## Link between music and body image

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#### Abstract

The aim of this study is to investigate whether musical preferences are an indicator of self-esteem and body image. It also wanted to investigate whether the personality can indicate the preferred type of music.

A number of 103 participants have responded to the online questionnaire, 74 women and 29 men, aged between 19 and 58 years. Participants completed a questionnaire provided online, consisting of the Rosenberg test, IPIP-50, BAS-2, the MUSE test (Music USE) and the musical preferences questionnaire (MPQ-R).

In order to have more data on the background of the participants, demographic data was collected such as age, gender, last completed studies, height and weight. Data were also collected on the reason and frequency for listening to music.

The results of the study indicated that the type of music listened to and the time spent listening to music are not in relationship with the level of body appreciation.

The results have indicated that there is a positive significant correlation between the high number of hours listening to music and conscientiousness, there is a positive connection between Pop music and emotional stability, and there is a positive significant correlation between Blues/Jazz and openness to new experiences. Also, it was discovered that there is a significative negative correlation between rock music and BMI.


Key words: music, self-esteem, body image, personality.

## Introduction

Music can lift someone's mood, energize or make a person calm and relaxed. Music also allows us to feel almost or possibly all the emotions we experience in our lives. It is a part of nature and exists independently of humans but at the same time it is combined with human values. People can think through music, express themselves through music and explore their identity. A few seconds are enough for the listeners to determine the genre and whether they like it or not. In today's world, as individuals choose what kind of music they like, but also develop it through different instruments and then distribute it to others through different methods such as television, radio, social networks, etc.

There is nothing in nature that stimulates our attention and emotions as quickly as sound, the murmur of the water, the whispers of the morning breeze, the roar of the storms, the chirping of the birds, the weeping of the animals, exert on our mind feelings of pleasure, pain, fear (FondHarmant \& Gavrila-Ardelean, 2018). Nature has been connected more and more often to the topic of body image, body appreciation scores increasing when participants are exposed to natural environment (Viren Swami et al., 2019).

Music is listened to everywhere, whether you go to a supermarket, a restaurant, play sports, go to work, drive a car or do routine work. Nowadays, everyone has access to a theoretically infinite library of music, thanks to the computer, the smartphone, through internet access.

People listen to music because it makes them feel comfortable, relaxed, or happy (DeNora, 2000; Juslin \& Laukka, 2004; Juslin \& Sloboda, 2010). Consistent with this, emotional regulation through music is often considered one of the main attributes of music (Saarikallio \& Erkkilä, 2007).

In recent years, the presence of music in our lives has increased substantially. It has been used in the field of art, reaching the business and work environment, and in medical purposes, to treat mental and physical illness. Music therapy has been used in some institutions to help rehabilitate people, but also to produce changes in emotional states.

The use of music to affect people's emotions is extremely evident in television and cinema.

Music is a part of the life of each of us. Many cultures appreciate music, so they usually have their own cultural styles and their own styles of music. In this sense, music can be, and has been learned as a universal language. Although there are sometimes barriers to communication between races, music can serve as a common passage between people. A common professional language should be used when talking about this topic, using formal classification could help specialists in relating music to much apprecited contemporay topiccs as body image and body appreciation (Goian, 2010, 2012)

In a study by (Jennifer K. Elpers, Hanover College) on Alzheimer's patients, it was shown that music, although it has no curative effect on the disease, showed that it significantly reduces agitation in patients. Music can not only improve the quality of life, but also influences changes in heart rate. Listening to music, whether it's Mozart or other classical composer, has an effect not only in reducing stress, but also in lowering blood pressure, heart rate and can improve the variation of heart rate.

Classical music was found to induce a state of well-being, relaxation, while other types of music induce other states. Meditative music has sedative effects because the sounds are slow and the rhythms are few. This type of music generates spiritual introspection, and is therefore used in Yoga and Tai Chi practices.

Heavy Metal and Techno music generates anger and aggressive behavior.
Rapp and Hip-Hop music have a motivational effect due to the rhythm and structure of the rhymes.

Jazz accesses all the senses, but a high degree of concentration is needed.
Latin American ones, such as samba, tango, cha-cha, rumba, reggae or mambo are very rhythmic, inducing a good mood and movement.

Folk is a music with a socio-cultural past, it enriches the intellectual work, leading to a high self-confidence.

A study by Snjezana (2014) examined the relationship between musical preferences of different modes and tempo and personality traits. The survey included 323 students, 234 women and 89 men who had to complete the following tests: questionnaire about musical preferences,
the scale of optimism and pessimism and international personality IPIP-50 Big Five. The results showed that women compared to male students reported a higher degree of music preference, regardless of tempo and mode, while both men and women showed a higher degree of preference for fast and key tempo music fragments. The results of the hierarchical regression analysis showed that emotional stability and optimism were significant predictors of preferences for fastpaced music and major key, while openness experiences and introversion were important predictors of preferences for slow-paced and minor key music. The authors suggest the importance of applying these results in creating the music teaching curriculum (Snježana, 2014)

Body image is a complex entity, consisting of both the mental representation of integrity and the competence of one's physical self.

