

The Impact of Substance Abuse in Construction: Examples from Bloemfontein, South Africa

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Abstract

Alcohol and drugs are used in construction, especially by workers. The risk profile of alcohol and drugs on project sites varies, from catastrophic incidents resulting in great injury and or loss of lives to minor incidents. This paper is based on a study conducted to explore the effects of substance abuse among construction site workers in Bloemfontein, South Africa. A qualitative research method was utilized to obtain information concerning the issues, which engender substance abuse by construction workers. The study reveals that many construction workers use drugs and alcohol as a coping mechanism for financial strains. In addition, these challenges also affect the families of the workers and then, create an enabling environment for 'vicious cycle'. The findings highlight the need to eradicate substance abuse in the sector through its associated socio-economic impact on construction workers and the society.

Keywords: accidents, construction, health and safety, substance abuse, South Africa

Introduction

Construction industry is one of the world's major industries and its activities are also vital to the achievement of the socio-economic development goals of providing shelter, infrastructure and employment. In spite of the fact that it is not easy to come up with accurate statistics in an industry in which numerous accidents are not detected and not reported, this are known as fatal accidents, and those involving loss of working time, often exceed those in any other manufacturing industry (Danso, 2010). As such, the construction industry has been classified as one of the most hazardous industries in terms of both fatal and non-fatal injuries. Construction workers are likewise in danger for exposure and other lead inhalation hazards. In addition, when compared to other industries, construction workers may encounter a higher proportion of early retirement due to illness and musculoskeletal disorders, losing over 24000 potential years of working life (Ibrahim, 2012).

Construction is prone to health and safety (H&S) risks due to the environment of the work, construction materials, and methods of construction, plants and equipment used, nature and extent of the construction work operations and physical properties of the construction project itself. Occupational injuries are serious public health issues caused by substance abuse, and substance use and misuse are frequently suspected to contribute to occupational injuries. The construction industry development board (CIDB) (2009) in South

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Africa observe that the construction industry has poor H&S record and South Africa is no exception. Construction H&S has always been the centre of attention of many industry stakeholders and role players in South Africa, and while it is acknowledged that a lot of industry associations and professional societies, contractors and others have made considerable efforts to improve H&S, overall construction H&S is not improving significantly. Irrespective of all the efforts made by the department of labour (DoL) and other relevant stakeholders to improve H&S performance in South Africa, there is still a very high level of accidents and fatalities in South Africa (Geminiani, Smallwood and van Wyk, 2008). These accidents, injuries, and fatalities have occurred because of many failures in the H&S management system. One of the potent causes of these failures is the abuse of substances by construction workers. The objective of the research was to investigate the underlying issues which contribute to workers resorting to alcohol and substance usage at a workplace in Bloemfontein, South Africa.

Risk Profile Posed by Substance Abuse

The construction industry is one of the largest economic activities playing significant role in the nation's economy (Laad, Adsul, Chaturvedi and Shaikh, 2013). Expanding and fast growing sector and, in general, lack of greater employment opportunity elsewhere has drawn large number of workers to the construction industry. Very few studies have explored the problems of construction workers even though they are more susceptible to various occupational hazards due to their quest for employment in the industry. Majority of workers in the construction sector are aged between 15 and 45, live in single sex quarters, and migrate to their place of work (International Labour Organisation (ILO), 2005). These categories of employee are often susceptible to risk-taking behaviours when they work away from home.

