WORKER DRUG AND OTHER SUBSTANCE ABUSE IN THE CONSTRUCTION INDUSTRY

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STATEMENT OF ORIGINALITY

I, Sean William Bos, hereby declare that the research for and compilation of this treatise entitled ‘Worker Drug and Other Substance Abuse in the Construction Industry’ is an original work. Primary and secondary information sources have been used. In the case of the latter, acknowledgment of the original authorship was provided in the references.

S.W. Bos

28 January 2015
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- All the respondents that sacrificed their precious time to complete the questionnaire which composed the primary data for this study.
ABSTRACT

WORKER DRUG AND OTHER SUBSTANCE ABUSE IN THE CONSTRUCTION INDUSTRY

Blume (1998: 72) states that human beings have always wanted to change their thoughts, feelings and perceptions of reality through the use of mind-altering substances.

It is common knowledge that the construction industry, although not inherently dangerous, remains a perilous industry to work in as there is a major potential for occupational accidents to occur.

Despite the general feeling that worker drug and other substance abuse is a problem in the South African construction industry, statistical evidence to support this perception is not readily available. International research has however proven it to be an ongoing problem (Evans, 2014).

A survey was conducted among medium and large size general contractor members of the East Cape Master Builders Association (ECMBA) to determine the extent of the problem of worker drug and other substance abuse within a South African context. A summary of the findings of the study are as follows:

Contractors identified that worker drug and other substance abuse is a problem between near minor extent to some extent; accidents on site are often attributable to drug and other substance abuse by workers; the biggest impact of worker drug and other substance abuse is on health and safety (H&S), and poor overall performance and poor worker conduct are often experienced as a result of drug and other substance abuse by workers.

Conclusions include that the lack of drug and other substance abuse programmes is a major reason for drug and other substance abuse by workers.

It is recommended that workers should be tested before being granted access to site, their performance should be regularly monitored, incidents of poor conduct should be recorded and
investigated, and a drug and other substance abuse policy should be implemented together with an effective programme.
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CONTENTS OF THE STUDY

Chapter One of this treatise addresses the statement of the problem and its setting. This chapter also includes the sub-problems as well as the hypotheses developed there from. The delimitations of the study are identified, definitions of relevant terms are given and a list of abbreviations are included in this chapter. Lastly, the chapter includes the assumptions that were made together with the importance of the study, as well as its’ aims and objectives.

Chapter Two presents a review of the related literature. The literature emphasises the origins of workplace ‘substance abuse’ together with its prevalence in the construction industry and the effects resulting there from.

Chapter Three identifies the primary and secondary data, the treatment of the data, the research methodology, the development of the questionnaire, and the ethical considerations.

Chapter Four contains a discussion and analysis of the results of the survey. It also contains graphical and statistical representations of the findings.

Chapter Five of this treatise contains the testing of the hypotheses.

Chapter Six summarises the results of the study, conclusions are drawn and recommendations are made.

The references and appendices conclude this treatise.
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CHAPTER ONE: THE PROBLEM AND ITS SETTING

1.1 Introduction

According to Blume (1998: 72), human beings have throughout history, wanted to change their thoughts, feelings and perceptions of reality through the use of mind-altering substances.

Evans (2014) states the construction industry has a high rate of worker substance abuse, not only in the Republic of South Africa (RSA), but also across the world. Although South African statistics regarding worker drug and other substance abuse in the construction industry are not readily available, international research has proven that it is an on-going problem, and South Africa faces the same challenges, particularly the consumption of alcohol. While not as prevalent as alcohol abuse, drug abuse is another challenge that continues to remain a problem (Evans, 2014).

According to Evans (2014), there are numerous reasons for the significant rate of alcohol abuse in particular in the South African construction industry. Firstly, there is a local ‘culture of drinking’ which is a problem across this and other industries, in addition, alcohol and drug abuse often ensues as a result of boredom.

The construction industry, although not inherently dangerous, remains a perilous industry to work in nonetheless as there is a high potential for occupational so-called accidents to occur (Smallwood, 1998: 353). Agwu and Olele (2013: 433) refer to statistics from the Health and Safety Executive (HSE) that show that construction workers in the United Kingdom are five times more likely to be killed and two times more likely to be seriously injured compared to the average for all industries. Potential hazards of working in the industry include: working at elevated heights; exposure to the elements; the use of hand-held powered tools; as well as the operation of moving plant and equipment. These are risky activities even when undertaken by a completely sober individual (Smallwood, 1998: 353; Evans, 2014).

Blume (1998: 72) declares intoxication as the most obvious hazard, accounting for a wide variety of accidents. Furthermore, workplace impairment due to drug and alcohol use often
lasts beyond the period of intoxication. Alcohol withdrawal may engender headache, nausea and photophobia (light sensitivity) for between 24 and 48 hours after last consumption. Workers suffering from alcohol dependence may also undergo alcohol withdrawal symptoms on the job, with shaking, sweating and gastrointestinal disturbances.

Evans (2014) declares that alcohol and drugs are in fact a major contributing factor to many workplace accidents in the construction industry. According to Smallwood (1998: 353) substance abuse impairs workers’ mental, emotional and physical state which is reflected by high absenteeism, decreased productivity, re-work and high levels of disabling and non-disabling injuries.

The relationship between worker substance abuse and the construction industry is clearly hazardous. This combination places everyone on site in danger and also creates unnecessary risk for construction companies, who may be held liable should incidents occur while workers are under the influence of alcohol or drugs (Evans, 2014).

As a result of the above mentioned it can be deduced that worker substance abuse warrants attention. The need for research of worker substance abuse and awareness in the South African construction industry is further amplified by the suspicion that a problem exists and as a result of the seemingly never ending injuries that occur.

1.2 The statement of the problem

Globally, substance abuse is a problem among construction workers. There is a high prevalence of substance abuse among construction workers in South Africa, which is linked to low levels of production, wasted money, incidents and accidents, and poor conduct, although there is little statistical evidence to support this perception.
1.3 The sub-problems

Sub-problem 1:
Accidents occur on site.

Sub-problem 2:
Poor performance is experienced.

Sub-problem 3:
Poor worker conduct is often encountered.

Sub-problem 4:
Workers use drugs and other substances.

1.4 The hypotheses

Hypothesis 1: Worker drug and other substance abuse is often a cause of accidents.

Hypothesis 2: Worker drug and other substance abuse is often a cause of poor overall performance.

Hypothesis 3: Poor worker conduct is often attributable to drug and other substance abuse.

Hypothesis 4: Workers’ use of drugs and other substances is attributable to inadequate or lack of drug and other substance abuse programmes.

1.5 The delimitations of the study

- The study will be limited to the Eastern Cape, and
• Medium and large size general contractor members of the East Cape Master Builders Association (ECMBA).

1.6 The definition of terms

Abuse (drug, alcohol, chemical, substance, or psychoactive substance): A group of terms in wide use but of varying meaning. ‘Psychoactive substance abuse’ is defined as "a maladaptive pattern of use indicated by ... continued use despite knowledge of having a persistent or recurrent social, occupational, psychological or physical problem that is caused or exacerbated by the use, or by recurrent use in situations in which it is physically hazardous.” It is a residual category, with dependence taking precedence when applicable. The term 'abuse' is sometimes used disapprovingly to refer to any use at all, particularly of illicit drugs (International Labour Organization (ILO), 1996: 2).


Alcohol: In chemical terminology, alcohols are a large group of organic compounds derived from hydrocarbons and containing one or more hydroxyl (-OH) groups. Ethanol (C2H5OH, ethyl alcohol) is one of this class of compounds, and is the main psychoactive ingredient in alcoholic beverages. By extension the term ‘alcohol’ is also used to refer to alcoholic beverages (ILO, 1996: 2).

Detoxification: The process by which an individual is withdrawn from the effects of a psychoactive substance (ILO, 1996: 3).

Drug: A term of varied usage. In medicine, it refers to any substance with the potential to prevent or cure disease or enhance physical or mental welfare, and in pharmacology to any chemical agent that alters the biochemical or physiological processes of tissues or organisms. Hence, a drug is a substance that is, or could be, listed in a pharmacopoeia. In common usage, the term often refers specifically to psychoactive drugs, and often, even more specifically, to
illicit drugs, of which there is non-medical use in addition to any medical use. Professional formulations (e.g. alcohol and other drugs) often seek to make the point that caffeine, tobacco, alcohol and other substances in common non-medical use are also drugs in the sense of being taken at least in part for their psychoactive effects (ILO, 1996: 3).

Employee Assistance Programme (EAP): A programme – either operated by the employer and a workers' organisation jointly – or the employer alone, or a worker’s organisation alone, that offers assistance to workers, and frequently also to their family members, who have problems that affect – or that eventually could affect – job performance. An EAP can provide assistance to those with alcohol and drug related problems; but in many cases it also offers assistance with other problems liable to cause personal distress, including marital or family difficulties, depression, on-the-job or off-the-job stress, financial problems, or legal difficulties (ILO, 1996: 4).

Employer: Any physical or legal person who employs one or more workers (ILO, 1996: 4).

Harmful use: A pattern of psychoactive substance use that is causing damage to health. The damage may be physical (e.g. hepatitis following injection of drugs) or mental (e.g. depressive episodes secondary to heavy alcohol intake). Harmful use commonly, but not invariably, has adverse social consequences; social consequences in themselves, however, are not sufficient to justify a diagnosis of harmful use (ILO, 1996: 4).

Hazard: A source of or exposure to danger (RSA, 1993: 3).

Impairment: Any loss or abnormality of a psychological, physiological or physical function (ILO, 1996: 4).

Intoxication: The ILO defines intoxication as a condition that follows the administration of a psychoactive substance and results in disturbances in the level of consciousness, cognition, perception, judgement, affect, or behaviour, or other psychophysiological functions and responses (ILO, 1996: 4).

Occupational health: The promotion and maintenance of the highest degree of physical, mental and social well-being of workers in all occupations (Deacon, Smallwood & Haupt,

Psychoactive substance: A substance that, when ingested, affects mental processes, e.g. cognition or affect. This term and its equivalent, psychotropic drug, are the most neutral and descriptive terms for the whole class of substances, licit and illicit, of interest to drug policy. Psychoactive does not necessarily imply dependence-producing, and in common parlance, the term is often left unstated, as in drug abuse or substance abuse (ILO, 1996: 4).

Tolerance: A need for increased amounts of a substance to achieve intoxication (NBGH, 2009: 8).

Withdrawal: Symptoms such as nausea, chills, and/or vomiting upon discontinuing use of the substance (NBGH, 2009: 8).

1.7 Abbreviations

cidb Construction Industry Development Board
ECMBA East Cape Master Builders Association
GC General Contractor
H&S Health and Safety
ILO International Labour Organization
MBAWC Master Builders Association Western Cape
MICCS Metro Indianapolis Coalition for Construction Safety, Inc.
NBGH National Business Group on Health (United States of America)
OH Occupational Health
OH&S Occupational Health and Safety
OH&SA Occupational Health and Safety Act
RSA Republic of South Africa
SBEnrc Sustainable Built Environment National Research Centre (Commonwealth of Australia)
WHO World Health Organization
1.8 Assumptions

- Drug and other substance abuse occurs among construction workers, and
- Worker substance abuse is a problem in the South African construction industry.

1.9 The importance of the study

According to Frone (2004: 127), the use of alcohol and other drugs in the workforce represents an important social policy issue because it may undermine employee health, productivity, and safety and these outcomes could inhibit an employers’ ability to compete effectively.

The construction industry has a high rate of worker substance abuse, not only in the RSA, but also across the world. Substance abuse among workers in the South African construction industry is generally perceived to be a major problem, however; there is little to no evidence to support this perception (Evans, 2014).

A pilot study conducted among members of the Master Builders and Allied Trades’ Association (Cape Peninsula) and concluded that drug and other substance abuse is prevalent to a greater or lesser extent in the construction industry (Smallwood, 1998: 360).

A study conducted in the United States of America (USA) concerning substance abuse in the workplace revealed that 15.9% of construction workers aged 18-64 who are full-time employed had used illicit drugs in the month prior to being surveyed. The construction industry placed highest on the list out of nineteen industries that were surveyed. The construction industry ranked higher than industries such as ‘Arts, entertainment, and recreation’; ‘Mining’ and ‘Accommodation and food services’ (Ames and Bennett, 2011: 176).
Feeney (2012) mentions a study conducted among construction workers in Brisbane, Australia, which discovered that 50% of the workers surveyed consumed alcohol at ‘hazardous’ levels, and a further 15% were at significant risk of harm. More than 30% of respondents had used ecstasy or methamphetamine-type substance in the past year, while 16% had also used cannabis during the same period. Feeney (2012) cites Crittal, Master Builders Queensland construction policy director, who stated that the construction industry had been over-represented in studies concerning everything from obesity to smoking to substance abuse and suicide for far too long. He went on to say that, “The last thing you want to do is interfere with people’s private lives, but there needs to be recognition about how those choices impact on work.”

