



REVIEW ARTICLE

FACTORS INFLUENCING LEVELS OF ALCOHOL MISUSE IN UK ADOLESCENTS; A SYSTEMATIC LITERATURE REVIEW

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ARTICLE INFO

Article History:

Received 10th July, 2016
Received in revised form
15th August, 2016
Accepted 28th September, 2016
Published online 30th October, 2016

Key words:

Adolescence,
Alcohol Misuse,
Alcohol Consumption,
Peer Group Pressure,
Intoxication.

ABSTRACT

Aim –The aim of the study was to systematically analyse contributory factors influencing levels of alcohol misuse among adolescents in the United Kingdom and subsequently identifying those which were most common, the wider determinants associated with these factors and how best to translate the findings of the study into meaningful information that can potentially be applied in public health interventions and practice.

Methods - A systematic literature review was undertaken to provide a lens of interpretation and analysis for the extant literature on adolescent alcohol misuse in the UK. The review was systematically guided, using a meta-synthesis approach, maintaining robust scientific research approaches which aligned and framed the resultant outcomes (Seuring and Gold, 2012). An initial protocol was developed, incorporating a detailed explanation of all iterative stages of the research, which provided a degree of conceptual rigor.

Findings – In terms of thematic analysis the most salient factors influencing alcohol misuse among adolescent identified were: Direct Environment, Personal Characteristics and Social Context.

Research limitations/implications – This was a study limited to 100 women from a specific region in Nigeria – further research is necessary to ascertain the generalisability of the study to a wider population.

Practical implications –This study has provided an insight into the qualitative literature that examines factors influencing alcohol misuse amongst adolescents in the UK. It can clearly be identified that there is a strong association between family relationships and the potential for development of adolescent alcohol misuse. Family interventions therapy can therefore be advocated as a mechanism of improving communication between parents and their children where the need to discuss alcohol consumption is apparent.

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Citation: Blessing Chidinma Obuna, Dr. Catherine Hayes and Dr. John Fulton, 2016. "Factors influencing levels of alcohol misuse in uk adolescents; a systematic literature review", *International Journal of Current Research*, 8, (10), 39611-39617.

INTRODUCTION

Globally 3.3 million deaths occur annually as the resultant impact of alcohol (WHO, 2014). The World Health Organization has highlighted that developed nations have the highest annual rate of alcohol related deaths. Excessive alcohol consumption remains one of the greatest challenges in UK society, impacting directly on the incidence and prevalence of alcohol related disease and associated deaths. The economic impact of alcohol related illness is estimated to cost UK £21 billion annually in health care, criminal activity and lost productivity (ibid, 2014). Rates of adolescent alcohol consumption are cited as an aetiological factor in blackouts, seizures, hangovers and sustained physical injury, often as a

result of an assault and accidents which lead to the need for hospitalisation (Groß et al, 2016). Alcohol misuse among adolescents has a tangible impact on both their short and long term health prospects. Typical impacts include alcohol toxicity, a psychological predisposition to promiscuity and as a direct consequence of this, unplanned pregnancies and / or the acquisition of sexually transmitted diseases, such as Human Immunodeficiency Virus (HIV) (Robson, 2012). Alcohol misuse amongst adolescents can also result in impaired levels of academic performance at school, interpersonal problems with friends, family members, teachers, physical and a general degree of psychological impairment (Hall et al, 2015).

Published research indicates that 38% of adolescents aged 15 years have consumed alcohol and experienced at least one alcohol-related incident which has had a negative impact on their health and wellbeing (Bobakova, 2012). Historically, it

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has been reported that one third of adolescents who regularly engage in drinking alcohol, perceive that alcohol use has affected their ability to think clearly (Helasoja, 2007). Socioculturally, the majority of adolescents report the regular consumption of alcohol; most reporting that they drink 'occasionally' and around one quarter of adolescents reporting that they 'drink heavily' (Toumbourou et al., 2009).

