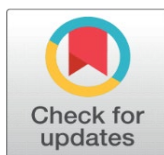
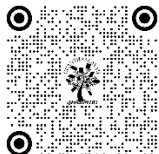


INFLUENCE OF MUSIC PREFERENCES ON ANGER LEVELS AMONG COLLEGE STUDENTS: AN ANALYTICAL STUDY

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ABSTRACT

The present study aims to study the impact of music preferences on anger levels amongst undergraduate and postgraduate students. A survey was administered online (via Google Forms) and offline to a sample of 210 individuals using convenience and snowball sampling methods. Two tools were utilised in the questionnaire - the Music Preference Scale developed by Upadhyay and colleagues and the Behavioural Anger Response Questionnaire. The responses were computed in the form of the respective subscales and dimensions of each scale. The Music Preference Scale recorded readings under five dimensions - Intense and Electrical, Devotional and Cultural, Emotional and Melodious, Reflective and Spiritual, and Contemporary and Rhythmic. The Behavioural Anger Response Questionnaire assesses anger across 6 domains - Direct Ager Out, Rumination, Social Support Seeking, Diffusion, Assertion and Avoidance. Data was analysed using descriptive statistics - to analyse the demographics of the sample; T-test to test significance of the collected data, and Pearsons' Correlation analysis has been conducted to study the relationship between the two variables. According to the results of the study, there is no significant difference in the anger levels expressed by males and females, or by undergraduate and post-graduate students. Males & females seemed to listen to the same level of Intense & Electronic, Contemporary & Rhythmic, Spiritual & Reflective music. Females were found to listen to more Devotional & Cultural and Emotional & Melodious music. Qualitative analysis shows no significant difference in the preference for music genres amongst undergraduate and post-graduate students. To conclude, music preferences have a negligible impact on anger levels.

Keywords: Music Preference, Anger, College Students

1. INTRODUCTION

This study aims to study the relationship between the type of music an individual listens to and their anger levels - anger expression, how an individual reacts to a situation that provokes emotions such as anger, and their predisposition to anger.

Music, in itself, is a very closely held concept in this age and generation - it is seen as an extension of an individual, which resembles their core tastes and preferences. In short, a person's music taste is considered their identity, it is what

they turn to at times of need, at times of distress and at times of celebration. According to the Stimulus-Organism-Response theory, an individual's response is triggered by their internal emotional state after experiencing a particular stimulation [Wang et al. \(2022\)](#). As evident in many previous studies, researchers have used the approach to study the relationship between music and internal psychological states, assuming music to be the stimulus and these various psychological states to be the responses. Thus, studying the concept of one's music habits, also by extension, helps understand the person's emotions, mood levels and other psychological factors.

Anger is particularly focused in this study, as not just an emotion, but also an effect of antagonism toward someone or something you feel has deliberately done you wrong [Anger. \(n.d.\)](#). Anger is frequently seen as an outlet of negative emotions. This study aims to determine the anger levels in those individuals who listen to music, by forming a concept of their music habits and correlating that to their anger, through a comprehensive and validated questionnaire.

Young adults' face a period of change, as they enter into adulthood, and this can prove to be extremely stressful, taking a toll on the mental and physical health of adolescents. Constantly depletion of their resources places them at a heightened risk of developing mental health problems [Upadhyay et al. \(2017\)](#). According to Karl Mannheim, young adulthood is a crucial period of life where individuals begin to reflect on life, and this is said to begin around the age of 17. India is also known for its culturally rich and diverse art forms, music being one amongst the oldest and most celebrated forms of all. Thus, with the Indian sample being so culturally rich and musically sound, studying the habits of young Indian adults will lead to interesting discoveries [Chakraborty et al. \(2015\)](#). Music is such a widespread and integral part of life that it is just considered an "informal learning environment" thus, paving the way to a study which has the potential to cause impactful repercussions [Upadhyay et al. \(2017\)](#).

Numerous studies have been conducted exploring the relationship between negative emotions of the human mind and music or its associated fields. In general, aggression, negative affect, frustration levels, etc have been studied in relation to music. Most studies focus on music therapy and their effects on different psychological components of psychiatric patients with different ailments. This study differs in the fundamental aspect that the sample for this study are individuals who simply listen to music for purely recreational purposes and not as a part of any kind of professional psychological therapy. It also measures anger, which not a lot of studies have comprehensively covered. [Treadwell \(2006\)](#) "The Impact of Exposure to Violent Music on Undergraduate College Males' State Anger, Affective, Physiological, and Aggressive Behavioural Action Responses" by Treadwell and "Emotional Temperament and Character Dimensions and State Anger as Predictors of Preference for Rap Music in Italian Population" by Infortuna are a few studies that focus on specific genres of music and how each genre contributes to differences in anger, instead of considering the variable as a broad encompassment [Infortuna et al. \(2022\)](#). Shantala Hedge's article titled, "Music Therapy for Mental Disorder and Mental Health: The Untapped Potential of Indian Classical Music" explores in detail the importance of classical music in music therapy [Hegde \(2017\)](#).