Many studies have tried to explain the major theoretical and methodological problems in the area of body image psychology. Research on body image psychology found connections with individual psychological factors, family and parental processes, socioeconomic status, media, body weight, socioeconomic status and genetic inheritance as some of the most important factors acting as antecedents of body image dynamic (Fond-Harmant \& Gavrila-Ardelean, 2016). One of the newest studies in the area of body image, includes for instance breast size satisfaction and finds it to be related to the level of self-esteem as stated by Swami et al. (2020). While other recent studies (Barron et al., 2020) found a connection between self-esteem and schizotypal personality traits.

Another study evaluated the effectiveness of therapeutic music in improving the selfesteem of academically stressed adolescents. It was hypothesized that post-intervention scores in measuring self-esteem will be improved compared to pre-intervention scores. A post- and preintervention design was adopted. The Coopersmith school self-esteem questionnaire and the Bisht Battery stress scale were used to identify 30 adolescents with low self-esteem and high academic stress. Music therapy was applied for a period of 15 days. After the intervention, the self-esteem inventory was administered again to see the effects of music therapy. The results showed that music therapy improved self-esteem of adolescents as shown by the postintervention scores of the experimental group were higher compared to that of the control group. Significant differences were also found between the post- and pre-intervention scores of the
experimental group, where the control group did not show any statistical difference between the pre- and post-intervention scores. (Mamta Sharma, 2012),

Consulting the literature and studies on music, self-esteem, personality and body image the following hypotheses were formulated.

## Hypothesis

1. There is a positive correlation between people who listen to music during activities and the level of their body appreciation.
2. There is a positive correlation between Pop music and emotional stability.
3. There is a negative correlation between Rock music and BMI.

## Method

We had a number of 103 participants in this study. All participants were over 18 years old, their age ranged between 19 and 58 years, the average being 29, of which 74 ( $71.8 \%$ ) women and 29 ( $28.2 \%$ ) men. They all reported listening to music at least 1-2 times a week. The questionnaires were offered to participants (friends, family members, strangers, co-workers and faculty) in digital format (google forms), through social networks for them to complete in their free time.

Some of the questionnaires used were translated from English into Romanian, and all participants in the study were from Romania.

From the demographic data we can specify that at the level of studies 12 people completed 12 classes ( $11.7 \%$ ), 42 people had undergraduate studies ( $40.8 \%$ ), 48 people, master studies (46.6\%) and doctoral studies, one person (1\%).

The average height was 168 cm , the minimum was 150 cm and the maximum was 190 cm.

The average weight was 65.90 kg , the minimum was 37 kg , and the maximum was 130 kg.

About the environmental of origin, $28(27.2 \%)$ reported as coming from rural areas, and 75 (72.8\%) participants were from urban areas.

When asked how often they listen to music per week, 3 people ( $2.9 \%$ ) reported less than once a week, 6 people ( $5.8 \%$ ) listened 1-2 times a week, 14 people ( $13.6 \%$ ) listened to music 3-4 times a week, while 62 people ( $60.2 \%$ ) listened more than 6 times a week.

When asked, how many hours on average they spend a day listening to music, 25 people ( $24.3 \%$ ) reported listening to less than an hour a day, 44 people ( $42.7 \%$ ), said they were listening to music 1-2 hours per day, 21 people ( $20.4 \%$ ) listen to $3-4$ hours a day music, 5 people $(7.8 \%)$ listen to 5-6 hours a day music, and 8 people (7.8\%) reported that he listens to music for more than 6 hours a day.

The musical genres from which the participants had a choice from were Pop, Rock, Latino, Hard Rock, Electronic, New Age, Folk, Popular, Jazz / Blues, Classical.

Each section of the questionnaire had a section with instructions where participants were informed how to complete the questionnaire and at the beginning it was clearly specified that the answers and results are anonymous and the data is strictly confidential and will not be passed on.

After gathering the answers provided by the participants, all the results were centralized in a database from SPSS where they were processed and interpreted.

## Measurements and instruments

The IPIP-50 test (Goldberg L. R., 1992) is a personality questionnaire with 50 items that assesses people according to the Big Five model: openness, extraversion, conscientiousness, agreeability and emotional stability.

The MPQ-R questionnaire was used to see the musical preferences of the participants, as well as the purpose and location where the music is listened to intentionally not from other environments (bar, restaurant, street music, etc.). The likert scale was used, from 1 to 5, (1-Never again 5-Often), to see how much the subjects like to listen to music in different situations, such as at home, concerts, activities, etc.

