

UNIVERSITI TEKNOLOGI MARA

**ASSOCIATION BETWEEN RIDING POSTURE AND
THE DEVELOPMENT OF MUSCULOSKELETAL
DISORDERS AMONG P-HAILING RIDERS IN
TAIPING, PERAK.**

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Project submitted in fulfillment of the requirements for the degree of
Bachelor in Environmental Health and Safety (Hons.)

Faculty of Health Sciences

January 2023

ACKNOWLEDGEMENT

In the name of Allah, The Most Gracious, The Most Merciful.

Assalamualaikum and Alhamdulillah, all praise to Allah S.W.T The Supreme Lord of the Universe. Peace and blessing to Nabi Muhammad S.A.W., all prophets and their families. I praise Allah S.W.T. for the strength and His blessings in completing my study.

Thousands of thanks and love to my parents Mr. Idrus Bin Ismail and
for their support and encouragement through thick and thin of my study. My deepest gratitude and appreciation to my dearest supervisor, Dr. Hairul Nazmin Bin Nasruddin who spent his time and efforts in guiding and advising from the beginning till the end of my research journey. Not to forget, I would like to thank all the lecturers in Department of Environmental Health and Safety, Faculty of Health Sciences who always share their thoughts, knowledge and advice throughout my study in UiTM Puncak Alam. Only God can reward all of you with goodness.

My sincere thanks and appreciation goes to all the staff from the department and laboratory who gave their full cooperation and assisted me in many ways throughout my study. A special thanks to my friends from HS243 who always give me support and motivation while completing my study. May our friendship lasts forever. Lastly, I would like to thank everyone who involved directly and indirectly in this study. Thank You.

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ABSTRACT

This study is expected to contribute the baseline of possible association between postural angles and development of musculoskeletal disorders (MSDs) among food delivery services (P-hailing riders) in Taiping, Perak. The objective of the research was to find out the relationship between P-hailing ergonomic risk factors while riding a motorcycle and the prevalence of WMSDs. To identify the ergonomic risk factors of P-hailing riders when riding a motorcycle and to determine the prevalence of MSDs among P-hailing riders. The Standard Nordic Musculoskeletal Disorder Questionnaires (SNMQ) is conducted among P-hailing riders in Taiping. In this study, the total number of P-hailing riders that were involved was 115. The data obtained in this study were analyzed using Statistical Package for the Social Sciences (SPSS). For demographic background, postural angles and prevalence of WMSDs were obtained with descriptive statistical analysis (frequency and percentage). The chi-square test was used to determine an association postural angle between prevalence of WMSDs. Based on the outcome, the result found that there was significant relationship $p\text{-value} < 0.05$ between postural angle and the prevalence of WMSDs for neck, shoulders, upper back and lower back, thighs, wrists and ankles. The $p\text{-value}$ for the elbows and knees is more than 0.05, that indicates there was no significant relationship between postural angles and the prevalence of WMSDs. There is an association between riding posture and the development musculoskeletal disorders for neck, shoulders, upper back and lower back, thighs, wrists and ankles on P-hailing riders in Taiping, Perak.

Keywords: *Musculoskeletal Disorders(MSDs), P-hailing riders, Standard Nordic Musculoskeletal Disorder Questionnaires (SNMQ), Postural Angle, Statistical Package for the Social Sciences (SPSS)*

CHAPTER 1

INTRODUCTION

1.1 Background

Musculoskeletal diseases (MSDs) associated with occupational employment, also known as work-related musculoskeletal disorders (WRMSDs), are the most prevalent health problems many employees face. This sickness has resulted in significant financial losses for companies and employees due to human error or inconvenient and malfunctioning workplaces. However, when looking at the prevalence of MSDs among motorcyclists, the focus was once again on individuals who ride motorbikes for work, making it very much a work-related issue. According to the National Institute for Occupational Safety and Health (NIOSH) report, the upper and lower extremities, neck, and low back areas are frequently affected by exposure to prolonged standing or sitting in the working environment (Mei Qi & Ramalingam, 2019). Likewise, physical issues such as repetitive exercise, poor posture, and carrying large weights are also harmful.

Motorcycles are employed in utilitarian tasks in relevancy mobility, transport, sports, and economics activities like police, postmen, domiciliary workers, and dispatchers (Ospina-Mateus & Quintana Jiménez, 2019a). P-hailing services are defined as motorcycle-based food and parcel delivery. Motor vehicles have become increasingly important in the conduct of daily tasks.