Volume 17 Issue 32
Originally issued as A5



Global Journal of human-social science: A
Arts & Humanities - Psychology
Volume 17 Issue 5 Version 1.0 Year 2017
Type: Double Blind Peer Reviewed International Research Journal
Publisher: Global Journals Inc. (USA)
Online ISSN: 2249-460X & Print ISSN: 0975-587X

The Effects of Different Types of Music on Stress Levels

By Joseph Alagha & Alice Ipradjian
Haigazian University

Abstract- A preliminary correlational research study was conducted to determine the relationship between different genres of music and stress among university students. 94 Haigazian University students raging between the ages of 18 to 25 participated in the study: 67 were females and 33 were males. Two types of questionnaires were administered to them: the music scale and the Perceived Stress Scale (PSS). Unlike mainstream studies, the findings of this study conveyed that there is hardly any significant difference between stress and the frequency of listening to classical music. Moreover, the study indicated that there is no significant correlation between stress and the frequency of listening to other types of music, such as Jazz, Blues and Rock. However, the t-test sample revealed that there is a significant difference between the means of male and female on the dependent variable, which is the stress. This research is based on a random selection of Haigazian University (HU) students and ought to be extended to include other universities operating in Lebanon.

Keywords: *types of music, stress, classical music, males, females.*

GJHSS-A Classification: *FOR Code: 170199*



Strictly as per the compliance and regulations of:



© 2017. Joseph Alagha & Alice Ipradjian. This is a research/review paper, distributed under the terms of the Creative Commons Attribution-Noncommercial 3.0 Unported License http://creativecommons.org/licenses/by-nc/3.0/), permitting all non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

The Effects of Different Types of Music on Stress Levels

Joseph Alagha [α] & Alice Ipradjian [σ]

Abstract- A preliminary correlational research study was conducted to determine the relationship between different genres of music and stress among university students. 94 Haigazian University students raging between the ages of 18 to 25 participated in the study: 67 were females and 33 were males. Two types of questionnaires were administered to them: the music scale and the Perceived Stress Scale (PSS). Unlike mainstream studies, the findings of this study conveyed that there is hardly any significant difference between stress and the frequency of listening to classical music. Moreover, the study indicated that there is no significant correlation between stress and the frequency of listening to other types of music, such as Jazz, Blues and Rock. However, the t-test sample revealed that there is a significant difference between the means of male and female on the dependent variable, which is the stress. This research is based on a random selection of Haigazian University (HU) students and ought to be extended to include other universities operating in Lebanon.

Keywords: types of music, stress, classical music, males, females.

The Association between the Type and Frequency of Music Consumption and Stress Levels.

I. Introduction

Berthold Auerbach, a German poet and author, once wrote, "Music washes away from the soul the dust of everyday life." Since early times, music has played an essential part in human life and it was appreciated by ancient and modern civilizations. Music plays a central role in all human cultures; it has direct and indirect effects on physiological symptoms (Kemper and Danhauer, 2005). On the other hand, stress is a part of a person's everyday life; it is a lifestyle for many people, and it is an emotional state caused by circumstantial factors. Our research question is: what is the relationship between the frequency of listening to different genres of music and stress?

II. Literature Review

A survey of the literature conveys that young people resort to music because it can help them relax and they will often have a collection of favorite tunes that they listen to when they are feeling stressed out (Knobloch and Zillman, 2002). Music lifts the spirit and makes the individual want to see, hear and experience more; live more and be happier. Music arouses positive emotions, which range from simple to complex responses to cognitive evaluations (Juslin et al, 2008: Juslin & Västfjäll, 2008). Several researchers suggested that music therapy can improve health outcomes among a variety of patient populations. One theory encouraged the use of music therapy in three ways: stimulating, awakening, and healing, which also induces mood efficiently (Zenter, Granjean & Schere, 2008).

Until now, the research has focused on the positive relationship or correlation between stress and music. Hernadez (2005) found out that music therapy is effective in treating depression in abused women. Hernadez discovered that listening to music and progressive muscles relaxation reduces anxiety and improves sleep pattern.

