The Moderating Role of Job Satisfaction on Workplace Absenteeism and Substance use amongst the Employees at a Power Utility in Mpumalanga

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Abstract: This article concentrates on the extent to which job satisfaction predicts absenteeism and substance use levels, and also investigates the moderating effect of job satisfaction on absenteeism and substance use levels amongst employees at a power utility in Mpumalanga. This study is based on data gathered from a survey regarding job satisfaction, absenteeism and the substance consumption levels of employees, its antecedents and outcomes. A total of 239 permanent employees based at a power utility in Mpumalanga participated in the research study. These employees were employed in a permanent position at the power utility, gave consent to participate in the research study willingly and were employed for more than three months. The core findings of this study revealed that the frequency of substance consumption influences employee absenteeism and that job satisfaction indeed plays a moderating role on the relationship between substance consumption and absenteeism and how job satisfaction influences this relationship between substance consumption and absenteeism and how job satisfaction influences this relationship in order torestrict unnecessary absenteeism properly. The study added value to the field of study by providing complementary scientific research to the lacking literature. In addition, it confirms international findings and its applicability in the energy sector.

Keywords: *Job satisfaction; absenteeism; alcohol; smoking; substance use; individual variables*

1. Introduction

The substance use habits of employees can have a harmful effect on the employees' colleagues, the organisation and even the community because it decreases the competitiveness and efficiency of the organisation (Roche, Pidd. & Kostadinov, 2016). Substance abuse is a global concern and is on the increase among employees in South Africa. There is currently incomplete national data regarding workplace substance abuse(Smook, Ubbink, Ryke, & Strydom, 2014). In the study of Wilkinson (2015) he explains that 75 percent of alcohol users and 70 percent of drug users are employed in the workforce. Previous international research mainly focused on employee alcohol use(Lee & Ross, 2011; McCabe, Boyd, & Teter, 2009), illicit drug use, prescription drug abuse or misuse (Fenton, Keyes, Martins, & Hasin, 2010; Kroutil, van Brunt, & Herman-Stahl, 2006) but inadequate attention has been focused on alcohol use and illicit substance use by employees in South Africa (Belhassen & Shani, 2012). Previous research in South Africa focused more on studentathletes' drinking patterns (Surujlal, Nolan, & Ubane, 2012) and student-athletes' demographical variables and alcohol consumption(Suruilal & Keyser, 2014). In the study by Belhassen and Shani (2012), future research on the relationship between substance consumption and aspects such as job satisfaction was recommended to understand substance consumption and its effect on the working environment. According to the National Drug Master Plan of South Africa (Department of Social Development, 2010), the majority of individuals that received treatment from 2008 until 2010 reported using cannabis, cocaine, heroin and amphetamines. This plan also stipulates that for the same period a total number of 4288 individuals in the Mpumalanga region were treated for substance abuse.

An employee's substance use has negative implications at the workplace such as unsafe work conditions, the additional workload to co-workers, lower morale and a possible decrease in job satisfaction levels (Frone & Brown, 2010). Smook, Ubbink, Ryke and Strydom (2014) report that organisations are hesitant to deal with substance use issues in the workplace due to the stigmatisation and decline in job satisfaction. Bellhassen and Shani (2013) determine in their research that employees who use illicit substances reported lower levels of job satisfaction than those who smoked and used alcohol. In contrast to this finding, Frone and Windle (1997) establish in their study that employees who smoke and use alcohol are prone to lower job satisfaction levels. Job satisfaction also has an influence on employees' private lives; this means that employees that are unhappy in the workplace tend to also be unhappy at home. Such unhappiness isoften dealt with by using or abusing

alcohol and other substances, which in turn affects work-related attitudes and absenteeism (Josias, 2005). Thirulogasundaram and Sahu (2014) determine that job satisfaction is one of the main causes of absenteeism and that employees who experience poor job satisfaction are more frequently absent from work than those with higher levels of job satisfaction. Their study confirmed an inverse relationship between absenteeism and job satisfaction, meaning that high job satisfaction predicts low absenteeism and poor job satisfaction predicts high absenteeism.

Saari and Judge (2004) found that low levels of job satisfaction predict poor job performance, reduced life satisfaction and withdrawal behaviours such as tardiness, absenteeism and drug use. Employees who encounter job dissatisfaction are often tempted to use alcohol and other substances (Mogorosi, 2009). Martin and Roman's (1996)study that focuses on job satisfaction, reward characteristics and substance use behaviours, concluded that a work environment or working conditions and low levels of job satisfaction might lead to increased levels of alcohol and substance use. Edvardsen, Moan, Christophersen and Gjerde (2015) reveal that employees do not have a true perception of the extent of their absenteeism. They also found that little is known about the degree to which substance consumption use influences workplace safety, absenteeism and employee performance. However, Bacharach, Bamberger and Biron (2010), as well as Roche, Pidd, Berry and Harrison (2008) confirm in their studies that there is a definite relationship between substance consumption and workplace absenteeism. Bacharach, Bamberger, and Biron (2010) mention that the effect of an employee's drinking is "more complex than individuals and workplace factors on absenteeism" (p. 334-335). They further mention that there are two issues of concern. First, "the degree to which the mechanism underlying this relationship is governed by the amount of alcohol consumed as opposed to the way it is consumed" and secondly, "the elasticity of the alcohol-absence relationship and in particular, the degree to which it may be conditional upon the relational context at work" (Bacharach, Bamberger, & Biron, 2010, p. 335). From a theory-grounded perspective, it is crucial to investigate alcoholabsence for a number of reasons. With previous research, there was a discrepancy regarding the findings of the positive alcohol-absence relationship as some researchers found U-shaped, null and even inverse relationships. Previous research focussed only on the alcohol-absenteeism relationship. There is limited scientific evidence that employees using alcohol have a higher frequency and incidence of sickness absence than employees that use other substances (Bacharach, Bamberger, & Biron, 2010).

