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THE EFFECT OF EXTRA FOODING ON THE FATIGUE OF FIELD WORKERS (TECHNICAL SERVICES) AT PT PLN (PERSERO) ULP MEDAN SELATAN

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Abstract

This research aims to investigate the effect of extra fooding on the fatigue of field workers at PT PLN (Persero) ULP Medan Selatan. This study considered the impact of additional food intake on fatigue levels, taking into account factors such as physical activity, rest time, working environment conditions, and the type of additional food consumed. The quantitative research method involved 20 engineering service workers who were given additional food in cucumber juice and coconut water. Data was collected before and after consuming extra food, with fatigue levels measured using a psychometrically tested rating scale. Descriptive statistical and regression analyses were performed to establish the relationship between extra food consumption and changes in fatigue levels. The results show that extra fooding has the potential to reduce fatigue in field workers, but the impact may vary depending on contextual factors. In conclusion, a holistic and integrated approach is needed in managing worker fatigue in the field, considering nutritional aspects and other factors that influence their working conditions.

Keywords: Extra Fooding, Field Worker Fatigue, Physical Activity, Rest Time, Working Environment Conditions, Types of Additional Food

Introduction

The effect of extra fooding on the fatigue of field workers at PT PLN (Persero) ULP Medan Selatan is an interesting topic to be researched. In the modern industrial era, job fatigue is a major concern because of its impact on worker productivity and well-being. Previous studies have shown that extra food intake can affect fatigue levels in field workers. According to research by Smith et al. (2018), a balanced supplementary diet can increase energy and physical endurance, thereby reducing the risk of burnout in field workers.

In addition, research by Johnson (2019) shows that an unbalanced diet or lack of nutritional intake can lead to prolonged fatigue and decreased work performance. In the context of field workers at PT PLN (Persero) ULP Medan Selatan, where strenuous physical tasks and demanding work environments can increase the risk of burnout, it is important to understand how extra fooding affects the condition.

The effect of extra fooding on field worker fatigue can also be influenced by other factors such as physical activity, rest periods, and working environment conditions. Research by Chen et al. (2020) highlights the importance of maintaining a balance between food intake and physical activity to optimize work performance and reduce the risk of burnout. In fieldwork environments such as PT PLN (Persero) ULP Medan Selatan, where time pressures and tasks that require physical strength often occur, it is important to explore how extra fooding can be a factor affecting worker fatigue.

In addition, other variables such as the type of additional food consumed can also play a role in influencing fatigue levels. Research by Wang et al. (2017) found that consumption of high-carbohydrate foods can increase energy quickly but have a temporary effect, while high-protein foods can provide longer-lasting energy and reduce fatigue. Therefore, it is important to consider the types of food additives commonly consumed by field workers at PT PLN (Persero) ULP Medan Selatan in the context of this study.

Within the framework of this study, will be analyzed how diet and supplementary food intake affect the fatigue level of field workers at PT PLN (Persero) ULP Medan Selatan. Through quantitative and qualitative approaches, this study aims to provide a better understanding of the factors that influence work fatigue in the field environment, as well as provide recommendations to improve worker welfare and performance.

It is expected that the results of this study can make a significant contribution to understanding the importance of additional food intake in managing field worker fatigue, especially in the energy industry such as PT PLN (Persero) ULP Medan Selatan. In addition, it is hoped that this research can also be the basis for companies to implement health and nutrition programs that are more effective in improving the welfare and productivity of field workers.

Research Methods

This quantitative research method will involve 20 technical service workers at PT PLN (Persero) ULP Medan Selatan who will be given extra fooding in the form of cucumber juice and coconut water. Respondents will be randomly selected from a population of field workers who meet the inclusion criteria. Each respondent will be given extra fooding every day for a certain period, and their fatigue level will be measured before and after consumption. Fatigue measurement will be performed using a psychometrically tested fatigue rating scale. In addition, data on control variables such as physical activity, rest periods, and working environment conditions will also be collected through interviews and direct observation.

A device to measure blood pressure using a digital sphygmomanometer will also be used to monitor changes in blood pressure in respondents before and after extra food consumption. The collected data will be analyzed using descriptive statistical methods to identify changes in fatigue levels before and after extra fooding. Next, regression analysis will be used to evaluate the association between extra fooding consumption and changes in fatigue levels, by controlling for other variables that might affect the results. Statistical tests such as the t-test and chi-square test will also be used to determine the significance of the relationship between the independent variable (extra fooding) and the dependent variable (fatigue level). Through this quantitative approach, this study aims to provide a deeper understanding of the effect of extra fooding on field worker fatigue at PT PLN (Persero) ULP Medan Selatan, as well as to provide a basis for the development of more effective health and nutrition programs for these field workers.

Research Results

Table 1. Distribution of Characteristics of Work Fatigue Respondents at PT PLN (Persero) ULP Medan Selatan

Variable	**War – War**	**Range**
Age (Years)	41,6	21 – 65
Working Time (Year)	7,9	2 – 22
Nutritional Status	**Frequency**	**Percentage**
Usual	17	85%
Thin	2	10%
Very skinny	1	5%
Sleep Quality	**Frequency**	**Percentage**
Bad	20	100%
Good	0	0
History of Hypertension	**Frequency**	**Percentage**
No	18	90%
The	2	10%

Table 1 shows the distribution of respondents' characteristics based on several factors relevant to work fatigue at PT PLN (Persero) ULP Medan Selatan. In the data, the average age of respondents was 41.6 years, with an age range between 21 to 65 years. Meanwhile, the average working life of respondents was 7.9 years, with a span of service ranging from 2 to 22 years. Interestingly, the majority of respondents showed normal nutritional status, covering 85% of the total respondents, while 10% were categorized as underweight, and 5% were very thin. In addition, the sleep quality of the majority of respondents was recorded as poor with a percentage of 100%, while none of the respondents had good sleep quality. When looking at the history of hypertension, 90% of the respondents had no history of hypertension, while the other 10% had a history of hypertension. This data provides an overview of respondents' characteristics relevant to work fatigue at PT PLN (Persero) ULP Medan Selatan, which can be the basis for further analysis of the effect of these variables on field worker fatigue.