In one of the studies, researchers discovered that music exposure reduces the high cortisol level, which is the main stress hormone (Khalfa et al. 2003). In another study, it was shown that listening to music and music lessons can lead to several advantages. Listening to music leads to improved performance on a diversity of cognitive tests. However, it was found out that the effects are short-term, and stop short from the effect of music on the arousal level and mood, which, in turn, affect cognitive performance (Schellenberg, E. G., 2005). In another study, Residents (N -32) of 3 skilled nursing homes participated in a study designed to document the nature of the stressors they experienced and the coping mechanisms they used. It was revealed that medical issues were the most common stressors. The most common coping responses were prayer, reading, watching television, listening to music, and talking to friends and family (Hunter and Gillen, 2009).

In another research, it was reported that over 500 college students participated in a study that examines the effects of violent and non-violent songs. The results indicated that violent songs led to more aggressive thoughts than non-violent songs (Anderson et al., 2003). Moreover, in one of the studies – individuals who were exposed to classical music or self-selected relaxing music after experiencing to a stressor – experienced a reduction in anxiety and an increase in the feelings of relaxation, as compared to those who sat in silence or listened to heavy metal music. Fifty-six college students, 15 males and 41 females, were

Author α: Professor of Political Science and Intercultural Studies at Haigazian University (HU), Beirut, Lebanon.
e-mail: jalagha2001@yahoo.com
Author σ: Graduated with a BA in Psychology from HU, and she is currently pursuing her MA in the same discipline at the Lebanese University.

© 2017 Global Journals Inc. (US)

exposed to different types of music genres after experiencing a stressful test. The results of this study supported the hypothesis that listening to self-select or classical music significantly reduces negative emotional states in comparison to listening to heavy metal music or sitting in silence (Elise Labbe & et al., 2007).

Recent studies put the hypothesis that music may be a major source of stress during video game playing. Given the well-known effects of sound on physiological activity, especially those of noise and of music, and on the secretion of the stress hormone cortisol in particular, the result was positive: music is a major source of stress during video game playing (Hebert et al., 2005). In 2006, Kent conducted 100-count survey given to students at Liberty University, studying the difference in GPA (Grade Point Average) between students who listen to music while studying, and those who do not. The outcome was that, students who listened to Hip-Hop and Rap while studying, scored significantly lower than students who listened to relaxing and classical music, which proved to have a positive effect on the pupils.

Nevertheless, there are few studies which focus on the positive role of hard and heavy music. One of them is the study of Freshteh Ahmadi that discusses the role of hard and heavy music, which plays an important role in a coping cancer. Hard and heavy music refers to genres such as heavy metal, hard rock, hard Rap, punk rock and aggressive pop music. A qualitative study was conducted among 17 cancer patients who have used it as a means of coping with their illness. The results were against conventional wisdom and indicted that hard and heavy music can be a method of coping with cancer (Ahmadi, 2009).

Based on the aforementioned theoretical considerations, our current study is geared to help us understand how the relationship between listening to different genres of music impacts the level of stress among university students at HU. Specifically, we will examine the frequency of listening to classical music on reducing stress levels, as well as the frequency of listening to other types of music and its effect on stress levels.

III. Method: Quantitative Research

a) Participants

A total of 94 Haigazian University students, the majority of whom were females (females 67%, males 33%) took part in this study. The mean age was *M= 20.25, SD= 1.76* and most were Nationality (M= 1.12, SD= 0.43) and Student's class (M= 2.9, SD= 1.02). The sample size was calculated using G*Power where the minimum sample size required to achieve a moderate to large effect size of .5 significant at the 95th confidence interval is 80. The participants' socio-demographic information is presented in Table 1.