Upon reflecting on such studies, it is evident that there is a relationship between the various types of music and genres and internal psychological states, more importantly personality, depression, affect and anger.

1) Need for Study

This study aims to explore any relationship that might exist between an individual's choice of music and the amount of time they dedicate to it, and their baseline anger levels. Such findings have vast implications in both professional psychotherapy and everyday life. In a therapeutic field, music therapy really sets out to gain better insights about the potential effects of specific music genres on patients.

Young adults' face a period of change, as they enter into adulthood, and this can prove to be extremely stressful, taking a toll on the mental and physical health of adolescents. Constantly depletion of their resources places them at a heightened risk of developing mental health problems [Upadhyay et al. \(2017\)](#). India is also known for its culturally rich and diverse art forms, music being one amongst the oldest and most celebrated forms of all. Thus, with the Indian sample being so culturally rich and musically sound, studying the habits of young Indian adults will lead to interesting discoveries [Chakraborty et al. \(2015\)](#).

In everyday life, individuals who experience higher blood pressure or have more personality predisposition to anger might seek out to control their anger themselves through music. Using the findings of this study, we could encourage the general populace to be more mindful of their tastes and preferences in music.

2) Operational Definitions

Music Preferences: Music preference is the broad encompassment of what type of music a person listens to, and in what circumstances they usually spend time listening to it [Petitbon & Hitchcock \(2022\)](#). Music preference can be studied by the type of music – which is associated with the style of music one listens, and the strength of preference an individual exhibits towards it [Upadhyay \(2013\)](#).

Anger: “Affective state experienced as the motivation to act in ways that warn, intimidate or attack those who are perceived as challenging or threatening” - [Kennedy \(1992\)](#)

2. OBJECTIVES

- 1) To study the levels of anger the subjects experience
- 2) To study the various music preferences exhibited by the participants in the sample
- 3) To study the nature of the relationship that exists between one's music preferences and anger levels

3. RESEARCH QUESTION

What is the relationship between an individual's music preferences and their anger levels?

4. HYPOTHESES

H1: There will be significant positive relationship between Intense and Electronic music dimension and anger levels. [Upadhyay et al. \(n.d.\)](#)

H2: There will be significant negative relationship between Devotional and Cultural music dimension and anger levels. [Upadhyay et al. \(n.d.\)](#)

H3: There will be significant negative relationship between Emotional and Melodious music dimension and anger levels. [Upadhyay et al. \(n.d.\)](#)

H4: There will be significant negative relationship between Reflective and Spiritual music dimension and anger levels. [Upadhyay et al. \(n.d.\)](#)

H5: There will be significant positive relationship between Contemporary and Rhythmic music dimension and anger levels. [Upadhyay et al. \(n.d.\)](#)

5. METHOD OF INVESTIGATION

5.1. PARTICIPANTS AND SAMPLING METHOD

The sample of 210 consisting of students from different stream or background, enrolled in either Undergraduate or Postgraduate programmes were surveyed. Respondents were strictly Indian, as the Music Preference Scale [Upadhyay et al. \(n.d.\)](#) is a test tailored to fit only the Indian population. Responses were collected through convenience sampling. Responses were collected through hybrid mode.

Tools Used

The 2 scales used to measure the responses of the sample are:

- 1) **Music Preference Scale:** Developed by Upadhyay for undergraduate and postgraduate students. This scale gauges the preferences respondents harbor for 23 different genres, suitable for the Indian population. It measures 5 dimensions of music, namely - Intense and Electrical, Devotional and Cultural, Emotional and Melodious, Reflective and Spiritual, and Contemporary and Rhythmic.
- 2) **Behavioural Anger Response Questionnaire:** Developed by Linden, divides anger into 6 dimensions - Direct Anger-out, Rumination, Social support, Diffusion, Avoidance, Assertion.

6. RESULTS AND DISCUSSION

Table 1

| Table 1 Mean, Median, Mode of the Age of the Sample | |
|---|------|
| N | 210 |
| Mean | 20.5 |
| Median | 20.0 |
| Mode | 20 |
| Std. Deviation | 2.1 |
| Minimum | 17 |
| Maximum | 30 |

Average age of the sample (n=210) is 20.5 years (SD=2.1). Age ranged between 17 to 30 years of age.

