Music Improves Immediate and Short-term Memory - A Preliminary Report

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Sir,

Memory enhancement is a topic of interest that much sought after both by normal subjects and those with early dementia. Many studies have focused on using pharmacological agents to enhance memory. Music is a universal language. Recognition of familiar melodies is immediate and easy for many.¹,²

This study was designed to observe whether music has any effect on potentiating memory in normal young individuals. Thus, the goals of the study were, to study the immediate and short-term memory of normal young adults after hearing to speech, evaluate the difference in immediate and short-term memory in young adults after hearing to a speech vs. hearing the same speech in the form of a song.

This was a case control observational study, conducted in GVP medical college conducted for 2 months. Subjects of the control group were subjected to listening to spoken lyrics in a song. Study group was subjected to listen to the same lyrics that the control group heard in the form of a song which was composed and sung. Both the groups were asked to reassemble separately after 3 days, and were asked to recollect and write the lyrics they heard, in the answer sheets supplied. Evaluation of the written papers was done and the number of sentences reproduced in the same meaningful order was counted and marks were allotted accordingly.

On evaluation of test for immediate memory, control group scored a minimum of 1.5 and a maximum of 8 with a mean of 5.07. Study group scored a minimum of 3 and a maximum of 9 with a mean of 6.67. The p value between the groups is < 0.001. On evaluation of test for short-term memory, control group scored a minimum of 0.5 and a maximum of 7 with a mean of 3.37. Study group scored a minimum of 1 and a maximum of 9 with a mean of 5.26. The p value between the groups is < 0.001.

Our preliminary work presented here showed that music can enhance both immediate and short-term memory in normal young adults. Listening to speech in the form of a song containing music seems to enhance memory than listening to regular monotonous speech. In our study as we stimulated both the dominant, and non-dominant sensory cortex in the form of verbal and music for the study population. As Liégeois-Chauvel³ suggested that the non-dominant side being stimulated during music processing and as a known fact of the dominant sensory cortex being the one which processes the verbal information.

References