When exploring absenteeism from a social exchange perspective the literature suggests that employees tend to withdraw from a negative work environment in order to avoid feelings of dissatisfaction, but when they experience higher job satisfaction, less absenteeism is noted (Boon , Belschak, Den Hartog, & Pijnenburg, 2014). Dissatisfied individuals will engage in behaviour that harms the organisation, other employees or both and vice versa (Mazni, Roziah, Maimunah, & Bahaman, 2013). Therefore, the current study focuses on the revised model of Goldberg and Waldman (2000) and Lee and Ross (2011), which indicates a substance-absenteeism relationship including variables capturing both the frequency substances is consumed, and the amount of substance consumption and not only focus on the use of alcohol but also other substance use.

2. Literature Review

Employee substance use and absenteeism: Bacharach, Bamberger and Biron (2010) emphasise that the impairment dynamic of how alcohol is consumed can be captured more effectively if researchers focus on the frequency of individuals' heavy drinking episodes. Ames, Grube and Moore (2000) found that employees have a higher rate of absenteeism when they have at least one episode in the past year in which they consume more than ten servings of alcohol. In western societies, absenteeism is a major problem (Luz & Green, 1997) and measuring absenteeism is important to control payroll and benefits systems, enhance workplace production, control personnel costs and address possible issues that lead to high levels of sick leave use(Josias, 2005). In most of the studies, researchers focus on the linkage between alcohol consumption and absenteeism and this research is grounded on an illness and injury reason and not on substance use and absenteeism. These drinking patterns were conceptualised regarding the modal level of alcohol consumption (amount/serving of alcohol consumption) in a period and the number of times used during a week or a month. An employee's absence from work is undesirable behaviour that influences their colleagues and the employer regarding company profitability, productivity, service delivery, work ethic, labour relations, worker cooperation and trust among fellow employees and supervisors. Employees who often are absent cause their

co-workers to do their work while they are absent and these co-workers become dissatisfied. As a result, absenteeism has a major effect on the co-workers' morale and overall job satisfaction levels (Chauke, 2007). Employees who use alcohol and other substances to cope with their work pressure reported higher levels of substance use and even alcohol-related problems compared to those employees who do not use substances as an escape mechanism. Therefore, employees that use substances to escape or experience low levels of job satisfaction are at a higher risk for increased substance use (Grunenberg, Moore, Anderson-Connolly, & Greenberg, 1999). Factors such as an uncomfortable work environment, lack of safety, inadequate resources, poor supervision, problems with peers, low salary, little training opportunities, job insecurity and lack of opportunities for career advancement can lead to a decrease in employee job satisfaction, which Setati (2014) confirms would lead to depression. Such an adverse work environment can contribute to employee problems like substance misuse (Mogorosi, 2009; Setati, 2014).

Frone and Brown (2010) state that the importance of understanding the variables that predict employee substance consumption often is underestimated. These predictors are important for numerous reasons. Some of these reasons were that certain groups of employees reported a higher level of availability of substances at the workplace and the inability to perform at work due to substance consumption. The study of MacDonald (1997) confirmed that workplace substance use reduces the employee's ability to perform work. He also found that there is a compelling relationship between substance use and injuries and accidents in the workplace.

In recent research, it was found that employees with high levels of job satisfaction are less likely to be absent from work, leave the organisation, have accidents at work or experience employee stress, and as a result show an increase in productivity rates (Rast & Tourani, 2012; Theron, 2014). Nguyen, Groth and Johnson (Nguyen, Groth, & Johnson, 2013) found that there is a direct correlation between employee confidence and negative work behaviours such as absenteeism and lower job satisfaction. The process absenteeism model of Steers and Rhodes (Steers & Rhodes, 1978) is affected by both the employees' motivation to attend work, as well as their ability to attend work. In this model, Steers and Rhodes (1978) refer to this as voluntary and involuntary absenteeism, which is affected directly by job satisfaction. In line with this model, Langenhoff (2011) found that employees who experience high levels of job satisfaction want to be at work and as a result, job satisfaction can predict lower levels of absenteeism.

The absenteeism model of Nicholson (1977) was developed to predict absenteeism, but he notes that motivation influences employee absenteeism and that there are different types of absenteeism. Overall, this model investigates factors such as job satisfaction that motivate employees to be at work (Bermingham, 2013). Studies throughout history established that employee absenteeism is a significant problem in organisations worldwide. Some of these studies also indicated inconsistent findings in the strength of the relationship between employee absenteeism and job satisfaction, which gives the notion that this may be a moderated relationship rather than a direct one (Scott & Mabes, 1984). Sui (2002) determines that the relationship between employee absenteeism and job satisfaction is stronger under certain conditions. Such conditions may include substance use, supportive co-workers and demographic variables (Bacharach, Bamberger, & Biron, 2010).

