condition (Zhang et al., 2018). All these negative psychological outcomes due to listening music alone can cause stress. The feeling of sadness and depression will disrupt the life of individuals and create a sense of disconnection to increase stress. Further studies should be conducted to explore the effect of different types of music on stress and well-being.

Search for meaning has been found to be positively associated with stress while presence of meaning is not related with it. This result helps to explain why music listening can lead to higher level of stress. Listening to music serves a function in achieving self-awareness in terms of identity formation and self-perception (Schäfer et al., 2013).

During this process of self-development, individuals may seek to search for their own meaning in life to obtain a better understanding on their own thoughts. The intention to search for meaning can be stimulated. This study conducted the data collection during the severe period of COVID-19 pandemic in Hong Kong. When search for meaning becomes desperate or frustrating, which may lead to distress. Therefore, listening to music alone can stimulate individuals to search for meaning but in turns the anticipated unpromising future under COVID-19 pandemic may lead to more stress rather than reducing it.

There are some limitations in this research. Since this study used a cross-sectional design and correlational research, the results only show the relationships between different variables but unable to examine the causal relationship between variables. Moreover, the negative effect of music listening on stress is only weak. Further studies with longitudinal design should be conducted to confirm the effect of music listening and search for meaning on individual well-being. A qualitative study may also be used to explore how music listening is related to meaning in life and stress of individuals.

References

Antony, M., Priya, V. V., & Gayathri, R. (2018). Effect of music on academic performance of college students. *Drug Invention Today*, *10*(10), 2093–2096. https://search.ebscohost.com/login.aspx?direct=true&db=asn&AN=131602207&site=ehost-live&scope=site

Bally, K., Campbell, D., Chesnick, K., & Tranmer, J. E. (2003). Effects of patient-controlled music therapy during coronary angiography on procedural pain and anxiety distress syndrome. *Critical Care Nurse, 23*(2), 50-58.

Bernard, M., Strasser, F., Gamondi, C., Braunschweig, G., Forster, M., Kaspers-Elekes, K., Veri, S. W., & Borasio, G. D. (2017). Relationship Between Spirituality, Meaning in Life, Psychological Distress, Wish for Hastened Death, and Their Influence on Quality of Life in Palliative Care Patients. *Journal of Pain and Symptom Management*, *54*(4), 514-522. https://doi.org/10.1016/j.jpainsymman.2017.07.019

Bernatzky, G., Presch, M., Anderson, M., & Panksepp, J. (2011). Emotional foundations of music as a non-pharmacologic pain management tool in modern medicine. *Neuroscience and biobehavioral reviews*, *35*, 1989-1999. https://doi.org/10.1016/j.neubiorev.2011.06.005

Bradt, J., & Dileo, C. (2009). Music for stress and anxiety reduction in coronary heart disease patients. *Cochrane database of systematic reviews (Online)*, *12*, CD006577. https://doi.org/10.1002/14651858.CD006577.pub2

Chin, T. C., & Rickard, N. (2012). The music USE (MUSE) questionnaire: An instrument to measure engagement in music. *Music Perception: An Interdisciplinary Journal*, *29*, 429-446. https://doi.org/10.1525/mp.2012.29.4.429

Choi, E. P. H., Hui, B. P. H., & Wan, E. Y. F. (2020). Depression and Anxiety in Hong Kong during COVID-19. *International Journal of Environmental Research and Public Health*, *17*(10). https://doi.org/10.3390/ijerph17103740

Cicek, S. C., Coskun, H., Ozdemir, S., Acikgoz, A., & Isko, S. (2021). The effects of coping strategies and relaxation exercises on anxiety, hopelessness, life satisfaction, and well-being in the elderly people with diabetes: An experimental study. *Annals of Medical of Research*, *28*(5), 950-956. https://doi.org/10.5455/annalsmedres.2020.07.779

Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior*, *24*, 386-396.

Daykin, N., Mansfield, L., Meads, C., Julier, G., Tomlinson, A., & Payne, A. (2017). What works for wellbeing? A systematic review of wellbeing outcomes for music and singing in adults. *Perspectives in Public Health*, *137*, 281-288.

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

Gupta, U., & Singh, V. K. (2020). Effects of Music Listening on Resilience, Self-Efficacy and Positivity in Healthy Young Adults. *Journal of Psychosocial Research*, *15*(1), 1–24. https://doi.org/10.32381/JPR.2020.15.01.1

Halama, P. (2014). Meaning in Life and Coping: Sense of Meaning as a Buffer Against Stress. In A. Batthyany & P. Russo-Netzer (Eds.), *Meaning in Positive and Existential Psychology* (pp. 239-250). https://doi.org/10.1007/978-1-4939-0308-5_14

Hanser, S. B. (2014). Music therapy in cardiac health care: Current issues in research. *Cardiology in Review*, *22*, 37-42.

