ORIGINAL ARTICLE

Analysis of Work Accidents in Packaging Workers Using ILCI Theory in the Informal Metal Industry

Putri Ayuni Alayyannur[1], Indriati Paskarini[1], Annisa Ufiana[2]

[1] Lecturer in Department of Occupational Safety and Health, Faculty of Public Health, Universitas Airlangga, Campus C, Mulyorejo, 60115, Surabaya, East Java, Indonesia
[2] Student of Public Health Bachelor Program, Faculty of Public Health, Universitas Airlangga, Campus C, Mulyorejo, 60115, Surabaya, East Java, Indonesia

ABSTRACT

Introduction: Occupational Health and Safety (OHS) is an important indicator that must be done by any company with more than 100 employees or those have a high hazard risk level of causing work accidents. The packaging unit is the last production stage that has a risk of a work accident. This study aimed at analyzing work accidents in packaging workers using ILCI theory in the Informal Metal Industry. **Methods:** This study was observational quantitative research with cross-sectional design. The research respondents involved was the entire population in the packaging unit of 16 workers. One of the data collection instruments employed in this study was questionnaire which was tested using Spearman correlation test. **Results:** There was a relationship between OHS policy and individual commitment, provision of PPE and work stress, work stress and work noise, while no significant relationship found between OHS training and PPE provision with individual commitment, between lack of control and OHS knowledge, between OHS policies and OHS training with work stress, between human factors and working behavior, between human factors and work climate, between human factors and lighting in the workplace, between working behavior and work accidents, as well as between working environment and occupational accidents. **Conclusion:** Only 3 variables have a relationship, those are between OHS policy and individual commitment, between provision of PPE and work stress, as well as between work stress and work noise; while other variables had no significant relationship.

Keywords: HS, Work Accidents, Informal Sector, Work Stress, and Work Noise

Corresponding Author:
Putri Ayuni Alayyannur, M.KKK
Email: putri.a.a@fkm.unair.ac.id
Tel: (+6231) 5920948

INTRODUCTION

Occupational Health and Safety is the most important factor in the implementation of a job. Besides, it is also an important indicator that must be carried out by any company that has a workforce of more than 100 workers or that has a large hazard level. This is stated in the Regulation of Government No. 50 of 2012 concerning the Implementation of SMOHS (1). In the current industrial era, the production power used is increasingly sophisticated. This has a positive impact on the workers, namely decreasing the burden on workers at work. In addition, increasingly sophisticated technological tools also trigger work accidents due to the workers unawareness in carrying out their job in applying the technology. A work accident is an unexpected and unwanted event that disrupts the process of an activity that has been regulated. The risk of accidents can occur mainly due to unsafe actions and unsafe conditions.

According to Law No.13 of 2003 concerning manpower, workers are people who are capable of doing work to produce goods and/or services to meet personal or community needs (2). Every worker has the right to feel safe while working. This is stated in Law No.1 of 1970 Article 12, where it describes the rights and obligations of workers, one of which is to declare work objections to jobs in which the requirements for occupational health and safety as well as obligatory personal protective equipment are questioned by him, except in special cases determined otherwise by the supervisory staff within the limits that can be accounted for (3). However, it cannot be denied that the accident rate while working in Indonesia is still high.

The Occupational Health Effort (OHE) Post is one of the informal sector industries. OHE Post is a community-

based health effort where all the efforts made are planned, regulated, organized from, by, and for the working community themselves so that the work productivity of workers who are the members of the OHE Post is expected to improve. The health services provided are basic health services and are specifically intended for informal sector workers (4). The implementation of OHE Post is emphasized on promotional activities and preventive activities with its main target is the workers. According to the Minister of Health Regulation No. 100 of 2015 concerning Integrated Occupational Health Efforts. OHE Post cadres are cadres from workers or cadres from the integrated healthcare center, integrated assistance post, and other health posts who have been trained and certified to participate in occupational health cadres training activities (5).