Job satisfaction, employee absenteeism and substance use: In the social sciences field, the topic of employee job satisfaction has always involved extensive empirical research, which leads to several definitions (Mafini & Pooe, 2013). In simple terms, job satisfaction can be defined by saying that it is "the degree to which employees like their jobs and the different aspects thereof" (Josias, 2005, p. 13). It means that an employee may like certain parts of his or her job and be dissatisfied with other parts, but still have an overall high level of job satisfaction. Therefore, it would be safe to say that job satisfaction is the employee's general attitude towards his or her job (Josias, 2005).

The relationship between absenteeism and job satisfaction has been examined on numerous occasions because absenteeism is believed to be one of the ways to deal with a stressful work environment. Luthans (2011) states that higher job satisfaction is very likely to result in decreased levels of employee absenteeism. Although there is not a very strong relationship between job satisfaction and employee absenteeism, it is acknowledged that job satisfaction does indeed predict employee absenteeism levels (Anderson, 2004;

Hardy, Woods, & Wall, 2003). From their literature review, Saari and Judge (2004, p. 396) define job satisfaction as "a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences". This means an element of personal feelings influences how an employee experiences his or her job (Setati, 2014).

In his study, Schlemmer (2009) came to an understanding that job satisfaction is the extent to which employees like their jobs, but also found that job satisfaction is made up of intrinsic and extrinsic satisfaction. Intrinsic job satisfaction refers to aspects in relation to the job tasks, such as the job itself, skills utilisation, achievement, responsibility, recognition and variety of tasks. Extrinsic job satisfaction has to do with aspects that do not directly relate to the tasks that employees are employed to perform, such as remuneration, working conditions, supervision and interpersonal relationships (Schlemmer, 2009; Setati, 2014). The above paragraphs confirm that job satisfaction occurs when a person is content or satisfied in his or her work environment, but what causes a person to experience job satisfaction?

According to the international research of Ogunleye, Odebiyi and Olaoye (2013), four factors determine job satisfaction, namely equitable rewards, supportive working conditions, mentally challenging work and supportive colleagues. Over the past 30 years, several studies were conducted on the relevance of norms in the workplace. These studies found that employee norms have an influence on job satisfaction, absenteeism and substance use (Clarke, Probst, Guldenmund, & Passmore, 2015; Tufail et al., 2016). As mentioned by Eaton, Ohan and Dear (2015), stigmatisation of substance use by employees is a problem, and it is associated with low job satisfaction and high turnover of employees. Theron (2014) verifies that the matter of job satisfaction is vital for both the employers and the employees in an organisation. His study also explored the positive and negative effects of job satisfaction in an organisation. The negative consequences of poor job satisfaction include higher absenteeism rates, the rise in grievances, increased substance use and more early retirements (Theron, 2014).

The moderating effect of the role of job satisfaction and substance use levels: In their study, Goldberg and Waldman (2000) confirm that job satisfaction could moderate employee absenteeism. Aspects such as demographic variables, job characteristics and substance use already have a relationship with absenteeism, but when job satisfaction is introduced, this relationship will be influenced (Goldberg & Waldman, 2000; Lee & Ross, 2011). Thirulogasundaram and Sahu (2014) establish a moderate, but consistent, inverse relationship between job satisfaction and employee absenteeism. They support that job satisfaction has a moderating influence on employee absenteeism and confirm that it plays a part in predicting employee absenteeism. Hausknecht, Hiller and Vance (2008) specifically state that job satisfaction plays a significant role in predicting employee absenteeism.In her study, Josias (2005) determines that there is indeed a constant moderating inverse relationship between job satisfaction and an employee's absenteeism rate. She found that a higher level of job satisfaction resulted in a lower trend of absenteeism and the opposite also applies. She suggests that the frequencies in which absences occur will be more informative than the number of absent days. According to Chauke (2007), one of the main causes of absenteeism is the employee's level of motivation. This level of motivation is subjective to age, years of service, job satisfaction, work environment, family responsibilities, policies, attitudes, distance from home, values and expectations. These issues indirectly influence the employees' productivity and happiness at work (Chauke, 2007; Yende, 2005).

This article is based on an adapted model combining the work of Goldberg and Waldman (2000) and Lee and Ross (2011), which includes the moderating role of job satisfaction on absenteeism and substance use. The model indicates that not only do the employee's individual variables influence their absenteeism and substance use levels, but also that job satisfaction plays a role on these variables. Studies indicate substantial connotations between employee job satisfaction and the use of alcohol and other substances.

Job satisfaction is an important factor in predicting employee substance use (Normand, Lempert, & O'Brien, 1994; Rooks, 2010). Saari and Judge (2004) also determine that job satisfaction influences aspects such as substance use and employee absenteeism. From the theory above the following figure is conceptualised. The following hypotheses are set:

H₁: High levels of substance consumption are positively related to high levels of absenteeism.

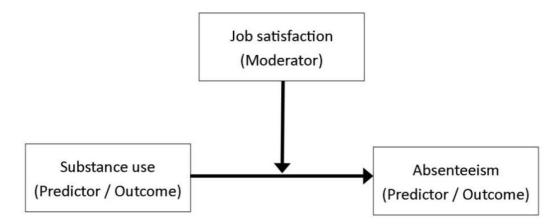
H₂: Job satisfaction predicts low levels of absenteeism.

