

Case Study

Management of Problem Drinking and Improvement of Wellness of Adolescent with Behaviour Techniques - Case Study

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ABSTRACT

The purpose of the study was to investigate the effectiveness of Behaviour Techniques in the management of problem drinking of an adolescent and improvement in overall wellness. We used the questionnaire Michigan Alcoholism Screening Test(1971), Hamilton Anxiety Rating Scale(Hamilton, 1959)in order to determine the level of anxiety, Beck Depression Inventory(Beck, 1961), and Rosenberg Self Esteem Scale (Rosenberg, 1965) in order to determine the level of Global Self-Worth indicating both positive and negative feelings about the Self. This is a case study of an adolescent of marine engineering college, Cochin College. The drinking problem of the subject was assessed by Michigan Alcoholism Screening Test and pre intervention assessment of anxiety, Global Self-Worth indicating both positive and negative feelings about the Self by using Hamilton Anxiety Rating Scale, Beck Depression Inventory, and Rosenberg Self Esteem Scale respectively. The student was administered the Behaviour Technology Module and was reassessed after the period of eight weeks. The results of the study is statistically significant and indicates that the subject experienced reduction in problem drinking; significant improvement in overall wellness by decreasing in the level of anxiety and Global Self-Worth and had shown significant increase in Self-Esteem.

Keywords: *Problem Drinking, Behaviour Techniques, Wellness, Self-Esteem*

Alcoholism has been defined a primary, condition with genetic, psychosocial, and environmental factors prompting its development and manifestations, which is often progressive, fatal and characterized by continuous or periodic impaired control over problem drinking alcohol behaviour. Alcohol consumption can also lead to a sense of power and increased self-worth. Some social settings commonly lead to excessive drinking of alcohol. Colleges and Universities in developed countries have recently tried to educate the students about the health risks of drinking large quantities of alcohol.

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World Health Organisation has played a vital role in formulating public health definitions of alcoholism, addiction, and dependence all the way through a series of and the beginning definitions stressed the sociological rather than the physical aspects of dependence and defined alcoholism as: Those excessive drinkers whose dependence upon alcohol has attained such a degree that it shows a noticeable mental disturbance or an interference with their bodily and mental health, their inter-personal relations, and their smooth social and economic functioning; or who show the prodromal signs of such developments.

This definition had limited utility for biological research and psychiatric classification therefore the 1955 Committee of Experts on Alcohol and Alcoholism highlighted the importance of physical criteria describing alcoholism as: A chronic disease characterised by a fundamental disturbance of the nervous system which is manifested on a behavioural level by a state of physical dependence. The chief forms of this dependence are either incapability to stop drinking before drunkenness is attained, or incapability to withhold from drinking because of the manifestation of withdrawal symptoms.

The word Alcoholism was first used by Magnus Huss. The word alcohol has been derived from the Arabic word Alkuhl meaning "essence". Alcohol problems not everyone experiencing an alcohol delinquent or alcohol-correlated disability will be anguish from alcohol dependence. Both dependent and non-dependent drinkers, particularly binge drinkers are at risk of problems interrelated to heavy alcohol consumption. Indeed, epidemiological indication provisions the view that most alcohol related ill effects and harm in the general population occurs in heavy non-dependent drinkers. Alcohol problems are enormously diverse. They have been defined as those problems that may arise in individuals around their use of beverage alcohol, and that may require a suitable treatment response for their optimum level of management to accelerate the recovery from the ill effect of problem drinking alcohol.

An individual who intakes the alcohol in binges will experience diverse problems compared with someone who drinks the same amount of alcohol spread out over the period of a week or a month or a year. The way in which a person performs while intoxicated is another significant factor influential the nature of alcohol-associated problems. Dire social consequences of drinking such as job loss, marital and family break-up, and drink-driving have profound effects on the wellbeing of the drinkers, their family, and society. The common causes of death among people with the alcohol related disorders are suicide, cancer, heart disease and hepatic disease. Alcohol abuse reduces life expectancy by about 10 years; alcohol leads all other substance in substance-related deaths. Alcohol related disorders appear among people of all socio-economic classes. Moreover, these disorders are predominantly common in people with forward-thinking academic degrees and of upper socio-economic standing. About 30 to 40 percent of people with an alcohol related disorder meet the diagnostic criteria for major depressive disorder sometime during their lifetimes. Many people use alcohol for its efficacy in alleviating anxiety. Alcohol may be used in an attempt

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to self-medicate symptoms of agoraphobia or social phobia, but an alcohol related disorder is likely to precede the development of panic disorder or generalized anxiety disorder. Factors that have been connected with suicide among people with alcohol related disorders include the incidence of a major depressive episode, weak psycho-social support systems, a serious coexisting medical condition, unemployment and living alone. A heritable biological brain function may predispose a person to an alcohol related disorder.

