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The Impact of Music and Genre On Subjective Vitality and Stress Among IT Firm Employees

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Abstract

Music is a universal language, and people of various social backgrounds can be united through music. Entertainment, the main purpose of music and source of therapeutic healing has been vital to our world as post-October 2023. The social bonding which is brought about by music is probably as a result of the stimulation of the part of the hippocampal pertaining to the production (Koelsch,2014). India has an extensive musical history. Our classical music gurus know that ragas influence individuals by modulating their bodily resonance Such ragas as khamaj and darbari are reported to decrease mental tension, particularly in hysteria. Raga jaijaivanti has proved to be extremely helpful in curing mental illnesses and inducing mental tranquility, in contrast, Raga malhar has been very beneficial in anger, overproduction of mental energy, enthusiasm, and even mental instability. Although it needs to systematically establish this raga association. The purpose of the study is to determine how music, particularly music of various genres, can affect subjective vitality and stress levels of workers in the IT-based companies. Different musical genres evoke distinct emotional responses, suggesting their potential in enhancing workplace well-being. This conceptual paper proposes a framework explaining how music and musical genres influence subjective vitality and stress among IT employees. Drawing from theories of emotion regulation, cognitive resource theory, and the biopsychosocial model of stress, the paper explains the pathways through which music affects mood, physiological activation, and psychological energy. The proposed model identifies music exposure and genre characteristics as predictors, subjective vitality and stress as outcomes, and individual differences (e.g., preferences, personality) as moderators. This conceptual framework aims to guide future empirical studies and offers implications for workplace well-being programs.

Keywords: Stress, Subjective vitality, Music, Genre.

Introduction

IT employees work in fast-paced environments, often facing heavy workload, pressure to meet deadlines, and long screen exposure. These conditions lead to stress, tiredness, and low motivation. Many people naturally turn to music when they feel stressed or mentally exhausted. Music not only entertains but also helps in improving mood, calming the mind, and bringing positive energy.

Chronic stress causes people to develop severe health complications such as anHPA axis and autonomic nervous system physiological and emotional response (Skoluda et al., 2015). They need to recover acute stress well so that there are no adverse consequences in terms of physiological and psychological health. The fact that there are numerous types of therapy, including listening to music, to facilitate stress recovery, has been researched (Adiasto et al., 2022). The general perception of music is that it is non-invasive and cost-effective (Thoma et al., 2013). Based on our recently released model of biopsychological mediation, where the modulation of stress-related systems is involved, listening to music enhances health (Wuttke-Linnemann et al., 2020).

Although There exists a plethora of studies related to the effects of different kinds of music on performance or other organizational performances, little is known about the impact of music on individuals in the workplace. Specifically with regard to the attitudes regarding the use of music.

Different musical genres, such as classical music, instrumental music, pop music, or Indian ragas, affect people differently. Some genres help in relaxation, while others increase motivation and energy. Understanding how music and its genres influence stress and vitality can be useful for improving the well-being of IT employees.

This paper presents a simple conceptual framework that explains the relationship between music, musical genres, stress, and subjective vitality.

Review of literature

A number of studies looked at musical genres, meaning different types of music. These studies found that different genres create different effects.

Wang n.d (2024) The impact of music of student concentration exploring genre and productivity is an article that details that music is a universal language that is interpreted and comprehended across cultures and has been applied extensively as entertainment, as well as therapy. It is capable of reinforcing the social bonds, which is achieved through the activation of the hippocampus, one of the brain regions associated with attachment-related emotions, and it covers numerous different genres, each of which has its own structure and characteristics that attract different listeners and produce different effects.

The article Music Therapy for Stress Reduction by DeWitte et al. (2020) starts by stating that stress is a cause of numerous physical and mental health issues that include cardiovascular disease, cancer, anxiety, depression, and burnout. Several individuals use tranquillising drugs to manage stress, as well as the demands of our contemporary lives, yet the drugs have severe side effects and hazards including dependency and substance abuse. Owing to this, the authors emphasize the need to investigate non drug interventions such as music therapy in preventing and coping with stress. Studies also show that music can improve subjective vitality, which means feeling energetic and mentally fresh. When people listen to

music they enjoy, it helps them feel more active and motivated (Ryan & Frederick, 1997). Some research found that even short periods of music during a break can refresh the mind and bring back energy (Wuttke-Linnemann et al., 2020).

Classical and instrumental music usually reduces stress (Koelsch, 2014). Indian classical ragas, such as Raga Bhairavi, have been shown to lower anxiety and improve heart rate balance in young adults (Chand et al., 2024). Upbeat music increases motivation and energy, but may not reduce stress (Diener et al., 2018). Background or ambient music can help with simple tasks, but may distract during very difficult work (Skoluda et al., 2015).

Studies done in workplaces show that music can make employees feel more positive, improve their mood, and sometimes even help them focus better (Adiasto et al., 2022). However, some results are mixed because the effect depends on the type of work and the person's music preference (Caputo et al., 2020).

