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A LITERATURE INVESTIGATION ON THE IMPACT OF SUBSTANCE ABUSE ON CONSTRUCTION MANAGEMENT PRACTICE IN ANAMBRA STATE

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Abstract: The substance abuse problem in construction management practice is magnified due to the nature of construction work as a labour intensive and highly demanding industry. The high cost of accidents and lost productivity on construction sites due to substance abuse therefore provides a need to investigate into the impact of substance abuse on Construction Management Practice in Anambra State. This study therefore utilizes secondary data from reviewed literatures to addresstrends on substance abuse in the construction industry, drugs commonly abused on construction sites, effects and factors responsible for substance abuse as well as measures to mitigate this negative practice. The findings show that there are common substances often abused in construction management practice in the study area, they includeice, alcohol, opioidsetc. and they have a massive impact in causing death, injury and loss of productivity. The prevalence of this phenomenon is often linked to the prevalent organization culture, lack of supervisory roles and availability of the substances. The study recommended that there should be sensitization/campaign, presence of supervisory roles restricting this abuses and training program.

Keywords: Alcohol, Substance Abuse, Workers, Construction Management Practice

1.0 INTRODUCTION

The high cost of accidents and lost productivity on construction sites due to substance abuse is an area of interest that needs urgent research. Previous researches including that of Ron (2000) agreed that substance abusers have accidents at a rate 3.6 times above normal. This leads to higher indirect costs through damaged equipment, rework, material replacement, and medical costs. In addition, substance abusers strain the benefit system. According to David (2020),there are lots of expensive problems often caused through Alcohol and drug abuse by employees in terms of lost productivity, injuries, an increase in health insurance claims, work based problems like tardiness, hangover, poor decision making etc. Ron (2000), research also showed that drug users are 5 times more likely to file workers compensation claims, 3 times more likely to file health claims, and use sick leave at a rate 3 times higher than the average worker. The indirect effects of these costs on the ability of companies to be able to continue to operate competitively can only be estimated. The report however failed to identify the potential impact of this phenomenon on construction practice.According to Tara(2020),the incidences of poor job performance,lost

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productivity,interpersonal job issues, low turnover,absenteeism can be traced to alcohol and other drug use in the construction industry. She further reiterated that the tendencies of injury, death, impaired coordination and misjudgment are expected results of substance or drug abuse. The National Survey on Drug Use and Health (NSDUH) defines illicit drugs as marijuana/hashish, cocaine (including crack), inhalants, hallucinogens, heroin, or prescription-type drugs used non-medically.NSDUH also includes a series of questions to assess symptoms of dependence on or abuse of alcohol or illicit drugs during the past year. Classification of persons as dependent on or abusing substances is based on criteria set out in the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV). Donna and Rachel (2015) tagged this dependence on or abuse of alcohol or illicit drugs as "substance use disorder."

2.0 LITERATURE REVIEW

2.1 Substance Abuse in Construction Management Practice

The substance abuse problem in construction management practice is magnified due to the nature of construction work. The construction industry is a highly labour intensive activity that involves standing or being in an inconvenient state for long strenuous hours. Most sites where mechanization hasn't been fully adopted will entail use of manual labour. Such labourers in order to meet up with the demands of these activities take drugs to serve as an energy boost. Most of these drugs were oftentimes used for courses other than their medical indications and procured/administered withoutprescription. The industry involves more potential hazards for its workers than any other occupation in any country. Due to the wide range of activities performed on a construction site by employees from a variety of firms, there is significant high threat to life and property when activities are carried out under substance influence.Drug or substance abusers exposes themselves to as well as couldharm others based on unsafe behavior.