The rate of alcohol consumption amongst adolescents in the United Kingdom (UK) is reported as being the highest in Europe (Meng et al., 2014). However, the consumption of alcohol amongst university students has been recorded as a global phenomenon that has a great fiscal impact on universities, the communities to which they belong and to students themselves (Meier, 2008). Alcohol misuse among adolescents in the UK is increasing at an exponential rate with seven out of every ten people aged 15 years already having consumed alcohol (Lammers et al., 2015). These individuals tend to binge drink (consume large amount of alcohol in one sitting) and four out of ten of those aged 13-14 who had reported drinking alcohol in the previous week had consumed seven units or more; the same proportion of those aged 15-16 had consumed 14 units or more (Bremner et al., 2011).

Official statistics report that adolescents had the highest alcohol-related ambulance call-outs during 2009/2010 (West Midlands, 1296; London 2,286; North East 945) and in total ambulance services in England and Wales have responded to 16,387 incidents related to adolescent alcohol misuse (Fuller et al., 2012). It is "estimated that 70% of admissions to accident and emergency departments at peak times are alcohol related (NHS, 2009). Alcohol is a significant contributory factor to violent crime 44% victims of violence in England and Wales agree to the fact their attacker to be under the influence of alcohol" (National Collaboration Centre for Health and Public Policy (NCCPPP, 2012).

Rationale for the Study

For the past several decades, adolescence alcohol misuse has become an exponentially increasing public health problem. Examination of both the prevalence and aetiology of adolescent alcohol use, leads to the conclusion that the UK is facing escalating impacts both in terms of health and the economy because of this rise in alcohol consumption. Alcohol misuse contributes to a high rate of mortality and morbidity globally. In the UK, it is estimated that about 121 female and 193 males died due to alcohol related issues in UK in 2012 (Health and Social Care Information Centre, 2012).

Aim of the Study

The aim of the study was to systematically analyse contributory factors influencing levels of alcohol misuse among adolescents in the United Kingdom and subsequently identifying those which were most common, the wider determinants associated with these factors and how best to translate the findings of the study into meaningful information that can potentially be applied in public health interventions and practice. Adolescents were chosen because they constitute a major age group where alcohol misuse rates are high, and where alcohol has potential to cause the greatest degree of physiological intoxication (Bräker et al., 2015).

Given these prevalence rates of alcohol consumption among adolescents, and the potential serious consequences stemming from its misuse, understanding the factors that place them at risk of this behaviour is pivotal to the development of the public health agenda.

BACKGROUND LITERATURE

Alcohol is a psychoactive substance with dependence-producing properties. It has been consumed in societal cultures across the globe for centuries (WHO, 2014). Alcohol consumption signifies an integral part of modern culture in the UK (Gatta et al., 2016). Adolescents in the UK consume the highest rate of alcohol in Europe (Kelly et al., 2006). An exponential rise in deaths related to liver disease can be directly correlated with this increase in alcohol consumption (Thom et al., 2015). Many adolescents participate in "binge drinking", which is defined as drinking high levels of alcohol in a short space of time. It concurrently increases levels of violence, crime and antisocial behaviour in society (Anderson-Carpenter, 2016). More than 18% of adolescents aged 12-13 years and more than 28% aged 14-15 years, have experienced physiological harm as a direct result of the influence of alcohol (Giannotta, 2014). Additionally, one in every ten adolescents aged 15-16 years admitted to being involved in criminal activity as a direct result of their alcohol consumption (Nathan et al., 2016). Alcohol misuse among adolescents also has potentially serious effects on their general physical wellbeing and their predisposition to accidental trauma, sleep disturbance and dental and oral issues, which may potentially lead to impediments such as liver disease (Committee on Substance Abuse (Welty et al., 2016). These aetiological factors are regarded as social norms by adolescents, which is a major issue for concern in the bid to deter young people from alcohol misuse (Hoffman et al., 2016).

