Indian Journal of Economics and Business Vol. 20 No. 3 (December, 2021) Copyright@ Ashwin Anokha Publications & Distributions http://www.ashwinanokha.com/IJEB.php

# Musical Content as a Mood Tuner and Emotion Driver

<sup>1st</sup>Dr. Ashraf Iqbal, Dr. Tanveer Hussain & <sup>3rd</sup>Ms. Sana Haroon

In charge/Assistant Professor, Department of Mass Communication, GC University Faisalabad, Punjab, Pakistan.<u>ashraf.zahidi@yahoo.com</u> Assistant professor, School of media and Communication Studies, University of Management and Technology, Lahore, Pakistan.<u>tanveer.hussain@umt.edu.pk</u> Lecturer, Department of Mass Communication, GC University Faisalabad, Punjab, Pakistan. <u>sana.ics@pu.edu.pk</u>

Corresponding author: ashraf.zahidi@yahoo.com

Received: 07th July 2021 Revised: 21<sup>st</sup> August 2021 Accepted: 03<sup>rd</sup> September 2021

Abstract: Music is an art that is produced due to vibrant production of sounds resulting different pleasuring tones and is used worldwide for various purposes in all mediums of communication, journalism, medical sciences, over the social media as well as in electronic media. Greek word "musike" that stands for art of muses initially used for the sounds that make someone emotionally sensible. Music has been used as an accelerator to the message that is to be delivered in a song's poetry, dialogue, lyrics, drama, folklores, melody or any other mass media programs. History of musical contents arose from primitive Greek culture. Roots of music found in the primitive population of human being before its scattering around the globe. Music is invention of Africans that after became the prime constituent of living style in the whole world. In the current time the role of music cannot be denied. No one of this age can escape from the use of music from daily life. This may drive emotional variation and mood tuning to different directions. Momentum of this study is to explore the impacts of musical contents over the emotions of listener.

Key words: Emotion driver, mood changer, music therapy, mood tuner

## 1. Introduction

Music exists in all known cultures, precedent and commenced, assorting broadly among different times and areas. Almost whole population of the globe, along with highly cut off congenital entities have spatial arrangement of music, this can be resulted that music has been existed in the primitive population just before the spread of human being around the globe. Appropriately, music for the very first time may have been played in Africa and following that it became basal tool in life for its role.

Music is the unescapable element of daily life. Nobody in this age is unknown to the musical contents. Different terms of music like lyrics (description through voice), vocalist (singer or presenter using words), lyrist (the writer of songs or ghazals), and musicians (musical instrument players) are whether not known to every musical content listener but almost all of them are aware of the impact and pleasure of music listening.

Depression is not only a common and health harming medical illness that make you feel negatively but also direct you to take the matters badly and act negatively. It increases the feeling of sadness, hopelessness and the loss of interest in activities. Depression may result severe mental sickness creating a variety of emotional and physical problems.

Depression doesn't develop mental pressure only but it have impact over the whole body. In physical effects, dubious sleeps, disturbed schedule of appetite or in case of atypical depression increased appetite, constant fatigue, muscle aches, headaches, and backache. Rest of the symptoms can be causticity, hypertension, and divert of interest in activities which are practised to be pleased along with sexual activities. Depression may result chronic physical disorders, mental stress, and pain that sometimes is unable to respond drugs.

Music Therapy is the clinical practice of musical practices to attain particular goals along with an analeptic connectivity by a plausible practitioner who has been certified to practice a music therapy program. It is provided by health professional to meet ponderable, emotional, imaginary, and social desires of individuals using musical tools. Subsequently valuing the desires of every individual, a certified music therapist facilitates with the attested treatment including creativity, blurting out, dancing, and listening the musical content. Using musical instruments by the therapeutic context, the abilities of clients are beefed up and induced to the all other aspects of their lives. Musical therapy adds channels for communication and conversation to those who feel difficult to be expressive by using some words. Music therapy research aids its strength in multiple aspects likewise: overall concrete amendment, simplifying movement or enhancing inspiration of individuals to get busy in their treatment, with the provision of emotional support to people and their families, making them able to express their feelings.