 H_3 : Job satisfaction predicts low levels of substance consumption.

H₄: Substance use levels determine employee absenteeism.

H₅: Job satisfaction has a moderating effect on the absenteeism and substance consumption levels of employees.

Figure 1: Conceptual model of the role of job satisfaction on the relationship between substance use and absenteeism



3. Methodology

Research approach: A quantitative, cross-sectional research approach was followed to compare a large number of cases and to determine the cause-and-effect relationship between variables. In this study, primary data were collected from questionnaires that were completed by permanent employees at the power utility.

Research participants: Participants were sampled using the convenience sampling method with certain inclusion and exclusion criteria. The inclusion criteria for selecting participants were that the participant should be employed in a permanent position at power utility in question and that the participant should be willing to participating in the research study. Employees that were employed in the past three months were excluded from the study because they have not yet built up a sufficient leave record. A total of 548 permanent employees based on a power utility in Mpumalanga where approached to partake in the study. Employees who were employed in a permanent position at the power utility and gave consent to participate in the research study willingly were included, whereas employees that were employed in the past three months were excluded, due to an insufficient leave record. A total of 239 permanent employees completed the questionnaire, provided consent and participated in the research study. The biographical representation of the research participants is outlined in Table 1. The population outline illustrates that more male employees than female employees participated in the study and that the majority of participants were married. The workforce at the power utility in Mpumalanga is relatively young. Therefore, the majority of participants were between the ages of 26 - 35 years and only have five to ten years of work experience at the power utility. Due to the minimum requirements of positions at the power utility, all the participants have at least Grade 12, and 70 percent of the participants have post-matric qualifications.

Measuring instrument: The research questionnaire consists of standardised measures and a section to gather biographical information. The absenteeism and job satisfaction measure by Goldberg and Waldman (2000) includes subscales, namely the three-item job satisfaction predictor and two-item absenteeism scale. The job satisfaction predictors are scored on a Likert-type scale varying from one (strongly disagree) to five (strongly agree). The internal reliabilities for the questionnaire are between 0.74 - 0.76 and 0.86 for job satisfaction. Lee and Ross(2011) was used to determining absenteeism. In his study, Reid (2008) determines the alpha coefficients to be low (α =0.63), due to the limited number of variables available to analyse. The substance consumption measure of Surujlal, Nolen and Ubane (2012) that was validated and adapted by Surujlal and Keyser (2014) to align with the industrial sector was also adopted. This questionnaire consists of

four sections, namely substance consumption patterns; drinking consequences; smoking; and general knowledge. Each item is rated on a Likert-type scale of one to five, except for the general knowledge section that is based on true or false statements. In their study, Surujlal and Keyser (2014) determine an overall internal consistency for sections B and C of α = 0.74, which meets the benchmark of 0.70.

Table 1: Compilation of study population (N=239)

Item	Category	Frequency	Percentage	
Gender	Male (1)	145	60.7	
	Female (2)	93	38.9	
	Missing responses	1	0.4	
	Total	239	100.0	
Age	18 – 25 years (1)	16	6.7	
	26 – 35 years (2)	116	48.5	
	36 - 45 years (3)	59	24.7	
	46 – 55 years (4)	28	11.7	
	56 years and older (5)	19	7.9	
	Missing responses	1	0.4	
	Total	239	100.0	
Family Status	Single (1)	57	23.8	
	Engaged / dating (2)	43	18	
	Married (3)	119	49.8	
	Divorced (4)	18	7.5	
	Missing responses	2	0.8	
	Total	239	100.0	
Tenure	Less than 4 years (1)	57	23.9	
	5 – 10 years (2)	121	50.6	
	11 – 15 years (3)	19	7.9	
	16 – 20 years (4)	15	6.3	
	21 – 25 years (5)	5	2.1	
	26 – 30 years (6)	8	3.4	
	31 years and more (7)	13	5.4	
	Missing responses	1	0.4	
	Total	239	100.0	
Qualification	Matric / Grade 12 (1)	70	29.3	
	Diploma (2)	54	22.6	
	Higher diploma (3)	18	7.5	
	Degree (4)	42	17.6	
	Post-graduate degree (5)	28	11.7	
	Other (6)	24	10	
	Missing responses	3	1.3	
	Total	239	100.0	

Research procedure and ethical approval: The Basic and Social Sciences Research Ethics Committee (BaSSREC) of North-West University approved the study. The researcher explained the purpose, objectives and importance of the study to the participants and highlighted that participation in the research study was entirely voluntary. Written consent was obtained from the power utility in Mpumalanga before the commencement of the study. Furthermore, all participants were given the opportunity to ask questions or raise concerns before considering participating in the study. Participants were required to sign a consent form where it was clearly stated that the information obtained from the results of the questionnaires would be treated with a high level of confidentiality and that the feedback from the results obtained would only be used for research purposes. The questionnaire was compiled and administered in English to the employees at the power utility in Mpumalanga who agreed to take part in this study, with a translator available upon request. Feedback will be available to the participants when the study is concluded.