Larson, Eyerman Foster and Gfroerer, (2007) agreed that substance use negatively affects U.S. industry through lost productivity, workplace accidents and injuries, employee absenteeism, low morale, and increased illness. U.S. companies lose billions of dollars a year because of employees' alcohol and drug use and related problems. Other research shows that the rate of substance use varies by occupation and industry. Workers hardly have faith in each other to do their jobs in a safe manner and to protect both themselves and their fellow workers. Substance abuse is a major cause of site based and off site-based accidents, it certainly reduces the effectiveness of the individual worker. The use of illegal substances like Tramadol is known to impair the ability of a worker to perform normally, poses a significant risk for the site management and workers.According to Christopher (2007), there is an association between workplace drug testing and worker drug use. Using Multivariate logistic regression models to test the likelihood of marijuana use due to workplace drug policies and testing provisions. The study found that Individuals whose employers perform drug tests are less likely to report previous month of marijuana use. The presence of an organizational drug education, written policy and employee assistance program areknown to the testing differential. Christopher (2007), recommended that frequent testing and severe penalties is a principal factor to reducing the likelihood of workers using marijuana.

2.2 Trends

According to a report by Donna (2015) with a Comparisons between 2003 to 2007 data and 2008 to 2012 combined data, this was observed show some changes in rates of substance use behaviors or disorders in various categories of. Between these periods, rates of illicit drug increased among workers in the accommodations and food services industry (from 16.9 to 19.1 percent), decrease in the educational services industry and further decreased among workers in the construction services industry (from 13.9 to 11.6 percent).

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Additionally, these decreases in the rates of substance use disorder in the four industry categories: construction (from 17.3 to 14.3 percent), management (from 13.8 to 11.4 percent), wholesale trade (from 13.4 to 10.4 percent), and manufacturing (from 10.4 to 9.3 percent) are of high consideration

2.3 Factors Responsible for High Drug Abuse on Construction Sites

To David (2020) many factors can be attributed for a massive workplace substance abuse or controlled use. These factors include:

1. **Workplace culture and acceptance of misuse of substances:** A construction organization culture as regard substance abuse can either encourage or discourage its use among employees.
2. **Workplace alienation**: The nature of a particular job has been known to either contribute or discourage substance abuses. Boring, isolating and stressful job often created due to lack of job autonomy, job complexity and work conditions often drive workers to an unhealthy alternative
3. **Availability of alcohol and drugs**: Certainorganizations who make alcohol accessible to their workers especially during ceremonies are known to easily encourage such habits even after a stated period.
4. **Existence and enforcement of workplace substance abuse policies**: Lack of drug abuse prevention and supervisory team have been known to also encourage high substance abuse.

2.4 Effect of Substance or Drug Abuse

More research shows that substance abusers are 2.5 times more likely to be absent from work, with absences extending 8 days or more. They are also more likely to seek early dismissals or time off from work, up to 2.5 times that of the average worker, and they arrive late for work more than 3 times the average. David (2020) while quoting a NCADI statistics were able to identified some impact of drugs and alcohol abuse, the major effect of attributed to alcohol abuse, consumption of illicit drugs, and substance abuse are negative work, absenteeism and frequent job changes.

This report indicates that the prevalence of substance use and substance use disorders is not consistent across industries. For example, the lowest rates of heavy alcohol use, illicit drug use, and substance use disorder were generally seen in education, health care and social assistance, and public administration. In contrast, higher rates were generally seen in mining, construction, and accommodations and food services industries. There are demographic differences in the age and gender composition across industries, and some of the differences in substance use rates across industries were statistically significant even when controlling for age or gender. Differences across industries that did not remain significant when controlling for age and gender are still important to identify. Employers in industries that have higher or lower rates of heavy alcohol use, use of illicit drugs, and substance use disorder that can be attributed to the demographic composition of their industry can use this information when developing prevention/education programs.Studies have also indicated that employers vary in their treatment of substance use issues and that workplace-based Employee Assistance Programs can be a valuable resource for obtaining help for substance-using workers.[9] Given the lifetime health and economic burdens from alcohol use, illicit drug, and substance use disorders, this report illustrates the need to monitor industries individually. Companies must either absorb these costs or pass them on in the form of higher prices for products or services

1. **Workplace Deaths:**Alcohol use contributes to about 5 per cent of all Australian workplace deaths and 11 per cent of accidents, as well as the huge human toll on families and relationships impacted by alcohol and other drugs.Many lives have been lost through accidents caused by an influenced worker jeopardizing his and others` lives. On occasions,

bulldozers and tractors has been reported to have crashed into workers under influence of drugs. (Tara,2020).

