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Workers Wellbeing and the Safety Management System

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Abstract: ***The main concern for any Higher Education institution is its ability to maintain the relationship between workers' wellbeing and the Safety Management System (SMS). The research sought to discover how employees play an important part in ensuring an efficient Safety Management System (SMS) that would make workers' wellbeingmandatory. The study survey data is set at the micro-level of analysis. The micro-sample consist of fourteen (14) full-time employees who responded by filling out the questionnaire. A google questionnaire platform was used to analyze the data. The study utilized descriptive statistics such as mean, mode, and standard deviation. Tables were used for the data presentation and explanation of the methods. The findings of the analyzed data revealed that workers were involved in the marginal discussionof safety policies in the workplace. Employees feel that they may benefit from safety management system programs that are supplemented with health promotion programs that are perceived to have a positive impact on employees' health, increase productivity, and most of all their wellbeing.***

Keywords: Workers' wellbeing, Safety Management System (SMS), Psychosocial Stressors, Hazards, Occupational Health, and Safety

1. Introduction

Traditionally, occupational safety and health have focused on workers' exposure to various workplace hazards. Today, occupational safety and health have broadened its scope to include the concept of worker wellbeing, or the ability of people to address normal stresses, work productivity, and achieve the highest potential.

The research aims to show how workers' wellbeing in the workplace is a key factor in determining an organization's long-term effectiveness. Many studies show a direct link between workers' productivity levels and their general health and well-being. According to the International Labour Organization (ILO) (2009) workplace wellbeing relates to all aspects of working life, from the quality and safety of the physical environment, to how workers feel about their work, their working environment, the climate at work, and work organization. Also, wellbeing at work has a stronger focus on what the employees could achieve when supported by the organization, i.e. 'creating an environment to promote a state of contentment which allows employees to flourish and achieve their full potential for the benefit of themselves and their organization.

2. Research Background

Occupational, safety and health (OSH) is generally defined as the science of the anticipation, recognition, evaluation, and control of hazards arising in and from the workplace that could impair the health and wellbeing of workers, taking into account the possible impact on the surrounding communities and the general environment (Alli 2008). According to Anthony et al., (2007) employee's health and safety programs should be a major priority for management because they save lives, increase productivity, and reduce costs. These health and safety programs should stress employee involvement, continued monitoring, and an overall wellness component. Work safety requires that safe working conditions should not create a significant risk of people being rendered unfit to perform their work. Health and safety at work is therefore aimed at creating conditions, capabilities, and habits that enable the worker and his/her organization to carry out their work efficiently and in a way that avoids events that could cause them harm (Garcia-Herrero 2012). Safe working conditions affect the habits of workers, which in turn impacts on efficiency. This implies that employees working in a safe condition are likely to perform in a way that will not cause them harm.

It is therefore important to maintain a safe and healthy workplace in which workers and supervisors are cultured with a health and safety mind-set. According to Bratton and Gold (1999) employers are required to design and maintain safe and healthy systems of work which will enhance the concomitant duty of employees to behave in a manner that safeguards their health and that of the other co-workers.

3. Literature Review

Alli (2008) mentioned that it is the responsibility of employers to ensure that the working environment is safe and healthy. This means that they must prevent, and protect workers from, occupational risks. But employers' responsibility goes further, entailing knowledge of occupational hazards and a commitment to ensure that management processes promote safety and health at work.

The OSH Act 2004 of Trinidad and Tobago states that all workers should expect to have a safe and healthy work environment. The Act further points out that "It shall be the duty of every employer to ensure, so far as is reasonably practicable, the safety, health, and welfare at work of all his employees". Hackitt (2009), and Health and Safety Executive (2004) suggest that the top management has both a collective and individual responsibility for health and

safety as well as to provide leadership in this sphere. Also, Hackitt (2009) also indicated that ensuring a company's approach to health and safety remains grounded in what is practical and useful is fundamental to good leadership.