To identify the work accidents in OHE Post, this study used ILCI theory. Before a loss occurs, there are series of events that take place with a root cause that begins this series of events is called a Lack of Control. This leads to a basic cause (or personal factor) and this in turn leads to an immediate cause then leads to an Incident. with emphasis on performance standards, the ILCI model takes a proactive approach to loss prevention and suggests that losses are due to a breakdown in these standards.

This study was focused on workers in the packaging unit; the packaging unit is the last stage before the product is distributed. This unit carries out activities to package products so that the products are neat, safe and suitable to be distributed. In this packaging unit, most of the energy used is human workers; this may trigger work accidents especially if the worker is negligent and does not focus on doing his/her job. This study aimed at analyzing of work accidents in packaging workers using ILCI theory in the Informal Metal Industry.

MATERIALS AND METHODS

This study used a quantitative research approach method. Based on the data collection aspect, this study was an observational research because this study only observed without giving treatment. Data collection in this field study was carried out at a certain time period so that the design form in this study was a cross-sectional study. The data processing was done using the Spearman correlation test because the type of data used was not normal. This study used the Spearman correlation test which is used for not normally distributed data, instead of the Pearson correlation test which is used for normally distributed dataAccording to table above, all variables in the study data have a p-value of less than 0.05. The data will have a normal distribution if $p \geq 0.05$.

The population in this study was 16 respondents in the packaging unit. The sample used was the total population in the packaging unit of the Informal Metal Industry in Waru, Sidoarjo in 2019. The research variables studied in this study consisted of variable that affects and variables that are affected. The variable that affect in this study is the lack of control which consists of OHS policies, OHS training, and provision of PPE, while the variables that are affected are human factors which include individual commitment, knowledge, and work stress; working environment factors which include noise, lighting, and work climate; and working behavior; as well as work accidents. The data collection instruments in this study are a questionnaire, document studies, and laboratory measurements. The data obtained were then analyzed to determine the relationship between variables. This research obtained the ethical approval by Health Research Ethics Committee of the Faculty of Public Health Universitas Airlangga no. 131/EA/KEPK/2019.

RESULT

The Relationship between Lack of Control and Individual Commitment

Based on table I, there is a significant relationship between OHS policies with individual commitment as evidenced by a p-value of 0.039 with a sufficiently strong relationship and a positive direction of relationship. Meanwhile, OHS training and the provision of PPE has no relationship with individual commitment because the p-value exceeds 0.05.

Table I. The relationship between lack of control and individual commitment, OHS knowledge, and work stress of workers in the Packaging Unit of the Informal Metal Industry, Waru, Sidoarjo in 2019

Lack of Control		Individual Commitment	Conclusion	OHS Knowledge	Conclusion	Work Stress	Conclusion
OHS Policy	*Correlation Coefficient*	0.453	Significant	0.225	Not Significant	-0.124	Not Significant
	Sig. (1-tailed)	0.039		0.201		0.324	
OHS Training	*Correlation Coefficient*	0.230	Not Significant	0.299	Not Significant	0.397	Not Significant
	Sig. (1-tailed)	0.196		0.130		0.064	
Provision of PPE	*Correlation Coefficient*	0.000	Not Significant	0.393	Not Significant	0.537	Significant
	Sig. (1-tailed)	0.500		0.066		0.016	

The Relationship between Lack of Control with OHS Knowledge

Based on table I, OHS policy, OHS training and Provision of PPE have no relationship with OHS knowledge. This is indicated by the p-value of the three variables that exceeds 0.05.

The Relationship between Lack of Control with Work Stress

Based on table I, there is a significant relationship between the provision of PPE and Work Stress as evidenced by the p-value of 0.016 with a strong relationship and positive direction. Meanwhile, OHS training and OHS policy have no relationship with work stress because the p-value exceeds 0.05.

The Relationship between Human Factors and Working Behavior

Based on table II, individual commitment, OHS knowledge, and work stress have no relationship with work behavior. This is indicated by the p-value of the three variables that exceeds 0.05.