2. **Unsafe Workplace:** In a 2012 survey of construction workers by the Sustainable Built Environment National Research Centre, one third of workers reported experiencing negative effects from their co-workers' drinking. A drunk or drug addict is a threat to the people and are known to get angry easily.
3. **Absent from Work:** Cases abound of workers who are supposed to carry out assigned duties still sleeping when work should be done. Hangovers are known to cause headaches and dizziness at work.,
4. **Less Productive**: To David (2020) loss of productivity often arose when workers due to substance abuse becomes sicker and exposure to morelikelihood to self-injure orthird-partyinjury. This also creates a more likelihood to file a worker's compensation claim.

2.5 Common Drug use on Construction Sites

In a study by Tara (2020) with study area in Australia, the use of alcohol and drugs were common place. They recognize that the annual cost of alcohol-related absenteeism alone is estimated to be up to $1.2 billion, while alcohol and other drugs use (not including tobacco) account for about $5.2 billion in lost productivity and workplace injuries and deaths. The statistics were found to be increasing daily sometimes due to high expectations from supervisors or at times an existing addiction. The study identified the construction industry has having one of the highest levels of workers who use illicit drugs, second only to the hospitality industry. Trades people are the occupational group who are most likely to drink at risky levels.

1. **Ice**: In a United Nations office on Drugs and crime report (2018), state thatthough alcohol is the major concern, it appears to be the case that a growing number of people are using ice. "Ice is a common name for crystal methamphetamine which is sometimes also known as crystal, meth, crystal meth, shabu, tina or glass. Ice is usually smoked or injected, but it can also be snorted or swallowed. It's a stimulant that speeds up the messages going between the brain and the body. Ice is a highly addictive drug capable of triggering aggressive and violent behaviour, causing significant trauma in our communities. It's a drug that once used heavily, is difficult to escape, and is increasingly taking hold of people's lives." Iceis known to cause erratic behaviours and this makes working with such construction staff under addiction difficult to work with. Most site management teams have identified lack of support or preventive provisions to hold workers from abusing drugs on construction sites as responsible for the prevalence of its use.
2. **Alcohol**:Heavy alcohol use is defined as drinking five or more drinks on the same occasion (i.e., at the same time or within a couple of hours of each other) on 5 or more days in the past 30 days. Alcohol is the most commonly abused substance intended to eliminate pain or tiredness is known to intoxicate or influence activities.
3. **Stimulants.** A lot of stimulants like Coke, Tea, Coffee and other drinks with specially added chemical properties that retard getting tiredness are commonly consumed on construction sites in Nigeria.
4. **Opioids.:**According to Carrie (2021) Opioids are a broad group of pain-relieving drugs that work by interacting with opioid receptors in human cells. Opioids can be made from the poppy plant — for example, morphine (Kadian, Ms Contin, others) — or synthesized in a laboratory — for example, fentanyl (Actiq, Duragesic, others). **Opioids** are substances that act on opioid receptors to produce morphine-like effects. Medically they are primarily used for pain relief, including anesthesia. Other medical uses include suppression of diarrhea, replacement therapy for opioid use disorder, reversing opioid overdose,

suppressing cough, as well as for executions in the United States. Using **opioids**, even for short periods, can lead to addiction and overdose.