Since occupational hazards arise at the workplace, it is the responsibility of employers to ensure that the working environment is safe and healthy. This means that they must prevent, and protect workers from, occupational risks. But employers' responsibility goes further, entailing knowledge of occupational hazards and a commitment to ensure that management processes promote safety and health at work.

Training is one of the most important tasks to be carried out by employers. Workers need to know not only how to do their jobs, but also how to protect their lives and health and those of their co-workers while working. Within enterprises, managers and supervisors are responsible for ensuring that workers are adequately trained for the work that they are expected to undertake. Such training should include information on the safety and health aspects of the work, and on ways to prevent or minimize exposure to hazards.

Safety Management System (SMS): provides a systematic way to continuously identify and monitor hazards and control risks while maintaining assurance that these risks controls are effective. Safety Management System is a business approach to safety. According to the Transport Canada publication (TP 13739 2008), Safety Management System is woven into the fabric of the organization, it becomes part of the culture, the way people do their jobs. The components of the Safety Management System (SMS) are as follow:

Components of a Safety Management System for Cipriani College of Labour and Cooperative Studies

Figure 1

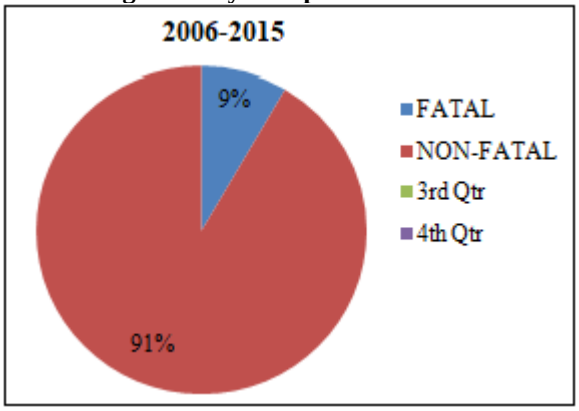
- **Management Commitment:** Provides the motivating force and the resources for organizing and controlling activities within the organization.Employees' involvement provides the means through which workers develop and or express their commitment to safety and health protection for themselves and their fellow workers.
- **Workplace Analysis:** is the process by which the director identifies and responds to problems and opportunities through the study of employees and the organization to determine an appropriate solvent system.
- **Hazard Prevention and Control:** Effective controls protect workers from workplace hazards, help avoid injuries and incidents; minimize or eliminate safety and health risks, helpsthe director provide employees with safe and healthy workplace conditions.
- **Safety and Health Training:** Safety training describes the set of activities aimed at providing workers with the knowledge and skills to perform their duties safely and effectively. This type of training seeks to inform workers of the hazards and risks associated with various work activities and instruct them on how to identify, report, and address workplace incidents.

Example of Poor Workplace Preventive Strategies

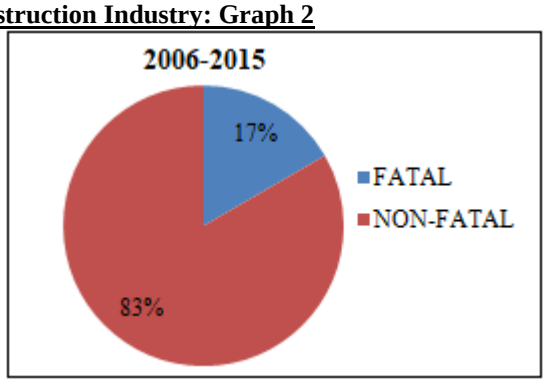
Occupationaland industrial accidents are all caused by preventable factors that could be eliminated by implementing already known and available measures and methods. The application of preventive strategies can offer significant human and economic benefits. A good example of poor preventive strategies in Trinidad and Tobago is highlighted in a Trinidad and Tobago Guardian article (16/9/2016) "102 Fatal Accidents at Work." For the period 2006-2015, 102 fatal accidents occurred at work-places in Trinidad and Tobago. The construction industry was cited as having the highest numbers of fatalities as it recorded 33 fatal accidents for the period. The sector with the highest number of non-fatal accidents was the manufacturing sector with the lowest figure at 289 in 2014 and the highest 555 in 2008. This explained that these accidents and incidents are to a large measure due to the failure and deficiency in the policy and management of occupational health and safety in several business organizations in the country.