Worker substance abuse results in increased costs for employers and organisations suffer as a result thereof. Employers have to endure higher healthcare expenses for injuries and illnesses, reduced productivity and performance, increased absenteeism, a greater number of workers’ compensation and disability claims, higher rates of employee turnover and H&S and other associated risks. It is not only financial hardship that organisations have to endure; often an organisation’s reputation and public image can also be harmed (NBGH, 2009: 13; Evans, 2014).

1.10 The aims and objectives of the study

- To determine the extent of worker drug and other substance abuse in the South African construction industry;

- To determine the extent to which organisations experience difficulties as a result of worker substance abuse;

- To determine the resulting H&S and performance implications, and

- To evolve interventions to reduce the incidence of such substance abuse among construction workers.
CHAPTER TWO: REVIEW OF THE RELATED LITERATURE

2.1 Overview of substance abuse in the construction industry

2.1.1 The origins of substance abuse in the workplace

Human beings have sought to alter their thoughts, feelings and perceptions since the beginning of their existence. Mind-altering practices such as reducing sensory input, repetitive dancing, sleep deprivation, fasting, and prolonged meditation have been used in many cultures. The use of mind-altering drugs has however, been the most popular method for producing mood and perception changes (Blume, 1998: 72).

Blume (1998: 72) continues by saying that some cultures have even adopted drug use into ordinary workplace practices. Blume gives examples of Peruvian Indians in the Andes who chew coca leaves and Jamaican sugar cane workers who smoke cannabis while working. During farm labour, the use of moderate volumes of alcohol used to be an accepted custom in some Western societies such as the USA during the course of the eighteenth and early nineteenth century. More recently, it was routine (and even expected by some unions) for employers of battery burners (workers who incinerate discarded storage batteries to salvage their lead content) and house painters using lead-based paints to provide each worker with a daily bottle of whisky that would be sipped intermittently throughout the work day. This was in the erroneous belief that it would prevent lead poisoning. Additionally, alcohol consumption has been a traditional part of certain occupations, such as, among brewery and distillery salespeople. These sales representatives are expected to accept the hospitality of the bar or tavern owner on completing their order-taking (Blume, 1998: 72).

Certain customs dictate alcohol in other work too, such as at business lunches and expectations are created that workers will stop at the neighbourhood bar or pub for a few convivial rounds of drinks at the end of the work day. This latter practice poses a particular hazard for those who then drive home (Blume, 1998: 72).
The use of mild stimulants such as tea and coffee remains in use in modern industrial settings through institutionalised tea and coffee breaks. A combination of several historical factors has however made the use of psychoactive substances at the workplace a major social and economic problem in present day life (Blume, 1998: 72).

Blume (1998: 72) states that contemporary industry requires alertness, unimpaired reflexes and accurate perception on the part of workers. Impairments in the above mentioned areas can interfere with the efficiency and accuracy of work on one hand and can cause serious accidents on the other. Another important trend has been the production of more powerful psychoactive drugs; this has greatly increased the dangers of using drugs on the job.

2.1.2 Ways in which substance abuse can result in problems in the workplace

Figure 2.1: Ways in which alcohol / drug use by workers can cause problems in the workplace (Blume, 1998: 73).
2.1.3 Prevalence of worker substance abuse in the construction industry

The construction industry has a high rate of worker substance abuse, not only in the RSA, but across the world. South African statistics relative to drug and other substance abuse in the construction industry are not readily available, international research has proven that it is an on-going problem, and South Africa faces the same challenges, particularly around the consumption of alcohol. While not as prevalent as alcohol abuse, drug abuse is another challenge that continues to remain a problem (Evans, 2014).

Workers in the construction industry report higher than average rates of at-risk alcohol use, illicit drug use and tobacco use. A large cohort study conducted in the USA between 1989 and 1998, discovered that 6.6% of the workers had received a substance abuse related diagnosis (Alberta Health Services, 2010: 9).

Alberta Health Services (2010: 9) states that a study conducted in the USA between 1997 and 2004 revealed that the highest smoking rates overall were reported in the construction industry, with 39% of construction workers stating that they smoked.

People in construction have higher rates of substance use and related disorders than persons in other industries: 16% with past month heavy alcohol use, 14% with past-month illicit drug use, 16% with past-year alcohol abuse or dependence, and 5% with past-year illicit drug abuse or dependence (Ramchand et al., 2009: 20; Alberta Health Services, 2010: 10).

In a national sample of full-time workers in the USA aged 18 to 64, 16% of workers in the construction industry had partaken in heavy alcohol use in the past month. This was the highest among workers in all industry categories. Heavy alcohol use was defined as drinking five or more drinks on the same occasion on five or more days in the past 30 days (Alberta Health Services, 2010: 10).

According to Ames and Bennett (2011: 176), a study conducted in the USA regarding worker substance abuse discovered that 15.9% of construction workers aged 18-64 who are full-time employed had used illicit drugs in the month prior to being surveyed. The construction industry placed highest on the list out of nineteen industries that were surveyed. The
construction industry ranked higher than industries such as ‘Arts, entertainment, and recreation’; ‘Mining’ and ‘Accommodation and food services’.

2.1.4 Various substances abused by workers

There are many substances which are abused by employees, some are used and abused more frequently than others. The list of substances researched in this study are given in alphabetical order and include the following:

- Alcohol;
- Cannabis (Bongo / Dagga / Ganja / Grass / Marijuana / Pot);
- Cocaine (Bazooka / Blanche / Cake / Coke / Lady);
- Crack cocaine (Rocks);
- Crystal methamphetamine (Ice);
- Datura stramonium (Jimson Weed / Malpitte / Common Thorn Apple);
- Gamma-Butyrolactone (GBL / Blue Intro / Firewater);
- Heroine (Smack / H / Horse / Junk/Harry / White Lady);
- Inhalants e.g. glue; petroleum; solvents;
- Khat (Sugars);
- LSD (D-Lysergic Acid Diethylamide/Acid);
- Mandrax (Buttons / Quaaludes);
- MDMA (Ecstasy / E / Snackies / New Yorkers);
- Methamphetamine (Tik);
- Methylated spirits;
- Nyaope (Whoonga), and
- Phencyclidine (PCP / Angel Dust).

2.1.5 Problems arising from worker substance abuse in the construction industry

Alcohol and drugs are a major contributing factor to many workplace accidents in the construction industry (Evans, 2014).

According to Smallwood (1998: 353), substance abuse impairs workers’ mental, emotional and physical state which is reflected by high absenteeism, decreased productivity, re-work and high levels of disabling and non-disabling injuries.

Crime and violence in the workplace is often exacerbated by substance abuse. Where there is drug abuse in the workplace the chance of employee theft increases and there is a greater chance of workplace violence occurring (GVK, 2014: 4; Chandler, 2014: 3).

Worker substance abuse increases costs for employers as a result of decreased productivity, re-work, higher rates of employee turnover and increased workers’ compensation and disability claims (Chandler, 2014: 3) (Alberta Health Services, 2010: 9; NBGH, 2009: 13; Smallwood, 1998: 354).

According to Breugem et al. (2006: 3), one of the most important factors to explore when examining the issue of alcohol and other drug related harm in workplaces is the relationship between consumption and impairment. It does not necessarily follow that a person is impaired simply because they have consumed alcohol or other drugs. A range of factors must be taken into consideration, including patterns of consumption and the relative effects of consumption on the workplace.

2.2 ‘Accidents’ as a result of worker substance abuse

According to Cesarini et al. (2013: 1), construction may involve complex equipment and significant heights and as such, companies need to actively combat substance abuse, which remains a widespread problem in the construction industry. Firms should focus on preventing impaired workers from gaining entry onto a site.
According to Frone (2004: 127), research exploring the connection between worker substance use and worker safety outcomes (i.e. non-injury accidents, fatal and non-fatal physical injuries) is essential since they all strike a significant proportion of workers; they can be costly to individuals, employers and society; and a shared belief exists amidst researchers, policymakers, and employers that worker substance use is a risk factor for injuries and accidents at work.

2.2.1 Workplace injuries

Ramchand et al. (2009: 1) state that workplace injuries are one of the many undesirable consequences of substance use and abuse, and substance use and misuse are therefore often suspected to contribute to occupational injuries. A significant portion of full-time workers report heavy alcohol use or illegal drug use and meet criteria for substance-use disorders.

The relationship between drinking and occupational injuries is substantial. A hospital emergency department study showed that 35% of patients with an occupational injury were at-risk drinkers. Breathalyser tests in another study detected alcohol in 16% of emergency room patients injured at work (Breugem et al., 2006: 1).

According to Smallwood (1998: 354, citing Coble and Genauer 1996) research conducted in the USA determined that workers who abuse substances are three and a half times more likely to be injured on the job and 5 times more likely to have an accident off the job. Ramchand et al. (2009: 6) state that drinking alcohol has a significant effect on reporting work-related injuries. People who drink alcohol on average three or more times per week had approximately 3.2 injuries per 10 000 working days, compared with 1.9 injuries per 10 000 working days for non-drinkers, this represents a 70% increase in risk. Those who drank more than 14 drinks per week were more likely to report having been involved in an accident at work.

As stated by the NBGH (2009: 14), a study in the USA found that employees who abuse alcohol or drugs are three and a half times more likely to be involved in a workplace accident when compared to other workers. As many as 47% of industrial injuries can be linked to alcohol use and alcoholism.
Breugem *et al.* (2006: 3) state that alcohol and other drug related harm in the workplace can manifest in terms of physical harms i.e. injuries and fatalities. In Australia, between 3 and 11% of workplace injuries and 4% of work-related deaths involve alcohol; other drugs contribute to 2% of work-related deaths. In total, it is believed that substance abuse is a contributing factor in at least 5% of work related fatalities (Breugem *et al.*, 2006: 3).

According to Alberta Health Services (2010: 13), 20% of all work related injuries occur in the construction industry. Construction workers experience a higher risk of disability than the general work force as well as blue collar workers generally.

### 2.2.2 Workplace deaths

One study reported analyses of workplace fatalities and showed at least 11% of the victims had been drinking (Breugem *et al.*, 2006: 1), While the NBGH (2009: 14) states that 40% of industrial fatalities are related to substance abuse.

According to Ramchand *et al.* (2009: 14), various studies have estimated the presence of alcohol among occupational fatalities to range from 4 to 20%, with the majority falling between 15 and 20%.

### 2.3 Effects of substance abuse on overall performance

Frone (2004: 129) states that in spite of the widely held belief that the use of alcohol and other psychoactive substances among workers may negatively affect employee productivity, past reviews of the literature suggest that this relation is neither consistent nor robust and that research support is most consistent with absenteeism.

According to the NBGH (2009: 7) the following signs and symptoms relating to employee performance could indicate possible substance abuse:

- Inconsistent work quality;
- Poor concentration;
- Lowered productivity;
- Increased absenteeism;
- Unexplained disappearances from the jobsite;
- Carelessness, mistakes;
- Errors in judgement;
- Needless risk taking;
- Disregard for safety, and
- Extended lunch breaks and early departures.

In the USA during the year 2002, lost work productivity related to illicit drug abuse, including absenteeism and poor job performance resulted in a cost of approximately $129 billion. Research demonstrates that excessive drinking outside normal working hours has a negative impact on productivity at work. It is believed that productivity can be reduced at any level of dependence. Employees with light and moderate alcohol use cause 60% of alcohol related absenteeism, tardiness, and poor work quality. Studies have also shown that substance abusers function at only two thirds of their capability (NBGH, 2009: 13).

Another study found that more than half of the employed family members of persons with alcohol dependence reported that their own ability to function at work and at home was adversely affected by their family members drinking (NBGH, 2009: 13).

2.3.1 Absenteeism

Absenteeism is the most consistently documented outcome related to employee alcohol and drug use (Frone, 2004: 133).

According to Breugem et al. (2006: 1), workers with alcohol problems were 2.7 times more likely than workers without drinking problems to have injury-related absences.

Alberta Health Service (2010: 9) also reports that “smokers are known to have greater absences from work, more sick days per year, health care costs up to 50% higher than for comparable never-smokers.”
In the USA an estimated 500 million workdays are lost each year due to alcohol abuse alone. Workers who use drugs are twice as likely to request time off and are two and a half times more likely to have to have periods of absence for eight days or more (NBGH, 2009: 11-13).

2.3.2 Health issues

Illness
Consuming excessive amounts of alcohol puts employees at risk of developing an array of costly physical health problems such as liver diseases, heart disease, cancer, pancreatitis, and foetal alcohol syndrome in children. Long-term use of alcohol may also lead to hypertension, high cholesterol, and increased levels of triglycerides. Approximately 15% of heavy users of alcohol have cirrhosis of the liver and/or pancreatitis. Individuals that inject opioids are at risk for hepatitis, HIV, and tuberculosis; cocaine users may have sinusitis, malnutrition, or myocardial infarction, among other health problems (NBGH, 2009: 11-13).

