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THE RELATIONSHIP BETWEEN KNOWLEDGE AND ATTITUDES TOWARDS ERGONOMIC BEHAVIOR OF EMPLOYEES AT UPT LIK MAGETAN DISTRICT

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ABSTRACT
Ergonomic problems are related to the body's suitability to work tools when performing work tasks. Based on an initial study conducted by researchers on 10 employees at UPT LIK, Magetan Regency. There are 7 out of 10 workers who lack understanding about ergonomics such as how to lift weights, the maximum limit of the weight lifted, the use of Personal Protective Equipment (PPE), the effects of excessive weight lifting. Meanwhile, in the IKM section, understanding the principles of ergonomics is very important, because the work done by employees is closely related to ergonomics. The lack of awareness of workers in implementing ergonomic behavior is influenced by knowledge factors and work attitudes. Poor work knowledge and attitude are caused by the lack of ergonomics application by the industry to workers. In addition, workers also lack understanding of ergonomics in the work environment. This type of research is quantitative research with cross-sectional research. The population in this study is 230 respondents with a sample of 70 respondents in this study. The data of this study was obtained from the collection of questionnaire sheets and observation sheets. Data analysis using the Chi Square Test. The results of the bivariate test in this study showed that there was no relationship between the independent variable of knowledge and ergonomic behavior with p = 0.687 and there was a relationship between the independent variable of attitude and ergonomic behavior with p = 0.000 The conclusion in this study is that there is no significant relationship between knowledge and ergonomic behavior and there is a significant relationship between attitudes to ergonomic behavior. Keywords: Knowledge, Attitude, Ergonomic Behavior

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Introduction

In various fields, especially organizational life, the human factor is the main problem in every activity in it. The organization is a social unit that is consciously coordinated with a good quality of Human Resources which is certainly very important for an industry, this is the dominant need for every industry. (Wahyuningsih, 2018). The application of safety is increasingly important because it is part of efforts to protect labor in interacting with their work. The success of development in various fields of science and technology has improved the standard of living of people's welfare. (Aidelwees & Candra, 2021)..

The leather industry is an economic sector that produces various products from animal skins, such as shoes, bags, clothing, gloves and others. The industry has a significant impact both in terms of product production and the labor involved. The leather industry can create significant employment, especially in areas with many farms that produce leather. Tanneries

employ a wide variety of workers, including tailors, shoemakers, assembly workers, and others. Leather workers such as cobblers, leather craftsmen or tanners may be negatively impacted by tanning. (Rosidin, 2024).

Ergonomic issues relate to the suitability of the body to the work tools when performing work tasks. Poor Posture for Tannery Workers often have to sit or squat for long periods of time while working, which can lead to posture problems. This can lead to back, neck and shoulder pain. Poor working positions can also affect employees' general health. To overcome these negative impacts, companies must ensure that the working environment for leather workers is safe and ergonomic. This includes ensuring adequate work equipment, adequate on-the-job training, and encouraging adequate rest to allow workers to recover. In addition, leather workers should also maintain their physical and mental health by adopting a healthy lifestyle. It is important to take preventive measures so that the productivity of tannery workers is not compromised. (Rosidin, 2024)

Work or activities that are not ergonomic will cause discomfort, high costs, accidents, and increased occupational diseases, decreased work performance which results in decreased work efficiency and power. Optimal performance can be met when work equipment or facilities, work stations, products, and work procedures can be designed and adjusted to the approach and principles of ergonomics. Human *engineering* that

The work system is expected to be able to improve human work performance or performance such as increasing work speed, accuracy, safety, comfort, and reducing the use of excessive work energy and reducing fatigue, reducing time wasted on training and minimizing damage to work facilities due to human errors increasing functional effectiveness and human work productivity by taking into account human characteristics in the design of work systems. (Joniarta et al., 2022).

Based on research conducted by (Samfriati Sinurat et al., 2023) with the title "Relationship between knowledge and the Application of Body Ergonomics during *Online* Learning in Level II Students of the Ners Study Program Stikes Santa Elisabeth Medan in 2022" with a total research population of 93. The instrument in this study was an ergonomic knowledge questionnaire and the application of ergonomics using the *Chi-Square* test. The results showed that the knowledge variable did not have a relationship with the application of body ergonomics in level II students of the Ners Study Program of Stikes Santa Elisabeth Medan in 2022.

Furthermore, based on research conducted by (Utami et al., 2018) with the title "The Relationship Between Knowledge About Ergonomic Attitudes With Musculoskeletal Disorders In Nurses At Husada Hospital". This study uses a correlative descriptive with a cros sectional design. The results of this study indicate that there is a relationship between knowledge about ergonomic attitudes and muculoskeletal disorders in nurses at Husada Hospital.

Then based on research conducted by (Setiyowati & Hartati, 2022) with the title "Relationship between Knowledge, Physical Ergonomic Behavior of High School Students While Studying and the Incidence of Back Pain in West Jakarta High School Students". This study uses descriptive correlational quantitative research methods with *cross sectional* approaches. The results of the research based on the *Chi-Square* test show that there is a significant relationship between good knowledge and positive physical ergonomic behavior of students while studying.