Table 2

| Table 2 Frequency Distribution Table for the Gender of the Sample | | |
|---|-----------|---------|
| | Frequency | Percent |
| Male | 71 | 33.8 |
| Female | 138 | 65.7 |
| Prefer not to say | 1 | .5 |
| Total | 210 | 100.0 |

The sample (n=210) consisted of 33.8% individuals who identified as males (n=71), and 65.7% individuals identified as females (n=138). 0.5% of the sample (n=1) preferred not to reveal their gender

Table 3

| Table 3 Frequency Distribution Table for the Education Levels of the Sample | | | | |
|---|---------------|-----------|---------|--------------------|
| | | Frequency | Percent | Cumulative Percent |
| Valid | Undergraduate | 165 | 78.6 | 78.6 |
| | Post-graduate | 45 | 21.4 | 100.0 |
| Total | | 210 | 100.0 | |

The sample (n=210) consisted of 78.6% individuals who were enrolled in an Undergraduate programme (n=165), and 21.4% individuals were a part of a post-graduate programme (n=45).

Table 4

| Table 4 Shows the Different Music Genre Preferences Between Genders | | | | | | |
|---|----------------|----------------------|-----------------------|-----------------------|------------------------|-------------------------|
| | | Intense & Electronic | Devotional & Cultural | Emotional & Melodious | Spiritual & Reflective | Contemporary & Rhythmic |
| <i>Female</i> | Mean | 23.9 | 24.7 | 20.7 | 13.2 | 7.5 |
| | Std. Deviation | 6.9 | 8.9 | 5.1 | 5.8 | 2.8 |
| <i>Male</i> | Mean | 23.2 | 22.7 | 18.8 | 13.8 | 7.1 |
| | Std. Deviation | 7.1 | 8.3 | 5.8 | 6.5 | 2.7 |
| <i>Prefer not to say</i> | Mean | 17 | 17 | 10 | 7 | 6 |
| | Std. Deviation | | | | | |

Table 4 shows that males and females listen to closely the same amount of Intense & Electronic music - given the mean listening score for males is 23.2 (SD=7.1) and for females is 23.9 (SD=6.9). Females are reported to listen slightly more to Devotional & Cultural music and Emotional & Melodious music as compared to males. Both the genders show equal preference towards Contemporary and Rhythmic music - mean score for males is 7.1 (SD=2.7) and for females is 7.5 (SD=2.8), and Spiritual and Reflective music - mean score for males is 13.8 (SD=6.5) and for females mean score is 13.2 (SD=5.8).

Table 5

| Table 5 Shows the Gender Difference in Anger Dimension Scores | | | | | | | | |
|---|----------------|-----|-----------|-----|-----------|-----------|------------|-------------|
| | | DAO | Assertion | SSS | Diffusion | Avoidance | Rumination | Total Anger |
| Male | Mean | .7 | 1.0 | 1.0 | 1.2 | 1.2 | 1.1 | 6.1 |
| | Std. Deviation | .5 | .4 | .4 | .5 | .4 | .4 | 1.4 |
| Female | Mean | .6 | 1.1 | 1.0 | 1.1 | 1.0 | 1.2 | 6.1 |
| | Std. Deviation | .4 | .4 | .4 | .5 | .5 | .4 | 1.3 |
| Prefer not to say | Mean | 1.0 | .9 | .8 | 1.3 | 1.7 | 1.2 | 6.9 |
| | Std. Deviation | . | . | . | . | . | . | . |

Table 7 shows that both males and females have rated their anger responses very closely, and show no marked differences in the scores of any of the dimensions of anger. In all the six dimensions of anger, the male and female participants have shown a difference of less than .1 in their scores. The total anger scores for both males (SD=1.4) and females (SD=1.3), with a mean of 6.1.

Table 6

| Table 6 Shows the Difference in Anger Dimension Scores Amongst UG and PG Students | | | | | | | |
|---|----------------|--------|-----------|--------|-----------|-----------|------------|
| | | DAO | Assertion | SSS | Diffusion | Avoidance | Rumination |
| <i>Undergraduate</i> | Mean | .6636 | 1.1013 | 1.0152 | 1.0707 | 1.0616 | 1.1485 |
| | N | 165 | 165 | 165 | 165 | 165 | 165 |
| | Std. Deviation | .43922 | .36044 | .40190 | .47361 | .46095 | .3986 |
| <i>Post-graduate</i> | Mean | .6074 | 1.0825 | 1.0481 | 1.2370 | 1.1481 | 1.1852 |
| | N | 45 | 45 | 45 | 45 | 45 | 45 |
| | Std. Deviation | .46487 | .45328 | .50330 | .52403 | .44555 | .46632 |

Table 6 shows that both undergraduates and postgraduates have rated their anger responses very closely, and show no marked differences in the scores of any of the dimensions of anger. In all the six dimensions of anger, they have shown a difference of less than .1 in their scores.