The United States department of labour and statistics (1996) cited by Laad *et al.*, (2013) further note that workers in the construction industry need to do heavy physical work while living in shabby environment. The unhygienic situation, working pattern, absence of any recreational activity and company of friends encourage them to indulge in certain negative activities. In addition, Laad *et al.* (2013) reiterates that substance abuse is influenced by variety of factors including individual attitudes and beliefs, social norms, easy affordability, acceptability, availability, low cost and advertising campaigns. Furthermore there are many misconceptions regarding tobacco and alcohol. Workers' perceptions about the benefits of these substances have become a legend in the literature. Cook, Hersch and McPherson (2010) flag purported benefits to include the view that substances helps workers to increase concentration, suppress appetite, reduce anxiety and tension, cause skeletal muscle relaxation and induce feeling of pleasure. The World Health Organisation (2004) cited in Laad *et al.*, 2013) reports that among the major occupational categories, workers in the construction industries exhibit some of the highest rates of substance abuse, with rate of current illicit drug use estimated to hover around 14.1%.

Sociological Definition of Drug and Alcohol Abuse

Sociological theories of drug abuse (Anon, 2006) suggest that being able to comprehend how drug and alcohol abuse are defined is very crucial in assisting sociologist to come up with explanations and creating social policies. Hence, it is imperative to note that sociologists apply, to some extent, a different approach in defining drug use and abuse than scholars from other fields. Sociologists tend to focus more on the social meaning of drugs and alcohol, norms and patterns regarding their utilization in certain settings, consequences resulting thereof. For instance, Anderson (1998 as cited in Anon, 2005) defines drug and alcohol abuse as (1) a pattern of regular and heavy use over a significant period of time, (2)

a set of drug related problems, e.g. at work, or with interpersonal relationships, one's own health, and formal social control agencies, (3) previous and failed attempts to terminate drug consumption, and (4) self –awareness as having a drug and/or alcohol problem.

The reasons for Drug use and Alcohol at work

The literature on this topic identifies a number of reasons that explain alcohol and drug use at the workplace. These reasons can be divided in to two main groups: work-related and social / personal reasons. These reasons are often interlinked. In all cases, consumption of alcohol, psycho-pharmaceuticals and other illegal drug is frequently utilized as a way of coping with what one sees as an uncomfortable or problematic situation.

Work-related reasons: the available literature identifies a number of work-related reasons that may positively cause the consumption of alcohol and drugs among employees. The nature and extent of tough physical or dangerous conditions is frequently suggested as a cause for using alcohol. A report on changing lifestyles from the university of Florence noted that 42% of Tuscan metalworkers say that alcohol helps to 'warm' oneself (Libuse Nemcova, 2008 cited in Anon, 2012), and up to 5% of the Portuguese construction workers relate the consumption of alcohol with working in cold environments. In contrast, 17% mention drinking beer at the workplace with hot weather (Bazarro, 2007 cited in Anon, 2012). Very high requirements at work, demanding working rhythms and heavy workloads have been found as another reason for alcohol consumption at workplace.

Social/Personal reasons: European foundation for the improvement of living and working conditions (Anon, 2012) further states that certain personality types or the existence of an alcoholic family background influence the level of alcohol consumption. Meanwhile, 10% of the Portuguese construction employees who consume alcohol believe that personal problems impact on their use of alcohol. According to Work Cover New South Wales (2006) many factors have been put forward as possibly contributing to the misuse of alcohol and other drugs, which include:

- Grief.
- Family and relationship problems.
- Interpersonal conflict.
- Health concerns.
- Gambling.
- Financial problems.
- Loss of control and lack of participation in any decision making process.
- Harassment, bullying or victimisation.
- Long and/or irregular working hours.
- Tight deadlines and unrealistic performance targets.
- High risk of personal injury or illness at work.
- Discrimination or prejudice.
- Corporate entertaining.
- Poor job design or hazardous work processes.
- History of substance abuse.