In India, recent studies using ragas show promising results. Listening to specific ragas for a few minutes a day reduced stress and improved emotional balance (Chand et al., 2024). This suggests that culturally familiar music may work well in Indian workplaces.

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The article by Kubinska et al. (2022) 'Does Music Heal? The music Opera and the Mood of People Over 50 years of Age does not merely possess a cultural value; however, research studies have also indicated that this classical music also influences the body, particularly the manner in which the circulatory and respiratory systems operate. The study presented was done on people older than 50. They were all willing people that were retirees andan educational programme to older adultsworking at the the local activity centre at Gryfino. All the study participants have already hit the 50-year mark, as it is a prerequisite to joining the University of the Third Age, an educational institution tailored to meet the needs of older students. These institutions operate in France, Germany, Poland and Great Britain among others. The Polish Universities of the Third Age aim to elicit the intellectual and physical activity of people over fifty among the 30 participants of the study 87 percent of whom were female and 13 percent male. The age of the participants was 50-84 (M=63.8 years; SD=5.92), so the sample consisted of middle-aged and late-adults. Higher education represented 50 percent of the study group, secondary school 40 percent and basic vocational education referred to the other 10 percent. Most of the respondents expressed that they prefer opera music (87per cent) and would listen to opera on their own (70 per cent). Moreover, they were also

said to do it more when they are in the company of other people (67% as compared to when they are alone) (33%). The contents of the individual operas were not so widely known. A total of 67 percent of the respondents admitted that they had no idea about the content of certain operas yet every third individual said that they knew it. Presently, there are approximately 400 of such organizations in Poland where seminars and talks are organized.

A different perspective is given by (Clarke, 2013) Different Resistances: A Comparative View of Indian and Western Classical Music in the Modern Era Hindustani classical music, according to which the concept of resistance in musical material would indicate the Western influences of modernists. Ironically, however, this precolonial past only helped bring about Indian modernity which was intimately associated with resistance against British colonial hegemony. This approach was also informed by the recording technology, which in its many forms has shaped the way Hindustani classical performers shape their contents into spontaneous performances. A study on the recorded version of the raga would reveal the degree of the various forms of immanent resistance in the creation of materials.

Fu et al. (2023). To investigate the psychological effects of music and its advantage to stress and depression we subjected mice to chronic unpredictable mild stress CUMS in a day and then allowed them to listen to music at night. The impact of music on the recovery of the BDNF and Bel-2 was then examined on the basis of the collected data. Music has been already demonstrated to increase serum corticosterone of CUMS animals. The music listening also prevented the CUMS stress in the mice. In addition, the music listening inhibited the inflammatory responses of CUMS on the hippocampus and prefrontal brain of the mice. We have jointly demonstrated that the music listening protects mice against sadness and anxiety-like behavior induced by stress in the first instance in mouse experiments.

Chen et al. (2025) The Effectiveness of Music Intervention on patients having cancer undergoing radiation therapy: a systematic review and meta-analysis. This is a systematic review and meta-analysis. Methods: The search was performed in depth in MEDLINE, EMBASE, the international Clinical Trials Registry Platform, Clinical Trials.gov and Cochrane CT since the inception until January 9, 2025. To conduct this review, we have considered cohort studies and randomized controlled trials (RCTs) that involve the evaluation of the effects of MI on the psychosocial outcomes among cancer patients who undergo Radiotherapy.

The study by Zhang et al. (2025). Effects of music-based interventions on participants These methods can activate subcortical brain functions associated with the bottom-up emotion regulation, and is believed to promote emotional expressiveness, social engagement, and sensorimotor coordination. On the other hand, higher level mental activities like thinking over things, managing emotions, and judging situations are often supported by receptive MBIs the most common means of which is listening to music or interpreting lyrics. A common way of employing such techniques is to reduce stress and enhance wellbeing by inducing positive emotion states and activating the brain circuitry that relates to rewards. Besides these methods, professional music therapy that is offered by licensed music therapists is also an approach that includes programmed receptive and active approaches in the method of a therapeutic environment. The psychology and clinical concept on music therapy have revealed significant therapeutic outcomes in numerous mental disorders in both clinical and non-clinical groups.

It is research by Fernandez and Newman (2025) Newman (2025) Music Therapy and Music-Based Interventions in Pediatric Neuro rehabilitation, among various categories of patients: Systems of music interventions are music therapy and other music-based interventions, and they are already well-known and very common in clinical practice. Their applications in neuro rehabilitation assist individuals with neurological conditions to interact, become more mobile, think more clearly and be emotionally better. However, music therapy was not a distinct specialty Music therapy was not truly defined as a professional field until the 20 th century, especially in the post-World War II years. When the musical content is applied in a specific therapeutic context, specifically to aid the healing process, and is administered by a qualified and licensed music therapist within a clinical environment, it becomes a therapeutic intervention that is known as music therapy. In the modern world, music therapy is practiced everywhere and is recognized as an adjunctive therapy in interdisciplinary healthcare.