Good knowledge can stimulate positive behavior in applying good physical ergonomic behavior, and by applying good physical ergonomic behavior.

Furthermore, based on research conducted by (Setyowati & Fatimahhayati, 2021) with the title "Ergonomic Work Attitude Training for Manik-Manik Crafters in Samarinda's Pampang Cultural Village". The method used is in the form of training to increase understanding or awareness about the application of ergonomic body attitudes when working. The results of evaluating activities through *pre-test* and *post-test* questionnaires show that there is an increase in knowledge and understanding of ergonomic work attitudes.

The main focus that must be improved by the organization or industry is the knowledge and work attitude of employees. The aspect of work knowledge is a factor that is no less important in an organization. Individuals or employees (HR) who do not have or even have little knowledge and will hinder the success of an institution, organization and/or agency. Therefore, every employee must maintain, develop and always add to their knowledge. The knowledge factor is very important for employees because without knowledge, they do not know what to do and do. With a good mastery of work knowledge and fair and appropriate encouragement received by employees, employees will be motivated to work as well as possible and responsibly (Setyorini et al., 2017). (Setyorini et al., 2021).

In addition to knowledge, to help improve ergonomic behavior in an industry, it should be required that each employee must have a good attitude. Work attitude can be used as an indicator of whether a job is running smoothly or not. If the work attitude is carried out properly, the work will run smoothly. Work attitude as a tendency of thoughts and feelings of satisfaction or dissatisfaction with their work. Indicators of employees who are satisfied with their jobs will work hard, be honest, not be lazy and help advance the industry. Conversely, employees who are dissatisfied with their jobs will work arbitrarily, want to work if there is supervision, are dishonest, which can ultimately harm the industry. It can be interpreted that work attitude is a work attitude is a thought and feeling of satisfaction or dissatisfaction, like or dislike for his job with a tendency to respond positively or negatively to get what he wants in his job (Pitriyani, 2020).

Based on initial studies conducted by researchers to 10 employees at UPT LIK Magetan Regency. There are 7 out of 10 workers who do not understand ergonomics such as how to lift weights, the maximum limit of the load lifted, the use of Personal Protective Equipment (PPE), the effects of lifting excessive loads. While in the SME section, understanding the principles of ergonomics is very important, because the work carried out by employees is closely related to ergonomics. The lack of awareness of workers in applying ergonomic behavior is influenced by factors of knowledge and work attitudes. Poor knowledge and work attitudes are caused by the lack of application of ergonomics by the industry to workers. In addition, workers also lack understanding of ergonomics in the work environment.

Based on the description above, ergonomic behavior is influenced by several things, including the knowledge and attitudes of employees towards their work. The broader the knowledge of workers will have a better impact on ergonomic behavior. Likewise, workers who maintain a good work attitude will also have better ergonomic behavior. In this case, the industry has an important role in increasing employee knowledge and attitudes in order to

create good industrial quantity and quality. Increasing knowledge and attitudes can be done through training programs (*training*), job rotation, giving *rewards* to employees in the hope that employees will maintain the skills they already have and provide knowledge to other employees so that the realization of maximum ergonomic behavior . To find out the ergonomic behavior in an industry, the researcher took a sample research site at UPT LIK Kab. Magetan.

Based on the above background, the researcher is interested in examining the relationship between knowledge and attitudes towards the application of ergonomics with employee work productivity at UPT LIK Kab. Magetan.

The purpose of this study was to analyze the relationship between knowledge and attitudes towards ergonomic behavior of employees at UPT LIK Magetan Regency.

Research **Methods**

Research Design

The selection and determination of the research design is carried out after the formulation of the research hypothesis for the purposes of hypothesis testing or to answer research questions as well as a tool to control or control various variables that affect the research (Nursalam, 2013).

In this study, researchers used analytical observation research which aims to find the relationship between variables. The definition of analytical observation according to Sugiyono (2013), which is a method that serves to describe or provide an overview of an object under study through data or samples that have been collected as is without conducting analysis to make conclusions that apply to the public. This research design is a *cross sectional* design . The research method used is a survey using a questionnaire with a *cross sectional* approach. The *cross sectional* approach is a research design by taking measurements or observations at the same time or once upon a time. (Rachman, 2018). This study aims to identify the relationship between knowledge and attitudes towards ergonomic behavior of UPT LIK employees in Magetan Regency.

This study contains a questionnaire to determine the extent of employees' knowledge and attitudes about ergonomics. The purpose of distributing questionnaires is to find out the knowledge and attitudes of employees regarding ergonomics at UPT LIK Magetan Regency. By knowing the results of the questionnaire related to employee knowledge and attitudes, it will be seen that there is a relationship or no relationship between the independent variable and the dependent variable.

Population and Sample

Population

Population can be interpreted as all elements in research including objects and subjects with certain characteristics and characteristics (Nur, 2023). The population in this study were all employees at UPT LIK Kab. Magetan with a total of 230 people.