Risk profile on substance abuse

Guidelines for addressing alcohol and other drugs in the workplace suggest that the hazard associated with the use of alcohol and other drugs in the workplace should be identified, the risk assessed and strategies developed to control the risk, in the same way as any other occupational health and safety hazard (Anon, 2006). When assessing whether alcohol and

other drugs pose a health and safety risk at workplace, a range of factors, some of which are outlined below, should be considered. The effects of drug intoxication and the hangover effects of drug use should be considered. At some work place the risk associated with alcohol and other drugs may be greater due to the nature of the workplace. Workers who operate machinery, drive in the course of their work, or rely on construction or motor coordination, may face an increased risk of injury if affected by alcohol and/ or other drugs. At other workplaces there may be a greater potential for serious harm. Workers who are operating heavy machinery or using hazardous materials, for example, may be at risk of more serious harm if injured.”

Anon (2006) further shows that in some occupations, an employee affected by alcohol and other drugs may be more likely to jeopardise the H&S of others. Examples include persons working with hazardous materials or performing duties where they are working as part of a team. Alcohol and other drug consumption may also be more prevalent in some industries than others. An employer should also bear in mind that if any of these problems currently exist in the workplace, the employer is required to minimise the risk associated with them under their general duty of care to provide a safe working environment.

Illicit Drug Use among Workers by Occupation

It is important that among the five occupations with the highest prevalence of current illicit drug use, three were dominated by male workers, according to the work of Larson *et al.* (2007). An estimated 97.4% of construction workers were male, while 96.2% of installation, maintenance and repair and 87.2% of transportation and material-moving occupations were male (see Larson *et al.*, 2007: 23).

As shown in Figure 1, construction stood out among 21 major occupational groups ordered from highest to lowest in percentage of full-time workers in terms of use of illicit drugs. Looking at the major occupational groups for 2002 through 2004, food service workers (17.4%) and construction workers (15.1%) exhibited a higher prevalence of illicit drug use more than other occupational groups. Those working in education, training, and library occupation (4.1%), those working in community and social service occupations (4.0%) and protective service occupations (3.4%) had the lowest prevalence of past month prohibited drug among the major occupational categories (Larson *et al.*, 2007). Similarly, the data (which is not indicated in this paper) shows that prevalence rate is high in the construction industry at 17.8%. These statistics point to the need to act in the interest of workers, their families and the general public.