These studied supported the music therapy to trigger a bad depressed and stressful mental state into a pleasing and relaxed state by using different types of music. This research is done to know the impact of music in triggering of mood so that music therapist may get a help in knowing the type of music that may help them to reduce the mental stress and depression of their patients.

Energetic and tense arousal are two major mood types that represent two primary mood behaviour orientations. Energetic arousal induce feelings of energy predisposing a person to move mentally and physically more actively. Contrarily reduction in these feelings results the feelings of tiredness generally impelling inactivity, rest, and laziness | (Thayer,R.E. et al). Tension arousal may also result anxiety, fearfulness and mental stress. In a way mood systems represent two kinds of subjective energies named as 'tense energy' and 'calm energy'.

However it is tough to define the parameter for measurement of the stress and relaxation by the energy level. Difficulty is that people living in a stressed environment become dominant over minor mental stress or depression. While calm energy feeing can be identified by the people who have mastered stress management techniques.

Robotic acknowledgement about emotions in musical research is still at its initial level and captured attention recently passed time. Finding out the cognitive musical content acoustic analysis is done by inquiring a hold over the knowledge of auditory perception, psychological study, and musical impacts in details.

## Dr. Ashraf Iqbal, Dr. Tanveer Hussain & dMs. Sana Haroon

Low energy with peak stress level are the primary components of depression, markedly beat of depression (Amer. Psychiatric Assoc. 1980). Calm energy can be identified by the good and relaxed mood, pleasurable feeling and active body. On the other hand low energy can be seen by observing fatigue, unhappy, unpleasant and bad mood.

Music is an inherent part of nearly all broadcast programs whether on radio or television and is mostly used to heighten the affective content of a scene or program. Now a days every program making team has access to vast music production or libraries, which provide detail of not only the music track title and composer, but also keywords about the music that provide description about mood.

The multiple diagnostics of musical compositions, whether by ordinary entitled by letters that can be applicative for the emotions and are strictly not talking about cognition. Agitation is the emotional state, but may also be used to characterize certain visual and auditory organizations. Visual and auditory senses develop factual and theoretical arguments to distinguish formal and non-formal aspects of experience (C. C. Pratt, 1931).

Neuro-scientific researches give details about the way in which music may take to a decline in stress helping to feel well and better. Music may help in reduction of physiological provoke, that enhances in depression. Listening, making of musical items and singing are concerned within the reduction of physiological arousal, proven the decrease in heart rate or reduction of cortisol levels and flood flow rate (Hodges, 2011; Koelsch et al., 2016; Kreutz, Murcia, &Bongard, 2012; Leardi et al., 2007; Linnemann, Ditzen, Strahler, Doerr, & Nater, 2015; Nilsson, 2009; Sokhadze, 2007).

Mental disturbance is considered as biggest factors influencing the health badly. Mental stress is directly affiliated to the various cognitive and physical disorders, like heart problems, intense pain, mental stress, depression, stomach-ache and addiction (APA, 2017; APS, 2015; Casey, 2017; McEwen &Gianaros, 2010; Howe Chang, &Jhonson, 2013). Stress related health problems are directly related to higher mental absenteeism at official place (UK Health and Safety Executive, 2016).

Composition of music as well as its absorption by listening has been affiliated within a wide spread of positive blow off with respect to the health and well-being feeling active and energetic (Koelsch, 2012, 2014; Juslin&Vastfjall, 2008; Thaut&Hoemberg, 2014; Zatorre, 2015). Studies about aftereffects of music claim the stress reduction impacts (Chanda & Levitin, 2013; Gillen, Biley, & Allen, 2008; Juslin&Vastfjall, 2008; Koelsch, 2015). About decade's musical contents remained in use as a mediation to reduce the mental stress for instance musical workouts composing instrumentally or orally, listening for various kind of unfit groups and animated music therapy done by therapists using music (Gold et al. 2011; Bradt, Dileo, & Shim 2013 b).