Table II. The Relationship Between Human Factors and Work Behavior, Work Climate, Work Noise Experienced, Workplace Lighting Experienced of Workers in the Packaging Unit of the Informal Metal Industry, Waru, Sidoarjo in 2019

Human Factors		Work Behavior	Conclusion	Work Climate	Conclusion	Work Noise	Conclusion	Workplace Lighting	Conclusion
Individual Commitment	*Correlation Coefficient*	0.356	Not Significant	0.000	Not Significant	0.000	Not Significant	0.000	Not Significant
	Sig. (1-tailed)	0.088		0.500		0.500		0.500	
OHS Knowledge	*Correlation Coefficient*	0.029	Not Significant	0.287	Not Significant	0.203	Not Significant	0.272	Not Significant
	Sig. (1-tailed)	0.457		0.141		0.226		0.154	
Work Stress	*Correlation Coefficient*	0.228	Not Significant	0.200	Not Significant	0.447	Significant	0.067	Not Significant
	Sig. (1-tailed)	0.198		0.229		0.041		0.403	

The Relationship between Human Factors with Work climate

Based on table II, the variables of individual commitment, OHS knowledge, and work stress have no relationship with the Work climate. This is indicated by the p-value of the three variables that exceeds 0.05.

The Relationship between Human Factors with Work Noise

Based on table II, there is a significant relationship between work stress with work noise as evidenced by a p-value of 0.041 with a sufficiently strong relationship and a positive direction of relationship. Meanwhile, OHS knowledge and individual commitment have no relationship with work stress because the p-value exceeds 0.05.

The Relationship between Human Factors with Workplace Lighting

Based on table II the variables of individual commitment, OHS knowledge, and work stress have no relationship with workplace lighting. This is indicated by the p-value of the three variables that exceeds 0.05.

The Relationship between Working Behavior with Work Accidents

Based on table III, it is explained that the behavior of workers has no relationship with the incidence of work accidents, this is evidenced by the p-value that exceeds $\alpha = 0.05$ and shows a negative relationship.

Table III. The Relationship between Working Behavior and Work Accidents among Workers in the Packaging Unit of the Informal Metal Industry, Waru, Sidoarjo in 2019

		Work Accidents	Conclusion
Working Behavior	*Correlation Coefficient*	-0.218	Not Significant
	Sig. (1-tailed)	0.208	

The Relationship between Working Environment and Work Accidents

Based on table IV, the variables of work climate, work noise and workplace lighting have no relationship with the incidence of work accidents. This is indicated by the p-value of the three variables that exceeds the value of $\alpha = 0.05$.

Table IV. The Relationship between the Working Environment and the Incidence of Work Accidents among Workers in the Packaging Unit of the Informal Metal Industry, Waru, Sidoarjo in 2019

Working Environment		Work Accidents	Conclusion
Work Climate	*Correlation Coefficient*	-0.149	Not
	Sig. (1-tailed)	0.291	
Work Noise	*Correlation Coefficient*	0.333	Not
	Sig. (1-tailed)	0.104	
Workplace Lighting	*Correlation Coefficient*	-0.149	Not
	Sig. (1-tailed)	0.291	

DISCUSSION

The Relationship between Lack of Control with Individual Commitment

Based on the results of the cross tabulation between OHS Policy and Individual Commitment, it can be seen that there is a significant relationship between the 2 variables, with a sig value of 0.039. The two variables have a relationship because the OHS policy will be proportional to the individual commitment, if the OHS policy provided by the company is in accordance with the needs, safety and expectations of workers. If the needs, safety and expectations of workers are fulfilled in the OHS policy provided by the company, then the individual commitment of workers in doing their job will be good (6). The OHS policy is an action or decision that is mutually agreed upon in order to achieve what the company aims to do on the basis of occupational safety and health, while the individual commitment is a belief, the sincerity of oneself to do and/or to implement a job maximally (6). This is proven by the results of the distribution of the OHS policy and the commitment of individuals in the Informal Metal Industry which are considered to be quite good (sufficient).

