A COMPARISON OF RESPONSES TO ALCOHOL EXPECTANCY QUESTIONNAIRE (CEOA) OF INDIAN AND MALAYSIAN MEDICAL STUDENTS

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Abstract: Alcohol addiction is a social problem faced by every country worldwide. Young people are more at risk of this menace. In spite of a clear knowledge and message about the effects of alcohol on individual health and social fabric, it is hard to curb the overuse of this beverage. In the present study, we compared the outcome of a survey using Comprehensive effects of Alcohol (CEOA) in two private Medical institutions in two Asian countries, viz. KMC, Mangalore, India (n=180) and AIMST, Kedah, Malaysia (n=170). The study included both males and female students. The result suggested that the negative reinforcement responses were rated higher in both the study groups. But those who have tasted alcohol before had a higher rating that alcohol may cause positive reinforcement. Both groups of respondents showed similar trend suggesting that the alcohol expectancies are similar in Indian students and Malaysian students. From the results we could conclude that the responses of the two sample groups were comparable to each other. While the male respondents were inclined show higher affinity towards acceptance of alcohol females are very much less so. However, the respondents of both groups appeared to be well aware of the negative aspects of alcohol. Importantly previous exposure to alcohol intake dramatically changed the perception and showed increased inclination towards alcoholism. This study thus provides an important clue to the clinician, counselors and parents regarding the importance of guiding the young people about the alcoholism.

Key words: alcohol addiction expectancy

INTRODUCTION

Alcohol is an addictive beverage. The influence of drinking alcohol affects the humanity worldwide cutting across the continental barriers. Alcoholism is often the cause of destruction of family and social system in poor countries. Alcoholism is also
The subjective expectations of individuals from drinking of alcohol are widely varied in any populations and among the genders (13–16). This is bound to reflect in their attitude towards alcohol. Clinicians in this field are highly concerned about alcoholism and problem drinking in younger generation (17). This necessitates studying the vulnerability of young people to alcoholism. Results of such studies will be useful to give an indication with regards to the tendency of youth towards alcohol. In India, study on drinking habit is very scarce. Hardly, any systematic study appears to have been done on this issue. Our previous work among the Ist year medical students revealed the interesting outcome showing that the Indian medical students have a guarded response and are well informed of the effects of alcohol (18).

Similar was the study results in Medical Students of Leeds University, UK (8). Available data suggest that addiction is seen in young Malaysian students, though there was no systematic study and reliable information. Studies among Malaysian urban population have reported that 70% Chinese, 11% Malaysia and 42% of Indian ethnic people were drinkers, where most of them were social drinkers (9). However, social drinking is a well accepted practice in most parts of the educated world. Medically also, it has been suggested that small quantities of alcohol may do good to the heart and prevent coronary arterial disease (10–12). As the urbanization of life style progresses, alcohol acceptance is increasing.

There has been very few systematic study of tendency of the population leading towards acceptance of alcohol intake in other Asian countries too. International comparison of alcohol expectancy can be very useful data for comparative epidemiology of the problem of alcoholism (19). In an attempt towards a better understanding of alcoholism, we undertook a study on the alcohol expectancy on the student population from Kasturba Medical College (KMC) Mangalore (Karnataka, India) and Asian Institute of Medicine, Science & Technology (AIMST) Kedah State of Malaysia. For our study, we selected the medical students, primarily because these students are from higher educational background and the other aspect is, these students are from higher middle class families and hence they are well informed.

A principal cause for over 30% of road traffic accidents in the US. In the United States, 7% of all adults and 19% of adolescents are “problem drinkers”- addicted to ethanol. Most are even if abstinent most of the time, likely to get into trouble when they drink. Ethanol related deaths exceed 100,000 each year, accounting for 5% of all deaths in the United States. Drinking is widespread among US university students (1). A Study on German medical students also suggested that several of them had habit of excessive drinking or ‘problem drinking’ (2). Same authors also noted that often drinking led to other problems such as smoking, cannabis and resulted in reduced sleep, altered food habits with reduced fruits and vegetables coupled with low exercise. All these collectively promote poor health conditions in young students. It has been reported that drinking is common in American college students (3–6). In a study on Norwegian medical students, at least 10% and above have reportedly consumed alcohol to reduce Medical School tension (7).
about subject. So this will reflect the expectancy from alcohol explicitly.