The research about cognitive aftereffects of music is yet handicapped due to a lack of applicable study prototype and systems of study. This is because of a deficiency in analysis theoretically and conceptually to evoke the emotion via music. Among main three computation methods for emotion induction, directions and patterns of different emotions, as well as charged emotional supplies not any one is suitable for the target. Keeping focus over a small strength of cognitive effects from simpler to complex forms of emotional processes in music listeners, like fruitful pleasing feel induced by musical content is not a server of adaptive behavioural application. Likewise, a descriptive emotional aftereffects of musical content confined to the valence and waking up close off computation of the qualitative difference craved by the research to delicate cognitive emotional impacts of musical contents. As result eclectic account for cognition is accomplished by study doers to meet the needs of a certain study can dearth legality along with integrity and impart a tough collation of research results. Another botheration complication is the biasness for conclude the fact which says "emotions" and "feelings" are analogues.

Researchers advocate that "feelings" may be auspiciously idealized as a cardinal inherent of cognition, that accommodate rest of the constituents and assists like ground to mindful presentation of cognition and for impression modulation. It's postulated, a communistic archetype variety will be needed for the independent research over the cognitive impacts of musical contents by enormous impulsion compelled by both of the average fallacy. Accurately, this is advocated, impacts generated by musical contents should be put under research in excitation place which accommodate cerebral and mental impacts that is possible to narrate for various broad composing patterns. Ideas to measure the impact of musical content using different parameters is still under composition.

In the current age the fertility of the electric vocal source is enhancing due to innovation of the web and access of smart computers and phones. Presently the easy access of smart phone, easy use and rapid provision of internet has enhanced the use of musical content.

Recommendation of the musical contents like song types in different times of various events is practised now a days. Party songs are differently chosen rather than the wedding song.

In sadness and loneliness music works as counteract leaving a positive impact (Wildschut et al., 2006; Zhou, Sedeikides, Wildschut & Gao, 2008). The term "Nostalgia" is a result of emotion induced by the listening of musical content (Barradas& Silva, 2008; Juslin, Liljestrom, Vastfjall, Zentner, Grandjean, & Scherer, 2008; Janata Tomic, & Rakowski, 2007). Music may induce nostalgic experience for all type of emotional states like good feel or bad feel in its listener. Characteristics of nostalgia when give rise to positive impact on emotion may be as joy, love and pleasure making the listener mentally relaxed (Wildschut, 2006). Zentner et al. (2008), proposed that we may experience various blended emotions that makes it difficult to give distinction between pleasure and stress. After effects of classical songs give much more peace due to up tempo put in major key rather than slow that are put over minor key (Schellenberg, Thompson, & Husain, 2001).

Listening various versions of same musical piece that varies in tempo and mode, liking ratings are at peak for the fast major version (Husain, Thompson, & Schellenberg, 2002). There is some strong bonding of the particular music or song and the events in the past of people that make experiencing nostalgia (Janata et al., 2010; Wildschut et al., 2006). This explains the fact that a song that makes a person to experience nostalgia in one person may not necessarily evoke nostalgia in the other listener because everybody has different past experience and different choices of musical contents. A person may had experienced a song during the time of his love story and the other may had listened the same song at the time of his love breakup.

Or a person may has listened at the death time of someone specials death and the other may had listened the same musical content at the time of career making or college or university days. The song will be same but the emotional experience and mood state in both cases is quite different. So both of them listening the same song after long time will leads them to nostalgia with different mood states of happiness and sadness. Emigrating music user's state such as inspirational, attentive, or reactions can also effect cognitive induction by musical contents (Cantor &Zillmann 1973). Musical art is an important and powerful tool for flash back of past memory into present time as live. Music is unescapable article of society that accompanies almost all the aspects of life like festivals related to religion, wedding ceremony, funerals, festivals, dancing's etc. So a strong association between music and emotional memories exists. Music is treated at lower level of brain and based on episodic memory (LeDoux 1992).

Generally, mood is defined as the state in general with low intensity, subjective feeling that have no concrete object and have relatively long duration.

## Dr. Ashraf Iqbal, Dr. Tanveer Hussain & dMs. Sana Haroon

An emotion is defined as more intense and shorter lived and has an event or object that is appraised as eliciting the subjective feeling state (Clore, Schwarz & Conway, 1994). Affective reaction have been used as colloquial term encompassing mood, emotion and feeling (Scherer & Zentener, 2001).

Scherer 2004 determined the categories of emotions that are inducible, mechanism of emotion induction and their empirical measurement techniques. Music and lyrics are the commendation of each other. Production and enjoyment of music is found in every type of culture regardless of its social norms (Nettle, 2000). Musicians and researchers in poetry and literature have been long attracted by the aggregation of music and lyrics. Even since the time of antecedent written records of music encountered in the musical arrangements for the poetry.