5. **Marijuana/Hashish:**Marijuana/Hashish: Marijuana contains some of the same, and sometimes even more, of the cancer-causing chemicals found in cigarette smoke. Marijuana or hashish affects memory, judgment and perception. Learning and attention skills are impaired among people who use marijuana or hashish heavily.Both **hashish** and **marijuana** — also called weed, pot or ganja — are parts of the **cannabis** sativa plant. The major difference between the two is that the term "weed" usually applies to dried pieces of the plant, mainly flower buds, while **hash** is a paste from resin, or sap of the plant.
6. **Nicotine**.is a stimulant and potent parasympathomimetic alkaloid that is naturally produced in the nightshade family of plants. It is used for the treatment of tobacco use disorders as a smoking cessation aid and also in**nicotine** dependence for the relief of withdrawal symptoms.It is the chief addictive ingredient in the tobacco used in cigarettes, cigars, and snuff. In its psychoactive effects, **nicotine** is a unique substance with a biphasic effect; when inhaled in short puffs it has a stimulant effect, but when smoked in deep drags it can have a tranquilizing effect. **Nicotine** is a stimulant that's found in almost all tobacco products as well as e-cigarettes. It's well known for the effects it can have on the brain

2.6 The Place of Contingency Management in Eliminating Substance Abuse

Contingency management (CM), often called motivational incentives, is a type of behavioral therapy rooted in the basis of operation conditioning. This type of treatment provides rewards for the desired behaviors such as clean drug tests. At times, disciplinary measures or withholding of privileges may be taken when the client engages in an undesirable behavior.Contingency management (CM) works under the belief that substance use is influenced heavily by social, environmental, and biological factors. On a number of levels, substance use creates a rewarding experience for the user. The experienced high or excitement surrounding the use outweighs all else. This is illustrated by continued desire to use in the face of harm and negative consequences that transpire as a result.CM has been shown to be effective for a range of issues including impulsive behaviors, defiance, and substance abuse.Cognitive-behavioral therapy, Medication management, Medication maintenance programs for people in recovery and Motivational interviewing are some of the critical contingency management strategies. The use of contingency management strategy involves seven (7) key principles namely:

1. Target behavior. The first issue works to identify the target behavior. This can either be a negative behavior to be reduced or a positive behavior to be increased. The negative behaviors will be associated with substance use like buying or using, and the positive behaviors will be healthy substitutions. These positive target behaviors could be compliance with sessions, working towards sobriety goals, and establishing appropriate relationships.

2. Choice of target population. Some Construction workers clients in recovery will not need or want to participate because they have enough intrinsic motivation to progress in treatment. construction management (CM) will be more useful for new workers or those with poor rates of success in the past.

3. Choice of Reinforcer. The reinforcer is the central aspect of a construction management program. If a person in recovery is rewarded with an item that has no interest to them, it will not accomplish the goal. What is a reward for one person may have no value to others? The therapist and client will work to establish a reward that is desirable and realistic. Money has been a successful reinforcer but not appropriate in all cases, as it can trigger cravings.

4. Incentive magnitude. If a CM program had unlimited resources, they could reward short periods of sobriety with expensive electronics, bonus or other items. In reality, CM programs work to find the balance between what is practical and what is rewarding. Some construction workers may need higher levels to remain engaged. Aspects to consider include:past use,past success with recovery, strength of social supports and past response to rewards.

5. Frequency of incentive distribution. Some programs will reinforce the desired behavior each time it occurs, at a specified rate, or at a variable rate in an attempt to receive the most benefit. The ideal rate will differ according to the specific needs of the client.

6. Timing of incentive. The timing is as important as the frequency. The best-case scenario is for the reward to be given immediately after the desired behavior is completed. This helps to build a strong association between the wanted behavior and the reward.

7. Duration of intervention. How long should the CM continue? The goal is that the desire for sobrietywill continuewhen the rewards are removed**.** This will take longer for some people than it will for others. The decision to end the reinforcement will coincide with relapse prevention strategies to reduce risk of relapse.