Based on the results of the cross tabulation between OHS training and Individual Commitment, it can be seen that there is no relationship between the 2 variables, in which the sig value obtained is 0.196. Training is a series of individual activities in systematically increasing skills and knowledge so that they are able to have professional performance in their fields (7). Meanwhile, OHS is a science that studies the safety, health and welfare of people who work in an industry (3). It can be concluded that OHS training is an activity to improve skills and add knowledge of occupational safety and health, while individual commitment is self-determination in work. What can affect individual commitment of workers is the social factors such as always sharing when there are complaints regarding income policies etc. (7). In that study, it was found that OHS training is not a factor that affects individual commitment. This result is in line with the results of this study which found that there is no relationship between OHS training and individual commitment.

There is no relationship between the two factors, namely the provision of PPE and individual commitment, because the sig value exceeds the α value, namely 0.500. The provision of PPE referred to in this study is the facility provided by the company to the workforce, whether the PPE provided is comfortable to use and in accordance with the risks involved in the company. Not only companies are required to provide personal protective equipment, but workers are also required to wear personal protective equipment that is suitable/ appropriate for potential hazards when entering the work environment (8). This has been regulated by the government in the Regulation of Minister of Manpower and Transmigration number 8 of 2010 concerning PPE, Article 6 Paragraph 1 (9). The provision of PPE and the use of PPE are two sentences that have different intentions; in which the use of PPE is the behavior of the worker. In order to establish a culture of compliance of using PPE, companies need to involve workforce support and carry out training according to the needs, which means that commitment or willingness in workers affects the implementation of a culture of using PPE in the workplace (8). Meanwhile, the provision of PPE is an obligation that must be carried out by the company to maintain the health and safety of workers; in short it is an external factor, while individual commitment is an internal factor that is not sustainable or has no relationship with the facility policy of the company.

The Relationship between Lack of Control and OHS Knowledge

OHS policy and OHS knowledge has no relationship. This results is in line with the research conducted at the Hospital, which revealed that there is no relationship between OHS policy and knowledge, with the correlation coefficient between both is -0.038 and the sig value is 0.766 (10). OHS policy is a management commitment to OHS in a tangible form written in writing that contains the main company policies related to the implementation of OHS in the organization (11). The OHS policy is one of the main requirements in implementing SMOHS. The OHS policy is made by an industry to increase workers 'knowledge, although in this case the OHS policy is not a factor in increasing workers' knowledge in the informal metal industry.

There is no relationship between the OHS training and OHS knowledge with the sig value that exceeds the α value, namely 0.130 and the correlation coefficient of 0.299. Furthermore, there is a relationship between OHS training and OHS knowledge in a hospital; these results believe that OHS training and OHS knowledge are two related variables (10). However, these results are inversely proportional to this study on the Informal Metal Industry workers; in which it reveals no relationship between these two variables, because the results of observations through the questionnaire obtained low scores in the high score category.

There is no relationship found between the provision of PPE with OHS knowledge because the sig value obtained exceeds the α value, namely 0.066. The provision of PPE with OHS knowledge are two different things, in which the provision of PPE is an external factor, namely the policy made by the company regarding company facilities, while the OHS knowledge is an internal factor possessed by the worker. Factors related to knowledge are age, education level, occupation, interests, and experience (12). Meanwhile, factors related to knowledge are education, work, experience, belief, and socio-culture (13). No one explains that the provision of PPE is a factor related to the OHS knowledge of workers, thus no relationship is found between the two variables.

The Relationship between Lack of Control with Work Stress

There is no relationship between OHS policy and work stress due to the sig value obtained that exceeds the α value, namely 0.324. Work stress is a condition of tension experienced by workers so that it makes them uncomfortable in carrying out a work activity, surely it is caused by factors in the workplace such as workload that exceeds the worker's capacity, working environment, etc. Based on the results of observations through the questionnaire in this study, it was found that most of the workers rated the OHS policy carried out by the company as quite good (good enough); while for work stress, most workers rated the work stress in the high and very high category, thus there is no significant relationship between OHS policy and work stress. According to perception of OHS with work stress, the negative value on the correlation shows that the more positive the employee's OHS perception, the lower the work stress they experience and vice versa. However, the results of this study showed that workers' perceptions of OHS policy in the Informal Metal Industry were good, while the value of work stress was high.