Sample

The sample is simply defined as part of the population which is the actual source of data in a study (Nur, 2023). The sample used in this study was part of the population of employees at UPT LIK Kab. Magetan. In determining the number of samples in this study using the Slovin

formula (Nursalam, 2016) as follows:

$$n = \frac{N}{1 + N\ (e)^2}$$

Description:

n : Sample size to be sought

N : Population size

E : *Margin of error*

Based on the Slovin formula above, the minimum sample size can be calculated as follows:

$$n = \frac{N}{1 + N\ (e)^2}$$

$$n = \frac{230}{1 + 230\ (0{,}1)^2}$$

$$n = \frac{230}{1 + 230\ (0{,}01)}$$

$$n = \frac{230}{1 + 2{,}3}$$

$n = \frac{230}{3{,}3} = 69{,}6$ / 70 samples or people.

So the number of samples used in this study were 70 employees of UPT LIK Kab. Magetan.

Sampling Technique

Sampling technique is a sampling technique, which is used to determine a sample that will be used in a study. Sampling techniques are grouped into two, namely *probability sampling* and *nonprobability sampling* (Sugiyono, 2020).

In this study, researchers used *probability sampling* techniques, namely *simple random sampling* to determine the samples to be used in the study. *Simple random sampling* is the taking of sample members from a population that is carried out randomly without regard to the strata in the population (Sugiyono, 2018).

The characteristics of the sample do not deviate from the population, so before sampling, the criteria are determined:

a. Inclusion Criteria

Inclusion criteria are general characteristics of research subjects from an affordable target population that will be studied (Nursalam, 2017). The inclusion criteria in this study are as follows:

a) Physically and mentally healthy.
b) Willing to be a research respondent.

b. Exclusion Criteria

Exclusion criteria are eliminating or removing subjects who do not meet the study inclusion criteria for various reasons (Nursalam, 2017). The exclusion criteria in this study are as follows:

a) In a state of illness that may affect the research process
b) During the work permit period

In determining this sample, the researcher uses the *Slovin* formula, where *n* is the sample size to be sought, N is the population size and e is the *margin of error* which is the amount of

error expected or determined. Sampling using a *simple random sampling* system, namely each population element has the same opportunity to be taken and sampled (Arieska et al, 2018).

The study used the respondent's data collection technique through a questionnaire sheet that had been given. Data collection was carried out by researchers and teammates where research respondents were determined according to the research sample of 70 people. The data collection stage at the beginning of the study with permission to the UPT LIK Kab. Magetan, then the research explained the purpose and objectives of the research to be carried out. After distributing the questionnaire, the researcher then processed the data by *editing, scoring, entering, and tabulating.*

Results and Discussion

Research Results

General Data Characteristics

From the questionnaires that have been distributed by researchers to respondents, the characteristics of respondents are obtained, namely age and level of education of employees at UPT LIK Kab Magetan. The characteristics of the respondents of UPT LIK Kab Magetan can be seen as follows:

Characteristics of Respondents Based on the age of employees at UPT LIK Magetan Regency.

Table 1 Frequency Distribution of Respondents Based on Age Level

No.	Age	Quantity (f)	Percentage (%)
1	20-25 Years	14	20,0
2	26-30 Years	17	24,3
3	31-35 Years	7	20,0
4	36-40 Years	8	11,4
5	41-45 Years	14	20,0
6	46-50 Years	5	7,1
7	51-55 Years	4	5,7
8	56-60 Years	1	1,4
Total		70	100

Source: Primary Data, 2024

Based on table 5.1 shows that most of the employees of UPT LIK Kab Magetan, a total of 70 respondents, are mostly aged 26-30 years, of which there are 17 respondents (24.3%), aged 20-25 years there are 14 respondents (20.0%), and aged 41-45 years there are 14 respondents (20.0%). It is concluded that the average employee at UPT LIK Magetan Regency is aged 20-45 years with a total of 45 employees.

Characteristics of Respondents Based on Employee Education at UPT LIK Magetan Regency.

Table 2 Frequency Distribution of Respondents Based on Education Level

No.	Education	Quantity (f)	Percentage (%)
1	SD	4	5,7
2	SMP	15	21,4
3	HIGH SCHOOL	36	51,4
4	SMK	14	20,0
5	Higher Education	1	1,4
Total		70	100

Source: Primary Data, 2024

Based on table 5.2 shows that most of the UPT LIK Kab Magetan employees out of a total of 70 respondents, the majority have a high school (high school) and junior high school (junior high school) education, namely 36 respondents with a percentage of 51.4% for high school, while as many as 15 respondents with a percentage of 21.4% for junior high school. Respondents with the lowest level of education are elementary school, namely 4 respondents with a percentage of 5.7%, while college is known as 1 respondent with a percentage of 1.4%. It is concluded that the average employee at UPT LIK Magetan Regency education level is SMA (High School) with a total of 36 employees and SMP (Junior High School) with a total of 15 employees.

Special Data

Univariate Analysis

Univariate analysis in this study will discuss the characteristics of respondents based on the dependent variable, namely ergonomic behavior of employees at LIK Magetan Regency and the independent variables, namely knowledge and attitude.