Cancer of the oral cavity and the pharynx resulted in an increased risk of disability for construction workers when compared to the general workforce. This finding may reflect the high rates of smoking and heavy drinking among construction workers. It was also stated that the risk of disability greatly increased with age (Alberta Health Services, 2010: 13).

Mental health disorders
The excessive use of alcohol and other substances is linked to untreated depression and other mental illnesses and high expenditures for physical healthcare often mask substance abuse. 52% of privately insured persons being treated for substance abuse had also been diagnosed with at least one psychiatric condition. The most frequent conditions were depression (35%), adjustment disorder (11%), bipolar disorder (8%), anxiety disorder (6%), and personality disorder (5%). Often, the co-occurring psychiatric disorder is related to substance use and it may disappear as a result of substance abuse treatment. This observation should take place over a 3-4 week drug-free period where possible. Substance abusers should also be monitored for suicidality as they commit suicide at a rate of between 3-4 times higher than the general population (NBGH, 2009: 11).
According to Alberta Health Services (2010: 1), a survey by Statistics Canada found that 33% of trades helpers and labourers reported poor mental health; it is plausible that some employees have turned to substance use and abuse to cope with stress.

2.4 Substance abuse and worker conduct

Poor worker conduct is often attributable to substance abuse. According to the NBGH (2009: 7), the following behavioural signs and symptoms may indicate possible substance abuse:

- Avoidance of colleagues;
- Blaming others for own problems and shortcomings;
- Complaints about problems at home;
- Deterioration in personal appearance, and
- Complaints and excuses of vaguely defined illnesses.

2.4.1 Tardiness

Drug users are 3 times more likely to be late for work (Smallwood, 1998: 354, citing Coble and Genauer 1996; NBGH, 2009: 13).

2.4.2 Crime and violence on site


Ryan Binedell, the previous group H&S manager at the GVK Group of companies, specialists in the field of building, renovation, restoration, and the recycling of buildings, says that the tendency towards crime and violence is often aggravated by substance abuse. He contends that early prevention can be achieved through alcohol and drug testing before gaining access to the workplace, in order to ensure that employees are not under the influence while at work or about to start work. Binedell continues by saying that medical testing of employees prior to employment can also be carried out to identify usage and a potential problem before and
during employment (GVK, 2014: 4). Chandler (2014: 3) states that where there is drug abuse in the workplace, the chance of employee theft is 36 times higher and there is also a greater chance of workplace violence.

Blume (1998: 15.73) states that as a result of the need for money, an employee may resort to stealing items from the workplace or selling drugs on the job.

2.5 The cost implications of worker substance abuse

2.5.1 Employee turnover

Substance abuse can result in an increase in employee turnover. A person with a drug or alcohol problem is more likely than a non-substance abuser to report having worked for three or more employers in the previous year. Employee turnover is expensive for employers, replacing an employee can cost anything from 25% to almost 200% of the employee’s annual compensation, not to mention the loss of institutional knowledge and service continuity as well as the damage to co-worker productivity and the morale that can accompany employee turnover (NBGH, 2009: 14).

According to Chandler (2014: 3), the costs to employers are substantial. In Canada, the average cost of drug abuse per employee is C$10 000 per annum as a result of employee turnover, workers’ compensation claims, absenteeism, employee theft, violence on the job, and the use of health care benefits.

2.5.2 Workers’ compensation claims

In Canada the average cost of a workers’ compensation claim is C$1 574, and the average cost of a lost-time claim is C$5 574. Where there is employee drug abuse in the workplace, each year there are five times more workers’ compensation claims, 30% greater employee turnover, 40 days of employee absenteeism versus 4 days, and 300-400% greater utilisation of healthcare benefits (Chandler, 2014: 3). Coble and Genauer (1996, cited by Smallwood 1998: 354) and the NBGH (2009: 14) both state that drug users are 5 times more likely to file for workers’ compensation claims.
2.5.3 Increased healthcare costs

Employees with alcohol related problems have healthcare costs double that of their fellow employees. Persons who abuse alcohol use four times as many hospital days than non-drinkers and almost half of all emergency room visits for trauma and/or injury are alcohol related. In the USA, an estimated $21 billion was spent for the treatment of substance related disorders (NBGH, 2009: 11-13).

According to the NBGH (2009: 13), alcohol and drug abuse not only bring higher costs for the substance abuser, but also for dependents. Family members of substance abusers incur higher healthcare costs and also have a greater number of health issues. The family members of individuals with alcohol and or drug problems cost an average of $433-490 more per year when compared to their peers. These family members also stand a greater chance of being diagnosed with substance use disorders, depression, and trauma.

2.5.4 Costs related to mental illness

According to Alberta Health Services (2010: 2) direct and indirect costs related to mental illness and stress are substantial:

- Psychological conditions, including stress, anxiety and depression, are the leading cause of both short-term and long-term disability claims;
- The annual cost of work time lost to stress is substantial, and
- Mental health issues account for 30-40% of disability claims in the workplace.

2.6 Methods that can be implemented to manage and prevent worker abuse

2.6.1 Policy

According to Carr and Wright (2005), a written policy serves as the foundation for a drug-free workplace, and that an effective policy should clearly state why the policy is being implemented, give a description of prohibited behaviours and explain consequences for
violation thereof. It is essential that the policy be shared and understood by all relevant parties and it should also be consistently applied.

Kirkwood (2005: 9) states that the advantages of delivering alcohol and other drug interventions as part of an overall policy relating to substance abuse are widely reported. For example, alcohol interventions are claimed to be beneficial when placed in the context of a workplace alcohol policy that covers drinking at the workplace, workplace discipline, recognition and help for those with alcohol related problems, and alcohol education.

According to Kirkwood (2005: 9), the following provides a summary of advice regarding a model policy for substance abuse in the workplace:

- Involve all relevant parties including all levels of management, unions and/or other worker representatives in developing a substance abuse policy;
- Set specific, measurable, time-limited goals that are agreed, acceptable, realistic and formalised;
- Ensure commitment to the policy from senior management;
- A clear, formalised and familiar set of ‘rules’ should be applied universally to all employees and these should be acted upon consistently;
- Support the policy with workforce education on the risks of substance abuse and personal responsibilities related to alcohol and other drug use, and
- Utilise effective implementation, enforcement, monitoring and review:
  - Clearly assign responsibility for policy implementation;
  - Act on the policy consistently;
  - Adapt the policy to suit the target group(s);
  - Guarantee confidentiality as far as possible, and
  - Formally evaluate the policy.

2.6.2 Worker education awareness programme (WEAP)

According to Thirteen.wnet (1998: 7), a key factor in worker health and well-being and a safe, productive workplace, is the provision of alcohol and other drug awareness information to all employees. In addition to reducing substance use, abuse, and addiction that affect the
workplace, such prevention efforts improve morale and benefit employees’ families and the broader community. It is important to ensure that all employees are informed about:

- The company’s policy on drugs, alcohol, and smoking;
- The health risks and other problems caused by substance abuse and addiction;
- Some ways to assess whether they or others may have problems with alcohol or drugs, and
- Where to go for help, including information on using the company’s Employee Assistance Program, if one exists.

According to Cesarini et al. (2013: 4), individual workers have a role to play in ensuring their own safety and that of their co-workers. It is crucial to build a culture where fellow workers feel comfortable speaking up if someone is taking chances. It is bad enough if an impaired worker injures himself, worse if he injures other workers and the general public, and worse still if that accident could have been prevented.

2.6.3 Employee assistance programme (EAP)

EAPs assist in identifying and resolving employee’s problems by providing numerous forms of confidential short-term counselling, referral, and follow-up services (Smallwood, 1998: 355).

According to Kirkwood (2005: 9), EAPs are deemed to be the most effective approach for addressing performance issues in the workplace that may arise from an employee’s alcohol and other drug misuse. EAPs provide a recognised benefit to employees and their families, and demonstrate an employer’s respect and support for their workers. EAPs are also an alternative to dismissal for substance abuse related transgressions and minimise an employer’s legal vulnerability by displaying efforts to support employees.

2.6.4 Supervisory training programme

Smallwood (1998: 355) states that supervisor training is essential to, among other: empower supervisors to observe and document incidents; assist employees; initiate procedures if a drug testing programme exists, and assist workers in re-entering the workplace after treatment.
2.6.5 Worker testing

Cesarini et al. (2013: 1) state that testing may identify workers with substance abuse problems before they endanger others and enable the company to steer them into treatment programs.

According to Constructor (1997: 37) in Smallwood (1998: 354) Pizzagalli Construction Co., an American contractor had a loss of interest in employment by at least 50% of potential employees when they heard about pre-employment testing; a reduction of jobsite injuries by 65%; a $400 000 saving in workers’ compensation costs, and a reduction of the above national average Experience Modification Rating (EMR) by 40% after the first two years of the programme.

According to Hinze (1997, cited by Smallwood 1998: 355), several firms had reported astonishing improvements in H&S performance and one contractor reported that within one year of the implementation of mandatory pre-employment testing its incidence of injuries was reduced by 50%.

According to Hinze (1997, cited by Smallwood 1998: 355), a study conducted by Indradjaja among the 400 largest contractors in the USA determined that contractors conducting drug testing had lower injury frequencies than those that did not test.

In a study conducted by Hill (1993, cited by Hinze 1997, in Smallwood 1998: 355) in Florida, contractors with drug-free workplace programmes reported average workers’ compensation claims costs that were 50% lower than those without drug-free workplace programmes.

Smallwood (1998: 355) states that a testing programme must be developed in accordance with legal requirements. In addition to legal considerations, policy decisions regarding how the programme will be implemented and operated must be made, these include: who will be tested; when testing will be done; for what drugs and other substances testing will be done; how frequently testing will be done; what action will be taken if an applicant and an employee tests positive; what tests will be used, and what procedure will be followed to ensure reliability, and what precautions will be used to protect and individual’s privacy and the confidentiality of test results.
CHAPTER 3: THE DATA, ITS TREATMENT, AND ITS INTERPRETATION

3.1 The data

Two different sources of data were used in this study. This included primary and secondary data.

3.1.1 Primary data

The primary data for this study comprises of data gathered via a web-based survey questionnaire that was sent out via e-mail. The questionnaire was sent to medium and large GC members of the ECMBA. This sample stratum was selected because it was assumed that it would provide a general overview of the status of drug and other substance abuse in the construction industry, and they would most likely also have knowledge on the subject of the study.

3.1.2 Secondary data

The secondary data for this study was obtained from: books; conference papers; construction magazines; e-journals; government reports; internet websites; online newspapers and newspapers. This data was obtained from the Nelson Mandela Metropolitan University Library.

3.2 The criteria governing the admissibility of the data

According to Leedy and Ormrod (2010: 90), the data of a study is admissible if certain standards, limits and criteria are set with regard to how data is to be collected. This is to ensure that if a researcher wishes to repeat the study, they know the exact conditions under which the data must be collected.
The limitations for this study are given in the delimitations of the study, they provide information regarding to whom and what area this study was limited to.

3.3 The research methodology

This study was carried out through a survey of the literature together with an empirical study that was conducted using a quantitative approach.

A web-based questionnaire survey, distributed to all members forming part of the sample population formed the quantitative research.

3.3.1 The sample stratum

The population that could be used for a research study can differ and usually depends on what the study pertains to and areas which it focuses on.

Initially, a large sample stratum including: general contractors, house builders, partitioning contractors, plastering contractors, roofing contractors, wall texture applicators and waterproofing contractors who are members of the MBAWC were surveyed. Only 6 of the 120 contractors surveyed responded, this represented a response rate of 5%. The dreadfully low response rate deemed the data inadmissible and as such the survey was aborted.

The sample stratum for this study was then changed to medium and large GC members of the ECMBA. The sample consisted of 59 contractors in total.

3.2.2 Data analysis

A five-point ‘Likert’ type scale was used for the questionnaire of this study. This scale was implemented because it allowed the participants’ agreement and priority to be evaluated.

The five-point scale ranges from 1-5, where 1 is considered to be not important, minor, never, very poor or strongly disagree, and 5 very important, major, daily, very good or strongly agree. At times an additional point for ‘Does not’, ‘Is not’, and ‘Will not’ was included.
Descriptive statistics in the form of frequencies and a measure of central tendency, a mean score (MS), were generated from the data. These statistics were then sorted, analysed and displayed in tables, graphs and pie charts. The MS allows the results to be ranked in terms of importance to one another.

3.4 Development of the questionnaire

3.4.1 Introduction

A questionnaire was used to gather relevant data for each of the identified sub-problems in order to generate statistics to test the hypotheses. The questionnaire was also used to gather data to assist in the development of plausible recommendations or solutions to the problem.