Despite this interest and long history of the interaction between music and lyrics. The ability to recognise basic emotions evoked by music such as happiness and sadness, is a universal skill that does not always same like previous exposure to the musical style (Fritz et al. 2009). There is growing acknowledgement of the variety of emotional states that music can express (Zentner et al, 2001) and the speed at which we can correctly identify these states. The structures and composition of music help to express and evoke happiness and sadness.

Sadmusic refers to soft dynamics, legato articulation, soft tempo and minor mode on the other hand happymusic stands for the characteristics of staccato articulation, louder intensities and major mod.

Besides the main emphasis of this research is over:

- The clinical use of musical content in music therapy.
- > Findings of the most popular type of music in driving the emotions of its listener.
- > To explore the impact of music on mood change of its listener.
- > To calculate the influence of BGM of electronic media content on its audience.
- To what extent music can bring change in the mood of its listener whether positive or negative?

## 2. Methods of Research

To collect the response from target respondents' focus group pattern of data collection was used in the research. Accompanying in the same place at the same time a group discussion was conducted to collect data about the variables of research. Such interviewing is done to collect the preliminary data to inquire the basal points behind any phenomenon. In this study respondents of the research were asked to listen different musical tones from the years 2010-2015. A questionnaire based on the topic related variables was provided to every respondent to collect data for further processing in study. This research category was selected for the reason of being cheap and less time taking.

Qualitative research was applied to collect the response of research questions. As every person was in different mental state and absorption of different musical contents developed various mood changes in every listener.Qualitative study was done due to be following reasons:

1: Every respondent was in different mental state and their reaction pattern was expected different too

2: All respondents were fundamentally different so could not pigeonholed.

3: Mood and experience of every listener was quite different due to various taste of their choices.

Method to collect the response of respondents in this research was qualitative to analyse the effects of musical contents on mood, reactions and vocabulary of listener. This technique was applied to know the detailed role of musical contents like songs or BGM in depression reduction, tuning the negative mood

tones into positive or vice versa, bringing the listener out from the depressive and hopeless mental state into a happily hopeful pleasuring life. This also explored the positive aspect of music listening to kill the negative mood vibes. Therefore the current study found the different effects of musical contents on different mood tones and vibes including emotions adopting the mentioned methodology.

## 2.1 Population

Various professional from multiple departments were chosen as respondent of the under discussion research, who used to play musical contents to release stress and trigger their mood vibes in positive track.Reason of targeting this population was that every music listener may not have negative or stressful mood. Working professionals face various phases of their moods during their job and they use to play musical contents as a gadget to release stress changing negative mood into positive.

## 2.2 Sample Size

A subset of the population that represents the features of whole population is termed as sample. 200 working professionals from the province Punjab were taken as sample to carry the research procedure and synthesize the results. They were contacted using social media groups of Punjab level professionals to collect data by using WhatsApp groups, messenger or through electronic mails.

## 2.3 Data presentation & analysis

This clause is to dissect the all data of the study that was gathered by the respondents who took part in this research presenting the overall strength covering all the options available to them. It also covered the area of effect of different types of musical contents to the listener accounting their different experiences of mood swings.

Qualitative determination of the researchare presented in the "tabulated shape". The summary of collected information and response of respondents is presented in tabulated form for the presentation of frequency and interpretation of the tables is used to explain the summary of collected data.

## 2.4 Reason of Music Listening

Study of average percentage of the reason of listening to music by making themselves busy to bring different type of change in their moods and their reactions.

N		Mean	Std. Error of Mean	Std. Deviation
Valid Missing				
200	0	2.68	.074	1.041

## Table1 :Statistical Detail of Data

t-value= 36.419 P.value= .000 (highly significant) Frequency of Obtained Data:

	Frequ	ency	Percent	Valid Percent	Cumulative
					Percent
to get entertain		31	15.5	15.5	15.5
to change mood		57	28.5	28.5	44.0
to get refresh		57	28.5	28.5	72.5
to remind past		55	27.5	27.5	100.0

Total 200 100.0 100.0	T-(-1) 200 100.0 100.0
-----------------------	------------------------

# 3. Analysis:

Table 4 shows the frequency detail of different reasons of music listening. Respondents were given different reasons to listen music like to get entertain, to change their mood, to get refresh, or to remind their past. Least strength of the respondents marked their choice as an entertaining tool and their percentage was 15.5., mood changers and freshness seekers occupied 28.5 % in the whole while people who wanted to have a look into their past were 27.5 %.