Frequency Distribution of Respondents Based on Knowledge of Ergonomic Behavior in employees at UPT LIK Magetan Regency

Based on the research that has been done, an analysis of the results of good and bad knowledge can be seen in the table below:

Table 5. 1 Frequency Distribution of Respondents Based on Ergonomic Knowledge

Knowledge	**Frequency (N)**	**Percentage (%)**
Good	4	5,7
Not good	66	94,3
Total	**70**	**100,0**

Source: Primary Data, 2024

In Table 5.3 there is a frequency distribution based on ergonomic knowledge, showing that employees at UPT LIK Magetan Regency have good ergonomic knowledge with the number of worker respondents 4 (5.7%). While employees who have poor ergonomic knowledge there are 66 worker respondents at UPT LIK Magetan Regency (94.3%).

Frequency Distribution of Respondents Based on Ergonomic Attitudes in employees at UPT LIK Magetan Regency

Based on the research that has been done, an analysis of the results of positive and

negative ergonomic attitudes can be seen in the table below:

Table 4 Frequency Distribution of Respondents Based on Ergonomic Attitudes

Attitude	Frequency (N)	Percentage (%)
Positive	35	50,0
Negative	35	50,0
Total	**70**	**100,0**

Source: Primary Data, 2024

In table 5.4 there is a frequency distribution based on ergonomic attitudes, showing that employees at UPT LIK Magetan Regency have a positive ergonomic attitude with 35 (50%) worker respondents. While employees who have a negative ergonomic attitude with the number of worker respondents 35 (50%).

Frequency Distribution of Ergonomic Behavior Respondents in employees at UPT LIK Magetan Regency

Based on the research that has been done, an analysis of the results of positive and negative ergonomic behavior can be seen in the table below:

Table 5 Frequency Distribution of Respondents Based on Ergonomic Behavior

Behavior	Frequency (N)	Percentage (%)
Positive	46	65,7
Negative	24	34,3
Total	**70**	**100,0**

Source: Primary Data, 2024

In table 5 there is a frequency distribution based on ergonomic behavior, showing that employees at UPT LIK Magetan Regency have positive ergonomic behavior with 46 (65.7%) worker respondents. While employees who have negative ergonomic behavior with the number of worker respondents 24 (34.3%).

Bivariate Analysis

The bivariate analysis conducted in this study aims to determine the relationship between the independent variable and the dependent variable using statistical tests. The statistical test used in this study is the *Chi-Square test* with a significance level of 0.05. The following are the results of the bivariate analysis in this study as follows:

Relationship between Knowledge and Ergonomic Behavior in Employees at UPT LIK Magetan Regency

Based on research that has been carried out by researchers, the results of the analysis of the relationship between good and bad knowledge of good and bad ergonomic behavior can be seen in the table below:

Table 6 Relationship between Knowledge and Ergonomic Behavior

Knowledge	Behavioral Ergonomics				Total		P-Value
	Good		Not good				
	n	%	n	%	N	%	
Good	3	4,3	1	1,4	4	5,7	0,687
Not good	43	61,4	23	32,9	66	94,3	
Total	**46**	**65,7**	**24**	**34,3**	**70**	**100,0**	

Source: Primary Data Processing Results, 2024

Based on table 6 above, the results of the analysis of knowledge with ergonomic behavior of employees at UPT LIK Magetan Regency showed that there were 4 respondents with good knowledge and good behavior as many as 3 employee respondents (4.3%). While there are 66 respondents with poor knowledge and there are as many as 43 employees with good behavior (61.4%).

The results of the *Chi-Square* test can be said that there is no relationship between knowledge and ergonomic behavior of employees at UPT LIK Magetan Regency with a p value = 0.687 greater than the value of a = 0.05. So it can be concluded that H0 is accepted and H1 is rejected because there is no significant relationship between knowledge and ergonomic behavior.

Relationship between attitude and ergonomic behavior in employees at LIK Magetan Regency

Based on research that has been carried out by researchers, the results of the analysis of the relationship between positive and negative attitudes towards good and bad ergonomic behavior can be seen in the table below:

Table 7 Relationship between Attitude and Ergonomic Behavior

Attitude	Behavioral Ergonomics				Total		P-Value
	Good		Not good				
	n	%	n	%	n	%	
Positive	31	44,3	4	5,7	35	50,0	0,000
Negative	15	21,4	20	28,6	35	50,0	
Total	**46**	**65,7**	**24**	**34,3**	**70**	**100,0**	

Source: Primary Data Processing Results, 2024

Based on table 7 above, the results of the analysis of attitudes with ergonomic behavior of employees at LIK Magetan Regency showed that there were 35 respondents with a positive attitude and behaved well as many as 31 employees (44.3%). While there are 35 respondents with negative attitudes and good behavior as many as 15 employees (21.4%).

The *Chi Square* test results can be said that there is a relationship between knowledge and ergonomic behavior of employees at UPT LIK Magetan Regency with a p value = 0.000 smaller than the value of a = 0.05. So it can be concluded that H0 is rejected and H1 is accepted because there is a significant relationship between attitude and ergonomic behavior.

Discussion

Knowledge about Ergonomics

Based on the results of the study it can be seen that the knowledge of employees at UPT LIK Magetan Regency can be seen that most have poor knowledge as many as 66 people or 94.3% and employees who have good knowledge as many as 4 people or 5.7%.