Behaviour Technology has the empirically demonstrated Behaviour Change Techniques to increase the frequency of desirable Behaviours or to decrease the Undesirable Behaviours through varying forms of Reinforcement Schedules. The foundation for Behaviour Technology was laid at the beginning of the 20th century in the experimental laboratory of Russian physiologist Ivan P Pavlov which led to conceptualization of classical conditioning. Behaviour Technology is based on the learning theories and its basic principle is that, when we consistently respond to a stimulus in a particular manner, neural network forms and it becomes a habit. Phobia is a Maladaptive Habit, which is formed due to Faulty-Learning and can be Un-Learned and Adaptive Habits can be Re-Learnt through proper training Procedures. Similarly, Problem drinking alcohol is treated with a Behaviour Technology Module to develop Alternative-Responses to the Stimulus that is problem drinking alcohol. Development of Alternative-Responses results in the development of Reciprocal Inhibition, and significant susceptibility and where an Incompatible-Response is elicited at the presentation of the alcohol -Stimulus.

The efficacy of the Behaviour Technology Modules had been established in the management of problem drinking alcohol like hypersensitisation (Ganesan, 1985). Hence Behaviour Technology Modules has applied for the Management of problem drinking alcohol in this case study.

METHOD

This is a case study of an adolescent of marine engineering college, Cochin College. The questionnaire *Michigan Alcoholism Screening Test* (1971) for screening of problem drinking, *Hamilton Anxiety Rating Scale* (Hamilton, 1959) in order to determine the level of anxiety, *Beck Depression Inventory* (Beck, 1961), and *Rosenberg Self Esteem Scale* (Rosenberg, 1965) in order to determine the level of Global Self-Worth indicating both positive and negative feelings about the Self before and after intervention.. The recorded data was compared for gain score. The group was treated with Behaviour Modification techniques and the interventions are as follows: -

Interventions: The following interventions were given for the period of Eight weeks:

- i) Hypersensitisation (Ganesan, 1985)
- ii) Progressive Muscle Relaxation (Jacobson, 1938)
- iii) Assertiveness Training and Communication Training
- iv) Guided Imagery

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Subject used to create reciprocal inhibition and peculiar excessive susceptibility in the problem drinking alcohol and thus they had learned the new behaviour to form adaptive and being able to relax with the stimulus, and developed the habit towards reducing the problem drinking of alcohol that leads to alleviated in context of overall well being towards life.

RESULTS

Table 1

Michigan Alcoholic Screening Test, Beck Depression Inventory, Hamilton Anxiety Scale, and Self Esteem scale scores before and after intervention

Nomenclature	Pre intervention	Post intervention	Mean Difference	Reduction/ Gain percentage
MAST	6	2	4	(66.66%)
BDI	18	9	9	(50.00%)
HAS	22	14	8	(36.36%)
SE	14	22	8	(36.36%)

Note: MAST: Michigan Alcoholic Screening Test, BDI: Beck Depression Inventory, HAS: Hamilton Anxiety Scale, and SE: Self Esteem.

Illustration of table 1, subjects were assessed on Michigan Alcoholic Screening Test, before intervention score is 6 and the after intervention score is 2 with difference of gain score is 4, the gain percentage is 66.66%. Beck Depression Inventory scores before intervention score is 18 and after intervention score is 9 with difference of gain score 9, the gain percentage is 50.00%. Before intervention score on Hamilton Anxiety Scale is 22 and after intervention score is 14 with difference of gain score is 8, the gain percentage us 36.36%. Before intervention score of Self Esteem scale is 14 and after intervention score is 22 with gain difference score 8, the gain percentage is 36.36%.

