

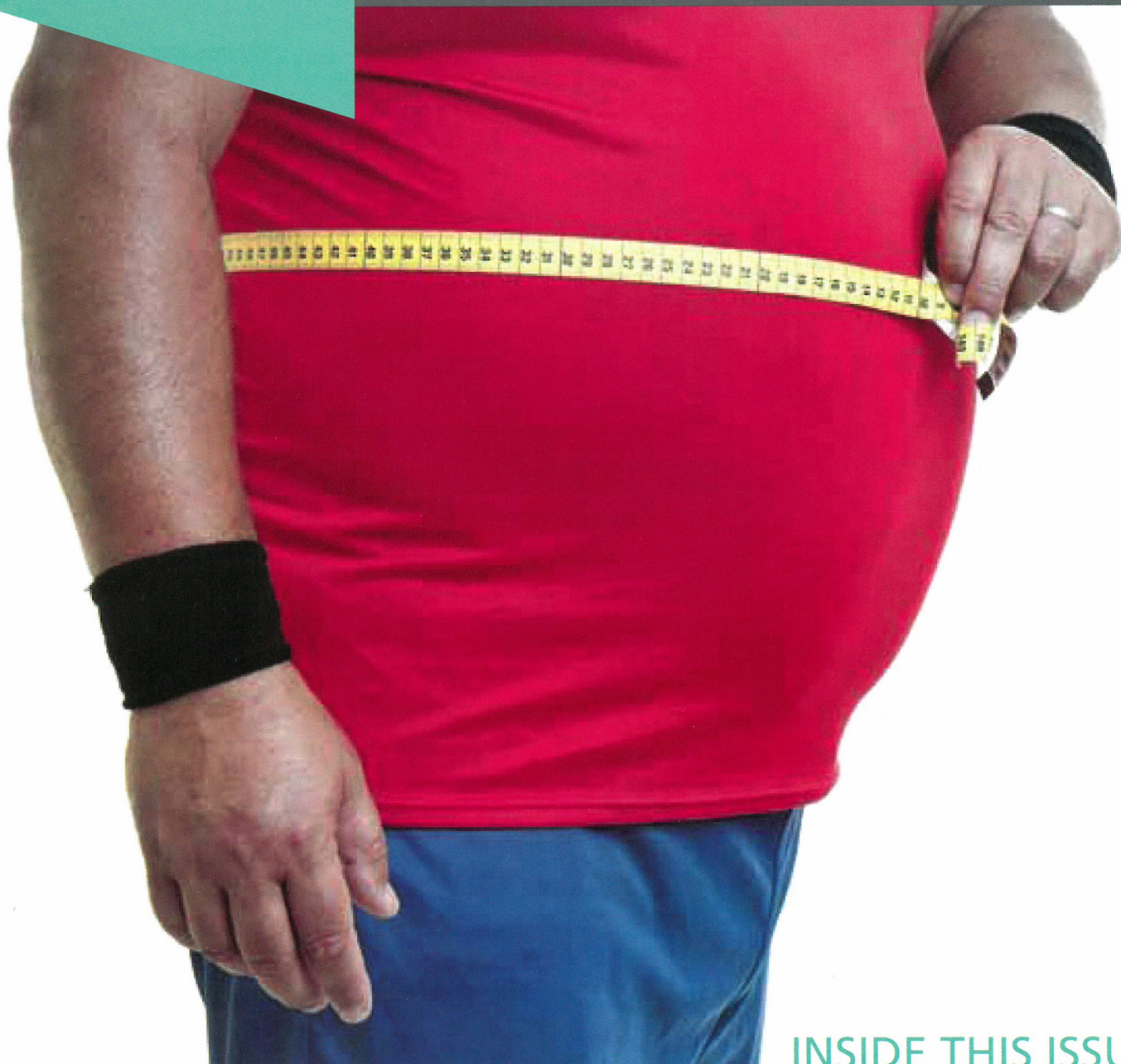


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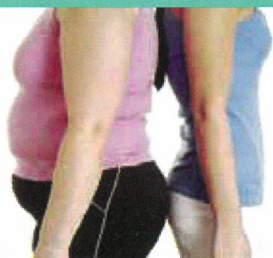
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FROM THE DESK OF THE CHIEF EDITOR



Obesity is an increasingly prevalent public health threat globally, and Malaysia is no exception. Great strides have been made to tackle this issue such as 'My Body is Fit and Fabulous' (MyBFF) programme targeting school children, working adults and particularly, housewives of Malaysia.

A qualitative study (JOM MAMA) exploring pre-pregnancy intervention to reduce future risk of obesity, cardiovascular disease and diabetes mellitus was conducted and suggested that intervention programmes should provide incentive, be adaptable to suit young couples' daily routine and involve the support of their family and friends.