MATERIALS AND METHODS

In this study, we used alcohol expectancy (Comprehensive Effects of Alcohol – CEOA) Questionnaire (20). We compared the responses of the students from the two Medical Schools, one of them, a private Medical School in India and the other is a private Medical School in Malaysia. The CEOA questionnaire evaluates the positive and negative responses, which are arranged randomly among 38 responses from the subjects. Each question is classified into one of the following 7 categories: (eg: sociability: response item Number: 1, 3, 5, 14, 24, 31, 34, 38)

Positive reinforcement responses include

Negative reinforcement:

Responses ranging from 1 to 4 (Disagree –1, Disagree slightly –2, Slightly agree – 3, Agree – 4) were to be given by the subject. The mean of responses are calculated and tabulated from each sub groups based on the 1. Gender, 2. Economic background, and 3. Taken alcohol before or Not taken. The results are tabulated as positive and negative reinforcements and statistical analysis was done by applying Student’s ‘t’ test.

The questionnaire was given to all (those who were willing to participate), first year medical students of India (KMC., Mangalore. n=180 males = 100, females 85) and Ist year medical students in Malaysia (AIMST, Sungai Petani, Malaysia. n=170 males = 59 females 111). The mean age of first year Medical (MBBS) students in KMC was 19.1±2.1 years, and it was 22.5±3.5 in the case of students of AIMST Malaysia. They were explained in detail the procedure and asked to ‘tick’ their response in the sheet against each question. Their participation in this study was absolutely optional. Names and numbers were not asked and all the personal information was kept strictly confidential. Ethical clearance was obtained from the Institutional Ethics Committee before the commencement of the study. All responses were collected by explaining the implication to the students and after they signed the consent form. Ethical clearance was obtained from the Institutional Ethics Committee at the outset.

The positive and negative responses from each group (KMC and AIMST) and intergroup responses were compared. This data was analyzed by Student’s ‘t’ test, comparing positive and negative reinforcement responses.

RESULTS

Comparing the positive and negative responses (overall), we found that the responses were towards the agreement (That is: in a scale of 1–4 leaning towards right side). In this study, the responses of the students showed that negative effects were rated significantly higher than positive effects (KMC Negative vs KMC Positive = 2.80±0.58 vs 2.31±0.68 t=7.526; P<0.01 (Table I).
Similar was also the case with that in AIMST group (Table I). The female respondents showed higher negative reinforcement responses. Comparing the responses of females with that of males showed that males had shown higher rating of positive effects than females, which showed significant difference and females felt stronger about the negative effects (P<0.01).

The results form the Malaysian College and Indian College followed remarkably similar pattern in negative effects but for the positive reinforcements the Malaysian students gave lesser value (P<0.01).

The expectancy was analyzed on the basis of economic criteria among low, middle and high income groups, (Annual income AIMST Malaysia <RM10,000 n=120, income RM 10000-50,000 n=31, Income >RM 50,000 n=19, KMC, Mangalore, India: Annual income <Rs. 1,00,000, n = 39, income Rs. 1,00,00 – 5,00,000, n=110, income <Rs. 5,00,000. n=36), we found that in each income group the Malaysian students responded with less agreement with the positive reinforcement responses (P<0.01) compared their counterparts of Indian counterparts. The disagreement was highest in the higher income groups. On the negative reinforcement, except at the middle income group (among the groups) Malaysian group showed less agreement when compared to the Indian group. Responses of students from other groups were comparable to each other (Table II). However, there was difference in sample sizes, the lower income group was more in number and the number was lesser in high income group in Malaysian College, whereas middle income group was more in KMC, Mangalore.

### TABLE I: Positive and negative reinforcement responses from KMC (India) & AIMST (Malaysia). (KMC., Mangalore. n=185; Males = 100, Females 85) (AIMST Sungai Petani, Malaysia. n=170; males = 59 females 111).

<table>
<thead>
<tr>
<th></th>
<th>KMC +</th>
<th>KMC –</th>
<th>AIMST +</th>
<th>AIMST –</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>2.33±0.32</td>
<td>2.78±0.27**</td>
<td>2.29±0.41</td>
<td>2.82±0.31**</td>
</tr>
<tr>
<td>Males</td>
<td>2.54±0.51</td>
<td>2.68±0.28</td>
<td>2.55±0.36</td>
<td>2.80±0.34</td>
</tr>
<tr>
<td>Females</td>
<td>2.27±0.41**</td>
<td>2.72±0.63</td>
<td>1.98±0.21**</td>
<td>2.85±0.28**</td>
</tr>
</tbody>
</table>

Response scores data presented Mean±SD. **=P<0.01 Positive reinforcement (KMC+) vs Negative (KMC–). Conclusion: Malaysian students showed higher agreements with the positive reinforcement compared to the Indian students.