Table 2. Effects of Blood Pressure Before Being Given Extra Fooding Based on Fatigue Category

Category Fatigue	**Systolic/Diastolic Range**	**Frequency**	**Percentage**
Normal	<120/<80	9	45%
Prehypertension	120-139/80-89	7	35%
Hypertensive	≥149/≥90	4	20%
Total		20	100.0%

Table 2 illustrates the effect of blood pressure before supplemental feeding by fatigue category. In the normal category with a systolic/diastolic blood pressure range of less than 120/80, there were 9 cases covering 45% of the total sample. The prehypertension category with a blood pressure range between 120-139/80-89 had 7 cases or 35% of the total. While in the category of hypertension with blood pressure equal to or greater than 149/90, 4 cases accounted for 20% of the total sample. From a total of 20 cases observed, it can be seen that most of the respondents had blood pressure in the prehypertension category, followed by the normal and hypertension categories. This showed significant variation in blood pressure before supplemental feeding, with most respondents being in the prehypertension range.

Table 3. The effect of blood pressure after being given extra fooding based on the category of fatigue

Category	Systolic/Diastolic Range	Frequency	Percentage
Usual	<120/<80	18	90%
Prehypertension	120-139/80-89	0	0%
Hypertensive	≥149/≥90	2	10%
Total		20	100.0%

Table 3 shows the impact of supplemental feeding on blood pressure by fatigue category. In the normal group with systolic/diastolic blood pressure ranges below 120/80, 18 cases accounted for 90% of the total sample. Results showed that the majority of respondents in the normal category experienced a decrease in blood pressure after supplementary feeding. Meanwhile, no cases were recorded in the prehypertension category, suggesting that supplemental feeding did not affect blood pressure in respondents in this range. However, there were 2 cases, or 10% of the total respondents in the hypertension category who experienced a decrease in blood pressure after consumption of additional foods. Although the proportion is smaller, these results suggest the potential benefits of supplemental feeding in managing blood pressure in individuals with hypertension.

From the analysis of a total of 20 cases, it can be concluded that supplementary feeding has a variable impact depending on the category of blood pressure fatigue. The majority of respondents in the normal category experienced a decrease in blood pressure after consumption of supplementary foods, while no change was noted in the prehypertension category. Although only slightly, there was an improvement in some cases of hypertension after supplementary feeding. These results indicate the importance of appropriate treatment according to individual blood pressure categories, as well as indicate the potential for food additives as an aspect of therapy or management in hypertension.

Discussion

The effect of extra fooding on the fatigue of field workers at PT PLN (Persero) ULP Medan Selatan is the main focus of this study. From the results of the study, several conclusions can be drawn that are relevant to the effect of extra fooding on the fatigue of field workers. First, the study suggests that supplemental food intake could potentially affect fatigue levels in field workers. This is in line with the findings of previous studies showing that consumption of a balanced diet of additives can increase energy and physical endurance, as well as reduce the risk of burnout in field workers.

Second, other factors such as physical activity, rest periods, and working environment conditions can also influence the effect of extra fooding on field worker fatigue. The results highlight the importance of maintaining a balance between food intake and physical activity to optimize work performance and reduce the risk of burnout. A demanding work environment and high time pressures can also increase the risk of burnout, so it's important to explore how extra fooding can be a contributing factor to the condition.

Third, the type of additional food consumed also plays an important role in influencing fatigue levels. Research shows that consumption of high-carbohydrate foods can increase energy quickly but have a temporary effect, while high-protein foods can provide longer-lasting energy and reduce fatigue. Therefore, it is important to consider the types of supplementary foods commonly consumed by field workers in managing fatigue.

From the results of this study, it can be concluded that extra fooding has the potential to reduce fatigue levels in field workers at PT PLN (Persero) ULP Medan Selatan. However, its influence can be influenced by various factors such as physical activity, rest periods, working environment conditions, and the type of additional food consumed. Therefore, a holistic and integrated approach is needed in the

management of burnout of field workers, which includes not only nutritional aspects but also other factors that affect their working conditions.

Conclusion

This study concludes that extra fooding has the potential to reduce fatigue levels in field workers at PT PLN (Persero) ULP Medan Selatan. However, the effect is not only determined by the intake of additional food alone, but also influenced by other factors such as physical activity, rest periods, working environment conditions, and the type of additional food consumed. Thus, a holistic and integrated approach is needed in the management of burnout of field workers.

Suggestion

The suggestion for future research is to expand the scope of observation on factors that affect the fatigue of field workers at PT PLN (Persero) ULP Medan Selatan, such as the management of rest periods, the use of technology that facilitates work, and energy recovery strategies other than the food aspect. Thus, research can provide a more comprehensive understanding of efforts that can be made to improve the welfare and productivity of field workers in the context of the energy industry.

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