Based on the questionnaire of respondents who answered the following question 1 which is the definition of ergonomics, most respondents had poor knowledge as many as 55 respondents (78.5%) and those with good knowledge were 15 respondents (21.4%). Respondents who answered question 2 ergonomics in brief can also be interpreted that most respondents had poor knowledge as many as 50 respondents (71.4%) and those with good knowledge were 20 respondents (28.5%).

Respondents who answered question 3 of the application of ergonomics in the workplace can produce several benefits, namely most of the respondents had good knowledge as many as 37 respondents (52.8%) and those with poor knowledge were 33 respondents (47.1%). Respondents who answered question 4 the enormous benefits of ergonomics can create most of the respondents had good knowledge as many as 66 respondents (94.2%) and those with poor knowledge were 4 respondents (5.7%). Respondents who answered question 5 ergonomics aims for most respondents had good knowledge as many as 40 respondents (57.1%) and those with poor knowledge were 30 respondents (42.8%).

Respondents who answered question 6 ergonomic work system design aims to improve, except most respondents had good knowledge as many as 42 respondents (60%) and who had poor knowledge as many as 28 respondents (40%). Respondents who answered question 7 which is the limit of manual lifting for adult male workers, most respondents had poor knowledge as many as 59 respondents (84.2%) and those with good knowledge were 11 respondents (15.7%).

Respondents who answered question 8 lifting excessive weight can cause most respondents to have good knowledge as many as 63 respondents (90%) and those with poor knowledge were 7 respondents (10%). Respondents who answered question 9 loads that are ready to be moved should be lifted as high as most respondents had good knowledge as many as 46 respondents (65.7%) and those with poor knowledge were 24 respondents (34.2%).

Respondents who answered question 10 how to lift weights or goods when standing were most respondents had poor knowledge as many as 58 respondents (82.8%) and those who had good knowledge were 12 respondents (17.1%). Respondents who answered question 11 in lifting weights should not be too high because it can cause most respondents to have poor knowledge as many as 56 respondents (80%) and those with poor knowledge as many as 14 respondents (20%).

Respondents who answered question 12 how the distance of the load to our body before lifting most of the respondents had good knowledge as many as 60 respondents (85.7%) and those who had poor knowledge were 10 respondents (14.2%). Respondents who answered question 13 the following is the right way to lift goods when squatting most respondents had poor knowledge as many as 44 respondents (62.8) and those with good knowledge were 26

respondents (37.1%).

Respondents who answered question 14 the position of lifting weights by bending can cause most respondents to have poor knowledge as many as 60 respondents (85.7%) and those with good knowledge were 10 respondents (14.2%). Respondents who answered question 15 below which did not include unsafe behavior were most respondents had good knowledge as many as 45 respondents (65.7%) and those with poor knowledge were 25 respondents (35.7%).

Respondents who answered question 16 Personal Protective Equipment (PPE) is used to protect the body from danger. Mention the type of work that is required to use PPE most respondents have good knowledge as many as 52 respondents (74.2%) and those who have poor knowledge are 18 respondents (25.7%). Respondents who answered question 17 below, which is not an element that causes accidents, most respondents had good knowledge as many as 62 respondents (88.5%0 and those with poor knowledge were 8 respondents (11.4%).

Respondents who answered question 18 what should I do if I see unsafe conditions in the work environment most of the respondents had good knowledge as many as 45 respondents (65.7%) and those with poor knowledge were 25 respondents (35.7%). Respondents who answered question 19 Mild work accidents occur to themselves while at work what to do most of the respondents had poor knowledge as many as 38 respondents (54.2%) and those with good knowledge were 32 respondents (45.7%). Respondents who answered question 20 Noise, heat, and vibration are included in the hazards most respondents had poor knowledge as many as 52 respondents (74.2%) and those with good knowledge were 18 respondents (25.7%).

Based on the table above, it can be seen that the highest answer chosen by the questionnaire with a good category is in question item number 4, namely about the enormous benefits of ergonomics with the total number of answers of 66 people or 94.2%. While the lowest answer chosen in the questionnaire with a good category is in question item number 14, namely the position of lifting weights by bending can cause anything with an answer of 10 people or 14.2%.

Furthermore, the highest answer chosen by the questionnaire in the unfavorable category was in question item number 14, namely about the position of lifting weights by bending can cause anything with a total answer of 60 people or 85.7%. While the lowest answer chosen in the questionnaire with a good category was in question item number 4, namely about the benefits of ergonomics can create anything with the number of answers of 4 people or 5.7%.

This study is in line with research conducted by Samfriati Sinurat et al (2023) on the relationship between knowledge and the application of body ergonomics during *online* learning in level II students of the Ners Study Program of Stikes Santa Elisabeth Medan in 2023 where the results of the study state that 77.4% of workers have knowledge of the application of good ergonomics. From the results of statistical tests using the chi-square test, a p-value of 0.109 (<0.05) was obtained, which means that there is no relationship between knowledge and the application of body ergonomics during online learning in Level II Students of the Ners Study Program of STIKes Santa Elisabeth Medan in 2022.

Knowledge is everything that a person gets from sensing an object. Knowledge is a very important domain in shaping a person's actions. Occupational health and safety knowledge is the science of occupational safety health that can be used to protect oneself while working to

prevent the possibility of accidents and occupational diseases. OHS knowledge is also information that can make workers aware that in every workplace there can be mild or severe hazards.