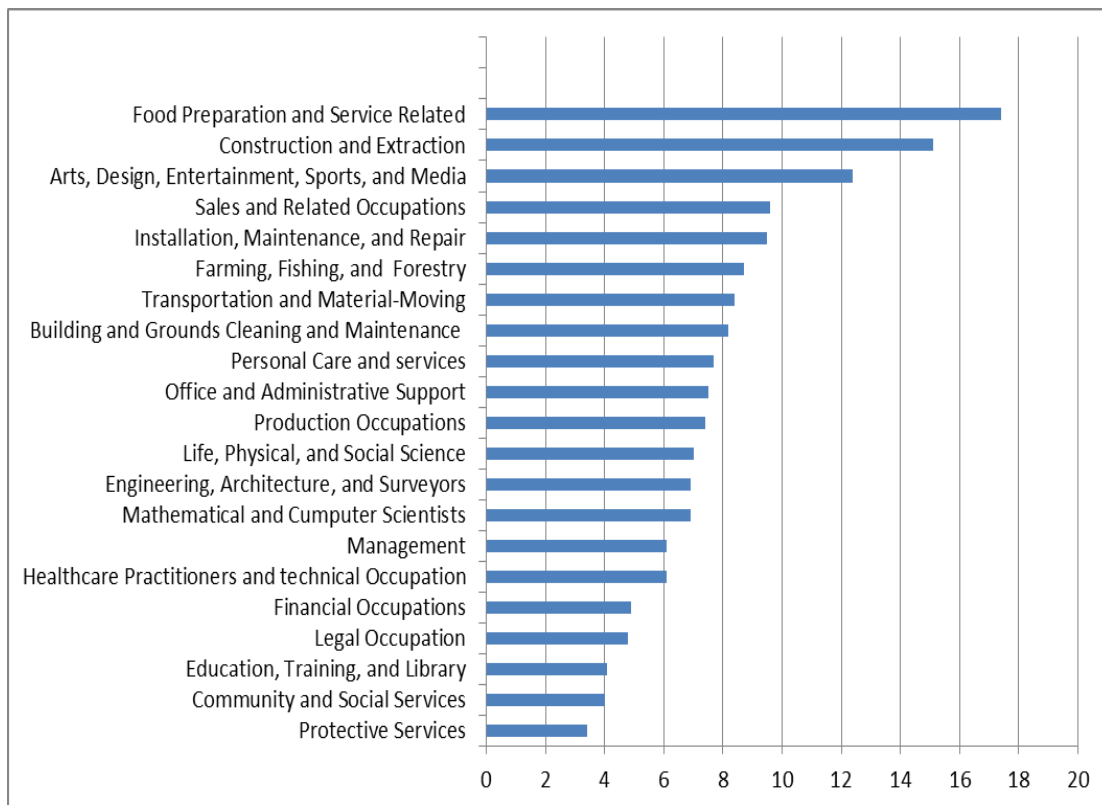


Figure 1: Illicit drug use among full time workers by occupation (Source: Larson, Eyerman, Foster, Froeter, 2013)

Research Methodology

The research design that was adapted for this study was qualitative in nature. Qualitative research is a research using methods such as observation and interviews to describe account of a setting or practice. Sociologists using these methods typically reject positivism and adopt a form of interpretive sociology (Parkinson and Drislane, 2011). Qualitative research is a situated activity that locates the observer in the world. It consists of set of interpretive, material practices that makes the world visible. These practices transform the world.

The practices inherent in qualitative research turn the world into a series of representations, including field notes, interviews, conversations, photographs, recordings, and memos to the self. At this level, qualitative research involves an interpretative, naturalistic approach to the world. This means that qualitative researchers study things in their natural settings, attempting to make sense of, or to interpret, phenomena in terms of the meanings people bring to them (Denzin and Lincoln, 20053). The sampling population were made up of workers for small to large contractors in Bloemfontein, South Africa. This included H&S officers, foremen, site agents, and project managers from the professional team. The selected sample method is purposive sampling, which is also referred to as judgemental sampling where typical projects are utilized to represent the population (Fellows and Liu, 2008). Rakotsoane (2012) also states that purposive sampling is where the researcher selects certain elements from the population that was the representative or informative about the topic of interest. It assisted the researcher with a judgement about which subjects should be selected to furnish the best information to address the purpose of the study.

The study endeavoured to conduct fifteen interviews but due to unforeseen circumstances, only nine interviews were conducted. Leedy and Ormrod (2010:141) confirm that “A typical sample size is from 5 to 25 individuals”. From the nine interviews conducted, it included two H&S officers with 11 years’ experience between the two of them, two site foremen with nine years’ experience between them, two site agents with fifteen experiences between them, and three project managers with a total 30 years’ experience between them. In other words, all the interviewees form part of site management in construction projects. Questions posed to the interviewees were divided into three themes: theme one was about the risk profile posed by substance abuse on construction which consisted of five questions. Theme two looked at the relationship between substance abuse and accidents and had three questions. Theme three focused on H&S procedures related to substance abuse.

Findings and Discussion

Risk Profile Posed by Substance Abuse on Construction Site

The risk profile of substance abuse on construction site may vary from catastrophic incidents resulting in great injury and or loss of lives to minor incidents. Interviewees affirmed that substance abuse causes extreme health hazard, especially when a worker report to work under influence and endanger the lives of other workers and this finding is confirmed by the findings of Anon (2006). With regard to the reason for alcohol and drug use in the construction site, interview no .7 highlights that in his view there is no reason that can justify abuse, but workers may use drugs as a sedative to address a particular trauma. The finding is confirmed by Cook *et al.* (2010). However, some people are addicted to the substances. Interviewee no.8 posits that the reason for this behaviour might be addiction, lack of proper financial management and advice, stress, and previous day dose which might result in one indulging; for example, after weekends one may decide or feel the need to consume on the following day. Interviewee no.1 speculates that the reason for this culture is that construction employees utilise alcohol and drugs as relaxants due to their highly pressurised or stressful jobs which is confirmed once again with the findings of Cook *et al.* (2010). He further added that lack of comprehension surrounding the physical effects of alcohol and other drug utilization and how these effects might impair performance. Loneliness could as well cause the substance abuse in some instance.

