

Binge Drinking Effects on Teenagers: A Review

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ABSTRACT

Aim: Alcohol is considered as a normal part of adult and teen social life. The use of alcohol by young people is harmful because of the risks associated with acute impairment as well as it is a threat to their long term development and wellbeing. The Purpose of this review is to determine teenage drinking patterns and to determine the influence of alcohol on teenager's physical, mental and social wellbeing, to see the relationship exists between the accessibility of alcohol and binge drinking among teenagers and to assess if binge drinking and teenage pregnancy coexists in the UK.

Methods: Relevant studies were included in the study so that it can be aligned to the topic which is Binge Drinking. These articles were chosen from January 2000 to June 2010 to understand the current trends. Data was searched in databases such as British Medical Journal, British Medical Association, PubMed, Science Direct and other research article databases. The method chosen was the systematic review quantitative analysis.

Results: From this study, it was found that binge drinking has deleterious consequences on teenagers. There is also evidence that teenagers have not only easy access but also to cheap alcohol which gives more opportunity to binge.

Conclusion: From this public health viewpoint reinforcing the alcohol policy and involving parents, adolescents and communities in an integrated program will have a positive impact on young adults.

Key words: Binge drinking, Teenage pregnancy, Alcohol abuse, Teenagers, Anti-social behavior, Mental health

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INTRODUCTION

As the modern cultural traditions, alcohol consumption has become a way to socialize or a way for relaxation from work or personal stress. Mostly, nowadays, people consume alcohol for enjoyment or to have a good time

with their family and friends. The World Health Organization determines that more than 2 billion people consume alcohol and alcoholic beverages and within that 76.3 million people has been diagnosed with alcohol related disorders. Further, this report also provided data such as alcohol causes the death of 1.8 million people and 58.3 million disability adjusted life years [1]. According to Robinson, et al. there is an alcohol consumption limit as per which men should not drink more 2 drinks per day and a non-pregnant woman should not consume more than 1 drink

per day [2]. On the other hand, as per the data of Royal College of Medical, the safe limit for men is 21 units per week and 14 units per week for women. As per WHO, Europe is the continent that acquires most of the alcohol consumers and within that in the UK, more than 80% people are social drinkers, whereas 10% do not drink [3]. However, more than 15% of people are alcohol abusers as they drink beyond their sensible levels and are divided into three sections such as hazardous drinkers, harmful drinking and binge drinking. In this section, the drinking pattern in teenagers will be identified, and the effect of binge drinking on their mental physical and social health will be identified. Further, the easy availability of alcohol will be established as the reason for binge drinking in teenagers. Further, the coexistence of binge drinking and teenage pregnancy will also be discussed in the context of alcoholic abuse.

LITERATURE REVIEW

Binge drinking is a pattern of alcohol drinking that raises a person's blood alcohol concentration to at least 0.08%, which amounts to consuming five alcoholic drinks for men and four alcoholic drinks for women in about 2 hours. According to the Institute of Alcohol Studies, while consuming more than prescribed limit consumer increases the risk of health complications. There are numerous researchers who defined it differently as per their research findings. Where Murgraff et al. define it as the risky drinking pattern but occasionally [4], Wright, et al. define it as consumption of more than 8 unit of alcohol in a row in a short session that affects their social, mental and physical ability [5]. Davey, et al. incorporates in his research that this drinking pattern is intentional and people intentionally drink to get drunk [6]. Further, the research intended to understand the effect of alcoholic overuse on teen's health was determined. Hibell, et al. determined that the UK is leading the consequences of binge drinking, as 54% of teenagers of 15 or 16 years of age are associated with binge drinking compared to 43% of the rest of Europe [7]. Further, this research also established the fact that the age of 14 was most sensitive for the binge drinking as most of the teens at this age, used to consume 6 to 9 units per week, and this rate was not gendered as it consisted both boys and girls. The rate of binge

drinking is highest in the North West region of England and the rate increased since 2002 and is found to be associated with other addictive behavioral issues such as chain smoking in the Youngers and teenagers of UK (Atkinson, et al.) as well as also increased the rate of crimes and anti-social instincts as per the research of Roberts, et al. [8,9]. Further binge drinking also increases the number of school dropouts and increased the chances of teenage pregnancy or risky sexual behavior [10,11].