Based on the description above, it can be concluded that employees who have good knowledge know the definition, benefits and application of ergonomic behavior. However, not all employees who have good knowledge have good ergonomic behavior as well. In this study, employees who have poor knowledge are more than employees who have good knowledge. This is because many workers still do not know about ergonomics such as Ergonomics in general, how to lift weights, the maximum limit of the load that is lifted, the impact of lifting weights too high, the impact of lifting weights by bending, the impact of lifting excessive weights, and the category of physical hazards.

Attitude About Ergonomics

Based on the results of the study it can be seen that the attitude of employees at UPT LIK Magetan Regency can be seen that most have a positive attitude as many as 35 people or 50% and employees who have a negative attitude as many as 35 people or 50%. So it can be concluded that the ergonomic attitudes of employees are equal.

Based on the questionnaire of respondents who answered respondents who answered statement 1 at work I lift weights (leather) with an upright body position most of the respondents had a positive attitude as many as 54 respondents (77.1%) and who had a negative attitude as many as 16 respondents (22.8%). Respondents who answered statement 2 working in a good position or posture will prevent occupational diseases, most of the respondents had a positive attitude as many as 65 respondents (92.8%) and those who had a negative attitude were 5 respondents (7.1%).

Respondents who answered statement 3 positioning tools in an easily accessible place will help me to work as most respondents had a positive attitude as many as 68 respondents (97.1%) and those who had a negative attitude were 2 respondents (2.8%). Respondents who answered statement 4 organizing the work station (place) to be as comfortable as possible will increase my workload, most of the respondents had a negative attitude as many as 47 respondents (67.1%) and those who had a positive attitude were 23 respondents (32.8).

Respondents who answered statement 5 doing light stretches while working will increase the feeling of comfort in my body most of the respondents had a positive attitude as many as 67 respondents (95.7) and those who had a negative attitude were 3 respondents (4.2%). Respondents who answered statement 6 adjusting the height of the leather pile to my height will reduce my workload, most respondents had a positive attitude (81.4%) and those who had a negative attitude were 13 respondents (18.5%).

Respondents who answered statement 7 moving piles of leather using tools will make it easier than not using tools mostly had a positive attitude as many as 60 respondents (85.7%) and those who had a negative attitude were 10 respondents (14.2%). Respondents who answered statement 8 My back must be bent when lifting weights mostly had a positive attitude as many as 57 respondents (81.4%) and those who had a negative attitude were 13 respondents (18.5%).

Respondents who answered statement 9 spinal pain due to lifting skin in a bent and

reaching position had a positive attitude as many as 60 respondents (85.7%) and those who had a negative attitude were 10 respondents (14.2%). Respondents who answered statement 10 I hold the side of the object that I will lift carefully, most respondents had a positive attitude as many as 65 respondents (92.8) and those who had a negative attitude were 5 respondents (7.1%).

Respondents who answered statement 11 I bend my arms when lifting heavy loads in accordance with the provisions as many as 67 respondents (95.7%) had a positive attitude and 3 respondents (4.2%) had a negative attitude. Respondents who answered statement 12 if the pile of leather is above the pile of goods then I lift it in a half-squat position and a straight back most of the respondents had a negative attitude as many as 41 respondents (58.5%) and those who had a positive attitude were 29 respondents (41.4%).

Respondents who answered statement 13 I do lifting work with bad work postures such as bending, reaching and squatting most of the respondents had a negative attitude as many as 42 respondents (60%) and those who had a positive attitude were 28 respondents (40%). Respondents who answered statement 14 when lifting weights, my body position is squatting, the fulcrum is in the middle of the body and one leg as a steeper most of the respondents had a positive attitude as many as 37 respondents (52.8%) and those who had a negative attitude were 33 respondents (47.1%). Respondents who answered the statement 15 I do bad work attitudes by bending over and over again, most of the respondents had a negative attitude as many as 62 respondents (88.5%) and those who had a positive attitude were 8 respondents (11.4%)**.**

Based on the description above, it can be seen that the highest answer chosen by the questionnaire with a positive category is in statement item number 3, namely about positioning the tools in an easily accessible place that will help employees to work with the number of answers of 68 respondents or 97.1%. While the lowest answer chosen in the questionnaire with a positive category was in question item number 15, namely employees doing bad work attitudes by bending over and over again with the answers of 8 people or 11.4%.

Furthermore, the highest answer chosen by the questionnaire with a negative category was in statement item number 15, namely employees doing bad work attitudes by bending over and over again with the answers of 62 people or 88.5%. While the lowest answer chosen in the questionnaire with a negative category was in question item number 3, namely about positioning the tools in an easily accessible place that will help employees to work with the number of answers of 2 respondents or 2.8%.

This study is in line with research conducted by Utami et al (2018) on the relationship between knowledge of ergonomic attitudes and misculoskeletal disorders in nurses at Husada Hospital 44.5% of respondents had a good level of knowledge about ergonomic attitudes.