In this case, all interviewees agreed that the use of alcohol and drugs level focus on workers in order to allow the contractors to achieve the objectives of reaching good quality work and handing work over within the stipulated time. In agreement with Anon (2006), the interviewees in this study note the exposure level associated with substance abuses, especially its impact on the performance of a contractor. Moreover, interviewees believe that the act of alcohol and drugs abuse in itself is a disgrace to construction practice and thus, the use of such substances should be met with the harshest of punishments. The interviewees opine that the use of such substance is bad, dangerous, and not good for the industry. In case of the extent of alcohol, most interviewees perceive that alcohol and drugs are highly used in the industry especially by the site workers and the usage has lately evolved into a habit and this finding is resonate with the work of Laad *et al.* (2013). However, some interviewees contend that through their experience, it is not high but there are some instances in which some employees will work under the influence of drug and or alcohol.

Relationship between Substance Abuse and Accidents

When questions elicited for perceptions relative to the relations between the abuse of substances and accidents on construction sites, interviewee no. 1 mentions decreased alertness, and impaired judgment, which are evident when working with power tools,

welding, and operating heavy machinery as major manifestations. Interviewee no.2 flags controlling dangerous equipment under the influence of alcohol and drugs, working on high levels under the influence of alcohol and drugs, fooling around on site under the influence of alcohol and drugs as major manifestations based on his experiences. Interviewee no.3 says that when a worker misses steps while driving wheelbarrow and crushing into scaffolding, playing on the highest level of the scaffolding, failed to thoroughly carry out site instructions, management tend to check if the worker is under the influence of a substance. Another interviewee (no. 4) perceive that when plant operators bump into the existing wall consistently, unskilled labourers misguidedly cut off their fingers while using grinders, the site management often suspect the influence of substances. All these scenarios show that the use and abuse of substances could lead to poor H&S behaviours of project sites.

Health and Safety Procedures that addresses Substance Abuse

According to interviewee no.1, substance abuse by workers is of concern whether the consumption occurs on or off the construction site, as many substances affect work performance for hours, if not days, after use. Hence, substance abuse on construction site can be stopped by introducing educational preventive programmes on construction site rather than simply dealing with alcohol and other drug use, and posting awareness pictures on construction site. Interviewee no.1 also asserted that the majority of employees in the construction site do not have enough knowledge of how substance abuse could affect their physical performance. He further contends that breathalysers can be used for testing workers for substance usage in construction.

Interviewee no.2 says that contractors, clients and government should undertake to do more to eliminate the culture of substance abuse in the construction industry. Contractors should impose big fines on workers who abuse alcohol and drugs in the construction site and those workers who abuse illegal drugs should be reported at the police stations or they should be taken for counselling. Interviewee no.2 further suggest that contractors should do weekly test on all workers, tell them of the consequences of alcohol and drugs abuse and finally encourages workers to be involved in sports activities sponsored by contractors.

Interviewee no.3 mentions that regular construction workers' inspection, perhaps in the morning and after every break should be done in the construction site to keep the alcohol and drugs use at minimal. The use of alcohol and drugs should be regarded as a serious offence. In his opinion, interviewee no.4 perceives that induction on site should be done for each employee. Such induction should emphasise a firm code of practice about the use of alcohol and drugs on construction site must be included on workers employment contracts so that each employee should know that the use of such substance may lead to expulsion. Interviewee no.4 also suggested that distribution of relevant pamphlets on site as guidelines may also reduce alcohol and drug use on construction site. Interviewee no.5 was of the opinion that the contractor should develop and enforce clear policies around problematic substance use, and provide education to employers to increase their understanding. Moreover all workers must be searched when they come into the site (if prevalence of substance use is high in a site) and the contractor must provide support to employee with this problematic substance issue.