In this study, the consent form, which was written and attached to the other questionnaires, was used to describe the nature of the evaluation survey and assure the privacy and the confidentiality for the participants. The content of the form explains the purpose of the study and describes how much time they will spend to complete the questionnaires. In addition, it was mentioned that the information gathered from this study would be strictly confidential, where the privacy of the participants will be carefully protected, and that there will be no penalty if they do not want to participate. There was an IRB review and the research ethics approval has been obtained from the faculty of Social and Behavioral Sciences at Haigazian University. During data collection, the privacy was ensured.

Table 1: The Demographic Table

Characteristic	N%
Sex	
Male	31(33)
Female Nationality	63967)
Lebanese	86(91.5)
Syrian	6(6.4.)
Palestinian	1(1.1)
Other	
Student's class	1(1.1)
Freshman	5(5.3)
Sophomore	36(38.3)
Junior	13(13.8)
Senior	40(42.6)

Instruments

There were two questionnaires used in this study. First, Perceived Stress scale (PSS) The demographic table was used to measure the perception of stress. This scale is composed of 10 items and the scores of PSS are obtained by reversing the stated items. Afterwards, the scores are summed up across all scale items. The second scale is the music scale which is used to determine the type of music that the participants listen to and to establish the frequency of listening to different genres of music. There were four types of music (Rock, Classical, Jazz, and Blues) mentioned in this questionnaire. The scores are summed up for each type of music.

b) Procedure

The current study employed a survey and it used a snowball sampling process. During the survey distribution, all the participants were actively involved. The data collection occurred across the HU campus every day, for one week between 12:00 noon and 1:00 pm. In this study, the counterbalanced design was used to elicit a false response.

IV. Results

Prior to the analysis, the data was checked for the accuracy of entry and missing values. There were no

© 2017 Global Journals Inc. (US)

missing values found on the perceived stress scale and music scale.

Univariate outliers were checked using z-scores and all values exceeding the absolute value of +/-1.96 were considered outliers significant at the 95th confidence interval. A total of 5 outliers were found on music scale (5 outliers).

Normality of the data for all continuous variables was checked through the standardized skew statistics (z skew). There were no significant skewness so "all variables were normally distributed." Descriptive data on the study measures are found in Table 2.

Table 2: Descriptive Table

	M	SD	Minimum	Maxmum
Age	20.2553	1.76548	18.00	25.00
M EAN_PSS	2.4033	.31255	1.70	3.11
Rook	2.3723	1.26987	1.00	5.00
CXasacal	2.8817	1.16028	1.00	5.00
Jazz	2.0003	1.05743	1.00	5.00
Blu es	1 .9834	1.14333	1.00	5.00

Table 3: Pearson's Correlations

	Age	Mean_PSS	Rock	Classical	Jazz	Blues
Mean_PSS	.115	-				
Freq. of listening to Rock	.101	-.074	-			
Freq. of listening to Classical	-.082	.107	-.089	-		
Freq. of listening to Jazz	-.040	.000	.096	.167		
Freq. of listening to Blues	-.078	.051	.165	.313**	.645**	

***. Correlator! ssonificantattheO.01 level{2-tailed).*

There was no significant correlation coefficient in the study. The opposite pattern was observed between classical music and stress, where consumption of classical music was negatively associated with stress as well as the other types of music consumption. The frequency of listening to classical music was not correlated positively to stress (r =·107, p>.01). In addition, the other types of music did not correlate well with certain genres such as Rock music (r= .074, p>.01), Blues (r=.051, p>.01). Pearson's Correlations between frequencies of listening to different types of music scores are presented in Table 3.

An independent samples t-test was conducted to assess whether the means of male and female on stress are significantly different. Findings indicated a significant difference (t(df)= 0.5367 , p<.05 such that the mean of females (M=2.449, SD= .306) was higher than the mean of males (M= *2.309*, SD= .309) (see table 4).