There was no relationship found between the two variables, because the sig value obtained exceeds the α value, namely 0.064. The purpose of having OHS training in a company is to improve the soft skills of the workers, make the workers feel more comfortable at work as they can manage the hazards in their workplace (7). Meanwhile, work stress occurs due to internal and external factors, such as the working environment, excessive workload or personal problems. Factors that influence the emergence of work stress on hospital nurses are that there are quite a lot of nurses who still do not feel safe in carrying out their daily nursing functions due to the ineffective OHS training received by the nurses so that they are not successful in changing good OHS behavior and culture among the nurses (14). As a result, many nurses who do not heed the health and safety signs in carrying out their activities. However, in this study OHS training is not a factor related to work stress.

There is a significant relationship between the provision of PPE and work stress with the sig value obtained of 0.016. The provision of PPE is a facility provided by a company to the workers, so that they feel safe in doing their job. This result is also in line with the research on hospital nurses in which it reveals that many nurses feel stressed due to the discomfort in doing their work, this is due to a lack of adequate PPE both in quality and quantity that makes the nurses feel nervous about contracting the disease from their patients (14).

The Relationship between Human Factor with Working Behavior

There is no significant relationship found between individual commitment and working behavior due to the sig value obtained that exceeds the α value, namely 0.088. Individual commitment needs to be possessed by every worker in order to achieve the organizational goals, commitment is very important for each employee because with commitment employees can be more responsible for their job compared to those who are not committed to their work. Employees who have commitment will usually work optimally thus they can devote their attention, thoughts, energy and time to their work, so that what they have done is in accordance with what is expected by the company. However, in this study commitment is not a factor related to workers behavior. As the working behavior referred to in this study is workers who obey the applicable regulations in the company as well as maintain and use the PPE available in the company. It was recorded that 7 workers stated that they were working in unsafe behavior and 9 workers stated that they were working in safe behavior, whereas on individual commitment, most of the workers were categorized as quite good (good enough).

There is no relationship between OHS knowledge with working behavior due to the sig value obtained that exceeds the α value, namely 0.457. Every worker is encouraged to know OHS knowledge in order to manage the hazards in the workplace. Thus this knowledge can creates a culture of safe work behavior. There is a significant relationship between knowledge and the application of OHS culture (15). There is a negative and significant relationship between OHS knowledge and unsafe behavior among construction workers at Institution X, in Tegal (16). However, in this study which was conducted in the Informal Metal Industry, no relationship found between the two variables.

There is no relationship between Work Stress and Working Behavior due to the sig value obtained that exceeds the α value, namely 0.198. Safe and unsafe working behaviors are influenced by the working environment and the ability of the workers to manage risks. If the workers are stressed, they may experience work accident because they are not focused enough at work. There is a relationship between work stress and working behavior due to the sig value obtained which is

less than 0.05 (17). Meanwhile, in Poernomo's research, 2005, no significant relationship was found between work stress and working behavior at PT. Halim Jaya Sakti (18).

The Relationship between Human Factor with Work Climate

There is no relationship between individual commitment and work climate with a sig value of 0.500. According to the Decree of Minister of Manpower and Transmigration Number PER 13/MEN/X/2011, work climate is the result of a combination of temperature, humidity, air velocity and radiation heat with the level of heat dissipation from the body of the workers as a result of their work (19). A work climate that causes discomfort to workers will reduce productivity at the time of work. Based on research, there is a relationship between individual career commitment and work climate because the work climate is the lowest variable which has a direct effect on career commitment (20). In this study, the value generated from the results of observations using a questionnaire found that most of the respondents were categorized as undisturbed by the work climate, while for individual commitments most of them received sufficient scores for their work. Thus, in this study, individual commitment is not a factor related to the work climate.