Statistical analysis: The IBM SPSS 24 (SPSS, 2017) statistical program was used to analyse the data obtained from the questionnaires. Linear modelling and latent variable modelling were implemented to investigate model fit and indirect and interaction effects. The model sum of squares was used to establish the model fit to the data obtained. Cross-validating determined and tested the generalisation of the model. Regression coefficients will be calculated to quantify the relationship between the predictor (job satisfaction) and the outcome (level of absenteeism or level of substance consumption) (Field, 2013). Multiple linear regression analysis and simple slopes were used to predict the relationship between the variables. A collection of multiple regressions and the three stages to test for mediation were completed. As determined by the study of Baron and Kenny (1986), it is essential to compare the beta coefficients of different regression equations. The independent variable should predict the mediator, and a combination of the independent variable and mediator should predict the dependent variable. In this study, the dependent variable will also be regressed on the independent variable. The independent variable will not predict the dependent variable when all these steps prove significant. Table 2 indicates the results of multiple linear regression analysis, with job satisfaction as a dependent variable and absenteeism and substance consumption levels as independent variables.

4. Results

Table 2: Multiple linear regression analysis with job satisfaction as the dependent variable, absenteeism and consumption levels as independent variables

Model		Unstandardised Coefficients		Standardised Coefficients	t	р	F	R	R ²	ΔR^2
		В	SE	Beta						
1	(Constant)	10.25	0.27		38.24	0.00	15.77	0.32	0.10	0.10
	Absenteeism	-0.53	0.13	-0.32	-3.97	0.00				
2	(Constant)	7.46	1.12		6.69	0.00	11.52	0.38	0.14	0.13
	Absenteeism	-0.44	0.13	-0.27	-3.29	0.00				
	Frequency of substance use	0.17	0.07	0.21	2.58	0.01				
3	(Constant)	7.34	1.25		5.87	0.00	7.64	0.38	0.14	0.13
	Absenteeism	-0.44	0.14	-0.27	-3.28	0.00				
	Frequency of	0.16	0.09	0.19	1.70	0.09				
	substance use									
	Quantity of	0.02	0.10	0.02	0.22	0.83				
	substance use									

^{*}Statistically significant at *p*< 0,05

As seen from Table 2, in Model 1, job satisfaction predicts employee absenteeism (p< 0.05). Table 2 specifies that Model 1 accounts for 10 percent of the total variance in job satisfaction, which is a statistically significant fit to the data (p = 0.00). The adjusted R^2 (0.10) indicates very little shrinkage from the unadjusted value (0.10), which means that the model may still be generalised. This finding is supported by the study of Ones, Viswesvaran and Schmidt (2003), which found that job satisfaction predicts absenteeism and determines that there is indeed a relationship between absenteeism and substance abuse. Saravi et al. (2013) also verified that job satisfaction has a significant influence on employee absenteeism. In Model 2, job satisfaction predicts both employee absenteeism and frequency of substance use. When adding the frequency of substance use, Model 2 reports for 14 percent of the total variance in job satisfaction. The adjusted R^2 (0.13) indicates some shrinkage from the unadjusted value (0.14). This means that the model may generalise well. Nonetheless, it seems that job satisfaction is a significant predictor of absenteeism (p = 0.00), as well as the frequency of substance use by employees (p = 0.01). In support of these findings, the study of Saari and Judge (2004) found that job satisfaction has an influence on absenteeism, substance use and withdrawal behaviours. They also establish that job satisfaction could predict absenteeism of employees. In Model 3, job satisfaction predicts absenteeism, but not frequency or quantity of substance use. Therefore, Model 2 is the best fit model for this study.

From the statistical analysis, the chart in Figure 1 was constructed to understand the relationship between job satisfaction and absenteeism better. This figure illustrates that higher levels of job satisfaction are associated with lower levels of absenteeism. In other words, employee absenteeism levels decrease as job satisfaction levels increase. Considering the research that was conducted in this study, the following conceptual model was constructed. This model illustrates that substance use predicts absenteeism and that job satisfaction plays a moderating role on this relationship. It also indicates that both substance use levels and absenteeism are influenced by individual variables such as age, gender, race, tenure and qualifications.

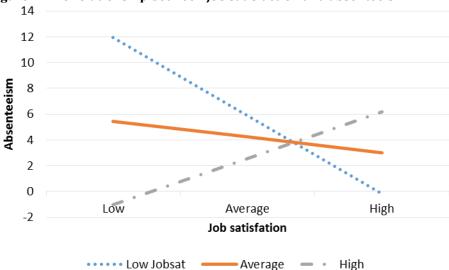


Figure 2: The relationship between job satisfaction and absenteeism

Table 3: Results of hypotheses testing

Hypothesis	Accepted or rejected
H ₁ :High levels of substance consumption are positively related	Accepted. The frequency of substance use is positively related to employee absenteeism. There is a significant relationship
to high levels of absenteeism.	between substance use and employee absenteeism. This means that employees who use substance are more absent from work.
H ₂ : Job satisfaction predicts low levels of absenteeism.	Accepted. Job satisfaction predicts absenteeism (cf Table 2). Overall regression indicates that job satisfaction is a significant predictor of absenteeism.
H ₃ : Job satisfaction predicts low levels of substance consumption.	Accepted. Job satisfaction predicts the frequency of substance use. Overall regression indicates that job satisfaction is a significant predictor of frequency of substance use.
H ₄ : Substance use levels determine employee absenteeism.	Accepted. The quantity of substance use predicts and has an influence on employee absenteeism. This means that those employees who use higher quantities of substances also indicated significantly higher levels of absenteeism.
H ₅ : Job satisfaction has a moderating effect on the absenteeism and substance consumption levels of employees.	Accepted. Job satisfaction has a moderating effect on the absenteeism and substance consumption levels of employees. This means that job satisfaction has an influence on the relationship between levels substance use and employee absenteeism (H_1) .