Table 7

| Table 7 Shows the Difference in Music Dimension Scores Amongst UG and PG Students | | | | | | |
|---|----------------|----------------------|-----------------------|-----------------------|------------------------|-------------------------|
| | | Intense & Electronic | Devotional & Cultural | Emotional & Melodious | Spiritual & Reflective | Contemporary & Rhythmic |
| <i>Undergraduate</i> | Mean | 23.54 | 24.58 | 20.14 | 13.67 | 7.41 |
| | Std. Deviation | 6.89 | 8.78 | 5.41 | 6.04 | 2.81 |
| <i>Post-graduate</i> | Mean | 24 | 21.67 | 19.64 | 12 | 7.04 |
| | Std. Deviation | 7.14 | 8.3 | 5.73 | 6.08 | 2.79 |

Table 7 shows that both undergraduates and postgraduates have the overall same preferences of music, across all dimensions, and show no marked differences. Undergraduates (M=24.58) listen to more Devotional and Cultural music as compared to post-graduates (M=21.67). Likewise, Undergraduate students (M=13.67) listen to more Spiritual and Reflective music than post-graduates (M=12).

Table 8

| Table 8 Pearson Correlation Between the Total Anger Score and Dimensions of Music | | | | | |
|---|----------------------|-----------------------|-----------------------|------------------------|-------------------------|
| | Intense & Electronic | Devotional & Cultural | Emotional & Melodious | Spiritual & Reflective | Contemporary & Rhythmic |
| <i>Total Anger</i> | .252** | .135 | .113 | .165* | .136* |

Note. **. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Pearson product correlation of dimensions of music and total anger scores were found to be of negligible positive correlation. Correlations between Intense and Electronic music total anger scores was negligibly significant ($r=.252$, $p<.01$). The correlational values of Contemporary and Rhythmic music ($r=.136$, $p<.01$) and Devotional and Cultural music ($r=.135$, $p<.01$) were very similar. Emotional and Melodious music have the lowest correlation with anger levels ($r=.113$, $p<.01$). The correlation between Spiritual and Reflective music and anger is .165.

Table 9

| | Direct Anger Out | Assertion | Social Support Seeking | Diffusion | Avoidance | Rumination |
|------------------------------------|------------------|-----------|------------------------|-----------|-----------|------------|
| <i>Intense & Electronic</i> | .062 | .088 | .001 | .197 | .186 | .229 |
| <i>Devotional & Cultural</i> | -.041 | -.010 | .085 | .107 | .066 | .201 |
| <i>Emotional & Melodious</i> | -.042 | .139 | .111 | -.023 | .041 | .154 |
| <i>Spiritual & Reflective</i> | -.020 | .030 | .020 | .164 | .131 | .168 |
| <i>Contemporary & Rhythmic</i> | -.087 | .028 | .021 | .157 | .182 | .154 |

Pearson product correlation of dimensions of music and anger dimension scores were found to be of negligible correlation. The correlation coefficients for the domain of Direct Anger Out is all negative, except for in Intense & Electronic music, with the values being less than .09. Assertion scores are positive in majority, except for Devotional & Cultural music which has $r = -.010$. Social Support Seeking positively correlates with all music dimensions. Diffusion too is positively correlated with all music dimensions, except for Emotional & Melodious music. Avoidance and Rumination positively correlate with all dimensions of music. It is also interesting to note that Rumination correlates the strongest with music, compared to all other dimensions. Nevertheless, all correlational values remain negligible.

7. CONCLUSION

- There is no significant difference in the anger levels expressed by males and females, or by undergraduate and post-graduate students.
- Males & females listen to the same level of Intense & Electronic, Contemporary & Rhythmic, Spiritual & Reflective music. Females listen to more Devotional & Cultural and Emotional & Melodious music. Quantitative analysis reveals no significant difference in the preference for music genres amongst undergraduate and post-graduate students.
- Music preferences have a negligible influence on anger levels.

8. LIMITATIONS

- A bigger sample would yield more accurate results.
- This study was conducted through convenience sampling, and thus have to be treated with caution when generalizing to a wider population

- This study used the Music Preference Scale, which is tailored to the Indian population, and thus, cannot be generalized.

9. IMPLICATIONS

- Through the findings of this study, we can conclude that men and women vary in their preferences for music. Such findings help customize treatment plans for patients and clients alike who come seeking music therapy.
- Other aspects of music (lyrics, duration, themes) can be studied to yield better results in the management of psychopathological problems and further the field of music therapy.
- Effects of genres on specific anger domains can be studied to further advance anger management techniques as correlational results vary from one dimension to another.

CONFLICT OF INTERESTS

None.

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