This table shows that most of the people listen music to change their mood and to get fresh diverting their stress into relief. Almost an equal number of strength shows their interest to listen music that take them into past making them remembering some special events or experiences of their lives.

#### Kind of songs

Study of average percentage of selection of different kinds of musical contents by different listeners: *Table2: Statistical Details of Music Categories by Different Listeners* 

N		Mean	Std. Error of Mean	Std. Deviation
Valid	Missing			
200	0	3.65	.088	1.239

t-value = 41.661 P-value = .000 (highly significant) Table

	Frequency	Percent	Valid Percent	Cumulative
				Percent
Sad	9	4.5	4.5	4.5
Нарру	34	17.0	17.0	21.5
Romantic	44	22.0	22.0	43.5
Classical	44	22.0	22.0	65.5
all types	69	34.5	34.5	100.0
Total	200	100.0	100.0	

# Table 3:Frequency of the Obtained Data:

#### Analysis:

Different kinds of songs leave different impact on listeners. Selection of musical contents or songs also depends on the nature of the listener or the circumstances of his life. All the hit list musical contents or the most wanted songs can't be the preferences or likes of every listener. Above table shows the frequency of liking the musical content of different people. 4.5 of the listeners like to play sad songs, 17 % of the listeners play happy or pleasing songs, 22 % love to play classical same as romantic. Peak

percentage that was 34 % showed their love for all types of music. This shows that most of the music lovers listen all types of music in different moods.

## Effects of music

Study of average percentage of different effects of music on the mood different people after listening musical contents:

Ν		Mean	Std. Error of Mean	Std. Deviation
Valid	Missing			
200	0	2.26	.101	1.428

Table 4: Statistical Details of Effects of Music Listening on Listeners:

t-value = 22.327 P-value = .000

(highly significant) *Table 5: Frequency of Obtained Data:* 

	Frequency	Percent	Valid Percent	Cumulative
				Percent
Positive	93	46.5	46.5	46.5
Negative	33	16.5	16.5	63.0
Neutral	25	12.5	12.5	75.5
no change	28	14.0	14.0	89.5
did not notice	21	10.5	10.5	100.0
Total	200	100.0	100.0	

#### Analysis:

Effect on the mood is the core variable of the research. Same musical content may give different impact to various listeners depending upon the nature of the listener or the mental state and circumstances of the listeners. Above data shows different effects after listening the musical content over the listeners. 10.5 % of the music listeners don't notice but just enjoy to listen. 12.5 % showed neutral change in them while 14.5 % felt no change in them after listening musical content. 16.5 % felt negative change in their mood and 46.5 % responded positively. So it can be concluded that music listening on the major strength of listener leave a positive impact making them feel good in any way leaving the stress behind diverting the mood from worries to pleasure.

## 4. Results

This portion of the study altercate about the hypothesis as well as research questions of the research. Taking the analysis as a ground preliminary point, responses to theresearch questions are analysed. As results are synthesized, hypothesis is put in the right side whether null or alternative hypothesis.

Furthermore, answers of basic research questions, the core of the findings, and acceptance or rejection of the proposed hypothesis "music triggers the mood by bringing change in feel and emotion" has been précised in details and depths. Big number of the respondents voted towards the positive change in their moods and responses after listening musical content. Analysis of data shoes that 46.5 the highest number of respondents of the research feel a positive change in their moods after listening specific

musical contents. It also resulted that various musical contents may play a role of gadget to divert mood and to reduce stress as well as depression. Fast musical betas or contents of pleasing music may be played to treat the stress of mind. Along with that musical contents can be used to make a listener feel excited and energetic to give a better performance in work place.

# References

Thayer, R. E. (1990). The biopsychology of mood and arousal. Oxford University Press.

American Psychiatric Association, A. (1980). Diagnostic and statistical manual of mental disorders (Vol. 3). Washington, DC: American Psychiatric Association.