Heintzelman, S. J., & King, L. A. (2014). Life is pretty meaningful. *American Psychologist*, *69*(6), 561–574. https://doi.org/10.1037/a0035049

Hurst, R., & Carson, J. (2021). Stressing the meaning: Examining meaning in life, depression and academic stress in psychology undergraduate students. *International Journal of Existential Positive Psychology*, *10*(1), 1–14. https://search.ebscohost.com/login.aspx?direct=true&db=asn&AN=154704202&site=ehost-live&scope=site

Jäncke, L. (2008). Music, memory and emotion. *Journal of Biology*, *7*(6), 21. https://doi.org/10.1186/jbiol82

Linnemann, A., Wenzel, M., Grammes, J., Kubiak, T., & Nater, U. M. (2018). Music Listening and Stress in Daily Life—a Matter of Timing. *International Journal of Behavioral Medicine*, *25*(2), 223-230. https://doi.org/10.1007/s12529-017-9697-5

Mandel, S. E., Hanser, S. B., Secic, M., & Davis, B. A. (2007). Effects of music therapy on health-related outcomes in cardiac rehabilitation: A randomized controlled trial. *Journal of Music Therapy*, *44*, 176-197.

Martela, F., & Steger, M. F. (2016). The three meanings of meaning in life: Distinguishing coherence, purpose, and significance. *The Journal of Positive Psychology*, *11*(5), 531-545. https://doi.org/10.1080/17439760.2015.1137623

Martin, G., Clarke, M., & Pearce, C. (1993). Adolescent suicide: Music preference as an indicator of vulnerability. *Journal of the American Academy of Child & Adolescent Psychiatry*, *32*(3), 530-535.

Mental Health Foundation. (2021). *Stress.* Retrieved 15 November from https://www.mentalhealth.org.uk/a-to-z/s/stress

Miranda, D., & Claes, M. (2007). Musical preferences and depression in adolescence. *International Journal of Adolescence and Youth*, *13*(4), 285-309.

Miranda, D., Gaudreau, P., Debrosse, R., Morizot, J., & Kirmayer, L. J. (2012). Music listening and mental health: Variations on internalizing psychopathology. In R. MacDonald, G. Kreitz, & L. Mitchell (Eds.), *Music, Health, and Wellbeing* (pp. 513-529). Oxford University Press.

Ostafin, B. D., & Proulx, T. (2020). Meaning in life and resilience to stressors. *Anxiety, Stress & Coping*, *33*(6), 603-622. https://doi.org/10.1080/10615806.2020.1800655

Panteleeva, Y., Ceschi, G., Glowinski, D., Courvoisier, D. S., & Grandjean, D. (2018). Music for anxiety? Meta-analysis of anxiety reduction in non-clinical samples. *Psychology of Music*, *46*, 473-487.

Park, J., & Baumeister, R. F. (2017). Meaning in life and adjustment to daily stressors. *The Journal of Positive Psychology*, *12*(4), 333-341. https://doi.org/10.1080/17439760.2016.1209542

Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, *40*(3), 879-891.

Randall, W. M., Rickard, N., & Vella-Brodrick, D. (2014). Emotional outcomes of regulation strategies used during personal music listening: A mobile experience sampling study. *Musicae Scientiae*, *18*, 275-291. https://doi.org/10.1177/1029864914536430

Schaal, N. K., Brückner, J., Wolf, O. T., Ruckhäberle, E., Fehm, T., & Hepp, P. (2021). The effects of a music intervention during port catheter placement on anxiety and stress. *Scientific Reports*, *11*(1), 1-10. https://doi.org/10.1038/s41598-021-85139-z

Schäfer, T., Sedlmeier, P., Städtler, C., & Huron, D. (2013). The psychological functions of music listening. *Frontiers in psychology*, *4*, 511-511. https://doi.org/10.3389/fpsyg.2013.00511

Steger, M. (2017). Creating meaning and purpose in work. In L. G. Oades, M. Steger, A. D. Fave, & J. Passmore (Eds.), *The Wiley Blackwell Handbook of the Psychology of Positivity and Strengths-Based Approaches at Work* (pp. 60–81).

Steger, M., Frazier, P., Oishi, S., & Kaler, M. (2006). The Meaning in Life Questionnaire: Assessing the Presence of and Search for Meaning in Life. *Journal of Counseling Psychology*, *53*. https://doi.org/10.1037/0022-0167.53.1.80

Welch, G. F., Biasutti, M., MacRitchie, J., McPherson, G. E., & Himonides, E. (2020). Editorial: The Impact of Music on Human Development and Well-Being. *Frontiers in Psychology, 11*. https://doi.org/10.3389/fpsyg.2020.01246

Wong, P. T. P. (2008). Meaning management theory and death acceptance. In A. Tomer, G. T. Elisaon, & P. T. P. Wong (Eds.), *Existential and spiritual issues in death attitudes* (pp. 65-87). Psychology Press.

Zhang, H., Sang, Z., Chan, D., Teng, F., Liu, M., Yu, S., & Tian, Y. (2016). Sources of Meaning in Life Among Chinese University Students. *Journal of Happiness Studies*, *17*(4), 1473-1492. https://doi.org/10.1007/s10902-015-9653-5

Zhang, J., Yang, T., Bao, Y., Li, H., Pöppel, E., & Silveira, S. (2018). Sadness and happiness are amplified in solitary listening to music. *Cognitive Processing*, *19*(1), 133-139. https://doi.org/10.1007/s10339-017-0832-7

Zhao, S. Z., Wong, J. Y. H., Luk, T. T., Wai, A. K. C., Lam, T. H., & Wang, M. P. (2020). Mental health crisis under COVID-19 pandemic in Hong Kong, China. *International Journal of Infectious Diseases*, *100*, 431–433. https://doi.org/10.1016/j.ijid.2020.09.030