An original questionnaire was compiled and was sent to MBAWC members. When this questionnaire did not receive enough responses it was updated and converted to a web-based questionnaire. It was believed that a web-based questionnaire would attract more respondents as it would minimise effort on the part of the respondents. The web-based questionnaire was then sent to medium and large ECMB contractors. The questionnaire consisted of 19 questions although because of web-based questionnaire formatting question 8 had to be split into two questions, making the total 20 questions. The questionnaire was kept simple, unambiguous and as concise as possible so as to ensure that respondents were not dissuaded from answering the relevant questions and so that they understood the full extent of what was being asked.

The number of questions in the questionnaire was limited so that respondents would not have had to spend an extensive amount of time responding. It was estimated that the questionnaire should have taken no longer than 15 minutes to complete. Upon conclusion of the questionnaire there was space provided for the respondents to record any additional comments they had relative to the study.
3.4.2 Questionnaire administration

Originally the questionnaire together with a covering letter briefly explaining the purpose of the study, was e-mailed as an attachment in Microsoft Word Document format to all general contractors, house builders, partitioning contractors, plastering contractors, roofing contractors, wall texture applicators and waterproofing contractors who are members of the MBAWC together with a ‘read request’. Before the questionnaire was distributed it was checked so as to ensure that it did not contain any errors. The contractors were given 3 weeks to respond to the survey. The contractors who did not respond after one week were reminded via e-mail, followed by another e-mail reminder another week later for those that did not respond yet again. All MBAWC respondents were thanked via e-mail for taking time to complete the questionnaire. Due to the lack of responses from the MBAWC contractors (5% response rate) this survey was abandoned.

The questionnaire was then updated and converted into a web-based format using SurveyMonkey. It was believed that a web-based questionnaire would attract more respondents due to a decreased effort on their part.

The updated questionnaire was e-mailed together with a brief covering letter and the link to the web-based survey to medium and large GC members of the ECMBA. The web-based survey contained a detailed covering letter on the first page. Before the questionnaire was distributed it was checked to ensure that it did not contain any errors. The contractors were given 3 weeks to respond to the survey. The contractors who did not respond after one week were reminded via e-mail, followed by another e-mail reminder another week later for those that did not respond yet again. Numerous contractors from the sample stratum were then selected at random contacted via telephone and asked if they were willing to respond to the survey. All ECMBA respondents were thanked via e-mail for taking time to complete the questionnaire.

3.4.3 Response rate

15 of the 59 medium and large GC members of the ECMBA completed the questionnaire, this resembled a response rate of 25.4%.
3.4.4 Questionnaire design

Table 3.1: Questionnaire Design.

<table>
<thead>
<tr>
<th>Question No.</th>
<th>Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-7</td>
<td>Demographics</td>
</tr>
<tr>
<td>8</td>
<td>●</td>
</tr>
<tr>
<td>9</td>
<td>●</td>
</tr>
<tr>
<td>10</td>
<td>General</td>
</tr>
<tr>
<td>11</td>
<td>General</td>
</tr>
<tr>
<td>12</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>●</td>
</tr>
<tr>
<td>14</td>
<td>●</td>
</tr>
<tr>
<td>15</td>
<td>●</td>
</tr>
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<td>16</td>
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<td>●</td>
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<tr>
<td>19</td>
<td>●</td>
</tr>
<tr>
<td>20</td>
<td>General comments</td>
</tr>
<tr>
<td>21</td>
<td>Participant details</td>
</tr>
</tbody>
</table>

3.4.5 Ethical considerations

Leedy and Ormrod (2010: 101-104) make reference to four categories regarding ethical issues in research.

- Protection from harm: A researcher may not expose participants in the study to any preventable physical or psychological harm;
- Informed consent: It is essential that participants in the study are informed of the exact nature of the study and their participation should be strictly voluntary;
- Right to privacy: The researcher must always consider the participants’ right to privacy. Details with regard to how a particular respondent responded to the questionnaire must never be revealed to others, and

- Honesty with professional colleagues: The results of a study must not be manipulated and / or misrepresented in any way what so ever. A researcher must report their findings in an honest and complete manner.

The preceding covering letter provided the participants with the relevant information to ensure that they understood the full extent of the study. All questionnaires were treated with confidentiality and anonymity was assured. The above mentioned was specifically stated in the covering letter.
CHAPTER FOUR: THE RESULTS

4.1 Introduction

In this chapter the research findings are analysed, interpreted, and discussed.

4.2 Interpretation of results

Table 4.1: Terms used when discussing the data.

<table>
<thead>
<tr>
<th>Minority</th>
<th>≤ 33.3%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Half</td>
<td>50%</td>
</tr>
<tr>
<td>Majority</td>
<td>≥ 66.7% &lt; 80%</td>
</tr>
<tr>
<td>Most</td>
<td>≥ 80% &lt; 100%</td>
</tr>
<tr>
<td>All</td>
<td>100%</td>
</tr>
</tbody>
</table>

The following table sets out the categories of the mean scores used in the tables.

Table 4.2: The grouping of mean scores (MS) for five-point ‘Likert’ scales.

<table>
<thead>
<tr>
<th>&gt; 1.00 ≤ 1.80</th>
<th>- Not important to less than important</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- Minor to near minor extent</td>
</tr>
<tr>
<td></td>
<td>- Never to monthly</td>
</tr>
<tr>
<td></td>
<td>- Very poor to poor</td>
</tr>
<tr>
<td></td>
<td>- Strongly disagree to disagree</td>
</tr>
<tr>
<td>&gt; 1.80 to ≤ 2.60</td>
<td>- Not important to less than important / less than important</td>
</tr>
<tr>
<td></td>
<td>- Minor to near minor extent / near minor extent</td>
</tr>
<tr>
<td></td>
<td>- Never to monthly / monthly</td>
</tr>
<tr>
<td></td>
<td>- Very poor to poor / poor</td>
</tr>
<tr>
<td></td>
<td>- Strongly disagree to disagree / disagree</td>
</tr>
<tr>
<td>Score Range</td>
<td>Description</td>
</tr>
<tr>
<td>---------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>&gt; 2.60 to ≤ 3.40</td>
<td>- Less than important to important / important</td>
</tr>
<tr>
<td></td>
<td>- Near minor extent to some extent / some extent</td>
</tr>
<tr>
<td></td>
<td>- Monthly to fortnightly / fortnightly</td>
</tr>
<tr>
<td></td>
<td>- Poor to average / average</td>
</tr>
<tr>
<td></td>
<td>- Disagree to neutral / neutral</td>
</tr>
<tr>
<td>&gt; 3.40 to ≤ 4.20</td>
<td>- Important to more than important / important</td>
</tr>
<tr>
<td></td>
<td>- Some extent to near major extent / near major extent</td>
</tr>
<tr>
<td></td>
<td>- Fortnightly to weekly / weekly</td>
</tr>
<tr>
<td></td>
<td>- Average to good / good</td>
</tr>
<tr>
<td></td>
<td>- Neutral to agree / agree</td>
</tr>
<tr>
<td>&gt; 4.20 to ≤ 5.00</td>
<td>- More than important to very important / very important</td>
</tr>
<tr>
<td></td>
<td>- Near major extent to major extent / major extent</td>
</tr>
<tr>
<td></td>
<td>- Weekly to daily / daily</td>
</tr>
<tr>
<td></td>
<td>- Good to very good / very good</td>
</tr>
<tr>
<td></td>
<td>- Agree to strongly agree / strongly agree</td>
</tr>
</tbody>
</table>

**Table 4.3:** The grouping of mean scores (MS) for five-point ‘Likert’ scales with an additional point that includes ‘0’ for ‘Does not’; ‘Is not’; and ‘Will not’.

<table>
<thead>
<tr>
<th>Score Range</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt; 0.00 ≤ 0.83</td>
<td>Does not / will not / is not to minor extent</td>
</tr>
<tr>
<td>&gt; 0.83 ≤ 1.67</td>
<td>Does not / will not / is not to minor extent / minor extent</td>
</tr>
<tr>
<td>&gt; 1.67 ≤ 2.50</td>
<td>Minor extent to near minor extent / near minor extent</td>
</tr>
<tr>
<td>&gt; 2.50 ≤ 3.34</td>
<td>Near minor extent to some extent / some extent</td>
</tr>
<tr>
<td>&gt; 3.34 ≤ 4.17</td>
<td>Some extent to near major extent / near major extent</td>
</tr>
<tr>
<td>&gt; 4.17 ≤ 5.00</td>
<td>Near major extent to major extent / major extent</td>
</tr>
</tbody>
</table>
Question 1

Please record your occupation

Figure 4.1 indicates the various occupations of the 15 respondents. It is apparent that more than half of the respondents (53.3%) hold a top management position.

Figure 4.1: Occupation of respondents.

Question 2

Please record your level of education / qualification(s) you possess

Figure 4.3 indicates the qualifications held by the 15 respondents. It is evident that more than half (53.3%) of the respondents hold an honours degree.
Question 3

Please record your age (years and months)

The mean age of respondents is 46.9 years.

Question 4

Please record the length of time that you have worked in the construction industry (years and months)

The mean number of years’ experience in the construction industry is 23.2 years.

Question 5

Please record the length of time that you have worked for your current employer (years and months)

The mean number of years’ that respondents have worked for their current employer is 13.7 years.
From the information obtained in question 1 to 5, it can be deduced that the respondents have a comprehensive understanding of the construction industry and should be more than suitably qualified to complete the questionnaire.

**Question 6**

**Please indicate your gender.**

Figure 4.3 shows that 87% of respondents are male and 13% of respondents are female.

**Figure 4.3: Gender of respondents.**

![Gender distribution](image)

**Question 7**

**On a scale of 1 (not) to 5 (very), please indicate how important the following project parameters are to your organisation (please note the ‘Unsure’ option):**

Table 4.4 displays how important certain aspects are according to GCs. The responses are tabulated in terms of percentage responses to a range of 1 (minor) to 5 (major), and a MS with a minimum value of 1.00 and a maximum value of 5.00. MSs > 3.00 indicate that respondents deem that the aspects are important as opposed to unimportant, as in the case of MSs ≤ 3.00. It is notable that 5 / 6 (83%) of the MSs ≥ 4.73.

Cost and quality are ranked joint first based upon a MS of 4.87 (more than important to very important / very important), which indicates that, according to GCs, cost and quality are the most important project parameters above any of the other parameters. Schedule (Time) ranked
third with a MS of 4.80. (H&S), and productivity were ranked tied fourth with MSs of 4.73 and environment was ranked last with a MS of 4.20. It must be mentioned that even though environment was ranked last of all the stated project parameters, it had a mean score of 4.20 and this indicates that the respondents still viewed it as important.

Table 4.4: The importance of the following project parameters to organisations.

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Response (%)</th>
<th>MS</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unsure</td>
<td>Minor</td>
<td>1</td>
</tr>
<tr>
<td>Cost</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Quality</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Schedule (Time)</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Health and Safety</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Productivity</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Environment</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Question 8 and 9

On a scale on 1 (minor) to 5 (major), to what extent are the following aspects negatively affected by worker substance abuse (please note the ‘Does not’ and ‘Unsure’ options):

Table 4.5 indicates the extent to which certain aspects are negatively affected by worker substance abuse. The responses are tabulated in terms of percentage responses to a range of ‘Does not’ and from 1 (minor) to 5 (major), and a MS with a minimum value of 0.00 and a maximum value of 5.00. MSs > 2.50 indicate that respondents believe that the aspects are negatively affected by worker substance abuse to a greater extent as opposed to a minor extent, as in the case of MSs ≤ 2.50. It is notable that 27 / 28 (96.4%) or most of the MSs ≥ 3.50.

H&S is ranked first with a MS of 4.47, followed closely by trustworthiness / Image of your firm / productivity that have MSs of 4.40. Performance / image of the construction industry have MSs of 4.33 and 4.27 respectively. According to the respondents, all of the above mentioned aspects are affected by worker substance abuse in a near major extent to major extent / major extent and these aspects represent 5 / 28 (17.9%) of the total aspects.

MSs > 3.34 to ≤ 4.17 indicate that aspects are affected from some extent to near major extent / near major extent. A total of 17 / 28 (60.7%) fall within this range.

35
MSs > 2.50 to ≤ 3.34 indicate that aspects are affected in a near minor extent to some extent / some extent. 4 / 28 (14.3%) of the aspects affected by worker substance abuse fall within this range. These four aspects are employee turnover, theft, crime, and violence on site.

Only 1 / 28 aspects (3.6%) had a MS falling in the range > 1.67 to ≤ 2.50, this range indicates that the aspect is affected to a minor extent to near minor extent / near minor extent.

It is notable that none of the aspects fell in the bottom two MS ranges of > 0.00 to ≤ 0.83 or > 0.83 to ≤ 1.67. This suggests that all aspects are affected to a minor extent to near minor extent or greater.

From the information gathered it can be said that substance abuse has a detrimental impact on many important aspects of the workplace.

It is also notable that in Question 7 the importance of certain aspects to a firm was ranked as follows:

- 1st (Joint) - Cost; Quality;
- 3rd - Schedule;
- 4th – H&S; Productivity, and
- 6th – Environment.