The Rosenberg test (Rosenberg, 1965) for self-esteem assessment is a questionnaire composed of 10 items, rated from 1 to 4,1 representing "total agreement" and 4 "total disagreement", which the subjects had to rate. personal. (1-Definitely not, 2-Disagree, 3-Agree,

4-Absolutely agree). The scale measures self-esteem by asking participants to reflect on their current feelings. Five questions are asked with positive statements and five are asked with negative statements.

MUSE (abbreviation for "Music USE") (TanChyuan Chin and Nikki S. Rickard, 2012) is a measurement that includes qualitative and quantitative indicators for both music production and music perception.

BAS-2 (Tylka \& Wood-Barcalow, 2015b, translated and validated on Romanian population by Swami et al., 2017) is composed of 10 items that are listed on the Likert scale (1Never, 2-Rarely, 3-Sometimes, 4-Often, 5- Always).

BMI (Body Mass Index) is an indicator of general health because it refers to weight and muscle mass. BMI is calculated by the formula: Weight / Height ${ }^{2}$. The measurement index is as follows: 18.4 and below - Underweight, 18.5 to 24.9 -Healthy, 25.0 to 29.9 -Overweight, 30.0 and over - Obese.

## Results

1. There is a positive correlation between people who listen to music during activities and the level of their body appreciation.

| Variable | Music <br> activities | during | Body appreciation |
| :--- | :--- | :--- | :--- |
| Music during 1 , 112 <br> activities   <br> Body appreciation , 112 1 |  |  |  |

p>. 05

Following the results, the hypothesis was not confirmed. There is no significant
correlation between listening to music during activities and appreciating the own body image. $R(103)=.112 ; p=.259, p>.05$.
2. There is a positive correlation between Pop music and emotional stability.

| Variable | Pop Music | Emotional stability |
| :--- | :--- | :--- |
| Pop Music | 1 | , 201 |
| Emotional stability | , 201 | 1 |
| $\mathrm{p}<.05$ |  |  |

Following the results, the hypothesis is confirmed. There is a positive correlation between people who listen to Pop music and emotional stability. $\mathrm{R}(103)=.204$; $\mathrm{p}=.042, \mathrm{p}<.05$.
3. There is a negative correlation between Rock music and BMI.

| Variable | BMI | Rock Music |
| :--- | :--- | :--- |
| BMI | 1 | ,- 227 |
| Rock Music | ,- 227 | 1 |
| $\mathrm{p}<.05$ |  |  |

Following the results, the hypothesis is confirmed. There is a significant negative correlation between Rock music and BMI. R (103) = .- 227; p = .021, p> . 05

## Discussions

We were not able to find previous studies to investigate the correlation between music and the appreciation of body image, which motivated us to carry out the present study.

After correlating the Body Image with the rest of the musical genres, it was concluded that the body image does not correlate with any musical genre or activity involving music. This may be due to the relatively small number of participants.

However, it was very interesting to research what kind of musical preference people prefer, depending on the type of personality and self-esteem, body image and BMI.

## Limitations

One limitation of the study is that the group is not homogeneous, 74 women and 29 men, which might have influenced the results.

Another limitation is that people have not been asked how much they prefer a certain kind of music, on a Likert scale, to observe more precisely the musical preference.

The questionnaires were distributed and completed in digital format, which may have influenced the participants not to reflect more deeply on their selections and to provide erroneous answers.

The approximation of the time spent listening to music by the participants is another limitation because it is difficult to balance exactly how much time someone spends listening to music. The answer chosen in the questionnaire is more of a personal assumption.

The question of whether he listens to music is very general and puts together all activities (sports, cleaning, walking, etc.) and does not focus on a single activity, which may be worth researching in the future.

However, it was very interesting to research what kind of musical preference people prefer, depending on the type of personality and self-esteem, body image and BMI.

## Conclusions

As other results of the study show, the music genre listened to has a significant positive connection with some personality traits, such as Pop music and emotional stability, Blues / Jazz music and openness to new experiences.

It has also been found that long time listening to music is positively related to conscientiousness, which can mean that people who spend more time listening to music are more conscientious, regardless of the musical genre.

The hypotheses that have not been confirmed are that the musical genre listened to or listening to music, regardless of gender, in activities, are not significantly correlated with the appreciation of body image.

It was also found that there is a significant negative correlation between listening to Rock music and BMI, meaning that people who listen to Rock music have a BMI within healthy limits, compared to those who do not listen to Rock.

This type of study is unique, since there are few studies that investigate the type of music listened to and the appreciation of body image. Many studies focus on the influence of images in the social network, media, social influence on body image, which is why the genre of such study can open the door to other larger studies.

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