There is no significant relationship between the two variables, because the sig value is 0.141. Factors that can affect knowledge are age, education, and occupation; the work in this case is the work environment that can make a person gain experience and knowledge, either directly or indirectly (21). Meanwhile, the factors related to work climate are flexibility, responsibility, standards, wages, clarity, commitment, structure, support, and leadership (22). Based on the two explanations, it can be concluded that knowledge is not a factor that influences the work climate and vice versa. Therefore, OHS knowledge and work climate are variables that have no relationship.

There is no significant relationship between work stress and work climate with a sig value of 0.229. If the work climate exceeds the NAV value, it will affect the discomfort of the workers when doing their work and most workers will experience stress due to the work climate. According to this study, 15 workers were found to have experienced work stress due to the work environment. Based on the research, it is known that there is a relationship between temperature in the work environment and work stress with a strong relationship and a positive relationship direction (23), whereas in other research it was explained that there is no relationship found between hot working environment (work climate) and work stress (p- value of 0.568). This result is in accordance with this study on the informal metal industry, in which no relationship was found between work stress and work climate (24).

The Relationship between Human Factor with Work Noise

There is no relationship between individual commitment and work noise with a sig value of 0.500. Individual commitment and work noise are two different factors and have no continuity; individual commitment is a factor related to individual workers with the organization, while work noise is a factor related to the working environment. Therefore, there is no relationship found between these two variables.

There is no relationship between OHS knowledge and work noise because the sig value is 0.226. Knowledge is an internal factor in individual workers; knowledge influences the skills of workers at work, while noise is an environmental factor in the company. If the threshold value of work noise exceeds the predetermined standard NAV value, it will affect the productivity value of a job. This is in line with the research which it revealed that there was a positive relationship between noise perception and employee work productivity (25). This showed that the higher the level of perception of noise in a job, it will affect the level of employee work productivity more. The absence of research examining the relationship between OHS knowledge and work noise supports the results given in this study, namely the absence of a relationship between the two variables.

There is a significant relationship between work stress and work noise with a sig value of 0.041. Based on the Decree of Minister of Manpower Number per-51/MEN/1999, people feel comfortable when working if the threshold value of noise in the work environment is less than 85 dB, which means that if the threshold value exceeds the predetermined NAV value it will affect the health aspects of the workers in the working environment (26). According to research, it was found that there was a significant relationship between noise exposure and work stress on ground handling porters in Kokapura Ahmad Yani (27). This result is in accordance with the results of this study, in which the results obtained from observations through a questionnaire revealed that 12 respondents in this study complained of being disturbed by the noise in the working environment and 15 respondents in this study reported to have stressed in the high category due to the work environment.

The Relationship between Human Factor and Workplace Lighting

There is no relationship between individual commitment and workplace lighting because the sig value obtained is 0.500. One of the factors that can interfere with work is lighting. Every workspace definitely needs lighting, be it natural lighting or not. In this study, there is no relationship found because as many as 15 respondent workers stated that they were not disturbed by the lighting in their workplace; and most of the workers were categorized as quite good in terms of their commitment to work. These two variables are not influencing factors,

and no expert has yet said that individual commitment is related to workplace lighting.

No relationship is found between OHS knowledge and lighting in the workplace with a sig value of 0.154. If the company organization understands the OHS knowledge, they will also understand that there are factors that can lead to the emergence of a risk, one of which is the lighting factor. Based on the Social Security Administration for Employment data, there are 114,148 accidents in the workplace in 2018. Meanwhile, in 2019, 77,295 cases were recorded due to unsafe conditions and unsafe actions. One of the factors that influence workplace lighting is the design of the workplace whether it is backing towards natural light or not. From the literature search results, there is no research that discusses the relationship between these two variables therefore there is no relationship found between OHS knowledge and lighting in the workplace.

