RESEARCH COLLOQUIUM

SERIES 5/2023

Assessment and Analysis of Walking Frame Use Based on the Elderly Experience in Klang Valley, Malaysia

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A walking frame is also used by the elderly to compensate for deficiencies in balance, coordination, strength, and to minimize the risk of falling when walking. The elderly in Malaysia are not exempt from using this assistive mobility gadget. Although past study has established the advantages and benefits of walking frame use for the elderly, some of them have faced various challenges linked to walking frame use, either from the user, the walking frame, or the physical surroundings. Given that research on walking frames is very limited in Malaysia and tends to focus primarily on the design aspects of walking frames, there are no additional reference sources regarding the usage of walking frames to identify the issues/challenges that arise from their use, the impact of walking frame usage on body posture, and suitable usage guidelines recommendation. As a result, this study was carried out to thoroughly investigate the use of walking frames based on the experiences of older people in Malaysia's Klang Valley.

Between November 2021 and March 2022, thirty community-dwelling seniors aged 60 and older from Selangor and Kuala Lumpur who are current or previous walking frame users were recruited using purposive sampling. The present study employed a qualitative methodology, comprising semi-structured interview questions posed in person or over the phone, two postural observations of elderly users (standing and walking with the aid of a walking frame) utilising the Rapid Entire Body Assessment (REBA) worksheet form, and a computerised simulation of anthropometry dimensions of older Malaysians utilising secondary data in the Computer Aided Three-Dimensional Interactive Application (CATIA) V56R2021. Thematic analysis was conducted on interview data in the form of verbatim transcripts; postural assessment data were analysed using Statistical Package for the Social Sciences (SPSS) version 22 and digital Rapid Upper Limb Assessment (RULA) analysis, respectively.

The results indicated that most participants were female, aged 71.7 years on average (SD=8.06), married, Malay, had completed elementary education, were retirees residing in Selangor with their spouse and children, and were of retirement age. Concerning their health, most of them were pre-obese, with hypertension and a Body Mass Index (BMI) ranging from 25.0 to 29.9 kg/m^2. Most respondents utilised normal walking frames (without wheels), had been using a walking frame for less than a year, acquired the frame themselves or received one from a family member, utilised it indoors, and did so owing to leg weakness caused by an injury. The results of the thematic analysis indicate that several difficulties were discovered, including the physical and psychological condition of the respondents and concerns regarding the quality, design, use, and cost of the walking frames. Additionally, concerns pertaining to the physical surroundings of the residence were documented. Utilizing REBA and RULA to assess user posture revealed that most users were exposed to poor ergonomic practises and may have increased their risk of developing musculoskeletal disorders (MSDs) and falling when using the walking frame. Thus, the goal of the suggested guidelines was to serve as a foundation for future study about walking frames. The results of this research are anticipated to make a valuable contribution towards the advancement of healthy ageing through supportive design.

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Association between work performance, lifestyle factors, dietary intake, and body weight status among healthcare professionals in Hospital Sultan Abdul Aziz Shah (HSAAS)

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Background:
Health professionals hold a crucial and integral role in enhancing the overall healthcare system. However, the prevalence of overweight and obesity has surged, affecting one in two Malaysians. This issue has gained prominence and is particularly significant among healthcare professionals.

Aim:
A cross-sectional study was undertaken at one of the teaching university hospitals in Selangor to explore the associations between work performance, lifestyle factors, dietary intake, and body weight status among healthcare professionals (n=84).

Methods:
The age group of the respondent was (32.35 ± 5.05) years old. The exclusion criteria included locum, intern, pregnant, and breastfeeding respondents. The sampling and study design were collected through self-administered questionnaires encompassing six sections: socio-demographic characteristics, work performance, sleep quality assessment, physical activity, sedentary behavior, anthropometry measurements, and dietary intake. Body weight status was measured by measured height and weight and classified based on Asian cut-off for BMI. In the descriptive and correlation analysis, a Chi-square test was performed, and multiple logistic regression performed among all variables with a significance level of (p-value<0.05) was considered statistically significant

Results:
The findings revealed that 79.8% of participants reported high work performance, while 61% experienced poor sleep quality. Additionally, 51.2% engaged in high physical activity and 45.2% exhibited low sedentary behavior. The majority displayed a total energy intake below the recommended nutrient levels. Half of the respondents reported insufficient carbohydrate and protein consumption, coupled with an elevated fat intake. Within this study, only 31% of participants were identified as under-reporters. The analysis utilizing Chi-square indicated a significant association between protein intake and body weight status, while other factors did not exhibit significant associations. Through multiple logistic regression analyses, a robust and significant link was established between protein intake and body weight status among healthcare professionals. Specifically, healthcare professionals who consumed protein below the Recommended Nutrient Intake (RNI) were found to be three times more prone to the risk of being overweight and obese (OR 3.126, 95% CI, $p = 0.002$).

Conclusion:
Hence, protein consumption upholds a healthy body weight status by effectively managing all pertinent indicators and variables that exert both direct and indirect influences. Healthcare professionals who consumed protein below the Recommended Nutrient Intake (RNI) were found to be three times more prone to the risk of being overweight and obese.