Research article

Assessment of musical preferences and its association among Indian population

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ABSTRACT

Introduction and Aim: Music is known to have positive effects on humans and enhances mental health. This study presents the outcomes of a preliminary research that investigates Indian's music preferences between string (sitar) and percussion (*parai*) instruments.

Materials and Methods: 85 participants made up the sample (25 males and 60 females), who were aged between 18 and 60 and came from different regions of India. The participants responded to an online survey made up of Likert scale questions using Google forms.

Results: According to preliminary findings from this study, female participants scored significantly ($p<0.05$) higher on the music preference scale for the string (sitar) instrument than male participants did. When compared to urban areas, people in rural areas have significantly ($p<0.05$) higher music preference scores. The participants' preference score for percussion instruments was significantly ($p<0.05$) high as compared to string instruments. The male participants revealed significantly ($p<0.05$) high score for music importance when compared to the female participants.

Conclusion: The study assessed the music preferences (sitar and *parai)* of Indian with an aid of questionnaire study with Likert scale. According to the study's findings, musical choices vary depending on a number of variables, including gender, age, place of residence, occupation, and musical instruments.

Keywords: Music; string instruments; percussion instruments; preferences; Likert scale.

INTRODUCTION

Everyone needs a way to relieve stress, whether it be by playing, reading, walking, or listening to music. According to research, listening to music enhances memory, mood, mental clarity, and sleep quality while lowering anxiety, blood pressure, and pain (1). The art of placing sounds in a composition that combines melody, rhythm, and harmony is typically referred to as music. It can even minimise the effects of anxiety and despair, according to study (2). The instruments used in music, such as string, percussion, and wind instruments, vary depending on the type.

String instruments are those that are mostly made of strings, and the vibration of the strings is what produces the music. You can play it by using a plectrum or your fingers to pluck the strings. Some examples of Hindustani classical string instruments are the sitar, tambura, and veena. Anzad, Apache fiddle, guitar, and other foreign stringed instruments are some examples. The sound of a stretched membrane being struck is typically amplified by the hollow bodies of percussion instruments. Some examples of Hindustani classical instruments are the *mridangam*, *ghatam, thavil,* and *parai.* Foreign percussion instruments are the triangle, tambourine, bass drum, cymbals, and snare drum.

In order to determine the impact of music on students' curricular activities and whether this pattern is advantageous to the students in their academic results, Kumar *et al.,* (3) investigated a questionnaire survey. According to the data, 47% of respondents say that listening to music while studying helps them focus. According to 29% of respondents, music would help them stay calm, and 17% said it would keep them from nodding off. The evaluation of music rehabilitation for adult cochlear implant users used the music-related quality of life (MuRQoL) questionnaire, which was created for this purpose. For concept validation, the same participants completed the short form health survey (4). To our knowledge, there are no framed questionnaires or research on comparison of Indian classical musical instruments such as string (sitar) and percussion (*parai).*

MATERIALS AND METHODS

Participants

A Likert scale questionnaire from different regions of India was utilised to conduct the study on the evaluation of music preferences between string (sitar)

Table 1: Questionnaire with Likert scale

Question	1	2	3	4	5	6	7
Music is one of the most important and powerful things in my life.							
How does sitar instrumental music make you feel?							
How does *parai* instrumental music make you feel?							
I like to play musical instrument every day.							
I listen to music every day.							

1 - Strongly dislike, 2 - Moderately dislike, 3 - Slightly dislike, 4 - Neither like nor dislike, 5 - Moderately like, 6 - Slightly like, 7 - Strongly like.

and percussion (parai*)* instruments. There were 85 participants, with ages ranging from 18 to 60 (25 males and 60 females). All participants provided their informed consent (through mail), were volunteers, and agreed that their answers would be kept confidential.

Experimental protocol

By asking them to listen to the music, the questionnaire's associated questions for the sitar and *parai* were created. The inquiry included a link to the music section. The Likert scale, which assigns scores between 1 and 7, was used to examine the responses to the question (Table 1).

