

# **THESIS**

## **THE RELATIONSHIP BETWEEN WORK POSTURE AND MUSCULOSKELETAL DISORDERS AMONG WORKERS OF THE CWI 01 ITS PACKAGE CONSTRUCTION PROJECT**



**Arranged by:**

**DINAR NAUFAL GHOOZI AL-HARITS**

**422021731004**

**OCCUPATIONAL HEALTH AND SAFETY STUDY PROGRAM**

**FACULTY OF HEALTH SCIENCES**

**UNIVERSITAS DARUSSALAM GONTOR**

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## VALIDITY SHEET THESIS

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It is hereby stated that the thesis with the title :

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Written by:

**Dinar Naufal Ghoozi Al-Harits**  
**422021731004**

It has been reviewed and recommended to meet scientific standards, in terms of  
both scope and quality

It has been approved to presented on : Sunday, 16 February 2025

Supervisor

**Dian Afif Arifah, S.ST., M.Kes.**  
**NIY. 160566**

*Aproved by,*

**Head of Occupational Safety and Health Departement**  
**Faculty of Health Science, Universitas Darussalam Gontor**



**Aisy Rahmania, M.KKK.**

**NIY. 200766**

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Written by:  
**Dinar Naufal Ghoozi Al-Harits**  
422021731004

Has been tested and approved & before  
**The Thesis Examiner Board**

On : Saturday, 22 February 2025

#### Examiner Board :

##### Supervisor

**Dian Afif Arifah, S.ST., M.Kes.**  
NIY. 160566

##### Examiner 1

**Ratih Andhika A.R., S.ST., M.Si**  
NIY. 140406

##### Examiner 2

**Siti Ma'rifah, S.ST., M.K.M.**  
NIY. 210826

*Aproved by,*

**Head of Occupational Safety and Health Departement  
Faculty of Health Science, Universitas Darussalam Gontor**

**Aisy Rahmania, M.KKK.**

NIY. 200766

**ABSTRACT**  
**THE RELATIONSHIP BETWEEN WORK POSTURE AND**  
**MUSCULOSKELETAL DISORDERS AMONG WORKERS OF THE CWI 01**  
**ITS PACKAGE CONSTRUCTION PROJECT**

**Dinar Naufal Ghoozi AL-Harris**  
**NIM.422021731004**

*Construction workers of the CWI-01 Construction Project are at a higher risk because construction work generally involves activities performed manually. Manual hauling work usually involves pulling, pushing, carrying, and lifting goods in a way that can create pressure when loading or unloading goods. Hazards or risks caused by ergonomics can be acute and result in MSDs complaints. The purpose of this study is to analyze the Relationship between Work Posture and Musculoskeletal Complaints among Workers of the CWI-01 ITS Package Development Project. The type of research used is quantitative research with a correlational analytical approach. The population in this study is construction workers of 120 workers. The sampling method used in this study is using the Slovin formula, which is the selection of stratified random sampling of 55 respondents. The instrument used to measure work posture is Rapid Entire Body Assessment and to measure MSDs complaints, namely using the Nordic Body Map. After the chi square test was carried out, it was shown that respondents who experienced MSDs with moderate complaints were more felt by respondents with a high-risk work posture, namely 24 respondents (43.6%). MSDs with high complaints by respondents with a moderate risk work posture were three respondents (5.5%), and very high risk was only one respondent (1.8%). Based on the results of the statistical test showing a p-value of  $0.405 > 0.05$ , Hypothesis was accepted so that there was no significant relationship between Work Posture and MSDs Complaints in CWI-01 Project workers.*

**Keywords:** *Construction, Musculoskeletal Complaints, Nordic Body Map, Rapid Entire Body Assessment, Work Posture*

**ABSTRACT**

**THE RELATIONSHIP BETWEEN WORK POSTURE AND  
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01 ITS PACKAGE CONSTRUCTION PROJECT**

**Dinar Naufal Ghoozi Al-Harits**  
**NIM.422021731004**

Pekerja konstruksi Proyek Pembangunan CWI-01 memiliki risiko yang lebih tinggi karena pekerjaan konstruksi umumnya melibatkan kegiatan dilakukan secara manual. Pekerjaan pengangkutan manual biasanya melibatkan menarik, mendorong, membawa, dan mengangkat barang dengan cara yang dapat menimbulkan tekanan saat memuat (*loading*) atau membongkar (*unloading*) barang. Bahaya atau risiko yang disebabkan oleh ergonomi dapat bersifat akut dan mengakibatkan keluhan MSDs. Tujuan dari penelitian ini adalah untuk menganalisis Hubungan Postur Kerja dengan Keluhan Musculoskeletal pada Pekerja Proyek Pembangunan Paket CWI-01 ITS. Jenis penelitian yang digunakan adalah penelitian kuantitatif dengan pendekatan analitik korelasional. Populasi pada penelitian ini adalah para pekerja konstruksi 120 pekerja. Metode pengambilan sample yang digunakan dalam penelitian ini adalah menggunakan rumus slovin, yaitu pemilihan *stratified random sampling* sebanyak 55 responden. Instrument yang digunakan untuk mengukur postur kerja adalah *Rapid Entire Body Assessment* dan untuk mengukur keluhan msds yaitu menggunakan *Nordic Body Map*. Setelah dilakukan uji *chi square* menunjukkan bahwa responden yang mengalami MSDs dengan keluhan sedang lebih banyak dirasakan oleh responden dengan postur kerja risiko tinggi yaitu 24 responden 43,6%. MSDs dengan keluhan tinggi oleh responden dengan postur kerja risiko sedang sebanyak 3 responden 5,5% dan risiko sangat tinggi hanya 1 responden 1,8%. Berdasarkan hasil uji statistik menunjukkan nilai  $p\text{-value}$  sebesar  $0,405 > 0,05$  maka  $H_0$  diterima sehingga tidak ada hubungan yang signifikan antara Postur kerja dengan Keluhan MSDs pada pekerja Proyek CWI-01.

**Kata Kunci:** Postur Kerja, Keluhan Musculoskeletal, Rapid Entire Body Assessment, Nordic Body Map, Konstruksi.

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## AUTHENTICITY STATEMENT

### AUTHENTICITY STATEMENT

It is hereby declared by,

Name : Dinar Naufal Ghoozi Al-Harits  
NIM : 422021731004  
Faculty : Health Science  
Study Program : Occupational Safety and Health  
Thesis Title : The Relationship Between Work Posture And  
Musculoskeletal Disorders Among Workers Of The Cwi 01 Its Package  
Construction Project

I sincerely declare that the research contained in this thesis is my own work and does not belong to anyone else. This thesis has never been published before, except for some parts with original references.

If in the future it is found that this work is plagiarised. I am ready to be given administrative and academic sanctions.

Ponorogo, 18 February 2025  
Writer,



Dinar Naufal Ghoozi Al-Harits  
NIM.422021731004

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Ponorogo, October 26, 2024

Writer

Dinar Naufal Ghoozi AL-Harits

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