5. Conclusion

Organisations and the field of labour/employment relations will benefit from this research study because it will describe how job satisfaction plays a moderating role on workplace absenteeism and substance use and

to what extent job satisfaction may predict absenteeism and substance use levels. A determination can be made about whether job satisfaction predicts low levels of absenteeism and substance consumption and if substance use levels determine employee absenteeism. Knowing this will allow organisations to put corrective measures in place to improve not only employee absenteeism and workplace substance use, but also productivity and employee morale.It is evident that issues such as low job satisfaction levels, absenteeism and substance use are associated with high costs (Josias, 2005). Most studies investigate the cost of substance use by employees, but very few of them explore the costs incurred by non-substance using employees. In Australia, the cost of non-substance using employees amounted to approximately \$14.2 billion due to wasted time and overtime because of a colleague's absence (Anderson, Moller, & Galea, 2012). Over time, these factors can have an undesirable effect on the profit margin of the organisation. From the literature review, it is shown that satisfied employees are more committed to the success of the organisation and are less likely to be absent or use alcohol or other substances (Josias, 2005). Forbes (2013) believes that a healthier and happier workforce will be more competent and motivated to go to work each day, resulting in an increase in productivity and higher morale for the individual employees and the entire team. Although such employee wellness strategies are costly to put into practise and uphold, they can have a beneficial influence on the organisation's net profit. This will result in an assured return on investment for the organisation (Forbes, 2013).

Botes (2013) notes that when employees frequently are involved in the performance of the company it will help them to recognise the role they play in the success of the business and will make them feel valued and appreciated; employees who work in a better working environment are more likely not to be absent (Mudaly & Nkosi, 2015). It is important to note that from 2014 the power utility started to provide voluntary retrenchment packages and as mentioned in the literature, produced mixed results regarding how substance use responds to change in economic conditions such as retrenchment (Maclean., Webber, & French, 2015). It, therefore, is important that future research focus on retrenchment, job satisfaction, substance use and absenteeism of employees. Nel (2002) and Boon et al. (2014) agree that when an organisation is perceived as caring and supporting its employees the more likely, it is to achieve a cooperative relationship. This, in turn, will result in a more satisfied workforce. The combination of job satisfaction and other forms of satisfaction leads to life satisfaction (Schlemmer, 2009). The research in this chapter establishes that job satisfaction has a moderating effect on absenteeism and employees' level of substance use. It is now certain that low levels of employee job satisfaction will result in an increase in sick leave use, tardiness, as well as increased likelihood of using various substances.

Limitations and Recommendations: Although this research adds value to the literature, it has some limitations. First, the study is cross-sectional; therefore, a causal relationship could not be tested. Another limitation of the study is that it does not include the association between prescription drug misuse, job satisfaction and absenteeism. In addition, the study did not consider long-term absenteeism and long-term substance use. Future research may include absence frequency and loss of employees' working day/hours, and shift workers. Future research could also include presenteeism information of permanent employees in a study involving substance consumption.

References

- Ames, G. M., Grube, J. W. & Moore, R. S. (2000). Social control and workplace drinking norms: A comparison of two organizational cultures. *Journal of Studies on Alcohol*, 61, 203-219.
- Anderson, A. S. (2004). What's absent in absence management. Employee Benefits Journal, 29(1), 25-30.
- Anderson, P., Moller, L. & Galea, I. (2012). Alcohol and the workplace. Copenhagen: World Health Organisation Regional Office for Europe.
- Bacharach, S. B., Bamberger, P. & Biron, M. (2010). Alcohol consumption and workplace absenteeism: The moderating effect of social support. *Journal of Applied Psychology*, 95(2), 334-348. Retrieved from http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2903009
- Baron, R. M. & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173-1182.

