Medical students always strive to find the best way to prepare for exams, mainly for improving the retention of information. As a matter of fact, listening to music while studying, nowadays, started to become a trending practice that many medical students are adopting. However, music and its effect on students’ recall ability has been a controversial topic, with no definite answer.

Objectives

- Explore participants’ perception about studying with music and their preferences
- Comparatively assess the retention of medical information of students after studying with and without music
- Identify an environment suited to retain information more efficiently

Results

Pre-test
To check and exclude anyone with prior knowledge about the study topics

Lecture 1: B Cells
Half the students studied while listening to music and the rest in silence

Lecture 2: T Cells
Groups were switched after a 15 minute break

Exam
Both lectures were asked about after 4 days with equal questions from each

Methods

- 34 first-year medical students
- 79.4% females
- 73.5% preferred studying while not listening to music
- 61.8% believe that listening to music while studying has a negative effect on their retention

A paired-sample t-test was conducted to compare the scores of students who study with music and without music. Prior to conducting the analysis, the assumption of normally distributed difference scores was examined and satisfied. The skew and kurtosis levels were estimated at -0.45 and 0.30, respectively, which is less than the maximum allowable values for a t-test (i.e., skew < |2.0| and kurtosis < |9.0|; Posten, 1984).

There was not a significant difference in the scores for studying with music (M= 39.45, SD= 15.49) and without music (M= 42.33, SD= 14.61) conditions; t(33)= 0.906, p= 0.372.

A graphical representation of each student’s score for the lecture they studied while listening to music and in silence is displayed in Figure 3.

Conclusions

The results suggest that there is no clear trend regarding the effect of music on the scores of the exam, and therefore no effect on memory retention. Rather, the results suggest that the effect of listening to music is very individualized and based on personal factors. Listening to music while studying had a positive effect on some students, negative on others and no effect on the rest.

Future Directions

Further investigation on the different types of information studied while listening to music is necessary in order to fully understand its effect.

Other future studies could seek more insight on the effects of different music genres and whether being familiar with the music piece / song has any effect or not.