

Safety In Mines Research Advisory Committee

Project Summary: HEALTH 712

Project Title:	Prevalence of alcohol and cannabis use and reported knowledge, attitudes and practice regarding its relationship with health (1 volume, 85 pages)		
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Report Date:	15 th July, 2003	Related Projects:	HEALTH 020103
Category:	Health	Applied Research	Occupational Health and Safety

Summary

Background

Alcohol misuse is one of the most significant public health problems in South Africa today. The prevalence of alcohol misuse among workforces such as the mining industry has been estimated at 25% or more. Globally, cannabis is the most widely used illicit drug with an estimated 144 million people using it annually. It constitutes the main drug of abuse in Africa. Stressful working conditions such as are found underground, heavy workload and the migrant labour system among miners may encourage substance use, which may serve as a coping mechanism.

Substance use in industry can influence productivity and workplace accidents, with increased sickness & deaths, health care utilization and higher costs of health services. Despite the fact that South Africa is one of the major mining countries in the world, paucity of information exists about substance use among its mineworkers.

Aim

To determine the prevalence of alcohol and cannabis use among mineworkers in South Africa and factors which influence use.

Methods

Study design

This was a cross-sectional analytic study. Structured interviews, urine testing for cannabis use and breathalyser testing for alcohol use were carried out at work, among randomly selected employees.

Study site and population

The study was carried out at seven consenting mines of eleven mines that had been purposively selected to represent the major commodities mined in South Africa, size and geographical distribution. These seven mines comprised two platinum mines, two gold mines, one diamond mine, one colliery and one granite mine.

Results

A total of 1571 employees including administrative and contract workers participated. Between 0% to

5.9% of breath samples (with mean of 1.9%) obtained from all study mines contained alcohol above the South African legal driving limit for professional drivers of 0.10 mg/1000ml of breath. The percentage of participants that are likely to be dependent on alcohol varied between 10.3% and 24.4% (with mean of 15.2%) across study mines, while the prevalence of cannabis use ranged from 4.6% to 21.5% (with mean of 9.1%).

Alcohol was said to be used to cope with stress (20.5%), relax (16.8%), socialise (15.7%), and relieve boredom (5.7%). Cannabis was said to help cope with stress (14.1%), provide energy to cope with the physical demands of mine work (27.8%), and to help think better (5.4%). Low levels of education and low job categories were found to be positively associated with alcohol use ($p=0.028$ and $p=0.009$ respectively) and cannabis use ($p=0.0026$ and $p=0.00002$ respectively). Being a contract worker was positively associated with cannabis use ($p=0.0006$).

Participants felt that alcohol and cannabis use could be controlled among mineworkers through awareness programs (21.2%), substance use testing (17.7%), rehabilitation programs to assist those who use substances (10.6%), disciplinary measures for offenders (7.5%) and recreational facilities to relieve boredom (4.8%).

Discussion

Most mines with substance use policies had lower percentages of breathalyser results above the legal limit than some mines without policies. Random breathalyser testing among other programs, practised at mines with policies, may have influenced alcohol use in the workplace. There was, however, no clear trend in the prevalence of alcohol dependence and cannabis use among mines with policies and those without policies. While it is important for all mines to have and implement substance use policies, the approach should be comprehensive. The listed recommendations suggested by employees, among others, can be incorporated into a multi-approach system with essential components, and stipulated by industry in regulated guidelines to be adhered to, by the mining industry.