- Belhassen, Y. & Shani, A. (2012). Hotel workers' substance use and abuse. *International Journal of Hospitality Management*, 31, 1292-1302.
- Belhassen, Y. & Shani, A. (2013). Substance abuse and job attitudes amoung hotel workers: Social labelling perspectives. *Tourism Management*, 34, 47-49.
- Bermingham, C. (2013). Employees' understanding of workplace absenteeism and the investigation of stress as a contributing factor. Unpublished BA, Hons. thesis. Retrieved from http://trap.ncirl.ie/192/1/clarebermingham.pdf
- Boon , C., Belschak, F. D., Den Hartog, D. N. & Pijnenburg, M. (2014). Perceived human resource management practices. *Journal of Personnel Psychology*, 13(1), 21-33.
- Botes, C. (2013). Real cost of absenteeism in SA's workplace. Retrieved from http://www.businesspartners.co.za/knowledge-hub/industry-focus/business-wellbeing/posts/real-cost-absenteeism-sas-workplace-1591/
- Chauke, B. P. (2007). The impact of absenteeism on the private security industry in Gauteng province, South Africa. Unpublished MTech thesis. Retrieved from http://uir.unisa.ac.za/bitstream/handle/10500/1268/dissertation.pdf?sequence=1
- Clarke, S., Probst, T. M., Guldenmund, F. W. & Passmore, J. (2015). The Wiley Blackwell handbook of the psychology of occupational safety and workplace health. West Sussex, UK: John Wiley.
- Department of Social Development. (2010). National Drug Master Plan 2008-2010. Pretoria: Government Printers.
- Eaton, K., Ohan, J. L. & Dear, G. (2015). The stigmatisation of the provision for services for alcohol and other drug users: A systematic literature. *Drugs: Education, Prevention and Policy*, 22(1), 19-25.
- Edvardsen, H. M., Moan, I. S., Christophersen, A. S. & Gjerde, H. (2015). Use of alcohol and drugs by employees in selected business areas in Norway: A study using oral fluid testing and questionnaires. *Journal of Occupational Medicine and Toxicology*, 10(46), 1-10.
- Fenton, M. C., Keyes, K. M., Martins, S. S. & Hasin, D. (2010). The role of a prescription in anxiety medication use, abuse, and dependence. *American Journal of Psychiatry*, 167, 1247-1253.
- Field, A. (2013). Discovering statistics using IBM SPSS statistics. (4th ed.). London: Sage.
- Forbes. (2013). The causes and costs of absenteeism in the workplace. Retrieved from www.forbes.com/sites/investopedia/2013/07/10/the-causes-of-absenteeism-in-the-workplace/
- Frone, M. R. & Brown, A. L. (2010). Workplace substance-use norms as predictors of employee substance use and impairment: A survey of US workers. *Journal of Studies on Alcohol and Drugs*, 71(4), 526-534.
- Frone, M. R. & Windle, M. (1997). Job dissatisfaction and substance use amoung employed high school students: The moderating influence of active and avoidant coping styles. *Substance Use and Misuse*, 32, 571-585.
- Goldberg, C. B. & Waldman, D. A. (2000). Modelling employee absenteeism: Testing alternative measures and mediated effects based on job satisfaction. *Journal of Organizational Behaviour*, 21(6), 665-676.
- Grunenberg, L., Moore, S., Anderson-Connolly, R. & Greenberg, E. S. (1999). Work stress and self-reported alcohol use: The moderating role of escapist reasons for drinking. *Journal of Occupational Health Psychology*, 4, 29-36.
- Hardy, G. E., Woods, D. & Wall, T. D. (2003). The impact of psychological distress on absence from work. *Journal of Applied Psychology*, 88(2), 306-314.
- Hausknecht, J. P., Hiller, N. J. & Vance, R. J. (2008). Work-unit absenteeism: Effects of satisfaction, commitment, labour market conditions, and time. *Academy of Management Journal*, 51(6), 1223-1245.
- Josias, B. A. (2005). The relationship between job satisfaction and absenteeism in a selected field services section within an electricity utility in the Western Cape. Cape Town: University of Western Cape.
- Kroutil, L. A., van Brunt, D. L. & Herman-Stahl, M. (2006). Nonmedical use of prescription stimulants in the United States. *Drug and Alcohol Dependence*, 15, 135-143.
- Langenhoff, W. (2011). Employee absenteeism: Construction of a model for international comparison of influential determinants. Rotterdam: Erasmus University.
- Lee, D. & Ross, M. W. (2011). Management of human resources associated with misuse of prescription drugs: Analysis of a national survey. *Journal of Health & Human Services Administration*, 34(2), 183-205.
- Luthans, F. (2011). Organisational behaviour (Vol. 12th ed.). New York, USA: McGraw-Hill.
- Luz, J. & Green, M. S. (1997). Sickness absenteeism from work a critical review of the literature. *Public Health Reviews*, 25, 89-122.