Factors Known to Influence Alcohol Misuse amongst Adolescents

Age

Drinking is regularly used as a psychological coping mechanism either to reduce feelings of tension via an altered state of mindfulness or to change mood status (Kenney, Merrill and Barnett, 2016). Several studies have shown that early use of alcohol is a greater predictor of the development of problematic use of alcohol and alcohol dependence later in life (Edwards et al., 2016). 40% of those who reported starting alcohol consumption at the age of 15 years reported the development of alcohol dependence at a later stage of their lives. This is effectively four times the prevalence rate of those who reported starting to consume alcohol at the age of 21 years (National Institute for Health Care Excellence, 2009). Published research demonstrates that the trend of drinking alcohol to the point of intoxication has progressively increased amongst adolescents in the UK over the last five years (Sartor, et al., 2016).

Gender

Gender is one of the major issues influencing alcohol use among adolescents due to both tradition and belief (Hughes, Wilsnack and Kantor, 2016). It has been hypothesised that the

increased incidence of male alcohol misuse compared to female alcohol misuse relates to a perceived need to 'prove' masculinity; conversely, females are more likely to advocate the traditional and stereotypical female characteristics of virtue and sensitivity, with moderation of their alcohol intake (Jacobs *et al.*, 2016).

Family

Family structure has a significant impact in the likelihood of the development of alcoholic misuse tendencies; single parent households having statistically higher rates of alcohol misuse than those with two parent households (Susukida, Wilcox and Mendelson, 2016). Adolescents from single-parents families are also statistically more likely to make decisions without first having discussed potential impacts of that decision making with a parent; as a consequence they are more prone to make erroneous judgements (Ennett *et al.*, 2016). In general, adolescents living in single-parent households have higher rates of alcohol consumption compared to those who live in two-parent households (Bountress, Chassin and Lemery-Chalfant, 2016). Capaldi *et al.* (2016) noted that adolescents living with both biological parents engage less in heavy alcohol misuse than those adolescents living in any other context.

Peer Group Influence

Peer influence is acknowledged to play a significant role among adolescent alcohol consumption (Sudhinaraset, Wigglesworth and Takeuchi, 2016). Peer usage and peer influence is part of the social norm and emphasis is placed in the literature on the intense relationship between early first consumption of alcohol and the development of heavy alcohol consumption in later years (MacArthur *et al.*, 2016). It remains the most re-occurring influence on alcohol consumption (Rose *et al.*, 2010). Peer influence can take place through two processes: a direct process, whereby individuals are induced to participate through overt peer pressure, such as direct encouragement to consume alcohol. This is an indirect process, whereby individuals' transformation in connection of others or perceived normative communication (Neighbors *et al.*, 2013). Studies have indicated that indirect influences can have higher impact on the uptake of alcohol consumption amongst adolescents than that of direct pressure (Simons-Morton *et al.*, 2011).

Media Influences

Research has shown that exposure to portrayal of alcohol use in the media positively influences the uptake and level of alcohol consumption in adolescence (Austin and Pinkleton, 2016). Alcohol advertising is one of the many factors that have the potential to inspire adolescent drinking habits. Advertisements openly advocate alcohol consumption amongst adolescents, despite the potential implications to their long term health prospects if social drinking moves to alcohol misuse (Hoffman *et al.*, 2016).

METHODOLOGY

A systematic literature review was undertaken to provide a lens of interpretation and analysis for the extant literature on adolescent alcohol misuse in the UK.