Statistical analysis

The outcomes were examined using WINKSDA 7 and IBM SPSS Statistics for Windows, Version 20.0 (Armonk, NY: IBM Corp.). The conclusions were reached by contrasting a number of variables, including gender, place of residence, age, and musical instruments. First, it was determined whether gender was more likely to hear sitar music, male or female. The next comparison after that was between the location of residence and which of the parai or sitar they played. Additionally, the age was contrasted with musical instrument playing and listening. Fourth, several musical instrument kinds were contrasted (sitar and *parai)*. The final comparison looked at which gender (male or female) is more likely to play an instrument, listen to music, and think that music has a lot of force and significance. A paired t-test was used to statistically assess the level of preference for sitar and *parai*, while an unpaired t-test was used to analyse gender, age, and place of residence. The t-test is used to examine whether the type of instrumental music played had any statistically significant impact on the observed parameter. A significant level of 0.5 was set.

RESULTS

For between three and five minutes apiece, the participants were told to listen to both string (sitar) and percussion (*parai*) instrumental music. Their replies were then recorded in accordance with their listening experiences. Fig. 1 illustrates the statistical findings showing female participants significantly ($p<0.05$) outperformed male participants in terms of their choice for string (sitar) instruments. There was no discernible difference in preference scores for the percussion *(parai)* instrument between the male and female individuals.

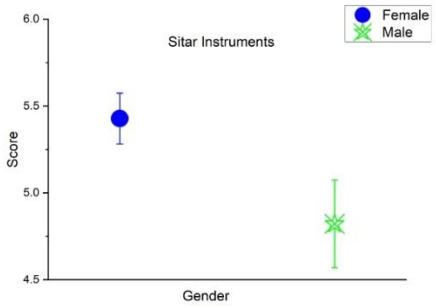

Fig. 1: Mean and one standard error value of music preference score of gender (male and female) for string (sitar) instrument.

People living in rural regions have significantly ($p<0.05$) high music preference scores as compared to urban regions for string (sitar) type instruments. Similarly, the score of playing musical instruments was significantly ($p<0.05$) high for rural people when compared to urban region living people as shown in Fig. 2.

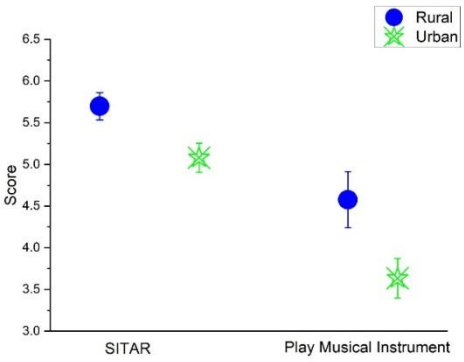

Fig. 2: Mean and one standard error value of questionnaire score of living place (rural vs urban) for string (sitar) instrument and play music instrument.

Our study findings demonstrate that the pre-working group (aged 14 to 24) has a significantly ($p<0.05$) higher score than working age groups when compared to the post-working group (25-54 years). But as shown in Fig. 3, those who play musical instruments before reaching working age scored significantly ($p<0.05$) lower than those in the working age group. Statistical results show that percussion (*parai*) instrumental music subject preference score was significantly

($p<0.05$) high as compared to string (sitar) musical instruments as shown in Fig. 4. According to the data obtained from the questionnaire, the result concluded that male participants showed significantly ($p<0.05$) high score for music importance and playing musical instruments, listening to music when compared to females as shown in Fig. 5.

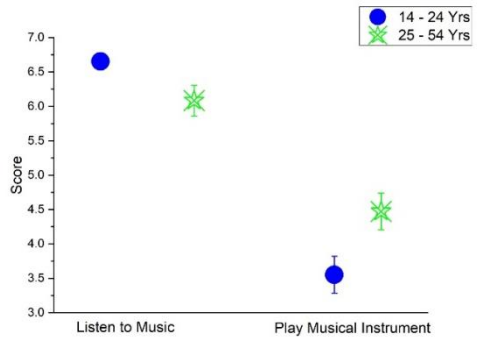

Fig. 3: Mean and one standard error value of questionnaire score of age-wise (pre-working and working groups) for listening to music and playing musical instruments

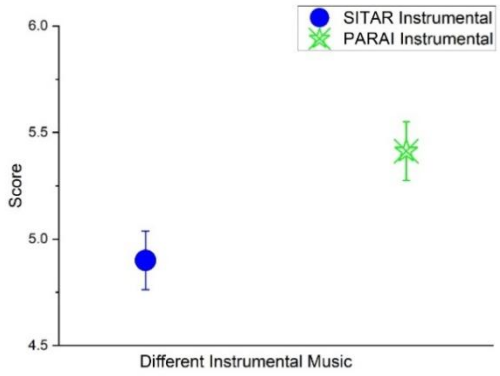

Fig. 4: Mean and one standard error value of music preference score for type of music instruments (sitar and *parai*).