Table 4: T-test Results Comparing Males and Females on Stress Level

Stress Level	n	M	SD	F	Independent Levene'sTest (T(df)=0.5367) Sig	t	Samples t-test (2-tailed) Sig.
Male	31	23097	30914	.091	.764	-2.073	.041
Female	63	2.4494	.30617			-2.066	.043

© 2017 Global Journals Inc. (US)

V. Final Word and Evaluation

The purpose of this study was to determine the relationship between the frequency of listening to different genres of music and stress levels among Haigazian University students. For that reason, students ranging between the ages of 18 to 25 filled in demographic information such as their age and gender on two types of scales: Perceived Stress Scale (PSS) and the music scale. Although the literature is pervasive in discussions associating music and stress levels, and it has consistently assumed that classical music reduces stress, our results showed that there is no significant correlation between the frequency of classical music consumption and stress levels. In addition, there seems to be no positive relation between the frequency of listening to other types of music and stress levels. Nevertheless, an important gender factor was noted, where it was found out that the mean of females is higher than the males on the stress levels continuum.

Some limitations and disadvantages of the study may have contributed to decreasing the validity of our research's overall generalizations. First, the number of female participants was almost double that of males (63 for females, 31 for males). This might have biased both the sample and the results. For future studies, maybe a more equitable division between the genders is suggested, whereby the number of males and females ought to be equal in order to achieve more reliability. Second, the time during which the study was conducted might have had an influence on the results, as it was the one-hour leisure time students had in between an intensive studying day attending classes. The participants filled the questionnaire in a time interval every day for one week during their lunch breaks. This again might have affected the participants' performance on the scales. Another limitation has to do with the small size of the sample, rendering this study inconclusive. That is why, a larger study is recommended in the future. Another liability might be that the sample was not that diverse; as it was taken from one university, i.e. Haigazian University students only. Another factor not considered in this short survey study is the socioeconomic class, where music choices seem to correlate often with this factor. In the future, a larger and detailed study will be conducted.

References Références Referencias

1. Ahmadi, F. (2009). Hard and heavy music: Can it make a difference in the young cancer patient's life? Doi: http://dx.doi.org/10.15845/voices.v9i2.345
2. Hebert, S., Beland, R.,Dionne, O.,Crete,M., and Lupien,S. (2005). Physiological stress response to video-game playing: the contribution of built-in music. Life Sciences 76 2371 – 2380 76, 2371-2380.
3. Juslin P.N., Lilestrom D.V., Barrades G. & Silva A. (2008). An experience sampling study of emotional reactions to music: Listener, music, and situation. *Emotion*. 9 (5), 668-683.
4. Juslin P.N., & Västfjäll, D. (2008). Emotional responses to music: The need to consider underlying mechanisms. *Behavioral and Brain Sciences* 31 (5), 559-575.
5. Kemper, K. J., & Danhauer, S. C. (2005). Music as therapy. *Southern Medical Journal*, 98 (3), 282-288.
6. Kent, D. (2006). The effect of music on the human body and mind. *Senior Thesis*
7. Khalfa, S., Bella, S.D., Roy, M., Peretz, I., & Lupien, S.J. (2003). Effects of relaxing music on salivary cortisol level after psychological stress. *Annals of the New York Academy of Sciences*, 999, 374-376.
8. Knoblauch, S. and Zillmann, D. Mood management via the digital jukebox, 52(2), 351-366. Doi: 10.1111/j.1460-2466.2002.tb02549x
9. Labbé, E., Schmidt, N., Babin, J., & Pharr, M. (2007). Coping with stress: The Effectiveness of
a. Different Types of Music. *Applied Psychophysiology & Biofeedback*, 32 (3/4), 163-168. Doi: 10.1007/s10484-007-9043-9
10. Ruiz, H. (2005). Effect of music therapy on the anxiety levels and sleep patterns of abused women in shelters. *Journal of Music Therapy*, 42 (2), 140-58.
11. Schellenberg, E. G. (2005). Music and cognitive abilities. *Current Directions in Psychological Science* (Wiley-Blackwell), 14 (6), 317-320. doi:10.1111/j.0963-7214.2005.00389.x
12. Zentner M., Grandjean D. & Scherer K.R. (2008). Emotions evoked by the sound of music: Characterization, classification, and measurement. *Emotion* 8 (4), 494-521.

© 2017 Global Journals Inc. (US)