According to (Azwar, 2013) people's attitudes towards an object are feelings of favor or feelings of impartiality towards the object. Specifically, attitude is the degree of positive effect or negative effect on psychological objects. This is because work attitude can be used as an indicator of whether a job is running smoothly or not. If the work attitude is carried out properly, the work will run smoothly. Work attitude as a tendency to think and feel satisfied or dissatisfied with his job. Indicators of employees who are satisfied with their work will work hard, be honest,

not lazy and help advance the industry.

Based on the description above, it can be concluded that employees who have positive attitudes and negative attitudes are balanced or equal in value. This is because the industry has not yet applied ergonomic work attitudes to its employees. From the results of the study, most respondents had good ergonomic work attitudes and the rest were not good due to the lack of supervision, training and socialization about ergonomics in the industrial environment. In addition, respondents also do not know about organizing work stations according to worker comfort, and the position of the body lifting stacks of goods.

Behavior About Ergonomics

Based on the results of the study, it can be seen that the ergonomic behavior of employees at UPT LIK Magetan Regency can be seen that most have positive behavior as many as 46 people or 65.7% and employees who have negative behavior as many as 24 people or 34.2%. So it can be concluded that the ergonomic behavior of employees is mostly in the positive category.

Based on the questionnaire, respondents who answered statement 1 I lift the load (skin) with an upright body position, most of the respondents had positive behavior as many as 55 respondents (78.5%) and those who had negative behavior were 15 respondents (21.4%). Respondents who answered statement 2 I work in a comfortable and correct position or posture, most of the respondents had positive behavior as many as 68 respondents (97.1%) and those who had negative behavior were 2 respondents (2.8%).

Respondents who answered statement 3 I position tools in an easily accessible place, most of the respondents had positive behavior as many as 66 respondents (94.2%) and those who had negative behavior were 4 respondents (5.7%). Respondents who answered statement 4 I arrange the work station (place) to be as comfortable as possible to facilitate work, most of the respondents had positive behavior as many as 61 respondents (87.1%) and those who had negative behavior were 9 respondents (12.8%).

Respondents who answered statement 5 performing the same movements repeatedly/repetitively while working every day mostly had positive behavior as many as 36 respondents (51.4%) and those who had negative behavior were 34 respondents (48.5%). Respondents who answered statement 6 I adjust the height of the leather pile according to my height posture will most of the respondents had positive behavior as many as 60 respondents (85.7%) and those who had negative behavior were 10 respondents (14.2%).

Respondents who answered statement 7 I move piles of leather using tools or the help of colleagues to minimize work risks mostly had positive behavior as many as 60 respondents (85.7%) and those who had negative behavior were 10 respondents (14.2%). Respondents who answered statement 8 I bend my back when lifting weights mostly had positive behavior as many as 54 respondents (77.1%) and those who had negative behavior were 16 respondents (22.8%).

Respondents who answered statement 9 held the side of the object that I was going to lift carefully, most of the respondents had positive behavior as many as 59 respondents (84.2%) and those who had negative behavior were 11 respondents (15.7%). Respondents who answered statement 10 I experience spinal pain due to lifting skin in a bent and reaching position

most of the respondents had positive behavior as many as 36 respondents (51.4%) and those who had negative behavior were 34 respondents (48.5%).

Respondents who answered statement 11 bending their arms when lifting heavy loads in accordance with the provisions mostly had positive behavior as many as 66 respondents (94.2%) and those who had negative behavior were 4 respondents (5.7%). Respondents who answered statement 12 I lift piles of leather in a half-squatting position with a straight back mostly had positive behavior as many as 58 respondents (82.8%) and those who had negative behavior were 12 respondents (17.1%).

Respondents who answered statement 13 I lift with poor working postures, such as bending, reaching and squatting, most of the respondents had negative behavior as many as 42 respondents (60%) and those who had positive behavior were 28 respondents (40%). Respondents who answered statement 14 I lift weights with a squatting body position, fulcrum in the middle of the body and one leg as most respondents had negative behavior as many as 43 respondents (61.4%) and who had positive behavior as many as 27 respondents (38.5%). Respondents who answered statement 15 My work attitude is bad with repetitive bending, most respondents had negative behavior as many as 37 respondents (52.8%) and those who had positive behavior were 33 respondents (47.1%).

Based on the description above, it can be seen that the highest answer chosen by the questionnaire with a positive category (good) is in statement item number 2, namely about employees working in a comfortable and correct position or posture with the number of answers of 68 respondents or 97.1%. While the lowest answer chosen in the questionnaire with a positive category (good) is in question item number 14, namely employees lifting weights with a squatting body position, fulcrum in the middle of the body and one leg as a steamer with the answer 27 people or 38.5%.

Furthermore, the highest answer chosen by the questionnaire with a negative category (not good) is in statement item number 14, namely employees lifting weights with a squatting body position, fulcrum in the middle of the body and one leg as a steamer with the answer of 43 people or 61.4%. While the lowest answer chosen in the questionnaire with a negative category (not good) is in statement item number 2, namely about employees working in a comfortable and correct position or posture with the number of answers of 2 respondents or 2.8%.

This research is in line with research conducted by Setiyowati and Hartati (2018) on the relationship between knowledge, physical ergonomic behavior of high school students while studying and the incidence of back pain in West Jakarta high school students, stating that 62.3% of respondents had positive ergonomic behavior.