We are also pleased to enlighten readers on an upcoming National Health and Morbidity Survey in 2016 that will focus on maternal and child health, which ranges from peri-partum care to primary immunisation. Highlights from the previous NHMS 2015 have been summarised as well.

A snapshot on the 11th MOH-AAM Scientific Meeting Incorporating the 18th NIH Scientific and Annual Ethics Seminar are also included. There are many other research topics that have yielded useful information that we hope shall benefit readers.

On behalf of the entire team, I sincerely hope that this bulletin is both informative and enlightening.

Suraiya Syed Mohamed

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TREND OF OVERWEIGHT & OBESITY IN MALAYSIA : Findings From The National Health & Morbidity Survey (NHMS)

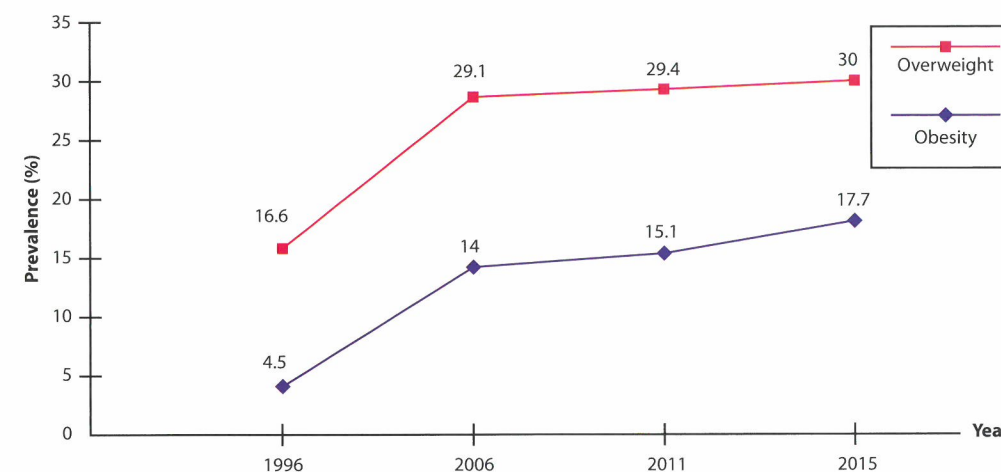


Figure 1 : Prevalence of overweight and obesity among individual 18 years old and above in the Malaysian population

Obesity may impact upon the community at various economic levels, bringing with it a wave of ill health and lost productivity (Wang et al. 2011). In Malaysia, the prevalence of overweight among individual 18 years old and above has nearly doubled from 16.6% in 1996 to 29.1 in 2006. More surprisingly, prevalence of obesity has tripled from 4.4% in 1996 to 14.0% in 2006 (NHMS 1996, NHMS 2006). However in 2011, about 29.4% and 15.1% prevalence of overweight and obesity among the same categories of individuals was observed (NHMS 2011). The latest National Health and Morbidity Survey (NHMS) in 2015 reported that the prevalence of overweight and obesity among individual 18 years old and above was 30.0% and 17.7% respectively. Due to the rising trend of overweight and obesity, the nation now is facing an upward surge of non-communicable diseases such as diabetes and hypertension. The alarming trend of the obesity epidemic in Malaysia does not only require immediate revision of public health policies, but to enhance active living and a healthy eating environment in the community.

THE STAR, WEDNESDAY 9 DECEMBER 2015

views 35

Take note of health risks

WHILE the quality of life and health issues associated with obesity are well-known ("Dangers of being obese", *The Star*, Nov 25), the adverse effects of obesity on the pregnant woman and her developing foetus are equally fraught but seldom discussed. To begin with, the obese woman trying to conceive may face difficulties as she does not ovulate as regularly or frequently as her slimmer sisters.

Treating this problem using artificial reproductive technologies is also less likely to be successful; when she finally conceives, the rate of miscarriage is some 30% higher than normal.

In the later months of pregnancy, the minor ailments of pregnancy are experienced more common-

ly, including heartburn, fatigue and pelvic girdle pains such as backache.

Medical complications develop more frequently too, ranging from hypertensive disease to gestational diabetes and the occurrence of blood clots in the deep veins, a condition that is normally uncommon but which poses the serious threat of maternal mortality and morbidity. The foetus tends to be excessively large and foetal death may occur suddenly and without warning.

In the antenatal clinic, a larger arm cuff is needed for a reliable measurement of the blood pressure. The thick layer of abdominal fat hampers the clinical evaluation of the abdomen and foetus.

Similarly, ultrasound investiga-

tion is not as reliable or sensitive due to the poor quality of image visualisation. One of the consequences of this is that a significant number of foetal anomalies fail to be detected before birth.

Pregnancy in the obese woman tends to be prolonged beyond the due date so that artificially inducing labour is more often needed.