Data from the Manufacturing and Construction Industries were extracted from appendix 4 of the Industrial Court of Trinidad and Tobago 2015-2016 report

Manufacturing Industry: Graph 1



Construction Industry: Graph 2



According to Cox & Griffith (2002), psychosocial hazards might be those aspects of the design and management of work, and its social and organizational contexts that have the potential for causing psychological or physical harm. Psychosocial risks go hand in hand with the experience of work-related stress. Work-related stress is the response people may have when presented with work demands and pressures that are not matched to their knowledge and abilities and which challenge their ability to cope (WHO, 2003).

QuantitativeMethodology

The methodology involves the description of the methods applied in carrying out the study. The focus of this paper was on workers' wellbeing in the workplace. The sample size used in this research study was initially intended to be 57 however due to fewer responses received from our questionnaires sent out we are reducing the sample size to 14 and with this micro-sample, all calculations were conducted with a 95 % level of confidence.

Table 1 (A)

Overall well-being levels of population	Population Size	% of Population
Very Poor	1	7.1
Poor	0	0
Neutral	9	64.3
Good	3	21.4
Very Good	1	7.1
Total	14	100

From Table 1. An above we can see that at 64.3% most of the population rate their overall well-being as neutral followed by 21.4% rating it as good. 7.1% of the population rates their overall well-being at very poor and the same percentage applies to very good while none of the population rates it poor.

Table 1 (B): Overall Well-being Levels of Population

Mean	3.214
Standard Error	0.238
Median	3
Mode	3
Standard Deviation	0.892
Range	1 - 5
Minimum	1
Maximum	5
N	14

Where: 1 = Very Poor
2 = Poor
3 = Neutral
4 = Good
5 = Very Good

From Table 1.B above the most frequently occurring well-being level as captured by the population mode was 3 representing neutral and our middle value (when ordered from lowest to highest) resulted in a median of 3 as well and hence neutral. The average value was calculated to be 3.214 with a standard deviation away from the mean was 0.892.

Table 2 (A)

Stress Levels of Population	Population Size	% of Population
Very Low	0	0
Low	2	14.3
Average	8	57.1
High	2	14.3
Very High	2	14.3
Total	14	100

From Table 2.A above we can see that most of the population at a percentage of 57.1 rated their stress level as average followed by low, high, and very high each constituting 14.3% of the population while none selected very low.

Table 2 (B): Stress Levels of Population

Mean	3.285
Standard Error	0.244
Median	3
Mode	3
Standard Deviation	0.913
Range	1 - 5
Minimum	2
Maximum	5
N	14

Where: 1 = Very Low
2 = Low
3 = Average
4 = High
5 = Very High

From Table 2.B above the most frequently occurring option selected by the population was 3 which represents average as denoted by the mode and our middle value (when ordered from lowest to highest) resulted in a median of 3 as well and hence average stress levels. The minimum value selected by the population being 2 representing low-stress levels indicates that no one selected a stress level of very low. The mean was calculated to be 3.285 with a standard deviation away from the mean of 0.913.

Table 3 (A)

Does the population feel the director currently aids in stress management at the college	Population Size	% of Population
Yes	6	42.9
No	8	57.1
Total	14	100

From Table 3.A above we can see that most of the population selected no when asked whether they feel the director currently aids in stress management at the college as 57.1% selected no and 42.9% selected yes.

Table 3 (B): Does the population feel like the director currently aids in stress management at the college

Mean	1.571
Standard Error	0.137
Median	2
Mode	2
Standard Deviation	0.513
Range	1 - 2
Minimum	1
Maximum	2
N	14

Where: Yes = 1
No = 2

From Table 3.B above we can see that the most frequently occurring option selected as indicated by the mode is 2 which represents no and our middle value (when ordered from lowest to highest) resulted in a median of 2 and hence no as well. The mean value was calculated to be 1.571 with a standard deviation away from the mean of 0.513.