Horowitz, M. J., Wilner, N., Kaltreider, N., & Alvarez, W. (1980). Signs and symptoms of posttraumatic stress disorder. *Archives of General Psychiatry*, 37(1), 85-92.

Pratt, C. C. (1931). The meaning of music.

Hodges, P. W., & Tucker, K. (2011). Moving differently in pain: a new theory to explain the adaptation to pain. *Pain*, *152*(3), S90-S98.

Koelsch, S., Fritz, T., v. Cramon, D. Y., Müller, K., & Friederici, A. D. (2006). Investigating emotion with music: an fMRI study. *Human brain mapping*, 27(3), 239-250.

Koelsch, S., Boehlig, A., Hohenadel, M., Nitsche, I., Bauer, K., & Sack, U. (2016). The impact of acute stress on hormones and cytokines and how their recovery is affected by music-evoked positive mood. *Scientific reports*, 6(1), 1-11.

Kreutz, G., Murcia, C. Q., & Bongard, S. (2012). Psychoneuroendocrine research on music and health: an overview. *Music, health, and wellbeing*, 457-476.

Leardi, S., Pietroletti, R., Angeloni, G., Necozione, S., Ranalletta, G., & Del Gusto, B. (2007). Randomized clinical trial examining the effect of music therapy in stress response to day surgery. *Journal of British Surgery*, 94(8), 943-947.

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, 82-90.

Nilsson, U. (2009). Caring music: music intervention for improved health. Update, 2009, 8-5.

Sokhadze, E. M. (2007). Effects of music on the recovery of autonomic and electrocortical activity after stress induced by aversive visual stimuli. *Applied psychophysiology and biofeedback*, *32*(1), 31-50.

Franiuk, R., Coleman, J., & Apa, B. (2017). The influence of non-misogynous and mixed portrayals of intimate partner violence in music on beliefs about intimate partner violence. *Violence against women*, 23(2), 243-257.

Suzuki-Vidal, F., Lebedev, S. V., Pickworth, L. A., Swadling, G. F., Burdiak, G., Hall, G. N., ... & Espinosa, G. (2015, November). Shock dynamics in counter-streaming plasma flows. In APS Division of Plasma Physics Meeting Abstracts (Vol. 2015, pp. UP12-013).

Casey, M. A. (2017). Music of the 7Ts: Predicting and decoding multivoxel fMRI responses with acoustic, schematic, and categorical music features. *Frontiers in psychology*, *8*, 1179.

McEwen, B. S., & Gianaros, P. J. (2010). Central role of the brain in stress and adaptation: links to socioeconomic status, health, and disease. *Annals of the New York Academy of Sciences*, 1186, 190.

Michelson, B. (2015). The Year's Work in American Humor Studies, 2013. Studies in American Humor, 1(1), 41-105.

Mearns, K., & Hope, L. (2005). Health and well-being in the offshore environment: The management of personal health. HSE Books.

Koelsch, S. (2012). Brain and music. John Wiley & Sons.

Koelsch, S. (2014). Brain correlates of music-evoked emotions. Nature Reviews Neuroscience, 15(3), 170-180.

Juslin, P. N., & Västfjäll, D. (2008). Emotional responses to music: The need to consider underlying mechanisms. *Behavioral and brain sciences*, 31(5), 559-575.

Thaut, M., & Hoemberg, V. (Eds.). (2014). Handbook of neurologic music therapy. Oxford University Press (UK).

Zatorre, R. J. (2015). Musical pleasure and reward: mechanisms and dysfunction. Annals of the New York Academy of Sciences, 1337(1), 202-211.

Chanda, M. L., & Levitin, D. J. (2013). The neurochemistry of music. Trends in cognitive sciences, 17(4), 179-193.

Gillen, E., Biley, F., & Allen, D. (2008). Effects of music listening on adult patients' pre-procedural state anxiety in hospital. *International Journal of Evidence-Based Healthcare*, 6(1), 24-49.

Juslin, P. N., & Västfjäll, D. (2008). Emotional responses to music: The need to consider underlying mechanisms. *Behavioral and brain sciences*, *31*(5), 559-575.

Koelsch, S. (2015). Music-evoked emotions: principles, brain correlates, and implications for therapy. *Annals of the New York Academy of Sciences*, 1337(1), 193-201.