With regard to how these 6 aspects are affected by worker substance abuse, they are ranked as follows:

- 1st – H&S;
- 2nd – Productivity;
- 3rd – Quality;
- 4th – Schedule;
- 5th – Cost, and
- 6th – Environment.
Table 4.5: The extent to which certain aspects are negatively affected by worker substance abuse.

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Unsure</th>
<th>Does not</th>
<th>Minor</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>MS</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health and safety</td>
<td>0.0</td>
<td>0.0</td>
<td>6.7</td>
<td>0.00</td>
<td>0.0</td>
<td>26.7</td>
<td>66.7</td>
<td></td>
<td>4.47</td>
<td>1</td>
</tr>
<tr>
<td>Trustworthiness</td>
<td>0.0</td>
<td>0.0</td>
<td>0.00</td>
<td>6.7</td>
<td>46.7</td>
<td>46.7</td>
<td></td>
<td>4.40</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Image of your firm</td>
<td>0.0</td>
<td>0.0</td>
<td>0.00</td>
<td>20.0</td>
<td>20.0</td>
<td>60.0</td>
<td></td>
<td>4.40</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Productivity</td>
<td>0.0</td>
<td>0.0</td>
<td>0.00</td>
<td>20.0</td>
<td>20.0</td>
<td>60.0</td>
<td></td>
<td>4.40</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Performance</td>
<td>0.0</td>
<td>0.0</td>
<td>6.67</td>
<td>6.7</td>
<td>33.3</td>
<td>53.3</td>
<td></td>
<td>4.33</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Image of the construction industry</td>
<td>0.0</td>
<td>0.0</td>
<td>0.00</td>
<td>26.7</td>
<td>20.0</td>
<td>53.3</td>
<td></td>
<td>4.27</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Quality</td>
<td>0.0</td>
<td>0.0</td>
<td>6.7</td>
<td>13.3</td>
<td>33.3</td>
<td>46.7</td>
<td></td>
<td>4.13</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Workplace injuries</td>
<td>14.3</td>
<td>0.0</td>
<td>0.00</td>
<td>14.29</td>
<td>7.1</td>
<td>21.4</td>
<td>42.9</td>
<td></td>
<td>4.08</td>
<td>8</td>
</tr>
<tr>
<td>Disregard for health and safety measures implemented on site</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>13.33</td>
<td>6.7</td>
<td>40.0</td>
<td>40.0</td>
<td></td>
<td>4.07</td>
<td>9</td>
</tr>
<tr>
<td>Schedule (Time)</td>
<td>0.0</td>
<td>0.0</td>
<td>6.7</td>
<td>13.3</td>
<td>46.7</td>
<td>33.3</td>
<td></td>
<td>4.00</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Diverted supervisory time</td>
<td>0.0</td>
<td>0.0</td>
<td>0.00</td>
<td>13.3</td>
<td>13.3</td>
<td>3.3</td>
<td>40.0</td>
<td></td>
<td>4.00</td>
<td>10</td>
</tr>
<tr>
<td>Ability to follow instructions</td>
<td>0.0</td>
<td>0.0</td>
<td>6.7</td>
<td>0.00</td>
<td>20.0</td>
<td>33.3</td>
<td>40.0</td>
<td></td>
<td>4.00</td>
<td>12</td>
</tr>
<tr>
<td>Carelessness / Mistakes</td>
<td>0.0</td>
<td>0.0</td>
<td>6.7</td>
<td>0.00</td>
<td>20.0</td>
<td>40.0</td>
<td>33.3</td>
<td></td>
<td>3.93</td>
<td>13</td>
</tr>
<tr>
<td>Rework</td>
<td>0.0</td>
<td>0.0</td>
<td>14.3</td>
<td>0.00</td>
<td>14.3</td>
<td>28.6</td>
<td>42.9</td>
<td></td>
<td>3.86</td>
<td>14</td>
</tr>
<tr>
<td>Arriving late for work</td>
<td>0.0</td>
<td>0.0</td>
<td>6.7</td>
<td>13.3</td>
<td>13.3</td>
<td>26.7</td>
<td>40.0</td>
<td></td>
<td>3.80</td>
<td>15</td>
</tr>
<tr>
<td>Absenteeism</td>
<td>0.0</td>
<td>0.0</td>
<td>13.3</td>
<td>6.67</td>
<td>6.7</td>
<td>40.0</td>
<td>33.3</td>
<td></td>
<td>3.73</td>
<td>16</td>
</tr>
<tr>
<td>Workplace deaths</td>
<td>26.7</td>
<td>13.3</td>
<td>0.0</td>
<td>0.00</td>
<td>6.7</td>
<td>13.3</td>
<td>40.0</td>
<td></td>
<td>3.73</td>
<td>17</td>
</tr>
<tr>
<td>Friction among workers</td>
<td>0.0</td>
<td>0.0</td>
<td>0.00</td>
<td>20.00</td>
<td>20.0</td>
<td>20.0</td>
<td>33.3</td>
<td>26.7</td>
<td>3.67</td>
<td>18</td>
</tr>
<tr>
<td>Unexplained disappearances from site</td>
<td>0.0</td>
<td>0.0</td>
<td>6.7</td>
<td>20.00</td>
<td>13.3</td>
<td>20.0</td>
<td>40.0</td>
<td></td>
<td>3.67</td>
<td>19</td>
</tr>
<tr>
<td>Morale of employees</td>
<td>0.0</td>
<td>0.0</td>
<td>6.7</td>
<td>13.33</td>
<td>20.0</td>
<td>40.0</td>
<td>20.0</td>
<td></td>
<td>3.53</td>
<td>20</td>
</tr>
<tr>
<td>Workers’ compensation and disability claims</td>
<td>20.0</td>
<td>13.3</td>
<td>0.0</td>
<td>0.00</td>
<td>13.3</td>
<td>26.7</td>
<td>26.7</td>
<td></td>
<td>3.50</td>
<td>21</td>
</tr>
<tr>
<td>Damage to plant and equipment</td>
<td>6.7</td>
<td>6.7</td>
<td>6.7</td>
<td>6.67</td>
<td>20.0</td>
<td>26.7</td>
<td>26.7</td>
<td></td>
<td>3.43</td>
<td>22</td>
</tr>
<tr>
<td>Cost</td>
<td>6.7</td>
<td>0.0</td>
<td>20.0</td>
<td>13.33</td>
<td>0.00</td>
<td>26.7</td>
<td>33.3</td>
<td></td>
<td>3.43</td>
<td>23</td>
</tr>
<tr>
<td>Employee turnover</td>
<td>0.0</td>
<td>0.0</td>
<td>6.7</td>
<td>13.33</td>
<td>33.3</td>
<td>33.3</td>
<td>13.3</td>
<td>3.33</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>Theft</td>
<td>7.1</td>
<td>7.1</td>
<td>14.3</td>
<td>7.14</td>
<td>21.4</td>
<td>28.6</td>
<td>14.3</td>
<td>3.00</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>Crime</td>
<td>6.7</td>
<td>6.7</td>
<td>20.0</td>
<td>6.67</td>
<td>26.7</td>
<td>26.6</td>
<td>6.67</td>
<td></td>
<td>2.71</td>
<td>26</td>
</tr>
<tr>
<td>Violence on site</td>
<td>0.0</td>
<td>6.7</td>
<td>26.7</td>
<td>13.33</td>
<td>20.0</td>
<td>20.0</td>
<td>13.3</td>
<td>2.60</td>
<td>27</td>
<td></td>
</tr>
<tr>
<td>Environment</td>
<td>6.7</td>
<td>20.0</td>
<td>6.7</td>
<td>6.67</td>
<td>46.7</td>
<td>13.3</td>
<td>0.0</td>
<td></td>
<td>2.29</td>
<td>28</td>
</tr>
</tbody>
</table>

**Question 10**

Please indicate the occasions when worker substance abuse occurs (note the ‘Unsure’ option):

Table 4.6 presents the occasions when worker substance abuse occurs. The responses are tabulated in terms of the total percentage of respondents that selected a particular class of substance for a particular occasion.
From the table it can be seen that weekends was when worker substance abuse occurred most frequently. All of the respondents stated that alcohol was abused on weekends, and the majority of respondent stated that drugs were abused on weekends, while the minority stated that inhalants were abused on weekends. ‘After hours’ was ranked second and ‘before work’ third. Alcohol and drug abuse during working hours was reported by 40% of the respondents and only 6.7% of respondents stated that inhalants were abused during working hours. Substance abuse during working hours is ranked 4 / 7 mentioned occasions. Some contractors were unsure about the occasions when worker substance abuse occurred. There was more uncertainty surrounding the occasions when drugs and inhalants were abused when compared to alcohol. Tea time and lunch time where ranked second from last and last respectively. Only 13.3% of contractors said that alcohol was abused during these times while 33.3% reported drug use during tea time and 26.7% reported drug use during lunch time. The abuse of inhalants was not reported by any of the respondents during tea time or lunch time. One respondent commented that workers often arrive on site on a Monday still under the influence of the weekends drinking.

**Table 4.6: The occasions when worker substance abuse occurs.**

<table>
<thead>
<tr>
<th>Occasion</th>
<th>Alcohol</th>
<th>Drugs</th>
<th>Inhalants e.g. glue; petroleum; solvents; etc.</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekends</td>
<td>100.0</td>
<td>73.3</td>
<td>13.3</td>
<td>1</td>
</tr>
<tr>
<td>After hours</td>
<td>86.7</td>
<td>66.7</td>
<td>13.3</td>
<td>2</td>
</tr>
<tr>
<td>Before work</td>
<td>60.0</td>
<td>40.0</td>
<td>6.7</td>
<td>3</td>
</tr>
<tr>
<td>During working hours</td>
<td>40.0</td>
<td>40.0</td>
<td>6.7</td>
<td>4</td>
</tr>
<tr>
<td>Unsure</td>
<td>6.7</td>
<td>20.0</td>
<td>20.0</td>
<td>5</td>
</tr>
<tr>
<td>Tea time</td>
<td>13.3</td>
<td>33.3</td>
<td>0.0</td>
<td>6</td>
</tr>
<tr>
<td>Lunch time</td>
<td>13.3</td>
<td>26.7</td>
<td>0.0</td>
<td>7</td>
</tr>
</tbody>
</table>

**Question 11**

On a scale of 1 (never) to 5 (daily), please indicate how frequently the following substances are abused by workers (please note the ‘Unsure’ option):

Table 4.7 shows how frequently workers abuse certain substances. The responses are tabulated in terms of percentage responses to a range of 1 (never) to 5 (daily), and a MS with a minimum value of 1.00 and a maximum value of 5.00. MSs > 3.00 indicate that respondents
are of the opinion that the substances are abused frequently as opposed to infrequently, as in the case of MSs ≤ 3.00. It is notable that of the 17 listed substance only 2 substances (cannabis and alcohol) have a mean score greater than 3.00.

Cannabis (Dagga) is the most frequently abused substance by construction workers with a MS of 3.50, this suggests that on average it is being abused fortnightly to weekly / weekly. Alcohol was the runner up with a MS of 3.14, and that on average it is abused monthly to fortnightly / fortnightly. Construction workers in South Africa are often remunerated on a fortnightly basis which could be a possible reason as to why alcohol is often abused fortnightly.

Inhalants, Mandrax, Tik, Methylated Spirits, Ice, and Ecstasy are only abused in a minor to near minor manor or on a never to monthly basis. It is notable that half to the majority of the respondents were unsure about how frequently inhalants are abused and the majority of respondents are unsure about how frequently Mandrax, Tik, Methylated Spirits, Ice and Ecstasy are abused.

A total of 9 / 17 (52.9%) or a little over half of the listed substances are according to the respondents, never abused by workers. It must be mentioned however, that most respondents were unsure regarding how frequently these substances were used and abused by workers.

Respondents had the option of naming other substances that may be abused by workers, although none of the respondents mentioned any others. This suggests that the list of substances given was comprehensive.

From the information obtained in Question 12 it can be deduced that apart from alcohol and dagga respondents are generally uncertain of how frequently the other listed substances are used.
Table 4.7: The frequency at which the following substances are abused by workers.