Further, to understand the increasing risk of alcohol abuse in children, researchers conducted a survey amongst teenagers and young individual irrespective of their gender to understand the reason for binge or hazardous drinking amongst them. It was found that there are different level and type of influence that moves such teenagers towards the addiction of binge drinking, and as per Deas, et al. these influences are familial or parental support, Personal curiosity, peer pressure, academic failure or personal stress, and laws and norms of the government that provides a window for these teenagers to take support of alcohol to fight their insecurities [12]. Firstly, research related to familial support will be discussed as the prime aim of the research conducted by Manning, et al. was to understand the level of harm teenagers feel while living with abusive parents [13]. They conducted a survey among teenagers whose parents are alcoholic abusers and found that more than 81% of teenagers have become current drinkers and within that more than 17% had tried binge drinking in their life time. Further, Deas, et al., conducted a research to understand the effect of the presence of alcoholic abusers in the family and it was found that presence of alcoholic parents or grandparents within the family increases the risk of alcoholism in children [12]. Secondly, the availability of alcohol is one of the important factors that influence teenagers to drink beyond their limit, and for that, the governmental policies are primarily responsible. Researchers conducted surveys to understand the effect of availability of alcohol to affect drinking pattern of teenagers, and it was found that there is a straight linkage of availability of alcohol, teenage and students drinking patterns. Further, one group of researchers also tried to understand the increase and decrease of alcohol prices and the effect of it on drinking pattern of

teenagers and they found that, due to price hike in alcohol and alcoholic beverages, the alcohol consumption in teenagers decreased to a great extent and similarly decreasing price increases the number of binge drinkers when other factors are constant, and just the price of alcohol is increasing [14-16]. Further, it also observed that a decrease in the price of alcohol helps to turn the less frequent drinkers into heavy drinkers and also increases the consequences of alcohol consumption such as a higher number of road accidents. The report of Cook, et al. showed that increasing the price of alcohol has seen to decrease several anti-social actions, street accidents and school dropout in UK and hence, the influence of governmental policies affects the teenagers by increasing their risk related to binge drinking [16]. Peer group is another important source of influence due to which maximum teenagers start drinking beyond their limit of indulging in binge drinking patterns. To understand the effect of peers of teenagers' mentality data from the discussion of Engels, et al. was determined as he mentioned that teenagers listen to their peer's suggestion because at that age they wanted to seek autonomy from their parents and in that course they implement each suggestion in their life given by their closest peers [17]. Reports from the research of Baer, et al. suggests that extensive use of alcohol is due to the excessive use of alcohol while socializing with their friends [18]. Further reports also indicated to the point that while discussing their problems with their peer's teenagers use alcohol to communicate [19]. Hastings, et al. also reported that in the growing years of teenagers, peers are the primary source of influence and it helps to change their attitude towards, binge drinking, and drinking related issues and drinking behaviour [20]. Hence, in the presence of peers who drink excessively and is popular among his or her peers for able to consume an excessive amount of alcohol, teenagers usually follow that peer and in the process becomes addicted to binge drinking. Therefore, through this literature review, all the possible influences of binge drinking and the pattern of drinking amount teenagers were discussed with the help of several important and productive research articles.