Erkkilä, J., Punkanen, M., Fachner, J., Ala-Ruona, E., Pöntiö, I., Tervaniemi, M., ... & Gold, C. (2011). Individual music therapy for depression: randomised controlled trial. *The British journal of psychiatry*, 199(2), 132-139.

Bradt, J., Dileo, C., & Shim, M. (2013). Music interventions for preoperative anxiety. *Cochrane Database of Systematic Reviews*, (6).

Wildschut, T., Sedikides, C., Arndt, J., & Routledge, C. (2006). Nostalgia: content, triggers, functions. *Journal of personality and social psychology*, 91(5), 975.

Zhou, X., Sedikides, C., Wildschut, T., & Gao, D. G. (2008). Counteracting loneliness: On the restorative function of nostalgia. *Psychological science*, 19(10), 1023-1029.

Juslin, P. N., Liljeström, S., Västfjäll, D., Barradas, G., & Silva, A. (2008). An experience sampling study of emotional reactions to music: listener, music, and situation. *Emotion*, *8*(5), 668.

Juslin, P. N. (2016). Emotional reactions to music. S. Hallam, I. Cross, y M. Thaut (Edts.), The Oxford Handbookd of Music Psychology, 197-213.

Janata, P., Tomic, S. T., & Rakowski, S. K. (2007). Characterisation of music-evoked autobiographical memories. *Memory*, *15*(8), 845-860.

Wildschut, T., Sedikides, C., Arndt, J., & Routledge, C. (2006). Nostalgia: content, triggers, functions. *Journal of personality and social psychology*, 91(5), 975.

Zentner, M., Grandjean, D., & Scherer, K. R. (2008). Emotions evoked by the sound of music: characterization, classification, and measurement. *Emotion*, 8(4), 494.

Thompson, W. F., Schellenberg, E. G., & Husain, G. (2001). Arousal, mood, and the Mozart effect. *Psychological science*, 12(3), 248-251.

Husain, G., Thompson, W. F., & Schellenberg, E. G. (2002). Effects of musical tempo and mode on arousal, mood, and spatial abilities. *Music perception*, 20(2), 151-171.

Barrett, F. S., Grimm, K. J., Robins, R. W., Wildschut, T., Sedikides, C., & Janata, P. (2010). Musicevoked nostalgia: affect, memory, and personality. *Emotion*, 10(3), 390.

Wildschut, T., Sedikides, C., Arndt, J., & Routledge, C. (2006). Nostalgia: content, triggers, functions. *Journal of personality and social psychology*, 91(5), 975.

Cantor, J. R., &Zillmann, D. (1973). The effect of affective state and emotional arousal on music appreciation. *The Journal of General Psychology*, 89(1), 97-108.

LeDoux, J. E. (1992). Emotion and the amygdala.

Gasper, K., & Clore, G. L. (2002). Attending to the big picture: Mood and global versus local processing of visual information. *Psychological science*, *13*(1), 34-40.

Scherer, K. R., & Zentner, M. R. (2001). Emotional effects of music: Production rules.

Scherer, K. R., Wranik, T., Sangsue, J., Tran, V., & Scherer, U. (2004). Emotions in everyday life: Probability of occurrence, risk factors, appraisal and reaction patterns. *Social Science Information*, 43(4), 499-570.

Kreutz, G., Bongard, S., Rohrmann, S., Hodapp, V., & Grebe, D. (2004). Effects of choir singing or listening on secretory immunoglobulin A, cortisol, and emotional state. *Journal of behavioral medicine*, 27(6), 623-635.

Fritz, T., Jentschke, S., Gosselin, N., Sammler, D., Peretz, I., Turner, R., ... & Koelsch, S. (2009). Universal recognition of three basic emotions in music. *Current biology*, *19*(7), 573-576.

Scherer, K. R., & Zentner, M. R. (2001). Emotional effects of music: Production rules.

Wimmer, H., Landerl, K., Linortner, R., & Hummer, P. (1991). The relationship of phonemic awareness to reading acquisition: More consequence than precondition but still important. *Cognition*, 40(3), 219-249.

Sarantakos, S. (2012). Social research. Macmillan International Higher Education.