<table>
<thead>
<tr>
<th>Substance</th>
<th>Response (%)</th>
<th>MS</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cannabis (Dagga)</td>
<td>6.7</td>
<td>3.50</td>
<td>1</td>
</tr>
<tr>
<td>Alcohol</td>
<td>6.7</td>
<td>3.14</td>
<td>2</td>
</tr>
<tr>
<td>Inhalants e.g. glue; petroleum; solvents; etc.</td>
<td>60.0</td>
<td>1.67</td>
<td>3</td>
</tr>
<tr>
<td>Mandrax (Buttons)</td>
<td>73.3</td>
<td>1.50</td>
<td>4=</td>
</tr>
<tr>
<td>Methamphetamine (Tik)</td>
<td>73.3</td>
<td>1.50</td>
<td>4=</td>
</tr>
<tr>
<td>Methylated spirits</td>
<td>66.7</td>
<td>1.40</td>
<td>6</td>
</tr>
<tr>
<td>Crystal methamphetamine (Ice)</td>
<td>80.0</td>
<td>1.33</td>
<td>7</td>
</tr>
<tr>
<td>MDMA (Ecstasy)</td>
<td>73.3</td>
<td>1.25</td>
<td>8</td>
</tr>
<tr>
<td>Datura stramonium (malpitte)</td>
<td>86.7</td>
<td>1.00</td>
<td>9=</td>
</tr>
<tr>
<td>Gamma-Butyrolactone (GBL)</td>
<td>86.7</td>
<td>1.00</td>
<td>9=</td>
</tr>
<tr>
<td>Khat (Sugars)</td>
<td>86.7</td>
<td>1.00</td>
<td>9=</td>
</tr>
<tr>
<td>Phencyclidine (PCP)</td>
<td>85.7</td>
<td>1.00</td>
<td>12</td>
</tr>
<tr>
<td>Cocaine</td>
<td>80.0</td>
<td>1.00</td>
<td>13=</td>
</tr>
<tr>
<td>Crack cocaine (Rocks)</td>
<td>80.0</td>
<td>1.00</td>
<td>13=</td>
</tr>
<tr>
<td>Heroine</td>
<td>80.0</td>
<td>1.00</td>
<td>13=</td>
</tr>
<tr>
<td>LSD (Acid)</td>
<td>80.0</td>
<td>1.00</td>
<td>13=</td>
</tr>
<tr>
<td>Nyaope (Whoonga)</td>
<td>80.0</td>
<td>1.00</td>
<td>13=</td>
</tr>
</tbody>
</table>

Question 12

On a scale of 1 (very poor) to 5 (very good), please indicate your rating of the South African construction industry in terms of the management of worker substance abuse for the following substances (please note the ‘Unsure’ option):

Table 4.8 presents the ratings for the perceived management of the various substances abused by workers in the South African construction industry. The responses are tabulated in terms of percentage responses to a range of 1 (very poor) to 5 (very good), and a MS with a minimum value of 1.00 and a maximum value of 5.00.

The management of alcohol abuse was perceived to be the best of the 17 listed substances, with a MS of 3.15. It is notable that this MS places the management of alcohol in the poor to average / average class (> 2.60 to ≤ 3.40). The runners up included Cocaine, Rocks, Tik, and Heroine, all with MSs of 3.00, however, the majority of respondents were in fact uncertain of how well these substances are managed. Cannabis is ranked 6 / 17 substances and has a MS of 2.77, this means that cannabis is also perceived to be managed in poor to average / average manner. It is notable that even though Cannabis is ranked 6th, only 13.3% or the minority of respondents were unsure. Inhalants is ranked 7th and has a MS of 2.67, placing it in the same
range as all the above mentioned substances however, the majority of respondents remained uncertain.

Malpitte, Buttons, Ice, and Methylated Spirits are said to be managed in a very poor to poor / poor manner. It is however noteworthy that Malpitte and Ice were reported never being used in Question 11, with the majority of respondents uncertain of how frequently the substances are used and now in Question 12, even though the majority of respondents provided an ‘unsure’ answer it is perceived to be managed in a very poor to poor / poor manner. This suggest that respondents do not have an understanding of the frequency of use or management of these substances.

93.3% of respondents were uncertain of how well the remaining 6 substances are managed and the remaining 6.7% of respondents cannot be taken seriously as all 6 of these substances were reported in Question 11 as never being used and the majority of respondents were uncertain over the use of these 6 substances.

Table 4.8: The management of worker substance abuse for the following substances in the South African construction industry.

<table>
<thead>
<tr>
<th>Substance</th>
<th>Response (%)</th>
<th>MS</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unsure</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Alcohol</td>
<td>13.3</td>
<td>13.3</td>
<td>13.3</td>
</tr>
<tr>
<td>Cocaine</td>
<td>86.7</td>
<td>6.7</td>
<td>0.0</td>
</tr>
<tr>
<td>Crack cocaine (Rocks)</td>
<td>86.7</td>
<td>6.7</td>
<td>0.0</td>
</tr>
<tr>
<td>Methamphetamine (Tik)</td>
<td>86.7</td>
<td>6.7</td>
<td>0.0</td>
</tr>
<tr>
<td>Heroine</td>
<td>86.7</td>
<td>6.7</td>
<td>0.0</td>
</tr>
<tr>
<td>Cannabis (Dagga)</td>
<td>13.3</td>
<td>13.3</td>
<td>26.7</td>
</tr>
<tr>
<td>Inhalants e.g. glue; petroleum; solvents; etc.</td>
<td>80.0</td>
<td>6.7</td>
<td>6.7</td>
</tr>
<tr>
<td>Datura stramonium (Malpitte)</td>
<td>86.7</td>
<td>6.7</td>
<td>0.0</td>
</tr>
<tr>
<td>Mandrax (Buttons)</td>
<td>86.7</td>
<td>6.7</td>
<td>0.0</td>
</tr>
<tr>
<td>Crystal Methamphetamine (Ice)</td>
<td>86.7</td>
<td>6.7</td>
<td>0.0</td>
</tr>
<tr>
<td>Methylated spirits</td>
<td>86.7</td>
<td>6.7</td>
<td>6.7</td>
</tr>
<tr>
<td>Gamma-Butyrolactone (GBL)</td>
<td>93.3</td>
<td>6.7</td>
<td>0.0</td>
</tr>
<tr>
<td>Khat (Sugars)</td>
<td>93.3</td>
<td>6.7</td>
<td>0.0</td>
</tr>
<tr>
<td>Nyaope (Whoonga)</td>
<td>93.3</td>
<td>6.7</td>
<td>0.0</td>
</tr>
<tr>
<td>MDMA (Ecstasy)</td>
<td>93.3</td>
<td>6.7</td>
<td>0.0</td>
</tr>
<tr>
<td>LSD (Acid)</td>
<td>93.3</td>
<td>6.7</td>
<td>0.0</td>
</tr>
<tr>
<td>Phencyclidine (PCP)</td>
<td>93.3</td>
<td>6.7</td>
<td>0.0</td>
</tr>
</tbody>
</table>
Question 13

Does your organisation employ any of the following measures to help prevent worker substance abuse?

Figure 4.4 indicates the percentage of employers that have adopted a substance abuse policy to assist in the prevention of worker drug and other substance abuse. It is notable that 93.3% of respondents have implemented a substance abuse policy to assist with the prevention of worker substance abuse.

Figure 4.4: Policy.

Figure 4.5 indicates that two thirds of respondents (majority) employ WEAPs to help curb the issue of substance abuse.

Figure: 4.5: Worker employee education and awareness programme (WEAP).

Figure 4.6 shows that more than half of the respondents claim to test employees for substance use before allowing them onto site.
Figure 4.6: Testing employees before allowing them onto site.

Figure 4.7 shows that 53% of all respondents use supervisory training programmes to help with the prevention of the problem of worker substance abuse.

Figure 4.7: Supervisory training programmes.

Figure 4.8 indicates that slightly more than half of the respondents have not or do not use employee assistance programmes.

Figure 4.8: Employee assistance programme (EAP).

Figure 4.9 indicates that more than half of respondents do not test new workers for substance abuse.
Question 14

If ‘No’ was provided as a response to any of the measures in ‘13.’ Please indicate the extent to which the following possible reasons contributed to your response.

Table 4.9 presents the extent to which the following possible reasons could have contributed to a contractor not having implemented any one of the measures mentioned in Question 13. The responses are tabulated in terms of percentage responses to a range of 1 (minor) to 5 (major), and a MS with a minimum value of 1.00 and a maximum value of 5.00. MSs > 3.00 indicate that respondents deem the aspects to be major, as opposed to minor reasons for not implementing any one of the measures, as in the case of MSs ≤ 3.00.

The lack of qualified personnel is the main reason that employees did not implement any one of the measures mentioned in Question 13. It is notable that ‘lack of qualified personnel’ had a MS of 3.18 as this indicates it is only a reason between near minor extent to some extent / some extent, in spite of it being ranked 1st. Lack of time ranks second and has a MS of 3.09.

The remaining three reasons namely: ‘no foreseeable benefits’; ‘lack of information / knowledge’; and ‘lack of finance / cost’, in that order, all fall within the range > 1.80 to ≤ 2.60 (between a minor extent to near minor extent / near minor extent).

The fact that the listed reasons have low MSs suggests that there may be other reasons for not implementing measures to prevent worker substance abuse.
Table 4.9: Reasons for not implementing any of the above measures to help prevent worker substance abuse.

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Response (%)</th>
<th>MS</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unsure</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Lack of qualified personnel</td>
<td>0.0</td>
<td>27.3</td>
<td>0.00</td>
</tr>
<tr>
<td>Lack of time</td>
<td>0.0</td>
<td>27.3</td>
<td>9.09</td>
</tr>
<tr>
<td>No foreseeable benefits</td>
<td>9.1</td>
<td>36.4</td>
<td>9.09</td>
</tr>
<tr>
<td>Lack of information / knowledge</td>
<td>0.0</td>
<td>36.4</td>
<td>36.36</td>
</tr>
<tr>
<td>Lack of finance / cost</td>
<td>0.0</td>
<td>45.5</td>
<td>9.09</td>
</tr>
</tbody>
</table>

Question 15

On a scale of 1 (minor) to 5 (major), to what extent can the following measures help to curb worker substance abuse (please note the ‘Unsure’ and ‘Will not’ option)?

Table 4.10 presents the extent to which the following measures could help to prevent worker substance abuse. The responses are tabulated in terms of percentage responses to a range of 1 (minor) to 5 (major), and a MS with a minimum value of 0.00 (Will not) and a maximum value of 5.00. MSs > 2.50 indicate that respondents deem the aspects to be major reasons as opposed to minor reasons for not implementing any one of the measures, as in the case of MSs ≤ 2.50.

Testing employees before allowing them onto site is ranked 1 / 6 measures that can be implemented to help curb worker substance abuse. It has a MS of 3.54, which indicates that it can help prevent worker substance abuse between some extent to a near major extent / near major extent.

According to the respondents, a WEAP is the 2nd best measure of the 6 listed measures to assist in the prevention of worker substance abuse. WEAPs achieved a MS of 3.00, which shows that respondents believe that a WEAP will assist between a near minor extent to some extent / some extent. The remaining measures including ‘new worker testing’, ‘supervisory training programme’, ‘EAP’, and ‘Policy’ respectively, all fall within the range > 2.50 ≤ 3.34 (between a near minor extent to some extent / some extent).
Table 4.10: The extent to which the following measures can help to curb worker substances abuse.

<table>
<thead>
<tr>
<th>Measures</th>
<th>Unsure</th>
<th>Will not</th>
<th>Minor</th>
<th>Agree</th>
<th>Major</th>
<th>MS</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Testing employees before allowing them onto site</td>
<td>13.3</td>
<td>13.3</td>
<td>6.67</td>
<td>0.00</td>
<td>6.67</td>
<td>20.00</td>
<td>40.00</td>
</tr>
<tr>
<td>Worker Education and Awareness Programme</td>
<td>6.7</td>
<td>13.3</td>
<td>6.67</td>
<td>20.00</td>
<td>0.00</td>
<td>33.33</td>
<td>20.00</td>
</tr>
<tr>
<td>New worker testing</td>
<td>13.3</td>
<td>13.3</td>
<td>20.00</td>
<td>0.00</td>
<td>6.67</td>
<td>26.67</td>
<td>20.00</td>
</tr>
<tr>
<td>Supervisory training programme</td>
<td>13.3</td>
<td>20.00</td>
<td>6.67</td>
<td>13.33</td>
<td>0.00</td>
<td>33.33</td>
<td>13.33</td>
</tr>
<tr>
<td>Employee Assistance Programme (EAP)</td>
<td>20.0</td>
<td>20.00</td>
<td>6.67</td>
<td>6.67</td>
<td>6.67</td>
<td>26.67</td>
<td>13.33</td>
</tr>
<tr>
<td>Policy</td>
<td>6.7</td>
<td>20.00</td>
<td>13.33</td>
<td>13.33</td>
<td>13.33</td>
<td>6.67</td>
<td>26.67</td>
</tr>
</tbody>
</table>

Question 16

Please indicate to what extent you agree with the statement, ‘Assisting employees with substance abuse issues should form part of a firm’s corporate social responsibility.’

Table 4.11 reports the extent to which contractors agree to the statement, ‘assisting employees with substance abuse issues should form part of a firm’s corporate social responsibility.’ The responses are tabulated in terms of percentage responses to a range of 1 (strongly disagree) to 5 (strongly agree), and a MS with a minimum value of 1.00 and a maximum value of 5.00. MSs > 3.00 indicate that respondents can be deemed to perceive that they agree with the statement as opposed to disagree, as in the case of MSs ≤ 3.00.