2.7 Preventive Measures in Dealing with Substance Abuse on Construction Sites.

Occupational Safety and Health Acts (OSHA's) has a viewpoint of providing a safe work environment, specifically related to workers performing work not under the influence of alcohol or illicit drugs. OSHA supports workplace drug and alcohol programs.The following are measures to prevent substance abuse on constructions sites in Nigeria:

1. **A robust pharmaceutical policy:** It's a known fact that the drugs being abused aside those obtain natural in their plant form like tobacco and local gin are all bought from pharmaceutical shops. The need to insist on doctor's prescription before use, confirming that the prescription was not coerced from the doctor and ensuring correct usage is a practice that will go in a great way in eliminating the menace of substance abuse**.**
2. **Need for Campaign**: The need for campaign foundations to work with construction organizations as well as their various sites to sensitize their craftsmen on the impact of drug abuse on their personal health and wellbeing is very critical. Many employers within the industry are already stepping up their efforts to prevent alcohol and other drug related problems at their site. "
3. **Drug Testing:** Part of the solution to controlling substance abuse is, testing just as done in the field of athletes.The need to test construction workers during and after work will ensure that the site-based risk is kept at barest minimal. As of 1990, less than 25 percent of the construction industry workforce was subject to testing of any sort. However, recognition of the extent of usage of illegal substances in the workplace and the impact on profitability has led to more widespread testing. By 1993, the level of testing of construction workers had risen to 57 percent of the workforce, with increases in each subsequent year.Ron(2000)
4. **A Formal Workplace Policy/Program**: Every organization should have its position and guidelines on alcohol and drug related issues on their various sites. Substance abuse prevention programs must be a part on any comprehensive safety program. This notion has permeated the construction industry as well, including those who have long resisted the imposition of such programs as violations of privacy. The American National Standards Institute (ANSI) A10 Construction and Demolition Standards committee recently incorporated substance abuse prevention programs as an element in the A10.38 standard, Key Elements of Safety and Health Programs.

5. **Education and Training**: Regular and ongoing counseling,treatment,training and sensitization will create an awareness and treatment to educate them on the harm from the use of drug.The need for an awareness will involve health promotions, early intervention as well as testing.
6. **Peer support program** should be initiated so that safety committees liaise to help affected workers.Regular talks during site meeting will create a culture of no drug on site.

2.8 Summary of Related Literature

The substance abuse picture is quite bleak, and the benefits to be gained through prevention are both tangible and significant. What is even more important than the immediate human and cost factors when examining the implications of substance abuse in the construction industry is the potential for harm that goes far beyond the actual construction work itself. Improper or poor-quality construction work can lead to potentially dangerous structures or completed operations problems. Substance abuse is probably one of the most complicated issues that the construction industry is compelled to deal with. This makes it crucial that loss control personnel understand all the aspects of the problem so that they can help companies effectively deal with all the elements that must be addressed for a loss prevention program to deal with the problem in a comprehensive manner. The public supports workplace testing, workers want to be protected, and owners are making it a contractual requirement. In time, such pressure should help reduce the high level of drug usage among construction workers and improve overall safety performance.

3.0 METHODOLOGY

The study adopted a secondary data to reviewed the concept of substance abuse on construction sites in Nigeria. Relevant literature that address: trends on substance abuse in the construction industry, drugs commonly abused on construction sites, effects and factors responsible for substance abuse as well as measures to mitigate this negative practice.

4.0 Conclusion

The substance abuse picture is quite bleak, and the benefits to be gained through prevention are both tangible and significant. The high cost of accidents and lost productivity on construction sites due to substance abuse is an area of interest that needs urgent research. The prevalence of this phenomenon is often linked to the prevalent organization culture, lack of supervisory roles and availability of the substances. The study recommended that there should be sensitization/campaign, presence of supervisory roles restricting these abuses and training program. Occupational Safety and Health Acts (OSHA's) has a viewpoint of providing a safe work environment, specifically related to workers performing work not under the influence of alcohol or illicit drugs. OSHA supports workplace drug and alcohol programs. The measures to to prevent substance abuse on constructions sites in Nigeria are: A robust Pharmaceutical policy, need for Campaign, Drug testing,a formal workplace policy/Program , education and training and peer support program

5.0 Recommendations

The following recommendations are worth pointing out

1. There should be more collaboration between the Pharmaceutical policy and the construction industry health and safety guidelines.
2. More preventive approach should be adopted as they are tangible and significant.

Compliance with Ethical Standards

Conflicts of Interest: The authors declare that there is no conflict of interest regarding the publication of this manuscript.

Ethical Approval: Ethical approval is not required.

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