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Prevalence of Musculoskeletal Problems among Manual Handling Workers in Courier Service Industry

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***Abstract* -Manual handling workers are exposed to various hazards such as ergonomic. Exposure to ergonomic hazards poses several health effects to workers especially to the musculoskeletal system including aches, pain or discomfort on neck, elbow, wrist, upper back, lower back, hip/thigh, knees or feet. The main objective of this study was to determine the prevalence of musculoskeletal problems among manual handling workers in courier service industry. A cross-sectional study was conducted involving 79 workers in a courier service provider that located in Selangor. Socio-demographic information, job characteristics and musculoskeletal symptoms for the past 7 days and 12 months were collected by using self-administered questionnaire adapted from Nordic Standardized Questionnaire. Prevalence of musculoskeletal symptoms among manual handling workers is 69.6 %. The most common site of musculoskeletal problems among manual handling workers is lower back followed by upper back. Bivariate analysis showed significant associations between education level and duration of employment with musculoskeletal. Preventive and control action should be taken to control the risk factors. This is crucial as musculoskeletal problems can give negative impact to workers' quality of lives, lost time of work due to absenteeism, reduction of employees' productivity and increase medical compensation.**

Index terms – Musculoskeletal problems, Nordic Standardized Questionnaire, Manual handling

I. INTRODUCTION

International Labour Organization (ILO) defines ergonomics as the application of the human biological sciences in conjunction with the engineering sciences to the worker and which at the same time enhances productivity. This definition emphasizes the important triad of ergonomics elements namely comfort, health and productivity. Injuries can occur if ergonomics is not taken into account while performing any task. There are two types of ergonomics injuries that are acute injuries that caused by something that happens as a result of one event and cumulative trauma disorders (CTDs) that build up over time due to repeated exposure to various risk factors.

Work-related diseases, including musculoskeletal problems have been characterized by the World Health Organization [1] as multifactorial. This indicates that a number of risk factors contribute to the causing of these diseases. Musculoskeletal problems typically affect the back, neck, shoulder and upper limbs. Health problems range from discomfort, minor aches and pains, to more serious medical conditions that require time off work and medical treatment. The impact of musculoskeletal problems on the workers and their ability to work varies significantly from person to person. Worker has to bear with the pain, mental stress and loss of income for those on daily salary. In chronic cases, the result from treatment and recovery could be permanent disability and worse come to worst a worker could loss his job. On the other hand, the employer has to bear the treatment cost, loss of man power and reduce productivity. Bureau of Labor Statistics of the U.S Department of Labor reports that in 1995, 62% of all illness cases were due to disorders associated with repeated trauma, which is the musculoskeletal problem. Busch et.al [2] stated that from their research on musculoskeletal problems in Sweden, sick absenteeism has increased dramatically over the past decade. Based on the statistics in the Health and Safety Executive website, 11.6 million working days a year are lost to work-related musculoskeletal problems.

Musculoskeletal problems are a significant public health problem due to their high impact on disability, personal suffering, absence from work, disability and their direct and indirect costs to the health care system [3]. According to Malmgren-Olsson et.al [4] the number of patients in primary care with prolonged musculoskeletal problem has increased during the last decade, causing significant