According to (Heinrich, 1980) states that unsafe behavior minimizes the occurrence of accidents in the workplace. With good work behavior, one of the efforts reflects occupational health and safety in order to avoid work accidents and occupational diseases (PAK).

Based on the description above, it can be concluded that employees who have positive behavior are more than employees who have negative behavior. This is because most employees have been able to behave positively such as employees working in a comfortable and correct position or posture, positioning tools in an easily accessible place, adjusting the

height of the pile of skins according to my height posture, adjusting the height of the pile of skins according to the height posture of the worker.

Relationship between Knowledge and Ergonomic Behavior

Based on the results of bivariate analysis using the *Chi-Square* test to determine the relationship between knowledge and employee ergonomic behavior, it can be seen that respondents who have good knowledge of good ergonomic behavior are 3 respondents with a percentage of 4.3% and good knowledge of bad behavior as many as 1 person or 1.4%. While respondents with poor knowledge of good ergonomic behavior were 43 people or 61.4% and poor knowledge of ergonomic behavior was not good as many as 23 respondents with a percentage of 32.9%. So that the p value is 0.687 which is greater than 0.05 which means that there is no significant relationship between knowledge and ergonomic behavior of employees at UPT LIK Magetan Regency.

Based on the questionnaires that the researchers have distributed and the data has been processed from several questions on the knowledge variable, it is known that employees' knowledge of ergonomic behavior is still lacking and do not know well about ergonomic behavior such as work positions and work processes. Employees lack knowledge about the importance of ergonomic behavior in order to maintain the safety of themselves and others. In addition, employees also lack understanding of the main objectives of ergonomic behavior, namely the achievement of a productive work system and has good work quality accompanied by a sense of comfort, convenience and also work efficiency without neglecting aspects of occupational health and safety. Ergonomics can be applied in work to increase work productivity in an organization in industry.

The absence of a significant relationship between knowledge and ergonomic behavior in this study is not in line with research by Setiyowati & Hartati (2022) which states that good knowledge can provide a positive stimulus for positive behavior in applying good physical ergonimic behavior, and by applying good physical ergonomic behavior.

Based on the facts in the field, it is known that employees' knowledge of ergonomic behavior in the leather making process is still in the bad category. This is evident when researchers conducted research, most employees were still confused and did not understand what ergonomic behavior meant. This is because many workers still do not know about ergonomics such as Ergonomics in general, how to lift weights, the maximum limit of the load lifted, the effect of lifting weights too high, the effect of lifting weights by bending, the effect of lifting excessive weights, and the category of physical hazards. While in the SME section, understanding the principles of ergonomics is very important, because the work carried out by employees is closely related to ergonomics. The lack of awareness of workers in applying ergonomic behavior is influenced by factors of knowledge and work attitudes. Poor knowledge and work attitudes are caused by the lack of application of ergonomics by the industry to workers. In addition, workers also lack understanding of ergonomics in the work environment.

Relationship between Attitude and Ergonomic Behavior

Based on the results of bivariate analysis using the *Chi-Square* test to determine the relationship between attitudes towards employee ergonomic behavior, it can be seen that respondents who have a positive attitude towards good ergonomic behavior are 31 people or

44.3% and a positive attitude towards bad behavior are 4 people or 5.7%. While respondents with a negative attitude towards good ergonomic behavior were 15 people or 21.4% and a negative attitude towards unfavorable ergonomic behavior were 20 people or 28.6%. So that the p value is 0.000 which is smaller than 0.05 which means that there is a significant relationship between attitudes and ergonomic behavior of employees at UPT LIK Magetan Regency.

Based on the questionnaires that the researchers have distributed and the data has been processed from several questions on the attitude variable, it is known that the attitude of employees towards ergonomic behavior is good. This is because employees do not understand in theory about ergonomic knowledge but in its application as evidenced in the attitude at work, most employees are able to behave ergonomically.

This research is in line with research conducted by Utami (2018) where there is knowledge about ergonomic attitudes on muculoskeletas disorders in hospital nurses. Repetitive work, movements that are done quickly, bad posture can cause a disease or symptoms that attack certain parts of the body if done frequently.

Based on the facts in the field, it was found that employees at UPT LIK Magetan Regency were able to position the tools in an easily accessible place. This has been applied because it makes it easier to find the necessary tools besides that the work will be more efficient and not waste much time. In addition, the fact that employees have also applied a comfortable and correct position or posture. The importance of a good and correct working position is to maintain personal safety and the health of the employee's posture. In addition, this is also evident in employees who lift products such as leather with an upright body position not slouching.

Conclusion

Based on the results of research conducted by researchers on UPT LIK Magetan Regency employ

ees about the relationship between knowledge and attitudes towards ergonomic behavior, the following conclusions can be drawn:

1. Most employees' knowledge of employee ergonomic behavior is in the poor category.
2. Employee attitudes towards employee ergonomic behavior are in the same category.
3. Most of the ergonomic behavior of employees at UPT LIK Magetan is already in the good category.
4. There is no significant relationship between knowledge and ergonomic behavior in employees of UPT LIK Magetan Regency.
5. There is a significant relationship between attitude and ergonomic behavior in employees of UPT LIK Magetan Regency.

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