No significant relationship between work stress and lighting in the workplace with a sig value of 0.403. An explanation that the physical work environment (X1) partially affects work stress (Y) on employees at PT PLN (Persero) Distribution East Java Malang Service Area. This is indicated by lighting, cleanliness, and tidiness which are in excellent condition so that they cause less work stress (28). If the work environment is designed properly, it will affect the psychological condition of the workers when doing their work. A relationship between workplace lighting conditions and work stress on PT Tofico employees where the number of workers who experienced work stress was higher in the abnormal lighting conditions (29), the opposite was found in this study on the Informal Metal Industry, in which most workers experienced work stress in the high category, but in terms of lighting in the workplace, most of them feel undisturbed; thus, there is no significant relationship between work stress and lighting in the workplace.

The Relationship between Working Behavior and Work Accidents

There is no relationship between work behavior and the incidence of work accidents with a sig value of 0.208. The results of this study record that 12 workers have never had an accident at work, 7 workers are classified with unsafe working behavior and 9 workers are classified with safe working behavior which in accordance with applicable company procedures. On a research at PT. Tropica Cocoprima, it is found that there is no relationship between unsafe working behavior and work accidents at PT. Tropica Cocoprima, in Lelema, South Minahasa (30). In this study, which was conducted in the Informal Metal Industry, no relationship was found between working behavior and the incidence of work accidents. This is because the higher the number of accidents in a company, the higher the number of unsafe working behavior in that company will be.

The Relationship between Work Climate and Work Accidents

No relationship was found between the work climate and the incidence of work accidents in the Metal Informal Industry with a sig value of 0.291. An uncomfortable work climate in the working environment will affect the level of capacity and productivity of workers when doing their job. The factors that can influence the occurrence of work accidents are the existence of unsafe conditions and unsafe actions in the working environment. In the research on the production unit of PT Japfa Comfeed Indonesia Tbk., in Bati-bati, it was found that there was a significant relationship between work climate and work accidents (31). This is due to the work climate in the production unit of PT Japfa Comfeed Indonesia Tbk., in Bati-bati has exceeded the NAV value and an accident has occurred at that place. However, in this study which was carried out in the Informal Metal Industry, no relationship is found because as many as 10 workers feel that they are not disturbed by the work climate and most of the workers have never had a work accident.

No relationship between work noise and the incidence of work accidents in the Informal Metal Industry because the sig value obtained is 0.104; this is because the number of respondents who experienced work accidents is inversely proportional to the number of respondents who felt disturbed by work noise, namely 12 workers have never had work accidents and also 12 workers felt disturbed by noise at work, whereas the results in the research on gong craftsmen in Tihingan, Klungkung are inversely proportional to this study, in which it was found that there is a relationship between noise and work accidents with a p-value of 0.010 < a (0.05) and the CC value of 0.297 which means that the two variables have a low relationship (32).

There is no significant relationship between lighting in the workplace and the incidence of work accidents with a sig value of 0.291. From the results of observations through the questionnaire, it was found that 15 workers were not disturbed by the lighting in the work place. If the lighting does not interfere with the work process, it does not affect the worker productivity. The results of this study are in line with those recorded with the Chi-Square test, the statistical test results in this study obtained p-value = 0.398 > 0.05, thus it is concluded that there is no significant relationship between lighting and work accidents in Building Construction of Citra Land Bagya City Housing in Medan in 2019 (33).

Limitiation

The limitation of this study is the number of population is too small because there isn't other OHE Post in this sector.

CONCLUSION

Based on the results of this study, it was found that only 3 variables were found to have a relationship, which are between OHS policy and individual commitment, provision of PPE and work stress, and work stress and work noise. Meanwhile, for other variables, there is no significant relationship found. The effects that can cause the absence of a relationship are: the test value that exceeds the p-value (0.05) and the results of the observations that are equally proportional between the two measured variables, resulting in no relationship between the two variables.

Recommendation for other researchers, you can find the population bigger than this study, not only in OHE Post.

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