UNIVERSITI PUTRA MALAYSIA

FACTORS ASSOCIATED WITH BODY WEIGHT STATUS AMONG MALAY GOVERNMENT EMPLOYEES IN PENANG

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FPSK(m) 2012 34
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MASTER OF SCIENCE
UNIVERSITI PUTRA MALAYSIA

2012
FACTORS ASSOCIATED WITH BODY WEIGHT STATUS AMONG MALAY GOVERNMENT EMPLOYEES IN PENANG

By

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Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia, in Fulfillment of the Requirements for the Master of Science

February 2012
Steady increase in body weight is becoming a major health problem worldwide. The objective of this cross-sectional study was to determine the factors of body weight status among Malay government employees in Federal Government Building, Penang. The data collection was carried out from May – July 2009. Anthropometric measurements were conducted by measuring body weight, height, waist and hip circumference, fat percentage and blood pressure of the respondents. Body weight and fat percentage was measured by using TANITA Body Composition Analyzer (TBF-306, Japan) while height of the respondents was measured by using SECA Body meter (Vogel & Halke GmbH & Co., Germany). Accelerometer (Suzuken Company Limited, Japan) was used to determine physical activity level (PAL). A set of questionnaire was used to determine socio-demographic information, family medical history, smoking habit, eating behaviors and weight control behaviors 10ml fasting blood had been taken to determine lipid profiles of the respondents. From a total of 233 respondents recruited, 44.6% were male and 55.4% were female. A majority of the respondents (53.2%) were in the range of 18-29 years. More than
half of female (72.9%) and male (66.3%) were categorized as obese (body fat percentage was too high). Almost 30% of the respondents were classified as overweight whereas 20.6% of them were classified as obese based on BMI classification. Almost 65% of the respondents categorized as sedentary, followed by active (32.9%) and vigorous (2.4%) according to PAL classification. Compared to other attitudes and strategies in weight control behaviors, outcome expectation for diet and exercise were found to be much prevalent among respondents. More than 70% of the respondents were dissatisfied with current weight and trying to lose weight. Bivariate analysis showed that BMI were associated with age ($r=0.340, p=0.000$), income ($r=0.200, p=0.003$), waist circumference ($r=0.841, p=0.000$), body fat percentage ($r=0.665, p=0.000$), systolic BP ($r=0.268, p=0.000$), diastolic BP ($r=0.307, p=0.000$), triglycerides ($r=0.176, p=0.038$), high density lipoprotein cholesterol ($r=-0.234, p=0.006$), PAL ($r=-0.353, p=0.000$), social support for diet ($r=0.229, p=0.000$), social support for exercise ($r=0.136, p=0.038$), social interaction for diet ($r=0.141, p=0.031$), body weight satisfaction ($\chi^2=22.913, p=0.000$) and “attempt to lose weight” ($\chi^2=45.184, p=0.000$). Multivariate analysis revealed that PAL was the most robust factor in predicting body weight status of the respondents followed by age and “attempt to lose weight”. Weight management strategies that focus on weight loss maintenance should include physical activity program or nutrition intervention for the obese adults population.
Abstrak tesis yang dikemukakan kepada senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Master Sains

**FAKTOR YANG BERHUBUNGKAIT DENGAN STATUS BERAT BADAN DI KALANGAN PENJAWAT AWAM MELAYU DI PULAU PINANG**

Oleh

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Februari 2012

**Pengerusi:** Hazizi Abu Saad, PhD

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daripada responden berusia dalam lingkungan 18-29 tahun. Lebih daripada separuh wanita (72.9%) dan lelaki (66.3%) dikategorikan dalam kategori obesiti (peratus lemak badan yang terlalu tinggi). Hampir 30% daripada responden dikategorikan sebagai lebih berat badan sementara 20.6% daripada mereka dikategorikan sebagai obesiti berdasarkan kepada klasifikasi IJT. Hampir 65% daripada responden dikategorikan sebagai sedentari, diikuti dengan aktif (32.9%) dan bertenaga (2.4%) berdasarkan kepada klasifikasi tahap aktiviti fizikal. Berbanding tingkahlaku dan strategi lain dalam tingkahlaku pengawalan berat badan, jangkaan hasil untuk diet dan senaman adalah tinggi di kalangan responden. Lebih 70% daripada responden tidak berpuas hati dengan berat badan sedia ada dan telah mencuba untuk menurunkan berat badan mereka. Analis bivariat menunjukkan IJT telah berhubungkait dengan umur, \(r=0.340, p=0.000\), pendapatan \(r=0.200, p=0.003\), ukur lilit pinggang \(r=0.841, p=0.000\), peratus berat badan \(r=0.665, p=0.000\), tekanan darah sistolik \(r=0.268, p=0.000\), tekanan darah diastolik \(r=0.307, p=0.000\), trigliserida \(r=0.176, p=0.038\), kolesterol lipoprotein berkepadatan tinggi \(r=-0.234, p=0.006\), tahap aktiviti fizikal \(r=-0.353, p=0.000\), sokongan sosial untuk diet \(r=0.229, p=0.000\), sokongan sosial untuk senaman \(r=0.136, p=0.038\), interaksi sosial untuk diet \(r=0.141, p=0.031\), kepuasan berat badan \(\chi^2=22.913, p=0.000\) dan "mencuba untuk menurunkan berat" \(\chi^2=45.184, p=0.000\). Analisis multivariat menunjukkan tahap aktiviti fizikal menjadi faktor utama dalam menentukan status berat di kalangan responden, diikuti oleh umur dan "mencuba untuk menurunkan berat". Strategi pengurusan berat badan yang mengutamakan penjagaan penurunan berat badan haruslah dimasukkan sebagai salah satu pembelajaran dalam menjalankan program aktiviti fizikal atau program nutrisi terutamanya di kalangan orang dewasa.
ACKNOWLEDGEMENT

First of all, I am enormously grateful to my supervisor, Dr Hazizi Abu Saad for his conscience guidance and advice throughout the process of my research. His never-ending support of my research had helped me in the completion of this research. I would also like to express my appreciation to my co-supervisors Associate Prof. Dr Zaitun Yassin, Dr Mohd Nasir Mohd Taib and Dr Hamid Jan Jan Mohamad for their valuable guidance, support, suggestions and sharing their vast experiences that had assisted me in the completion of this thesis.

I would also like to take this opportunity to express my gratitude to all the employees from The Federal Government Building, Penang for their willingness to sacrifice their time and giving supportive co-operation throughout the data collection that had contributed to the success of this study. Besides, I wish to dedicate special thanks to the head of the departments in The Federal Government Building, Penang for giving me permission to conduct this study among their employees.

Last but not least, I wish to extend my sincere appreciation to my beloved family members for their care, support and encouragement. In addition, I would like to extend my gratitude to all my lecturers and friends who lend their hand and support me all the time.
I certify that an Examination Committee has meet on 2\textsuperscript{nd} Feb 2012 to conduct the final examination of Aina Mardiah Basri on her Master of Science entitled “Factors Associated with Body Weight Status among a Sample of Malay Government Employees in Penang” in accordance with Universiti Pertanian Malaysia (Higher Degree) Act 1980 and Universiti Pertanian Malaysia (Higher Degree) Regulations 1981. The committee recommends that the student be awarded the degree of Master of Science.

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DECLARATION

I declare that the thesis is my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously, and is not concurrently, submitted for any other degree at Universiti Putra Malaysia or at any other institution.

_______________________
AINA MARDIAH BASRI

Date: 2 February 2012
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