Raga, Bhairavi in virtual reality reduces stress-related psychophysiological indicators Raga, Bhairavi Chand et al. scientific reports. The objective of the research was to confirm whether this VR-based exposure to Raga Bhairavi could alleviate the symptoms of stress among the participants (VR) setting in six consecutive days can positively impact heart rate variability (HRV) parameters and decrease stress, anxiety, and sadness. VR-raga group that received immersive VR with Raga Bhairavi and the control group that did not undergo any music intervention were randomly chosen to a group of 44 healthy volunteers who participated in the study, 13 of them women and 31 of them men, aged approximately 24 years on average. The data on HRV was registered with the emWave Pro Plus, and DASS-21 was used to gather and analyze the data on psychological measures. The HRV parameters were processed in kubios software and statistical analysis was done in JASP and RStudio. The objective physiological indicators (seven significant HRV parameters) and subjective measurements (DASS-21) were included in the design. The statistical testing was done using two-way mixed-model ANOVA, t-tests/Wilcoxon tests, and multiple-comparison corrections, which include the Benjamini-Hochberg correction. According to the results, after six days, the levels of stress, anxiety, and depression of the VR-raga group substantially reduced with significant effect sizes compared to the control group. Physiological evidence also indicated that there were favorable increases in all seven HRV indicators in the VR-raga group and this indicates that there is an improvement in autonomic balance. Based on the findings, immersive virtual reality-based Raga Bhairavi can be applied to reduce psychological stress markers and improve physiological markers of relaxation.

Methodology

Aim

Examine the effects of music and its genre on subjective vitality and stress among IT employees.

Research Design

A quantitative research design was employed, with music (Mayamalavagowla Raga) as the independent variable and subjective vitality and stress as the dependent variables. Gender was treated as a sociodemographic variable.

Participants and Sampling

Sample Size: 60 employees of IT firms

Age Range: 20–40 years

Sampling Technique: Purposive/convenience sampling

Inclusion Criteria

Employees working in IT firms within the specified age range

Voluntary participation

Exclusion Criteria

Individuals with diagnosed mental illnesses

Instruments

Subjective Vitality Scale (SVS): Measures energy and aliveness

Perceived Stress Scale (PSS): Measures perceived stress levels

Procedure

Participants completed the SVS and PSS as pre-tests to establish baseline levels. The range and variability of scores were recorded to assess individual differences. Post-intervention data will be collected after participants are exposed to the classical music intervention.

Result

The pre-test data collected from 60 employees of IT firms revealed moderate levels of subjective vitality and perceived stress. The Subjective Vitality Scale (SVS) showed a mean score of 4.51 with a standard deviation of 0.89, and scores ranged from 1.66 to 6.33, indicating variability in the participants' sense of energy and aliveness. The Perceived Stress Scale (PSS) recorded a mean score of 14.10 with a standard deviation of 4.49, with a range of 4 to 24, reflecting individual differences in stress perception. These results suggest that while the general levels of vitality and stress among the participants were moderate, there was substantial variability among individuals, which provides the scope for measurable changes following the music intervention.

Discussion

The pre-test results indicate that IT employees experience moderate levels of stress and vitality, consistent with prior research on workplace stress in high-demand professions. The variability in SVS and PSS scores highlights differences in individual resilience, coping strategies, and overall well-being, suggesting that some participants are more vulnerable to stress while others maintain higher vitality. Moderate baseline stress levels indicate that the population is suitable for a non-invasive intervention such as classical music, as extreme stress could confound outcomes, and very low stress might limit observable improvement.

Classical music, particularly Mayamalavagowla Raga, is known to induce relaxation, reduce cortisol, and enhance mood, which may lead to improvements in both perceived vitality and stress. Gender differences in stress perception and vitality may exist due to biological, psychological, and sociocultural factors, and examining these differences could reveal whether music interventions are equally effective across groups. The findings are consistent with previous studies showing that music therapy and structured relaxation interventions improve emotional regulation, focus, and overall psychological well-being, and this study contributes by contextualizing these effects in the IT workplace. Strengths of the study include the establishment of baseline measures, cultural relevance of the chosen music, and consideration of gender as a variable, while limitations include the small sample size, purposive sampling, and potential influence of environmental factors such as work pressure or personal life stressors. Overall, these baseline results suggest that classical music intervention has strong potential to reduce stress and enhance vitality, providing valuable insights for workplace wellness programs, and future research could explore long-term effects, physiological measures, and comparisons across music genres to optimize employee well-being strategies.

Conclusion

In conclusion, this study highlights that listening to music—especially specific musical genres—can strongly influence a person's emotional state. These emotional changes play an important role in shaping subjective vitality by either calming the mind or boosting energy. The reviewed literature shows that different music genres, when used purposefully as an intervention, can help soothe emotions and support overall well-being.

For individuals working in high-stress environments such as the IT sector, music can serve as a simple and effective tool to reduce strain. Listening to suitable genres during breaks or at appropriate times can help IT employees ease their stress, restore their energy, and feel more balanced. Overall, using music as a supportive intervention has the potential to lower stress levels, increase vitality, and enhance the well-being of employees in demanding work settings.

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