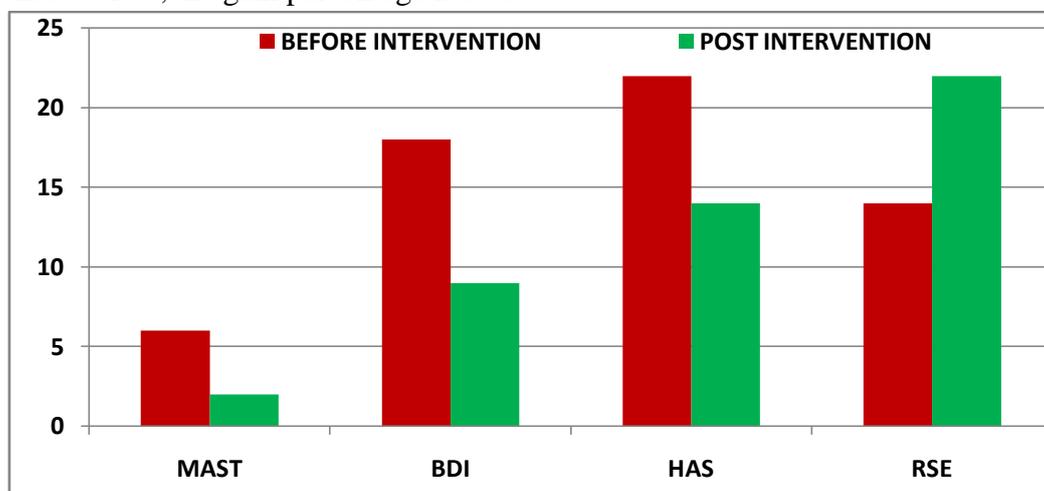


Figure 1 Comparison of Michigan Alcoholic Screening Test, Beck Depression Inventory, Hamilton Anxiety Scale, and Self Esteem scale scores before and after intervention

SUMMARY AND DISCUSSION

The purpose of the study was to investigate the effectiveness of Behaviour Techniques in the management of problem drinking of an adolescent and improvement in overall wellness. For the objective of assessment, psychometric scale, namely, Michigan Alcoholism Screening Test (1971), Hamilton Anxiety Rating Scale (Hamilton, 1959), Beck Depression Inventory (Beck, 1961), and Rosenberg Self Esteem Scale (Rosenberg, 1965) were used. Interventions based on Behaviour Technology were used to treat the adolescents. Initially subject was assessed before giving interventions. The score is 60 of Michigan Alcoholism Screening Test, 18 of Hamilton Anxiety Rating Scale, 22 of Beck Depression Inventory and 14 of Rosenberg Self Esteem Scale.

The subject was given intervention for the period of eight weeks with Behaviour Technology techniques, like i) Hypersensitisation, (Ganesan, 1985), ii) Progressive Muscle Relaxation (Jacobson, 1938), iii) Assertiveness Training and Communication Training, and IV) Guided Imagery. These exercises, through principle of reciprocal inhibition and peculiar excessive susceptibility developed alternate emotional responses towards problem drinking alcohol. Problem drinking found to be incompatible with it, subject responded well to these interventions and after eight weeks and the subject was reassessed on Michigan Alcoholism Screening Test (1971), Hamilton Anxiety Rating Scale (Hamilton, 1959), Beck Depression Inventory (Beck, 1961), and Rosenberg Self Esteem Scale (Rosenberg, 1965).

Results showed that scores were reduced significantly, the score is 2 of Michigan Alcoholism Screening Test, 9 of Hamilton Anxiety Rating Scale, 14 Beck Depression Inventory and significant alleviated on Rosenberg Self Esteem Scale score is 22 The gain percentage score of Michigan Alcoholism Screening Test is 66.66%, Anxiety Rating Scale is 50.00%, Beck Depression Inventory is 36.36% and 36.36% on Rosenberg Self Esteem Scale revealed that the significant decrease on the scores of Michigan Alcoholism Screening Test, Hamilton Anxiety Rating Scale, Beck Depression Inventory, and significant improvement on Rosenberg Self Esteem Scale is revealing that the behaviour modification techniques are contributing to reduce the problem drinking alcohol and significantly improve the overall wellbeing.

To conclude, this study has shown that Behaviour Technology is efficient in treating problem drinking alcohol.

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