METHODS

As Trafford, et al. mentioned, the methodology

is the process related roles and regulations depending on which the evidences are collected from the populations and in this context the methods and materials used by this research will be presented in this section [21]. Firstly, a search strategy was prepared to understand the previous research was that was conducted to understand the effect of binge drinking among younger generation or teenagers. the terms that were included to find out latest research articles are 'Alcohol intoxication', 'alcohol binge drinking in teenagers', 'impact of alcohol advertising on young people', 'Age of first alcohol use among young people' and so on. These phrases and terms were searched in databases such as British Medical Journal, British Medical Association, PubMed, Science Direct and other research article databases. This was a systematic review and quantitative analysis as the research was completely based on the previous research articles and data and depending on those results the direction or finding of this research was decided. Hence, in this quantitative systematic review total of 318 articles were collected from the search results and different exclusion criteria was used to reject the research articles that were conducted outside the United Kingdom (57 research articles), duplication of studies (23 research articles), and irrelevant articles (98 articles were found irrelevant), not research articles, or review articles. These papers were rejected as the presence of these researches in the pool of study would have hampered the effect of the data collection and the accuracy of the research study would have been hampered, therefore, all those factors were rejected using some exclusion criteria. However, after rejecting these 24 more articles were found that was not related to the research topics and was not even a research article whereas those were newspaper articles, fact sheets, and review articles. Furthermore, 22 articles were rejected due to their time limit. Those 22 research articles were from research conducted in the last decade and hence, lost their relevancy in the modern context. Moreover, in the continuing exclusion criteria 60 studies were rejected because of their irrelevant age group as most of the studies chose age groups of 25 to 30 years and only 14 studies remained in which the objectives age group of the interest of the research and was intended to find out the effect of binge drinking on the

health (mental and physical) of teenagers in the UK. Therefore, with the help of 14 research articles, this systematic review was conducted and in these young adults with 11-19 years of age was selected, and they were divided into two groups of alcohol consumers and alcohol non consumers. These participants were selected from three different settings such as schools, hospitals and community where a number of alcohol consumers are high.

DISCUSSION

The primary aim of this research was to understand the key effects of binge drinking patterns in teenagers of UK and for that purpose, 14 research articles from previously undertaken researchers were collected to summarize them and interpret them in a nutshell. It was an important discussion as according to the report of the chief medical officer of UK, the number of alcohol consumer teenagers was increasing continuously and this enhanced the public concern as reports determined that more than 17 million units were consumed by the teenagers in one week. Therefore, it becomes a serious public concern as addiction to alcohol could lead to several health's, social and mental complication in those teenagers as more than 71% of UK teenagers used to consume alcohol. However, researchers do not believe that this alcohol behavior generated within teenagers in weeks or days as Velleman, et al. determined that it was because of several factors such as presence of alcohol consumer in the family, peers group or nearby relatives that influence teens to consume alcohol, governmental policies and presence of financial influence so that they can consume alcohol without any interruption [22]. According to Department of Health and Human Services and National Institute on Alcohol Abuse and Alcoholism weekly consumption of alcohol should be no more than two drinks daily for men and one drink for non-pregnant women [23]. By the end of 1980s, the Health Education Council and a consensus of the medical Royal College defined a sensible or a low risk level of drinking for men and women. It was considered sensible drinking to consume 21 units of alcohol a week for men and 14 units of alcohol a week for women who were later refined by the government of UK as not more than 4 units a day for men and 3 units for

women [24]. A standard of alcohol in UK is equivalent of 8g of ethanol where as it is 14g in US. These standard units are however adjusted downwards depending on individual's poor health, age and people on medication.

In this section, the research of Smith, et al. should be included that determined the drinking prevalence in people from 11 to 15 years [25]. It was found that more than 52% of teenagers with 15 years of age was consuming alcohol and different governmental policies were among the primary reasons they started consuming alcohol or become binge drinkers. Further, in this process, different researchers carried out several types of research to understand the effect of teenage drinking in different antisocial activities and in this purpose, this section included a paper from the Substance Abuse and Mental Health Services Administration which states that the link between excess drinking and antisocial activities in very strong as it increases the chances of many legal, social mental and physical concerns amongst teenagers who are addicted to heavy alcoholic consumption. These concerns were associated with stealing, drug use, fighting, driving with high alcohol consumption that lead to accidents, as well as increased chance of school dropouts and absence amongst school children, and to some extent they also increased the chances of self-harm or suicidal activities among teenagers who consume alcohol to forget their social and personal stress [26]. However, when few types of research were to understand the effect of this excessive drinking on the society it was found that due to this high alcohol consumption incidents of sexual and physical assaults increased, which the researchers linked to the urban infrastructures as it is the result of less caution parenting and presence of influences like peers and siblings pressure. Petticrew, et al. determined that due to such behavioural issue the teenagers having alcoholic behaviour were responsible for 50% of street crimes in the UK and carried out physical and mental assaults in the influence of alcohol [27]. Based on National Statistics, U.K, violent crime and sexual offences related to alcoholism makes up to 40% of violent offences around England and Wales in 2016/17 (Figure 1). In this research, the primary aim was to understand the drinking habits among teenagers and the effect of their drinking pattern in social and mental wellbeing