The review was systematically guided, using a meta-synthesis approach, maintaining robust scientific research approaches which aligned and framed the resultant outcomes (Seuring and Gold, 2012). An initial protocol was developed, incorporating a detailed explanation of all iterative stages of the research, which provided a degree of conceptual rigor. This framework was pivotal in allowing an objective evaluation of the literature so that the resultant outcome of the study was not subject to the influence of researchers whose experience of substance misuse could skew interpretation (Major and Savin-Baden, 2010). Following such a systematic protocol ensured that benchmarking of all of the literature could take place against the same evaluative criteria and that the validity and quality of the study could be assured. The meta-synthesis approach adopted, represents a reductionist philosophical approach to the concept of scientific generalisability which are relatively unfamiliar to the traditional philosophy of the interpretive paradigm (Engel and Schutt, 2012). As such, a meta-synthesis is the researcher's interpretation of the interpretation of primary qualitative data by original authors of the constituent studies. Meta-synthesis is dissimilar to meta-analysis in that meta-analysis involves a refinement of information under scrutiny down into a single unit. As an alternative to this, meta-synthesis involves association, understanding and breaking down of the former result from the primary literatures to provide a greater immediacy of meaning (Macnee *et al.*, 2008).

Method of Initial Literature Search

The exploration of literature through search engines was carried out via key words used to classify factors influencing adolescence alcohol misuse. Search engines used were as follows: CINAHL, Discover, Google Scholar, PubMed and Medline. The keywords for the search were 'adolescence', 'alcohol misuse factors' and 'youth substance misuse'.

Reviewing Process

Stage 1: Title and Abstract Review

Sixty-four articles were retrieved via the prescribed criteria adopted in the study. It was decided that qualitative research papers would provide the greatest level of insight into the factors influencing alcohol misuse.

Stage 2: Full Text Review

After the first stage was carried out, forty studies were selected for full text review. Thirty of these studies centered on various factors influencing adolescence alcohol misuse via the implementation of a quantitative methodological approach. Since the purpose of this study was to examine qualitative based literature, all quantitative data and studies were rejected as being inappropriate for inclusion. Having disqualified the quantitative studies, twelve studies were identified to meet the inclusion criteria on the basis of a qualitative or mixed-methods approach. Only the qualitative data from mixed method studies were incorporated into the synthesis of findings.

Stage 3: Quality Appraisal

The first stage of the critical appraisal of a review is to institute its methodological quality in order to establish the value and

credibility of its outcome. All studies incorporated into the systematic review were evaluated using Critical Appraisal Skills Programme appraisal tool (CASP). The CASP instrument offers primary screening questions regarding the goals of the study and the appropriateness of the qualitative methodology. Aside the screening, eight questions were used to consider the research design, sampling approach, data collection and analysis strategies, ethical issues, the credibility of the study findings and the overall value of the research (Voss and Rehfuess, 2013).

RESULTS AND DISCUSSION

Identifiable Factors Influencing Levels of Alcohol Misuse in UK Adolescents

In terms of thematic analysis the most salient factors influencing alcohol misuse among adolescent identified were: Direct Environment, Personal Characteristics and Social Context (see Figure 1 overleaf).

of adolescent alcohol consumption (McCambridge, 2011). With respect to the consumption of alcohol, parental supervision and contribution are indicated as essential parenting interventions with adolescents. This also incorporates parental knowledge of the peer groups to which their children belong.

Parental supervision consists of parental or guardian supervision and awareness about the activities of their children and friends. Parental supervision in addition involves establishing clear expectations and having impartial and undeviating consequences (Beets et al., 2010). Associated with parental supervision is parental participation, which includes parents having a keen interest and contribution in their child's actions and improvement. Parents can put a stop to or reduce adolescent alcohol use in part by laying down embargos, being aware of and partaking in after-school and weekend activities, assisting them to build up social skills, and reducing their adolescents' association with peers who engage in dangerous activities (Perez, 2011).