However, whether spontaneous or induced, labour is less likely to progress smoothly so that up to 50% of overweight and obese women have a caesarean delivery.

Due to the large size of the baby, vaginal birth is associated with a higher incidence of foetal birth injuries and asphyxia, which translates to a higher rate of admission to the neonatal intensive care unit.

Likewise, maternal injury to the vagina and perineum is more frequent, as is also postpartum haemorrhage.

The technical problems regarding surgery and anaesthesia in pregnancy are compounded by obesity and special equipment is often needed, for instance spinal anaesthesia requires a longer needle and placing it correctly is more difficult and challenging. Surgical wound complications are also more prevalent.

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Fact Sheet NHMS 2015

BACKGROUND AND OBJECTIVE

The National Health and Morbidity Survey (NHMS) is a nationally representative survey of population in Malaysia. It was first initiated in 1986 and has been an important platform for monitoring the health of the population in Malaysia. Its objectives were to supplement community-based data on the pattern of common health problems, health needs and expenditure on health in the community to enable the Ministry of Health to review priorities and activities of programmes, plan future allocation of resources and evaluate the impact of strategies. The interval of NHMS has been shortened from every 10 years to a 4 yearly cycle with annual data collection since 2011 to ensure timely information is obtained for planning of health programmes. The main scopes in the NHMS 2015 were health care demands, non-communicable diseases and non-communicable diseases risk factors.

METHODOLOGY

NHMS uses a standard methodology for a household survey. A multi-stage stratified sampling method was used in NHMS 2015 to produce a nationally representative data. It covered both urban and rural areas and canvassed all states in Malaysia. Data collection was by face-to-face interview using structured questionnaires as well as self-administered method. Clinical assessment and biochemistry tests were performed based on the modules. Survey information was collected electronically using handheld devices. About 10,000 randomly selected living quarters were visited and 30,000 people responded to the survey with the overall response rate of 86.4%.

NHMS 2015 Highlights

NCD: PRE DISPOSING FACTORS FOR CARDIOVASCULAR DISEASES

DIABETES MELLITUS

- 17.5% (3.5 million) of adults 18 years and above have diabetes.
- 8.3% are known diabetes.
- 9.2% are previously undiagnosed with diabetes.

HYPERTENSION

- 30.3% (6.1 million) of adults 18 years and above have hypertension.
- 13.1% are known to have hypertension.
- 17.2% are previously undiagnosed with hypertension.

HYPERCHOLESTEROLEMIA

- 47.7% (9.6 million) of adults 18 years and above have hypercholesterolemia.
- 9.1% are known to have hypercholesterolemia.
- 38.6% are previously undiagnosed with hypercholesterolemia.

NUTRITIONAL STATUS AND DIETARY PRACTICE

NUTRITIONAL STATUS

- Adults 18 years and above, based on WHO 1998 Classification
 - 30.0% (5.6 million) are pre-obese
 - 17.7% (3.3 million) are obese
- Adults 18 years and above, based on Clinical Practice Guideline 2004 Classification
 - 33.4% (6.3 million) are pre-obese
 - 30.6% (5.7 million) are obese
- Children below 18 years, based on Body Mass Index for age status (WHO 2006)
 - 11.9% (1.0 million) are obese

DIETARY PRACTICE

- Only 6.0% (1.2 million) of adults 18 years and above consumed 5 servings or more fruits or vegetables per day.

PHYSICAL ACTIVITY

- 66.5% (14.0 million) of adults 16 years and above are physically active based on International Physical Activity Questionnaire definition.

TOBACCO USE

- 43.0 % of men, 1.4% of women, and 22.8% overall (5.0 million) currently smoke tobacco.

ALCOHOL CONSUMPTION

- 7.7% (1.7 million) individuals aged 13 years and above currently consumed alcoholic beverages such as shandy, beer, stouts, wine, whisky, samsu and others.

MENTAL HEALTH PROBLEMS, ADULTS (16 years and above)

- 29.2% (4.2 million) of adults 16 years and above were suspected as having mental health problems.

MENTAL HEALTH PROBLEMS, CHILDREN (5 to below 16 years)

- 12.1% (0.6 million) of children 5 to below 16 years were suspected as having mental health problems.

HEALTH CARE DEMAND

HEALTH SEEKING BEHAVIOR

- 27.5% experienced health problem in the last two weeks; only 40.6% sought treatment or advice from a healthcare provider.

COMMUNITY PERCEPTION

Choice of preferred provider

More than half (51.4-78.2%) of the adult (18 years and above) of the population (51.4-78.2%) preferred government facilities when they have minor illness, major illness, minor surgery, major surgery, dental treatment and for delivery/ birth.