Table 4 (A)

Interest in having access to more mental health resources	Population Size	% of Population
Yes	10	71.4
No	4	28.6
Total	14	100

From Table 4.A above we can see that most of the population at 71.4% responded with yes to being interested in having access to more health resources while 28.6% responded with no.

Table 4 (B): Population interest in having access to more mental health resources

Mean	1.285
Standard Error	0.125
Median	1
Mode	1
Standard Deviation	0.468
Range	1 - 2
Minimum	1
Maximum	2
Count	14

Where: Yes = 1
No = 2

From Table 4.B we can see above that the most frequently occurring option selected was 1 representing yes as shown with the mode and our middle value (when ordered from lowest to highest) resulted in a median of 1 and hence yes as well to have an interest in getting access to more mental health resources. The mean was calculated to be 1.285 with a standard deviation away from the mean of 0.468.

Table 5 (A)

Does the population have access to help at work for mental or physical health	Population Size	% of Population
Yes	3	21.4
No	11	78.6
Total	14	100

From Table 5. We can see that most of the population selected no when asked if they felt like they could talk to someone or ask for help with mental or physical health issues at work with a percentage of 78.6 while 21.4% selected yes.

Table 5 (B): Does the population feel like they can talk to someone or ask for help with mental or physical health issues at work

Mean	1.785
Standard Error	0.113
Median	2
Mode	2
Standard Deviation	0.425
Range	1 - 2
Minimum	1
Maximum	2
N	14

Where: 1 = Yes
2 = No

From Table 5.B above we can see that the most frequently occurring option selected by the population was 2 representing no as shown by the mode and our middle value (when ordered from lowest to highest) resulted in a median of 2 and hence no when asked whether they felt like they can talk to someone or ask for help with mental or physical health issues at work. The mean was calculated to be 1.785 with a standard deviation away from the mean of 0.425.

Table 6 (A)

Interpersonal relationship of Population at work	Population Size	% of Population
Work acquaintances	9	64.3
Work friends	0	0
A mix of both	5	35.7
Total	14	100

From Table 6. An above we can see that most of the population selected the option work acquaintances at a percent of 64.3 when asked how they would describe their interpersonal relationships with their co-workers followed by 35.7% selecting a mix of both work acquaintances and work friends however none selected the option of work friends.

Table 6 (B): How the population would describe their interpersonal relationships with their co-workers

Mean	1.714
Standard Error	0.265
Median	1
Mode	1
Standard Deviation	0.994
Range	1 -3
Minimum	1
Maximum	3
N	14

Where: 1 = Work acquaintances
2 = Work friends
3 = A mix of both

From Table 6.B above we can see that the most frequently occurring option selected by the population was 1 representing work acquaintances when asked how they would describe their interpersonal relationships with their co-workers and our middle value (when ordered from lowest

to highest) resulted in a median of 1 as well and hence also work acquaintances. The mean value was calculated to be 1.714 and a standard deviation away from the mean of 0.994.

Table 7 (A)

How the Population describes their work-life balance	Population Size	% of Population
Struggling to juggle both	4	29.6
Work-life flexible	8	57.1
Work-life harmony	2	14.3
Total	14	100

From Table 7. We can see that most of the population selected work-life flexible at 57.1% followed by struggling to juggle both at 29.6% and then work-life harmony at 14.3% when asked how they would describe their work-life balance.

Table 7 (B): How the population would describe their work-life balance

Mean	1.857
Standard Error	0.177
Median	2
Mode	2
Standard Deviation	0.662
Range	1 - 3
Minimum	1
Maximum	3
N	14

Where: 1 = Struggling to juggle both
2 = Work-life flexible
3 = Work-life harmony

From Table 7.B above we can see that the most frequently occurring option selected by the population was 2 representing work-life flexible and our middle value (when ordered from lowest to highest) resulted in a median of 2 and hence also work-life flexible when asked how they would describe their work-life balance. The mean was calculated to be 1.857 with a standard deviation of 0.662 away from the mean.