It is notable that the statement has a MS of 3.62 as this indicates that respondents’ concurrence is between neutral to agree / agree.

Table 4.11: The extent to which contractors believe that assisting employees with substance abuse issues should form part of a firm’s corporate social responsibility.

<table>
<thead>
<tr>
<th>Response (%)</th>
<th>MS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unsure</td>
<td>Strongly Disagree</td>
</tr>
<tr>
<td>7.1</td>
<td>7.1</td>
</tr>
</tbody>
</table>
Question 17

Are you aware of any incidents that have occurred as a result of worker substance abuse?

Figure 4.10: Indicates that just over half of the respondents are aware of an incident that has occurred on site as a result of worker substance abuse.

Figure 4.10: Respondents who are aware of incidents resulting from worker substance abuse.

Question 18

If you answered ‘Yes’ in ‘17.’ please elaborate on the incident?

Descriptions of incidents by respondents:

“MTC due to slip and fall as a result of being unstable on his feet due to intoxication.”

“Worker reported to work under the influence of alcohol, he refused to leave site, scuffle resulted with the supervisor – Worker was dismissed after disciplinary hearing.”

“TLB driver was drunk and damaged a wall.”

“Alcohol abuse – worker was removed from site and a disciplinary hearing was held followed by dismissal.”
“Fights between employees. Fatality on an electrical installation.”

“Confidential.”

“Alcohol induced violence after hours.”

“Not allowed on site.”

**Question 19**

**Is worker substance abuse a problem?**

Table 4.12: indicates that contractors believe that worker substance abuse is a problem of near minor extent to some extent.

**Table 4.12: Is worker substance abuse a problem?**

<table>
<thead>
<tr>
<th>Response (%)</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>MS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unsure</td>
<td>0.0</td>
<td>13.3</td>
<td>20.0</td>
<td>20.0</td>
<td>26.7</td>
<td>13.3</td>
</tr>
</tbody>
</table>

**Question 20**

**Do you have any comments in general regarding worker substance abuse in the construction industry?**

General comments made by respondents:

“It’s (substance abuse) more prevalent in certain trades e.g. painters and skimmers (dagga). Less prevalent in higher skilled trades e.g. M&E. Greatest impact is Monday absenteeism.”

“Incidents are isolated and dealt with – alcohol, cannabis used regularly but it is tapering off. Can’t say about hard drugs.”
“The public need the required education, not building industry specific – if parents do not lead by example their children will follow in the same abusive manner.”

“If they drink, we fire them. We have a zero tolerance, as much of our work is inside factories, which have a zero tolerance.”
CHAPTER FIVE: TESTING OF HYPOTHESES

5.1 The testing of the hypotheses

5.1 Introduction

The reviews of the related literature together with the findings of the survey were used to test the four (4) hypotheses.

5.1.2 Hypothesis 1: Worker drug and other substance abuse is often a cause of accidents

This hypothesis is partially supported by the following empirical findings:

- Respondents indicated that H&S is negatively affected by worker substance abuse between a near major extent to major extent / major extent and that workplace injuries, workplace deaths, and workers’ compensation and disability claims are affected between some extent to a near major extent / near major extent (Table 4.5), and
- A little over half of the respondents said that they were aware of incidents resulting from worker substance abuse (Figure 4.10). Incidents included medical treatment for a worker who slipped and fell, and a fatality on an electrical installation as a result of intoxication (Question 18).

This hypothesis is further supported by the review of the literature:

- According to Evans (2014), alcohol and drugs are a major contributing factor to many workplace accidents in the construction industry;
- The NBGH (2009: 14) states that a study in the USA found that employees who abuse alcohol or drugs are three and a half times more likely to be involved in a workplace accident when compared to other workers;
- According to Smallwood (1998: 354, citing Coble and Genauer 1996), research conducted in the USA determined that workers who abuse substances are three and a half times more likely to be injured on the job and 5 times more likely to have an accident off the job;
- The relationship between drinking and occupational injuries is substantial. A hospital emergency department study showed that 35% of patients with an occupational injury
were at-risk drinkers. Breathalyser tests in another study detected alcohol in 16% of emergency room patients injured at work (Breugem et al., 2006: 1);

- The NBGH (2009: 14) states that 40% of industrial fatalities are related to substance abuse;

- Breugem et al. (2006: 3) states that alcohol and other drug related harm in the workplace can manifest in terms of physical harms i.e. injuries and fatalities. In Australia, between 3 and 11% of workplace injuries and 4% of work-related deaths involve alcohol; other drugs contribute to 2% of work-related deaths. In total, it is believed that substance abuse is a contributing factor in at least 5% of work related fatalities (Breugem et al., 2006: 3), and

- According to Ramchand et al. (2009: 14), various studies have estimated the presence of alcohol among occupational fatalities to range from 4 to 20%, with the majority falling between 15 and 20%.

5.1.3 Hypothesis 2: Worker drug and other substance abuse is often a cause of poor overall performance

This hypothesis is partially supported by the following empirical findings:

- Respondents indicated that both productivity and performance are negatively affected by worker substance abuse between a near major extent to major extent / major extent (Table 4.5);

- According to the respondents, aspects including quality, schedule, diverted supervisory time, ability to follow instructions, carelessness / mistakes, arriving late for work, absenteeism, rework, and damage to plant and equipment are negatively affected by worker substance abuse to some extent to near major extent / near major extent, and

- A tractor loader backhoe (TLB) operator was drunk and damaged a wall (Question 18).

This hypothesis is further supported by the review of the literature:

- According to the NBGH (2009: 13), in the USA during the year 2002, lost work productivity related to illicit drug abuse, including absenteeism and poor job performance resulted in a cost of approximately $129 billion. Research demonstrates that excessive drinking outside normal working hours has a negative impact on productivity at work. It is believed that productivity can be reduced at any level of dependence. Employees with
light and moderate alcohol use cause 60% of alcohol related absenteeism, tardiness, and poor work quality. Studies have also shown that substance abusers function at just two thirds of their capability;

- Frone (2004: 133) states that absenteeism is the most consistently documented outcome related to employee alcohol and drug use, and
- In the USA, an estimated 500 million workdays are lost each year due to alcohol abuse alone. Workers who use drugs are twice as likely to request time off and are two and a half times more likely to have to have periods of absence for eight days or more (NBGH, 2009: 13).

This hypothesis is partially rejected by the review of the literature with the following finding. Frone (2004: 129) states that in spite of the widely held belief that the use of alcohol and other psychoactive substances among workers may negatively affect employee productivity, past reviews of the literature suggest that this relation is neither consistent nor robust and that research support is most consistent with absenteeism.

5.1.4. Hypothesis 3: Poor worker conduct is often attributable to drug and other substance abuse.

This hypothesis is partially supported by the following empirical findings:

- Respondents indicate that trustworthiness is negatively affected by worker drug and other substance abuse between a near major extent to major extent / major extent (Table 4.5);
- According to the respondents, aspects including disregard for H&S measures implemented on site, friction among workers, unexplained disappearances from site, and morale of employees is negatively affected by worker substance abuse to some extent to near major extent / near major extent (Table 4.5);
- Respondents indicate that theft, crime, and violence on site is negatively affected by worker drug and other substance abuse to some extent (Table 4.5), and
- According to the respondents, there were incidents of poor worker conduct encounter as a result of worker substance abuse, these included:
  - A worker who reported to work under the influence of alcohol, he refused to leave site and a scuffle broke out between the worker and the supervisor. The worker was later dismissed after a disciplinary hearing;
- A worker who was under the influence of alcohol was removed from site and following a disciplinary hearing the worker was dismissed;
- Fights between employees on site, and
- Alcohol induced violence after hours (Question 18).

This hypothesis is further supported by the review of the literature:
- Drug users are 3 times more likely to be late for work (Smallwood, 1998: 354, citing Coble and Genauer 1996; NBGH, 2009: 13);
- Ryan Binedell of GVK says that the tendency towards crime and violence is often aggravated by substance abuse and that early prevention can be achieved through alcohol and drug testing before gaining access to the workplace, in order to ensure that employees are not under the influence while at work or about to start work (GVK, 2014: 4);
- Chandler (2014: 3) states that where there is drug abuse in the workplace the chance of employee theft is 36 times higher and there is also a greater chance of workplace violence, and
- Blume (1998: 73) states that as a result of the need for money for drugs and other substances, an employee may resort to stealing items from the workplace or selling drugs on the job.

5.1.5 Hypothesis 4: Workers’ use of drugs and other substances is attributable to inadequate or lack of drug and other substance abuse programmes.

This hypothesis is partially supported by the following empirical findings:
- 63% of respondents implement WEAPs (Figure 4.5);
- Just over half (53%) of the respondents said that they test employees before allowing them onto site (Figure 4.6);
- Just over half (53%) of the respondents said that they make use of supervisory training programmes to assist with the prevention of drug and other substance abuse (Figure 4.7);
- Just over half (53%) of the respondents stated that they do not make use of EAPs (Figure 4.8), and
- More than half (60%) of the respondents indicated that they do not carry out new worker testing (Figure 4.9)
This hypothesis is further supported by the review of the literature:

- According to Thirteen.wnet (1998:7), a key factor in worker health and well-being and a safe, productive workplace, is the provision of alcohol and other drug awareness information to all employees. In addition to reducing substance use, abuse, and addiction that affect the workplace, such prevention efforts improve morale and benefit employees’ families and the broader community;
- According to Kirkwood (2005: 9) EAPs are deemed to be the most effective approach for addressing performance issues in the workplace that may arise from an employee’s alcohol and other drug misuse;
- Smallwood (1998: 355) states that supervisor training is essential to, among other: empower supervisors to observe and document incidents; assist employees; initiate procedures if a drug testing programme exists, and assist workers in re-entering the workplace after treatment;
- Cesarini et al. (2013: 1) state that testing may identify workers with substance abuse problems before they endanger others and enable the company to steer them into treatment programs, and
- According to Smallwood (1998: 355, citing Hinze 1997), several firms had reported astonishing improvements in H&S performance and one contractor reported that within one year of the implementation of mandatory pre-employment testing its incidence of injuries was reduced by 50%. 
CHAPTER SIX: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

6.1. Summary

The aim and objectives of this study entitled ‘Worker substance abuse in the construction industry’ were namely to:

- Determine the extent of substance abuse in the South African construction industry;
- Determine the extent to which organisations suffer as a result of worker substance abuse;
- Determine the resulting H&S and performance implications, and
- Evolve interventions to reduce the incidence of such substance abuse among construction workers.

A questionnaire was distributed to medium and large GC members of the ECMBA. The questionnaire consisted of 20 questions. The respondents were required to answer the questions on a five point Likert type scale. The web-based program SurveyMonkey was used to capture the results.

A summary of the findings relative to the objectives of the study is as follows:

- Respondents indicated that worker substance abuse is a problem between a near minor extent to some extent / some extent;
- Accidents are often attributable to worker drug and other substance abuse;
- Poor performance is often as a result of drug and other substance abuse;
- Worker drug and other substance abuse often results in poor worker conduct, and
A lack of drug and other substance abuse programmes allows for worker drug and other substance abuse.

6.2. Conclusions

Worker drug and other substance abuse is prevalent to a greater or lesser extent in the construction industry. Worker drug and other substance abuse is often a cause of accidents, poor overall performance, poor worker conduct, and is often attributable to inadequate or lack of drug and other substance abuse programmes.

Research has shown that worker drug and other substance abuse impacts on H&S more than any other aspect and although written policy serves as the foundation for a drug-free workplace it is not sufficient on its own and needs to be supported by WEAPs, testing, supervisory training programmes, and EAPs.

The research from this study indicates that it is essential for building contractors to implement effective drug and other substance abuse programmes in order to diminish or even eliminate the many negative impacts resulting therefrom.

6.3. Recommendations

6.3.1 Accidents

Workers who are suspected to be under the influence of any drug or other substance should be subjected to a series of tests before being granted access to site. It is important that contractors act within the confines of the law.

6.3.2 Performance

Overall employee performance should be monitored and records thereof need to be kept. According to the review of the related literature, key signs and symptoms to be monitored include quality, productivity, and absenteeism.
If an employee is consistently performing poorly then an investigation must take place. An investigation could include testing for drug and other substance abuse.

6.3.3. Conduct

Incidents of poor worker conduct must be recorded and the possible reasons therefore should be thoroughly investigated. According to the review of the related literature, a deterioration in personal appearance, and complaints and excuses of vaguely defined illnesses are common behavioural signs and symptoms of substance abusers.

6.4.4. Use of drugs and other substances

A drug and other substance abuse policy must be implemented together with an effective drug and other substance abuse programme. Programmes should include WEAPs, supervisory training programmes, EAPs, and testing.