Direct Environment Personal Characteristics

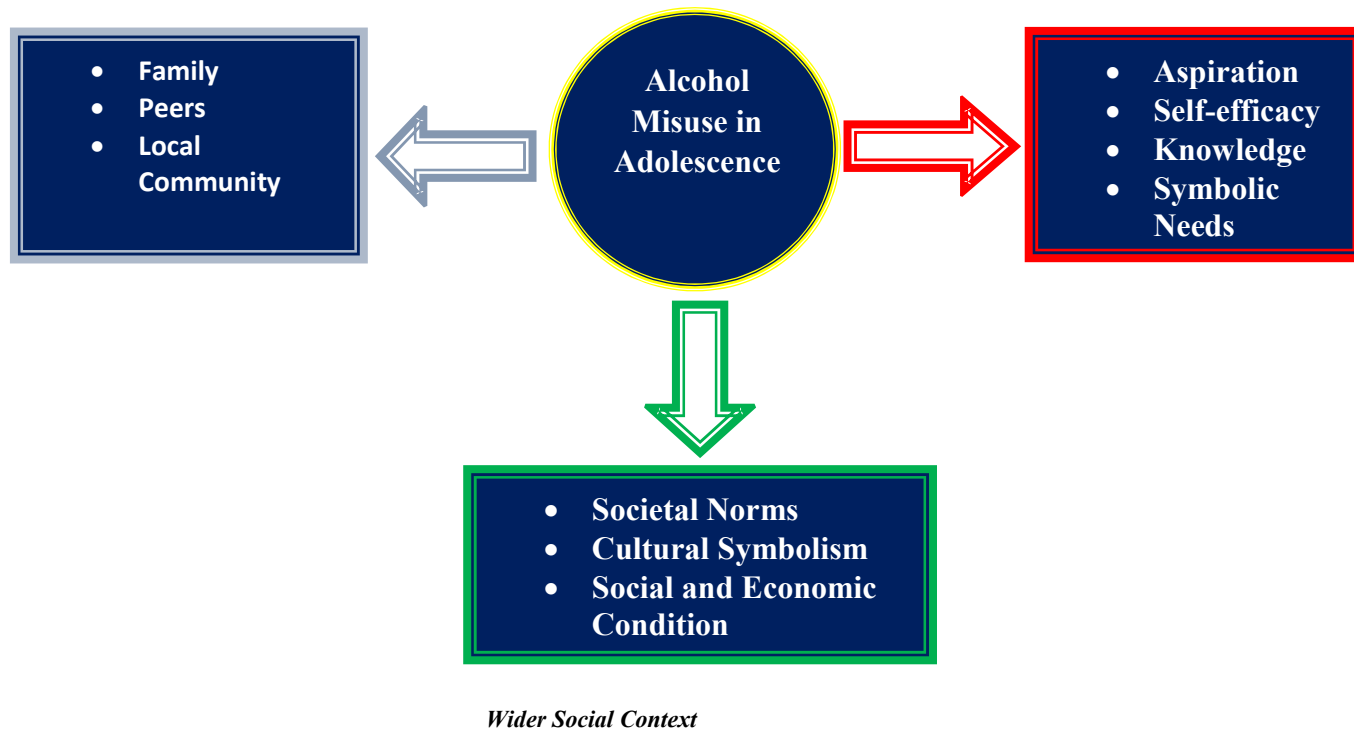


Figure 1: Factors Influencing Alcohol misuse

Family

Regardless of other factors influencing the lives of adolescent developmental course, family structure has the single most important influence on adolescent development and behaviour. This study was consistent with the extant literature on the relationship between parents and child-rearing orientation and teenager outcomes in relation to their potential development for substance misuse. This risk has resulted in wealth of publishing focused on the correlation between effective parenting and alcohol misuse as evidenced by this literature (Susukida, Wilcox and Mendelson, 2016). Numerous previous studies have provided evidence of general lack of parental awareness

In common with the influence of family influences, peer pressure is also documented as playing a significant role in the context of adolescent alcohol consumption behaviour in the extant literature (Neighbors et al., 2013). Most respondents perceived that they drink because of their relationships with friends (Mäkelä and Maunu, 2016). Peer use of alcohol is consistently been found to be strongly associated with intentionality and resultant negative behaviour traits. The desire to associate with specific peers can often override attitudes towards alcohol consumption with the desirability of group and more powerful motivation. Again, as already evidenced by the literature it appears that peer pressure relates both to feelings

associated with the need to conform to peer norms and instances of intimidation experienced by some adolescents. Both the needs for peer group approval and the desire to avoid being seen to decline alcohol have been found to be significant motivators for alcohol initiation and subsequent use.