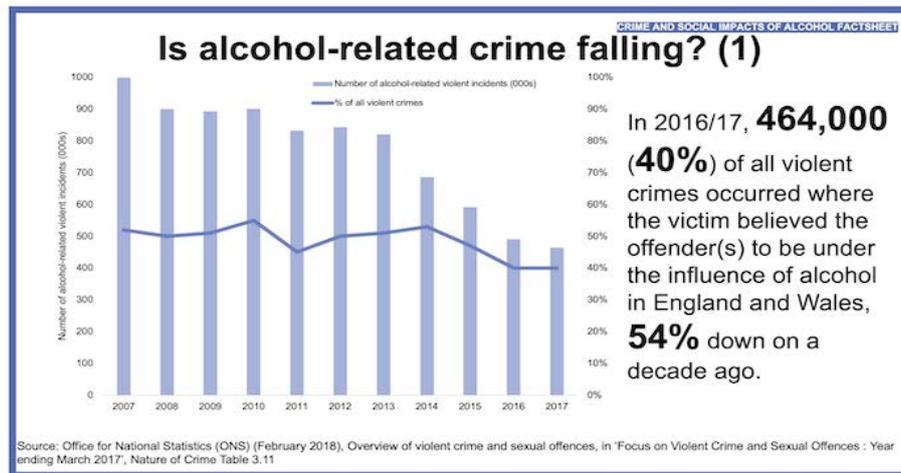


Figure 1: Alcohol related crime.

of those teenagers. For this process, a systemic review was conducted in which, from more than 300 articles 14 similar articles were included in the report. However, while discussion about the strength and limitation, the primary strength of the study was its methodology as with a successful systematic review the section was able to find out appropriate papers and research articles for the review having similar objectives and sample size, however, the limitation was a broader aspect of the research. Due to this broader aspect, the research was not being able to focus on one aspect and further continue the process. This research is limited to specific population and not indicates general population. One of the limitations of the study is to include other various data bases to search articles and to include wider period of articles to elaborate the harmful effect of binge drinking in teenagers. In this regard, attention should be paid to the impact of particularly high levels of alcohol consumption, namely high-intensity drinking. Likewise, follow-up studies should be carried out to shed light on the causes and consequences of binge drinking.

CONCLUSION

Alcohol consumption is a way to socialize and connect to people as per the modern tradition and it is perceived as a normal situation to drink alcohol with parents, sibling's peers or others to connect. However, beyond a limit, the consumption of alcohol can lead to several situations that are considered an anti-social and criminal offense. Alcoholism is associated with one million crimes annually in the United

Kingdom. This can occur due to binge drinking, hazardous drinking and harmful drinking habits. However, besides determining the negative effect, positive effects of alcohol were also determined and it was mentioned that light and a moderate amount of alcohol has been found effective for medicinal purposes, but binge drinking is always harmful for teenagers as they develop instincts of criminal activities due to the influence of alcohol. In this article, all the negative effect and their reasons were described in relation to binge drinking. Further, the strength and weakness of the articles were also discussed.

CONFLICT OF INTEREST

The authors declare no conflict of interest. No funding was received to conduct the study.

CONTRIBUTION OF AUTHORS

The authors declare that this work was done by the authors named in this article and all liabilities pertaining to claims relating to the content of this article will be borne by them.

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