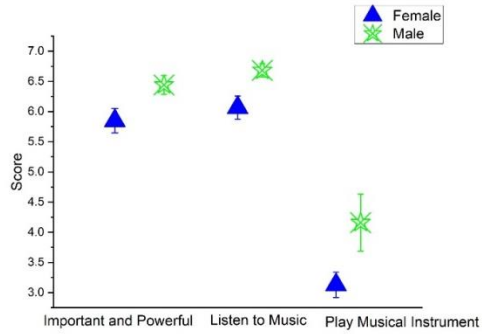

Fig. 5: Mean and one standard error value of questionnaire score of gender-wise (females and males) for music importance, listening to music and playing instruments

DISCUSSION

One of the emerging areas in the current healthcare system is music therapy. Music has a significant positive impact on people's health. The selection of music based on personal preference that would produce favourable outcomes, and thereby assists in the correction of cardiovascular abnormalities, enhances focus, and assists in the treatment of depression. The study examined the two different genres of Indian instrumental music (string and percussion) along with the subject's level of performance using self-assessment questionnaires. It also examined the interaction between the subject's two musical instruments and his or her location of residence, working age group, and pre-working age group. Drums and other percussion instruments have been discovered to speed up physical recovery, boost the immune system, and ease emotional stress in individuals (5). In the current study, percussion (*parai)* instruments are commonly preferred over stringed instruments because they frequently produce an exhilarating, colourful, high-pitched rhythmic sound.

In a recent study, (6), they examined the impact of drumming on autistic adolescents' behaviour and brain function. The findings demonstrated that drummers' hyperactivity and inattention issues significantly decreased as their drumming performance improved as compared to controls. The results of the current study make it very clear that female participants preferred the sitar over male participants. Thompson (6), who used a variety of low and high-pitched instrumental music, found that ladies favoured low-pitched musical instruments like the flute and clarinet while males chose the trombone and tuba. Their findings are similar to the outcomes of the present study. Similarly, many similar studies (7) revealed that high-pitched instruments (trumpet) were most chosen by men and least desired by women, and low-pitched music (the flute) was most preferred by females while being the least favoured by males. There is no question that people in rural areas prefer the sitar over individuals in cities, and there were no differences in *parai* in this group either. When people's musical preferences and personalities converge, Misra and Shastri (8) conducted a statistical investigation of the effects of music on rural and urban populations. There were noticeable differences between rural and urban populations for many music genres, including classical, folk, religious, and semi-classical. Similarly, a further study by de Fretes (9) looked into whether respondents preferred Indonesian folk music known as dangdut over other types of music.

Although working age groups (25 to 54) are more likely to play an instrument, pre-working age groups (14 to 25) listen to music more frequently. Younger people believe that listening to music is a necessary part of their existence. Playing an instrument helps adults manage their stress since they deal with a lot of stress from their jobs (10). According to the study, listening to music before a standardized stressor had a greater impact on the autonomic nervous system (in terms of a quicker recovery) than it did on the endocrine and psychological stress responses. In general, males thought that music was a more significant and powerful part of their life than did females. Males are known to play musical instruments

and enjoy music more than females, according to research (11). Males experienced a level of mindfulness, whilst females only had a slight sense of relaxation.

CONCLUSION

The study assessed the music preferences (sitar and *parai)* of Indian with an aid of questionnaire study with Likert scale. When compared to male participants, female individuals scored considerably higher on the music choice scale for the string (sitar) instrument. When compared to urban areas, people in rural areas have considerably higher music preference scores for string and percussion instruments. In comparison to string (sitar) instruments, the participants' preference score for percussion (*parai*) instruments was significantly higher. When compared to female participants, male participants substantially scored higher on the relevance of music. According to the study's findings, musical choices vary depending on a number of variables, including gender, age, place of residence, occupation, and musical instruments.

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CONFLICT OF INTEREST

The authors declare no conflicts of interest.

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