Personal Characteristics

Several personal characteristics contribute to the likelihood of alcohol misuse. These include levels of self-esteem, individual personality traits, and personal aspirations (Livingstone, Christianson and Cochran, 2016). This finding is consistent with previous studies which reveal that alcohol initiation usually occurs in early adolescence with a proportionate increase in consumption throughout later adolescent and early adulthood years. It is obvious that UK adolescents between the ages of 14-19 are the heaviest drinkers in terms of number of standard drinks consumed per drinking occasion. Those unaccustomed to alcohol, typically have little physical or social experience of alcohol consumption and thus have difficulty anticipating potential alcohol misuse related consequences. Combined with the peer pressure associated with independent thinking and the gaining of peer approval, this results in a greater likelihood of engagement with drinking and the experience of alcohol-related harm (ibid, 2016). Bandura's Social Learning Theory speculated that role models, specifically friends and parents influence adolescents' behaviour (Otto, 2013). As a direct result it can be debated those adolescent beliefs can be either positively or negatively shaped according to their exposure to people in their immediate environment to either use or refuse to misuse alcohol (Black, 2013). Similarly, risk seeking as a trait has been also associated with alcohol consumption and abuse. Griffith *et al.* (2010) revealed that thrill seeking predicts alcohol use and secondly consumption of alcohol is associated with reported levels of self-esteem particularly among adolescents. Individual-level interventions, which seek to change the knowledge, expectancies, attitudes, intentions, motivation of adolescents aid them in improving their relative risk of physiological damage as a result of alcohol misuse. For example, a school based intervention where they can be educated and facilitate the reorientation of personal values and beliefs.

Wider Social Context

The broader social context of alcohol consumption provides a framework of what is expected of young people as they grow into adulthood. The wider UK population clearly endorses and encourages consumption of alcohol. In some groups heavy drinking is strongly reinforced as a culture. Alcohol is seen as part of social fabric of the society and western society in general. Several factors have been found to have a significant influence on alcohol consumption patterns. These include price, the availability of alcohol and serving practices. Consistent with this study, alcohol consumption has been found to be price sensitive (Sharma, Etilé and Sinha, 2016). Blas (2009) found that heavy drinkers often reported price as a reason for not drinking as much as they would like. This suggests that price change remains an important mechanism by which alcohol consumption can be influenced.

Conclusion

This study has provided an insight into the qualitative literature that examines factors influencing alcohol misuse amongst

adolescents in the UK. It can clearly be identified that there is a strong association between family relationships and the potential for development of adolescent alcohol misuse. Family interventions therapy can therefore be advocated as a mechanism of improving communication between parents and their children where the need to discuss alcohol consumption is apparent. School based Interventions targeting adolescents are also recommended so that peer pressure and the social norms around alcohol misuse can be effectively challenged. The study highlights the influence of peer pressure in relation to alcohol misuse and integration of the subject into the school curriculum may be one active means of reducing alcohol uptake by adolescents most predisposed to develop problems at a later stage.

Undoubtedly there is an established need for holistic approaches in the prevention of adolescent alcohol consumption in the UK. From the results of this systematic review it is also apparent that there is a need for multi-faceted approaches to addressing the issue of alcohol misuse.

The notion that active prevention strategies are necessary to address the broad determinant of alcohol consumption rather than focusing narrowly on raising youth awareness or increasing their knowledge about alcohol, is important in this context. Social marketing has been used successfully in combination with regulation, control and education, change behaviour and intrinsic motivational exercises.

Social marketing involves advocating marketing ideology and methods to persuade a target audience to voluntarily acknowledge, refuse, adjust or negate behaviour for the benefit of personality, groups or society as a whole. Based on the finding of this study it will be important for public health policy makers to implement broad strategies to create opportunities that will make obvious that enjoyment can be achieved through alternative activities to alcohol consumption.

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