Table 8 (A)

Population working hours outside the office	Population Size	% of Population
Less than 3 hours	4	28.6
Between 3 and 5 hours	7	50
Greater than 5 hours	3	21.4
Total	14	100

Table 8. An above we can see that most of the population selected less than between 3 and 5 hours at 50% followed by less than 3 hours at 28.6 % and then greater than 5 hours at 21.4% when asked how many hours outside the office they devote to their work assignments.

Table 8 (B): How many hours outside the office does the population devote to their work assignments

Mean	1.928
Standard Error	0.195
Median	2
Mode	2
Standard Deviation	0.730
Range	1 - 3
Minimum	1
Maximum	3
N	14

Where: 1 = Less than 3 hours
2 = Between 3 and 5 hours
3 = Greater than 5 hours

From Table 8.B above we can see that the most frequently occurring option selected by the population as indicated by the mode was 2 representing between 3 and 5 hours and our middle value (when ordered from lowest to highest) resulted in a median of 2 as well and hence between 3 and 5 hours when asked how many hours they devote to their work assignments. The mean value was calculated to be 1.928 with a standard deviation away from the mean of 0.73.

Table 9 (A)

How the population thinks the director could help improve work life balance	Population Size	% of Population
More flexible working hours	7	50
Overtime perks	5	35.7
Extended vacation	1	7.1
Other	1	7.1
Total	14	100

From Table 9. An above we can see that most of the population selected more flexible working hours at 50% followed by overtime perks at 35.7% followed by an extended vacation at 7.1% and other at 7.1% when asked what the population thinks the director could do to help their work-life balance.

Table 9 (B): How the population thinks the director could help improve their work-life balance

Mean	1.714
Standard Error	0.244
Median	1.5
Mode	1
Standard Deviation	0.913
Range	1 – 4
Minimum	1
Maximum	4
N	14

Where: 1 = More flexible working hours
2 = Overtime perks
3 = Extended vacation
4 = Other

From Table 9.B above we can see that the most frequently occurring option selected by the population as indicated by the mode was 1 representing more flexible working hours and our middle value (when ordered from lowest to highest) resulted in a median of 1.5 when asked what the population thinks the director could do to help improve their work-life balance. The mean value was calculated to be 1.714 with a standard deviation away from the mean of 0.913.

Table 10 (A)

How the Population rates their physical health	Population Size	% of Population
Extremely Unfit	1	7.1
Unfit	2	14.3
Moderate	8	57.1

Generally, Fit	3	21.4
Physically Fit	0	0
Total	14	100

From Table 10. An above we can see that most of the population selected the option moderate at 57.1% followed by generally fit at 21.4% followed by unfit at 14.3% followed by extremely unfit at 7.1% and then none at physically fit when asked how they would rate their physical health.

Table 10 (B): How the population rates their physical health

Mean	2.928
Standard Error	0.221
Median	3
Mode	3
Standard Deviation	0.828
Range	1 - 5
Minimum	1
Maximum	4
N	14

Where: 1 = Extremely Unfit
2 = Unfit
3 = Moderate
4 = Generally Fit
5 = Physically Fit

From Table 10.B above we can see that the most frequently occurring option selected was 3 representing moderate and our middle value (when ordered from lowest to highest) resulted in a median of 3 and hence moderate as well when asked how they would rate their physical health. The mean value was calculated to be 2.928 with a standard deviation away from the mean of 0.828. The maximum value being 4 representing generally fit indicates that none of the population was physically fit.

Table 11 (A)

How the population thinks the college can help improve physical health	Population Size	% of Population
Convenient fitness classes at work	7	50
Healthier eating habits at work	5	35.7
Other	2	14.2
Total	14	100

From Table 11. An above we can see that most of the population selected the option, convenient fitness classes, at work at 50% followed by healthier eating habits at 35.7% and then other at 14.2% when asked how they think the college can help improve physical health.

