

## RESEARCH ARTICLE

### “TRAIT” level of perceived anxiety and effect of instrumental background music after induced stress test on “STATE” level of perceived anxiety in students from different ethnic groups - A randomized control trial

Shantala Shripad Herlekar<sup>1</sup>, Savita Hiremath<sup>2</sup>

<sup>1</sup>Department of Physiology, SDM College of Medical Science and Hospital, Dharwad, Karnataka, India, <sup>2</sup>Department of Physiology, USM-KLE International Medical Programme, Belgaum, Karnataka, India

Correspondence to: Shantala Shripad Herlekar, E-mail: shantala.herlekar@gmail.com

Received: June 09, 2018; Accepted: June 30, 2018

#### ABSTRACT

**Background:** Stress in medical students is well known, but ethnic variations in general-anxiety levels and effect of instrumental music, in relation to stress test, on anxiety in these ethnicities remain obscure. **Aims and Objectives:** The aim is to study “TRAIT” anxiety levels and effect of instrumental music after induced stress on “STATE” anxiety levels in Indian and Malaysian 1st year medical students. **Materials and Methods:** A total of 60 Indian and 60 Malaysian 1st year medical students were randomized into music and control group equally. “STATE” and “TRAIT” forms of State Trait Anxiety Inventory were used in pre-test. After 30 min of classical-instrumental background music/control session along with induced stress test, the “STATE” form was repeated as post-test. **Results:** TRAIT score of >40 was observed in all medical students which was considered very anxious. Scores were significantly high in Malaysian boy ( $44.7 \pm 11.71$ ) ( $P < 0.05$ ). Post-test STATE scores showed a rise of +3.2 points in control group and decline in music group by -1.7 ( $P = 0.007$ ). Highest post-test scores were in Malaysian control group ( $39.2 \pm 10.56$ ). Fall in post-test scores was seen in all three groups except Malaysian control group which showed a significant rise ( $P < 0.001$ ). Indian control group scored an average of  $32.4 \pm 8.77$  compared to Malaysian control group ( $39 \pm 10.56$ ) in post-test ( $P = 0.009$ ). **Conclusion:** From our study, we can say that all Medical students from different ethnic groups perceive very high anxiety generally. Malaysian students perceive it much higher than Indian students. Classical instrumental background music with slower rhythms helps to reduce anxiety associated while performing a challenging task and can induce relaxed state in medical students irrespective of their ethnicity and preference. This kind of music can be used between lectures to relax students.

**KEY WORDS:** Ethnicity; State Trait Anxiety Inventory; Instrumental Music; 1<sup>st</sup> year MBBS; State Trait Anxiety Inventory-STATE; State Trait Anxiety Inventory-TRAIT

#### Access this article online

Website: [www.njppp.com](http://www.njppp.com)

Quick Response code

DOI: [10.5455/njppp.2018.8.0621630062018](https://doi.org/10.5455/njppp.2018.8.0621630062018)



National Journal of Physiology, Pharmacy and Pharmacology Online 2018. © 2018 Shantala Shripad Herlekar, Savita Hiremath. This is an Open Access article distributed under the terms of the Creative Commons Attribution 4.0 International License (<http://creativecommons.org/licenses/by/4.0/>), allowing third parties to copy and redistribute the material in any medium or format and to remix, transform, and build upon the material for any purpose, even commercially, provided the original work is properly cited and states its license.