6.4.5. For further research

The study focused on all workers employed by GCs and did not focus on specific trades, a respondent indicated in the general comments that worker drug and other substance abuse is more prevalent among certain trades. Further studies should focus on specific trades within the construction industry.

Literature relating to worker drug and other substance abuse in the construction industry is limited and difficult to acquire, any researcher thinking of conducting a study on worker drug and other substance abuse in the South African construction industry should do so in order to expand the information available.
REFERENCES


Attention: The MD / CEO / Owner 04 November 2014

Dear Madam / Sir

Re: Worker substance abuse in the construction industry

The enclosed survey: ‘Worker drug and other substance abuse in the construction industry’ constitutes part of a study to determine the extent to which organisations experience difficulties as a result of worker substance abuse.

The sample stratum for the study is limited to medium and large size GC members of the ECMBA.

Please note that your anonymity is assured, and the questionnaire should take no more than 15 minutes to complete. We would be grateful if you would endeavour to complete the questionnaire, by 20 November 2014.

Should you have any queries please do not hesitate to contact me per e-mail at: s211092436@nmmu.ac.za or per telephone at: 082 534 0272

Thanking you in anticipation of your response.

Sean Bos, BSc (Construction Studies)
Appendix B – Questionnaire

WORKER DRUG AND OTHER SUBSTANCE ABUSE IN THE CONSTRUCTION INDUSTRY

1. Please record your occupation:
   __________________________________________

2. Please record your level of education / qualification(s) you possess:
   __________________________________________

3. Please record your age:
   _______ Years _________ Months

4. Please record the length of time that you have worked in the construction industry:
   _______ Years _________ Months

5. Please record the length of time that you have worked for your current employer:
   _______ Years _________ Months

6. Please record your gender:

<table>
<thead>
<tr>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
</table>

7. On a scale of 1 (not) to 5 (very), please indicate how important the following project parameters are to your organisation (please note the ‘Unsure’ option)?

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Not……………………………………Very</th>
<th>Unsure</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.1. Cost</td>
<td>1 2 3 4 5 U</td>
<td></td>
</tr>
<tr>
<td>7.2. Environment</td>
<td>1 2 3 4 5 U</td>
<td></td>
</tr>
<tr>
<td>7.3. Health and safety</td>
<td>1 2 3 4 5 U</td>
<td></td>
</tr>
<tr>
<td>7.4. Productivity</td>
<td>1 2 3 4 5 U</td>
<td></td>
</tr>
<tr>
<td>7.5. Quality</td>
<td>1 2 3 4 5 U</td>
<td></td>
</tr>
<tr>
<td>7.6. Schedule (Time)</td>
<td>1 2 3 4 5 U</td>
<td></td>
</tr>
</tbody>
</table>

8. On a scale on 1 (minor) to 5 (major), to what extent are the following aspects negatively affected by worker substance abuse (please note the ‘Does not’ and ‘Unsure’ options)?

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Does not</th>
<th>Minor……………………………Major</th>
<th>Unsure</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.1. Absenteeism</td>
<td>DN</td>
<td>1 2 3 4 5 U</td>
<td></td>
</tr>
<tr>
<td>8.2. Cost</td>
<td>DN</td>
<td>1 2 3 4 5 U</td>
<td></td>
</tr>
<tr>
<td>8.3. Environment</td>
<td>DN</td>
<td>1 2 3 4 5 U</td>
<td></td>
</tr>
<tr>
<td>8.4. Health and safety</td>
<td>DN</td>
<td>1 2 3 4 5 U</td>
<td></td>
</tr>
<tr>
<td>8.5. Performance</td>
<td>DN</td>
<td>1 2 3 4 5 U</td>
<td></td>
</tr>
<tr>
<td>8.6. Productivity</td>
<td>DN</td>
<td>1 2 3 4 5 U</td>
<td></td>
</tr>
<tr>
<td>8.7. Quality</td>
<td>DN</td>
<td>1 2 3 4 5 U</td>
<td></td>
</tr>
<tr>
<td>8.8. Schedule (Time)</td>
<td>DN</td>
<td>1 2 3 4 5 U</td>
<td></td>
</tr>
<tr>
<td>8.9. Rework</td>
<td>DN</td>
<td>1 2 3 4 5 U</td>
<td></td>
</tr>
<tr>
<td>8.10. Workplace injuries</td>
<td>DN</td>
<td>1 2 3 4 5 U</td>
<td></td>
</tr>
<tr>
<td>8.11. Workplace deaths</td>
<td>DN</td>
<td>1 2 3 4 5 U</td>
<td></td>
</tr>
<tr>
<td>8.12. Workers’ compensation and disability claims</td>
<td>DN</td>
<td>1 2 3 4 5 U</td>
<td></td>
</tr>
</tbody>
</table>
9. On a scale on 1 (minor) to 5 (major), to what extent are the following aspects negatively affected by worker substance abuse (please note the ‘Does not’ and ‘Unsure’ options)?

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Does not</th>
<th>Minor</th>
<th>Major</th>
<th>Unsure</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.1. Ability to follow instructions</td>
<td>DN</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>9.2. Carelessness / Mistakes</td>
<td>DN</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>9.3. Arriving late for work</td>
<td>DN</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>9.4. Unexplained disappearances from site</td>
<td>DN</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>9.5. Disregard for health and safety measures implemented on site</td>
<td>DN</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>9.6. Friction among workers</td>
<td>DN</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>9.7. Violence on site</td>
<td>DN</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>9.8. Crime</td>
<td>DN</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>9.9. Theft</td>
<td>DN</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>9.10. Trustworthiness</td>
<td>DN</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>9.11. Morale of employees</td>
<td>DN</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>9.12. Employee turnover</td>
<td>DN</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>9.13. Image of your firm</td>
<td>DN</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

10. Please indicate with an ‘X’ the occasions when worker substance abuse occurs (note the ‘Unsure’ option):

<table>
<thead>
<tr>
<th>Occasion</th>
<th>Alcohol</th>
<th>Drugs</th>
<th>Inhalants e.g. glue; petroleum; solvents; etc.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Before work</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>During working hours</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tea time</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lunch time</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>After hours</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weekends</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unsure</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Other (please specify): ______________________________________________________

11. On a scale of 1 (never) to 5 (daily), please indicate how frequently the following substances are abused by workers (please note the ‘Unsure’ option):

<table>
<thead>
<tr>
<th>Substance</th>
<th>Never</th>
<th>Daily</th>
<th>Unsure</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.1. Alcohol</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>11.2. Cannabis</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>11.3. Cocaine</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>11.4. Crack cocaine (Rocks)</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>11.5. Crystal methamphetamine (Ice)</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>11.6. Datura stramonium (malpitte)</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>11.7. Gamma-Butyrolactone (GBL)</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>11.8. Heroine</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>11.9. Inhalants e.g. glue; solvents; petroleum</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>11.10. Khat (Sugars)</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>11.11. Nyaope (Whoonga)</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>11.12. Mandrax (Buttons)</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>11.13. MDMA (Ecstasy)</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
11.14. Methamphetamine (Tik) 1 2 3 4 5 U
11.15. Methylated spirits 1 2 3 4 5 U
11.16. LSD (Acid) 1 2 3 4 5 U
11.17. Phencyclidine (PCP) 1 2 3 4 5 U

Other (please specify): ________________________________

12. On a scale of 1 (very poor) to 5 (very good), please indicate your rating of the South African construction industry in terms of the management of worker substance abuse for the following substances (please note the ‘Unsure’ option):

<table>
<thead>
<tr>
<th>Substance</th>
<th>Unsure</th>
<th>Very Poor</th>
<th>Very Good</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>1 2 3 4 5 U</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cannabis</td>
<td>1 2 3 4 5 U</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cocaine</td>
<td>1 2 3 4 5 U</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crack cocaine (Rocks)</td>
<td>1 2 3 4 5 U</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crystal methamphetamine (Ice)</td>
<td>1 2 3 4 5 U</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Datura stramonium (malpitte)</td>
<td>1 2 3 4 5 U</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gamma-Butyrolactone (GBL)</td>
<td>1 2 3 4 5 U</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heroin</td>
<td>1 2 3 4 5 U</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inhalants e.g. glue; solvents; petroleum</td>
<td>1 2 3 4 5 U</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Khat (Sugars)</td>
<td>1 2 3 4 5 U</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nyaope (Whoonga)</td>
<td>1 2 3 4 5 U</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mandrax (Buttons)</td>
<td>1 2 3 4 5 U</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MDMA (Ecstasy)</td>
<td>1 2 3 4 5 U</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Methamphetamine (Tik)</td>
<td>1 2 3 4 5 U</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Methylated spirits</td>
<td>1 2 3 4 5 U</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LSD (Acid)</td>
<td>1 2 3 4 5 U</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phencyclidine (PCP)</td>
<td>1 2 3 4 5 U</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

13. Does your organisation employ any of the following measures to help prevent worker substance abuse?

<table>
<thead>
<tr>
<th>Measures</th>
<th>Yes</th>
<th>No</th>
<th>Unsure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policy</td>
<td>Y</td>
<td>N</td>
<td>U</td>
</tr>
<tr>
<td>Worker education awareness programme (WEAP)</td>
<td>Y</td>
<td>N</td>
<td>U</td>
</tr>
<tr>
<td>Employee assistance programme (EAP)</td>
<td>Y</td>
<td>N</td>
<td>U</td>
</tr>
<tr>
<td>Supervisory training programme</td>
<td>Y</td>
<td>N</td>
<td>U</td>
</tr>
<tr>
<td>New worker testing</td>
<td>Y</td>
<td>N</td>
<td>U</td>
</tr>
<tr>
<td>Testing employees before allowing them onto site</td>
<td>Y</td>
<td>N</td>
<td>U</td>
</tr>
</tbody>
</table>

14. If ‘No’ was provided as a response to any of the measures in ‘13,’ please indicate on a scale of 1 (minor) to 5 (major), the extent the following possible reasons contributed to your response:

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Minor</th>
<th>Major</th>
<th>Unsure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of finance / cost</td>
<td>1 2 3 4 5 U</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of information / knowledge</td>
<td>1 2 3 4 5 U</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of qualified personnel</td>
<td>1 2 3 4 5 U</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of time</td>
<td>1 2 3 4 5 U</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No foreseeable benefits</td>
<td>1 2 3 4 5 U</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

15. On a scale of 1 (minor) to 5 (major), to what extent can the following measures help to curb worker substance abuse (please note the ‘Unsure’ and ‘Will not’ option)?

<table>
<thead>
<tr>
<th>Measures</th>
<th>Will not</th>
<th>Minor</th>
<th>Major</th>
<th>Unsure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policy</td>
<td>WN</td>
<td>1 2 3 4 5 U</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Worker education awareness programme (WEAP)</td>
<td>WN</td>
<td>1 2 3 4 5 U</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee assistance programme (EAP)</td>
<td>WN</td>
<td>1 2 3 4 5 U</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
16. On a scale of **Strongly Disagree** to **Strongly Agree**, please indicate to what extent you agree with the statement, ‘Assisting employees with substance abuse issues should form part of a firm’s corporate social responsibility.’ *(please note the ‘Unsure’ option)*:

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Unsure</th>
</tr>
</thead>
<tbody>
<tr>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
<td>SA</td>
<td>U</td>
</tr>
</tbody>
</table>

17. Are you aware of any incidents that have occurred as a result of worker substance abuse?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Unsure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y</td>
<td>N</td>
<td>U</td>
</tr>
</tbody>
</table>

18. If you answered ‘yes’ in ‘17.’ please elaborate on the incident:
___________________________________________________________________________________________________________________________________________________________________________________________________________________________
___________________________________________________________________________________________________________________________________________________________________________________________________________________________
___________________________________________________________________________________________________________________________________________________________________________________________________________________________

19. On a scale of 1 *(minor)* to 5 *(major)*, is worker substance abuse a problem *(please note the ‘Unsure’ and ‘Is not’ option)*?

<table>
<thead>
<tr>
<th>Is not</th>
<th>Minor...............................................................Major</th>
<th>Unsure</th>
</tr>
</thead>
<tbody>
<tr>
<td>IN</td>
<td>1 2 3 4 5</td>
<td>U</td>
</tr>
</tbody>
</table>

20. Do you have any comments in general regarding worker substance abuse in the construction industry?
___________________________________________________________________________________________________________________________________________________________________________________________________________________________
___________________________________________________________________________________________________________________________________________________________________________________________________________________________
___________________________________________________________________________________________________________________________________________________________________________________________________________________________

Please record your details below to facilitate contacting you, in the event that a query should arise. **Please note that the data provided in this questionnaire shall be treated in the strictest confidence.**

NAME: ___________________________ EMAIL: ___________________________

ORGANISATION: ______________________ PHONE: (____) _____________

ADDRESS: ___________________________________________________________

________________________________________________________________________

CITY / TOWN: ___________________________ PROVINCE: _______________________

POSTAL CODE: ___________________________

Thank you for taking time to complete this survey.
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