Interviewee no.6 suggest that the contractor should try means of searching workers when entering the construction site, enforcing regulations on the use of alcohol and drugs and major punishment be taken if laws are not abided to. Interviewee no.6 further stated that the use of field sobriety test may reduce substance abuse on construction site.

Interviewee no.7 also says that it is up to every individual to work against substance abuse on construction sites but it is very important that the site management takes steps to ensure that none of the workers are abusing drugs and alcohol. A few of the ways that this

could be achieved is to have qualified H&S officer on site at all times to ensure that all workers, especially the ones that are going to operate heavy machinery and electrical cutting tools, are checked to be in sound working conditions. The H&S officer should also act as a counsellor so that anyone who has a problem they might need to discuss may come to them and discuss it as to avoid resorting to other means of dealing with such problems.

Table 1: Highlights of the salient findings of the study

Themes	Main findings
Risk profile posed by substance abuse on construction	Alcohol and drug abuse are used on sites and has evolved into a habit. Reasons for alcohol and drug usage include sedative (to address particular trauma) and form of relaxant (to alleviate stress).
Relationship between substance abuse and accidents	Accident prone incidents included: decreased alertness, and impaired judgment, negligence, play acting on site, etc.
H&S procedures that addresses substance abuse	Introduction of educational preventive programmes and posting awareness pictures on construction site. Regular monitoring and testing of workers especially after a break is of the utmost importance to regulate and enforce compliance. Another recommendation is to train H&S officers as counsellors for labourers on site in assisting them to deal with root cause of abusing drug and alcohol on site.

Interviewee no.7 recommended that regular and unscheduled tests should be conducted on employees that pose greater level of creating injury to other members in their work environment. The interviewee specifically made reference to all machinery operators in this case. Interviewee no.8 however mentions organising alcohol and drugs awareness workshops at least once in a month or two months as a mitigation strategy that may reduce this problem. The contractor must give proper financial advice, financial management and introduce the use of breathalysers and strict measures against those who are caught or tested positive. Interviewee no.8 further showed that there should be disciplinary policy or policies guiding or against abuse on construction and daily safety meeting or tool box talk before working. Moreover, the other way of stopping substance abuse on construction site is transferring, demoting and dismissing employees for breaches of the policy specified to them and the contractor should specify the number of warnings that will be given to employees before discipline is imposed.

Conclusion

Abuse of substance and alcohol is a reality on construction sites in Bloemfontein, South Africa. Moreover it happens on the lower order of personnel and that in itself poses greater risk on the actual asset being constructed and to all the employees present on the particular site. Alcohol seems to be reported more than all other substances. The study identified incidents that are accident prone to any sober person let alone being under the influence of

alcohol and drug abuse. The risk profiles of substance abuse behaviours have severe consequences. The study acknowledges that construction site are already a dangerous area to work on and by adding alcohol and drug usage to the mix makes it even more dangerous and thus may lead to poor H&S performance in particular, and project failures in extreme cases. This suggests that employers need to do more to educate workers through awareness creating programmes. In order to reduce the substance abuse related accidents on construction site, the government and employers should undertake to do more to eradicate the culture of alcohol and drug use in the industry. The interviewees in this study suggest that there are procedures, practices and policies that can be implemented and followed to cease the alcohol and drug use on construction site. A 'carrot and stick' approach that embeds strict compliance to regulations and a reward system may be used in this context. To achieve this goal, there should be a combination of competent personnel on construction site to carry out the project. The objective of this study was partially achieved based on the synthesis of the transcribed interviews.

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