SUMMARY

The use of alcohol is quite common in the western countries, and its use is quite prevalent even in India. People who consume alcohol generally report a feeling of well being and the misconception that performance improves after alcohol consumption is quite common.

The present investigation was designed to study the effect of a single as well as repeated (for 6 days) moderate dose of alcohol on learning of an active avoidance task. It was hypothesized that:

1. Pre-training administration of a single moderate dose of alcohol would lead to an impairment of acquisition.

2. Chronic alcohol administration would have an impairing effect on acquisition.

3. Acquisition would be slower in the chronic alcohol treated group as compared to the acute alcohol group.

4. Pre-training administration of a single dose of alcohol would lead to an impairment of retention.

5. Pre-training chronic alcohol administration would lead to an impairment of retention.

6. Impairment of retention would be more severe in the chronic alcohol treated animals as compared to the acute alcohol treated animals.
In order to test these hypotheses a multi group design with four groups was used. Animals of the chronic alcohol/saline group were given injections of alcohol/saline (.72 ml/animal) for six consecutive days. Training was given after 48 hours. The acute alcohol/saline groups were given a single injection of alcohol/saline (.72 ml/animal) 15 minutes prior to training. Animals of all the groups were trained on a acute avoidance took up to the criteria of two consecutive avoidance responses, subject to a minimum of 8 and maximum 10 trials. Retention was tested after 1, 2 and 7 days.

The mean latency scores of the four groups during acquisition were not statistically significant. However, further analysis of the number of trials required by each going to reach the criteria was analysed by applying median test. Since the difference between the groups was highly significant, the individual comparisons were analysed by employing Man-Whitney-U test. A significant difference was observed between the chronic alcohol/saline and the chronic alcohol and acute alcohol groups. Thus the first three hypotheses which dealt with acquisition were verified.

The mean latency scores of the four groups on the three retention tests were initially analysed by applying analyses of variance followed by t-test to test significance of difference between the individual groups. The statistical analyses indicated that retention was impaired in both the acute as well as the chronic alcohol group, while impairment was more severe in the chronic alcohol group as compared to the acute alcohol group.