### TABLE II: Economic criteria – annual family income.

<table>
<thead>
<tr>
<th></th>
<th>KMC, Mangalore: Income &lt;Rs 1,00,000 n=39, Income Rs 1,00,00 – 5,00,000, n=110, Income &lt;Rs 5,00,000. n=36.</th>
<th>AIMST, Malaysia: &lt;RM10,000, n=120, income RM 10000-50,000 n=31, Income &gt;RM 50,000 n=19.</th>
<th>KMC +</th>
<th>KMC –</th>
<th>AIMST +</th>
<th>AIMST –</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;50K</td>
<td>2.08±0.32 2.57±0.41 2.08±0.23 2.80±0.32** (=&lt;1 lakh)</td>
<td>2.11±0.31 2.61±0.33** 1.96±0.23 2.17±0.23** (1-5 lakh)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>50-100K</td>
<td>2.11±0.31 2.61±0.33** 1.96±0.23 2.17±0.23** (1-5 lakh)</td>
<td>2.33±0.41 2.45±0.4 1.71±0.28 2.32±0.29** (&gt;5 lakh)</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

Response scores data presented Mean±SD. In each economic group, positive reinforcement vs Negative reinforcement were compared with respective responses from two institutes by Students ‘t’ test. **=P<0.01.

Interesting finding in our study was from those having tasted or taken alcohol previously. Here, those who have taken alcohol agreed that alcohol had a positive enhancing effect (KMC response: 2.62±0.70 vs 2.20±0.64, P<0.01; AIMST response: 2.50±0.703±0.43. P<0.01). And among the two sample groups, (KMC positive vs AIMST positive; negative responses of KMC vs similar data from AIMST), the results were not significantly different between positive and negative responses.
DISCUSSION

Systematic study on the problem of alcoholism among the population of students in Asia is very rare. Available data in this aspect throws light on the expectancies among European and American students. In the present study, we attempted to analyze the outcome of responses to CEOA (21) involving medical students from two Asian Nations, viz. India and Malaysia. Even though, there are about 8-9% Indians among the population of Malaysia, they are living in that Nation for 3 generations. Hence, the ethnicity might not matter as far as the general outlook regarding the behavioural/habitual outcomes. India on the other hand, is an ancient Nation, where the civilization has its roots for more than 3000 years, the traditions and beliefs are conventionally orthodox, which may have profound influence on behavioural responses including alcoholism.

Twentyfirst Century civilization has jolted the Asian countries. Consumerism and modern lifestyle has fast become acceptable. Among these, the acceptance of drinking alcohol as a social custom has gained ground, among the youth, who are exposed to alcoholic beverages. The initial exposure could be on special occasions, but then the frequency and quantity of consumption will decide on the social impact of this attitude.

In the present study, we found that the positive and negative reinforcement responses of the two groups of respondents to be very similar. However, negative responses outweighed positive responses (P<0.01) in both cases. Thus, it shows that the students believe that alcohol could cause more damage than benefit (Table I). On comparison, the positive responses of males with that of females, females were less agreeable that alcohol drinking could be beneficial (P<0.01; Table I). This could be because females are less inclined to accept alcohol. Interestingly, there is no significant difference between response patterns of these two groups.

In the income subgroups, there was no significant variations in <Rs. 5 lakhs groups. In the higher income group among KMC, India, showed that there were equal number of acceptors as compared to those who felt negatively about alcohol (Table II). Does this indicate that more affluent students are more prone to ignore the warnings of ill effects of alcohol ?

Similar to our published article on the Indian Medical students, the Malaysian counterparts too showed a highly significant correlation with the previous experience of alcohol intake (Table III). There were no differences between the responses of KMC, India and AIMST, Malaysia. This stresses once again that irrespective of socio-geographical differences, the prior experience of alcohol intake is bound to have an influence on the alcohol acceptance in the formative years of an individual. These findings are of immense value to health

<table>
<thead>
<tr>
<th>Previous experience</th>
<th>KMC, India</th>
<th>AIMST, Malaysia</th>
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<tbody>
<tr>
<td>Taken</td>
<td>Not taken</td>
<td>Taken</td>
</tr>
<tr>
<td>Positive</td>
<td>2.62±0.42</td>
<td>2.20±0.50</td>
</tr>
<tr>
<td>Negative</td>
<td>2.51±0.51</td>
<td>2.88±0.27**</td>
</tr>
<tr>
<td>Pos vs neg</td>
<td>**P&lt;0.01</td>
<td></td>
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</tbody>
</table>

Response scores data presented Mean±SD. **P<0.01 not taken alcohol vs taken (in both institutes) and positive vs negative.
professional, health educationists and counselors alike, who deal with the people suffering from 'problem drinking'.

ACKNOWLEDGEMENTS
We acknowledge the kind cooperation by the student communities of KMC, Mangalore, India and AIMST, Kedah, Malaysia. We also thank the two managements for giving permission to conduct this study in the respective institutes.

REFERENCES