- MacDonald, S. (1997). Work-place alcohol and other drug testing: A review of scientific evidence. *Drug and Alcohol Review*, 16, 251-259.
- Maclean., J. C., Webber, D. & French, M. T. (2015). Workplace problems, mental health and substance use. *Applied Economics*, 47(9), 883-905.
- Mafini, C. & Pooe, D. R. (2013). The relationship between employee satisfaction and organisational performance: Evidence from a South African government department. *South African Journal of Industrial Psychology*, 39(1), 1041-1090. Retrieved from http://dx.doi.org/10.4102/sajip.v39i1.1090
- Martin, J. K. & Roman, P. M. (1996). Job satisfaction, job reward characteristics, and employees' problem drinking behaviours. *Journal of Work and Occupations*, 23(1), 4-25. Retrieved from http://wox.sagepub.com/content/23/1/4
- Mazni, A., Roziah, M. R., Maimunah, I. & Bahaman, A. S. (2013). Predictors of workplace deviant behaviour: HRD agenda for Malaysian support personnel. *European Journal of Training and Development*, 37(2), 161-182.
- McCabe, S. E., Boyd, C. J. & Teter, C. J. (2009). Subtypes of nonmedical prescription drug misuse. *Drug and Alcohol Dependence*, 102(1-3), 63-70.
- Mogorosi, L. (2009). Substance abuse at the workplace: The problem and possible solutions. *Social Work/Maatskaplike Werk*, 54(4), 496-512. Retrieved from http://socialwork.journals.ac.za/pub/article/view/197
- Mudaly, P. & Nkosi, Z. Z. (2015). Factors influencing nurse absenteeism in a general hospital in Durban, South Africa. *Journal of Nursing Management*, 23, 623-631.
- Nel, P. S. (2002). *South African employment relations: Theory and practice. (4th ed.).* Pretoria, Hatfield: Van Schaik Publishers.
- Nguyen, H., Groth, M. & Johnson, A. (2013). When the going gets tough, the tough keep working: Impact of emotional labour on absenteeism. *Journal of Management*, 10, 1-29. doi:10.1177/0149206313490026
- Nicholson, N. (1977). Absence behaviour and attendance motivation: A conceptual synthesis. *Journal of Management Studies*, 14, 231-251.
- Normand, J., Lempert, R. O. & O'Brien, C. P. (1994). Under the influence? Drugs and the American workforce. Washington, DC: National Academic Press.
- Ogunleye, P. O., Odebiyi, I. I. & Olaoye, B. O. (2013). Exploring the relationship between job satisfaction dimensions and organizational commitment amoung Nigerian banks employees. *International Journal of Academic Research in Economics and Management Sciences*, 2(6), 85-95. doi:10.6007/IJAREMS/v2-i6/444
- Ones, D. S., Viswesvaran, C. & Schmidt, F. L. (2003). Personality and absenteeism: A meta-analysis of integrity tests. *European Journal of Personality*, 17, 19-38.
- Rast, S. & Tourani, A. (2012). Evaluation of employees; job satisfaction and role of gender differences: An empirical study at airline industry in Iran. *International Journal of Business and Social Sciences*, 3(7), 91-100.
- Reid, J. M. (2008). Drug use sequencing and Kandel's gateway hypothesis. South Carolina: Graduate School of Clemson University.
- Roche, A. M., Pidd, K. & Kostadinov, V. (2016). Alcohol- and drug-related absenteeism: A costly problem. *Australian and New Zealand Journal of Public Health*, 40(3), 236-238.
- Roche, A. M., Pidd, K., Berry , J. G. & Harrison, J. E. (2008). Workers' drinking patterns: The impact on absenteeism in the Australian work-place. *Addiction*, 103(5), 738-748.
- Rooks, L. (2010). The relationship between life satsifaction and substance use in adolescence. University of South Florida. Retrieved from http://scholarcommons.usf.edu/cgi/viewcontent.cgi?article=2753&context=etd
- Saari, L. M. & Judge, T. A. (2004). Employee attitudes and job satisfaction. *Journal of Human Resource Management*, 43(4), 395-407. doi:10.1002/hrm.20032
- Saravi, B. M., Kabirzadah, A., Rezazadah, E., Khariki, M. F., Asgari, Z., Farahabadi, E. B. & Siamain, H. (2013). Prevalence and causes of medical absenteeism amoung staff. *Materia Sociomedica*, 25(4), 233-237.
- Schlemmer, G. (2009). Job insecurity, job satisfaction, social support and general health of educators in the Sedibeng West municipal district. Vanderbijlpark: North-West University.
- Scott, K. D. & Mabes, D. A. (1984). Job satisfaction/absenteeism relationship: Gender as a moderating variables. *Arkon Business and Economic Review*, 15(3), 43-47.

- Setati, T. S. (2014). Job security, job satisfaction and general health in a higher education institution. Vanderbijlpark: North-West University.
- Smook, B., Ubbink, M., Ryke, E. & Strydom, H. (2014). Substance abuse, dependence and the workplace: A literature review. *Social Work*, 50(1), 59-83.
- SPSS. (2017). IBM SPSS statistics for Windows (Version 24.0). New York, Armonk: IBM Corporation.
- Steers, R. M. & Rhodes, S. R. (1978). Major influences on employee attendance: A process model. *Journal of Applied Psychology*, 83, 391-407.
- Sui, O. (2002). Predictors of job satisfaction and absenteeism in two samples of Hong Kong nurses. *Journal of Advanced Nursing*, 40(2), 218-229.
- Surujlal, J. & Keyser, E. (2014). Exploring differences in demographic variables and alcohol consumption amongst university student-athletes. *Mediterranean Journal of Social Sciences*, 5(23), 820-826.
- Surujlal, J., Nolan, V. T. & Ubane, T. (2012). Drinking patterns and related consequences amoung university student-athletes. *African Journal for Physical, Health, Education, Recreation and Dance,* 18(2), 277-287.
- Theron, H. M. (2014). Job satisfaction in a chemical industry production unit. Potchefstroom: North-West University.
- Thirulogasundaram, V. P. & Sahu, P. C. (2014). Job satisfaction and absenteeism interface in corporate sector: A study. *Journal of Humanities and Social Sciences*, 19(3), 64-68.
- Tufail, M. S., Muneer, S. & Ishtiaq, M. (2016). Job Characteristics with Task and Contextual Performance: Moderating Role of Procedural Justice for Front Line Managers. *Journal of Social Sciences*, Special Issue, 299-508
- Wilkinson, G. (2015). Substance abuse in the workplace. Retrieved from http://www.bpesa.org.za/wp-content/uploads/2015/04/Substance-Abuse-in-the-Workplace-Global-Business-Solutions.pdf
- Yende, P. M. (2005). Utilising employee assistance programmes to reduce absenteeism in the workplace. University of Johannesburg. Retrieved from http://ujdigispace.uj.ac.za/bitstream/handle/10210/333/UtilisingEAP.pdf?sequence=1