



Evaluation of the Relationship Between Body Discomfort and Personal Background Among Restaurant Cooks

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Abstract. Musculoskeletal disorders (MSDs) carry a heavy socioeconomic burden, and the repetitive movements and heavy physical labor involved in the kitchen make it a high-risk occupation for MSDs. The aim of this study was to evaluate the prevalence of work-related musculoskeletal disorders (WMSDs) in local cooks and to explore their association with personal background. In this cross-sectional study, 100 cooks in restaurants of Pekan Pahang were randomly selected and studied. Data was collected by Cornell Musculoskeletal Discomfort Questionnaire (CMDQ) through interviews with cooks at their workplace. The majority reported musculoskeletal discomforts localized in the upper back, lower back, neck, back, and shoulder and the minimal discomforts were in part of wrist. On the other hand, personal background had in-significant effect on increasing musculoskeletal discomforts of body regions such as upper back, lower back, neck, back, and shoulder ($p > 0.005$). The findings relating to these factors add new knowledge to our understanding of MSDs in the restaurant and food service industry. However, most restaurant cooks had a high prevalence of musculoskeletal disorders in the upper body. In this context, some considerations are needed for future studies to identify occupational risk factors, including psychosocial and improving working conditions to reduce MSD symptoms among cooks.

Keywords: Work-related musculoskeletal disorders (WMSD) · Cornell Musculoskeletal Discomfort Questionnaire (CMDQ) · Personal background · Cooks

1 Introduction

1.1 A Subsection Sample

The restaurant business is one of the critical areas driving Malaysia's economic expansion. The restaurant industry's working population is expanding and continues to grow [1]. Restaurant workers play a vital role in the catering industry, and without efficient and resourceful cooking staff, the success of the restaurant business is threatened. Previous studies reported that cooks were exposed to work-related musculoskeletal disorders [2,

3]. Musculoskeletal Disorders (MSDs), have been highlighted as one of the most significant and prevalent health issues in the working population [4]. Musculoskeletal disorders are a set of treatable conditions that affect nerves, tendons, muscles, and support systems such as the intervertebral disc [5].

A previous study by Liu et al. found that cooks have a high frequency of MSD [6]. The highest risk regions of cooks were the neck (19.03%) and wrist position (18.73%), followed by the upper arm position (18.41%) and trunk position (17.78%), and then the leg position (14.60%) and lower back arm. (11.43%) [7]. The most common characteristics that put cooks at risk for MSD are awkward postures, repetitive bodily movement, heat stress, lengthy standing, poor lighting, and powerful vibration [8]. Subsequent paragraphs, however, are indented.

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Two research investigations found a significant association between individual risk factors and MSDs [9, 10]. The incidence of various illnesses has also been connected to individual risk factors, such as growing older, having a high body mass index (BMI), and smoking, in addition to risk factors related to the workplace [11]. According to a recent study, working women are more likely to develop WMSDs, especially in the upper body's musculoskeletal area [12]. Furthermore, gender and job tenure have influenced the risk of cervical MSDs [9]. Work hours were positively correlated with the frequency of musculoskeletal disorders [13].

However, there needs to be more knowledge of the interaction between personal background and musculoskeletal disorder development among catering workers. Only Abdelsalam et al. investigated the relationship between personal background and MSD among kitchen workers [14]. The authors studied the two kitchens in two central student hostels in Cairo, Egypt. Nevertheless, this study explored the relationship between personal background and MSD among cooks in restaurants in Pekan, Pahang, Malaysia. Such interactions will contribute to the literature on the role of individual factors in MSDs among catering workers.

Therefore, the association between personal background and work-related musculoskeletal disorders is crucial to better managing and preventing disorders and restaurant's workforce disability. In previous studies, this correlation was not surveyed in local cooks with a probably different personal background, such as higher work hours and more kitchen tasks. The present study aimed to determine the prevalence of MSDs in different body regions and the effect of individual factors on the prevalence rate of MSDs among restaurant cooks.