Table 11(B): How the population thinks the college could help improve their physical health

Mean	1.642
Standard Error	0.199
Median	1.5
Mode	1
Standard Deviation	0.744
Range	1 - 3
Minimum	1
Maximum	3
N	14

Where: 1 = Convenient fitness classes at work
2 = Healthier eating habits at work
3 = Other

From Table 11.B above we can see that the most frequently occurring option selected by the population as indicated by the mode was 1 representing convenient fitness classes at work and our middle value (when ordered from lowest to highest) resulted in a median of 1.5 when asked how they think the college could help improve their physical health.

Table 12 (A)

The population level of interest in their work	Population Size	% of Population
Very Low	0	0
Low	0	0
Fair	6	42.9
High	4	28.6
Very High	4	28.6
Total	14	100

From Table 12. An above we can see that most of the population selected the option fair at 42.9% followed by high and very high at 28.6% while none selected low and very low when asked what their level of interest in their work was.

Table 12 (B): How the population would rate the interest level of their work

Mean	3.857
Standard Error	0.231
Median	4
Mode	3
Standard Deviation	0.864
Range	1 - 5
Minimum	3
Maximum	5
N	14

Where: 1 = Very Low
2 = Low
3 = Fair
4 = High
5 = Very High

From Table 12.B above we can see that the most frequently occurring option selected as indicated by the mode was 3 representing fair and our middle value (when ordered from lowest to highest) resulted in a median of 4 representing high when asked what the interest level of their work was. The mean value was calculated to be 3.857 with a standard deviation away from the mean of 0.864. The minimum value is 3 representing fair indicates that none of the population rated their level of interest in their work as very low or low.

Table 13 (A)

Is the Population exposed to hazards at work	Population Size	% of Population
Yes	7	50
No	7	50
Total	14	100

From Table 13. An above we can see that 50% of the population selected yes and 50% of the population selected no when asked whether they think they are exposed to hazards at work.

Table 13 (B): Does the population think they are exposed to hazards

Mean	1.5
Standard Error	0.138
Median	1.5
Mode	1
Standard Deviation	0.518
Range	1 - 2
Minimum	1
Maximum	2
N	14

Where: 1 = Yes
2 = No

From Table 13.B above the most frequently occurring option as selected by the population indicated by the mode was 1 representing yes and our middle value (when ordered from lowest to highest) resulted in a median of 1.5. The mean value was calculated to be 1.5 with a standard deviation away from the mean of 0.518.

Table 14 (A)

Does the population think there is a lack of systems at work to deal with unacceptable behavior	Population Size	% of Population
Yes	10	71.4
No	4	28.6
Total	14	100

From Table 14. An above we can see that the population selected yes at 71.4% followed by no at 28.6% when asked if they think there is a lack of systems at work to deal with unacceptable behavior.

Table 14 (B): Does the population think there is a lack of systems in the workplace available to report and deal with unacceptable behaviour

Mean	1.285
Standard Error	0.125
Median	1
Mode	1
Standard Deviation	0.468
Range	1 - 2
Minimum	1
Maximum	2
N	14

Where: 1 = Yes
2 = No

From Table 14.B above we can see that most of the population as indicated by the mode selected 1 representing yes and our middle value (when ordered from lowest to highest) resulted in a median of 1 and hence also yes when asked if they think there is a lack of systems in the workplace available to report and deal with unacceptable behavior. The mean value was calculated to be 1.285 with a standard deviation away from the mean of 0.468.

4. Conclusion

The study concludes that employees are involved in the marginaldiscussion of safety management system policies in the workplace. It is important to note that workers are policy implementers and implementation cannot be complete without the full knowledge of the policies to be implemented.

Therefore, management should look into the ways of addressing the issue at the institution, so that implementation of such Safety Management System policies is made possible. Research has shown that workplace safety and health leads to motivation and job satisfaction. When employees are fully involved in discussing policies of the Safety Management System (SMS), employees are also motivated to carry out policy implementation which will positively, lead to job satisfaction and workers'wellbeing. .

5. Recommendations

The researchers believed the organization should run short programs on Safety Management System (SMS) in the workplace. Management should give this priority but it must be supplemented with Health Promotion programs that will positively impact employees' health, increase productivity and well-being.

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