Perceived cost for government and private care

Perceived cost in getting treatment at private facilities were several times more expensive compared to government for:

- Minor illness : 10 times
- Major illness : 8 times
- Minor Surgery : 8 times
- Major Surgery : 6 times
- Dental Treatment : 11 times
- Childbirth : 13 times

Perception on government/ private Healthcare Delivery System

The population had a positive overall impression (good or excellent) towards government clinics & hospitals, with 77.8% and 79.6% of the population rating the services as either good or excellent respectively.

HEALTH CARE UTILISATION

Inpatient

- 7.6% (2.2 million) of population experienced hospital admission in the last one year.
- 76.7% of total utilisation was in government facilities.
- Overall mean travel time and distance to health facilities were 41 minutes and 23.5km respectively.

Outpatient

- 9.0% (2.6 million) of population reported to receive outpatient care in the last two weeks.
- 60.1% of total utilisation was in government facilities.
- Overall mean travel time and distance to health facilities were 21 minutes and 10.0km respectively.

Oral Healthcare

- 5.2% (1.5 million) of the population had oral health problems in the last two weeks preceding the survey and only 26.6% has sought treatment or advice from the healthcare provider.
- Only 27.8% (8.1 million) of the population had a dental visit in the last one year.
- 37.0% (7.8 million) of the population had never received oral healthcare.
- 70.1% of the total utilisation was in the government facilities.

National Health and Morbidity Survey 2016:

Maternal and Child Health

While working towards achieving the Millennium Development Goals (MDGs), the Ministry of Health Malaysia recognised the inequity issue between the Peninsular, and Sabah and Sarawak, in terms of providing health facilities for maternal and child health. A community-based survey is expected to provide a clearer picture on maternal and child health status in Malaysia. Based on the consultative workshop with UNICEF, a Multiple Cluster Indicator Survey was suggested to be implemented in Malaysia. However, as the Institute for Public Health has an established framework for a national survey under the umbrella of National Health and Morbidity Survey (NHMS), this scope was suggested to be part of NHMS, trends may be observed with each survey.

NHMS 2016: The Maternal and Child Health Survey will target children under 5 years and their mothers, as well as other women in reproductive age group 20 to 49 years within the selected families. For children under 5 years, the scope covered will include: primary immunisation coverage, infant feeding development, autism and common child morbidities. For their mothers, the focus will include: antenatal coverage, birth history, postnatal care, and pre-pregnancy care. Topics such as immunisation coverage will be analysed at the state level. This is vital for the states to have a clearer picture on the actual coverage in view of existing imbalances between immunisation coverage and occurrence of vaccine-preventable diseases in the states.

A total of 16,000 randomly selected addresses with an estimated 48,000 respondents will be involved in this survey. This survey will use two modalities in collecting data from respondents: face-to-face interviews by our trained interviewers and self-administered questionnaires. The immunisation status of the children will be assessed by the nurses.



The children will also be screened by the nurses for the following : developmental delay using The Denver Developmental Screening Test, autism using a locally validated screening tool known as The Modified Checklist for Autism in Toddlers (M-CHAT), and anthropometric assessment to assess their nutritional status.

Field data collection is planned to be conducted from mid-February until end of May 2016. A total of 64 teams will be formed. The teams will be comprised of Public Health Nurses as the team leader, with research assistants and nurses as the team members. As usual, co-operation from the state health departments will be sought after for resource support.

Information from this survey is predicted to be used to close inequity gaps in the health status of mothers and their children in Sabah and Sarawak. At the national level, this survey is essential to develop evidence-based policies and programmes, as well as to monitor the country's progress towards national goals and global commitments', especially for Post MDG 2015, now renamed as the Sustainable Development Goals (SDGs).

JOM MAMA

(1st Phase): An Exploratory Study to Inform the Development of Pre-Pregnancy Intervention for the Future Prevention of Obesity, Cardiovascular Diseases and Diabetes

BACKGROUND

Non-communicable diseases (NCDs) such as obesity, cardiovascular disease and diabetes are on the rise in Malaysia, despite the implementation of various preventative strategies and interventions. Optimising young women's health status prior to and during pregnancy, can improve birth outcomes, and reduce obesity diabetes transmission to the next generation.

The Jom Mama project was introduced to explore opportunities for pre-pregnancy interventions and to reduce the risk of diabetes in mothers and future generations. The first phase of this 3-phase project was initiated in Seremban with interviews involving young couples, their surrounding community members, and healthcare providers. This phase explored the factors and levers that affect the lifestyle of young couples and the possibility of introducing an intervention through the healthcare system. The success in achieving the desired outcomes relates to the wider social, economic and cultural context of the target population. In the second phase, the findings of the first phase were collated and used to develop a framework for the development of an intervention programme on the health of young couples. The third phase involves the implementation and evaluation of the intervention programme amongst the young couples. This article describes the first phase of the study.

METHODOLOGY

A qualitative research involving observation, document review and face-to-face semi-structured interviews was carried out. We conducted a three-track study: a young couples' track, a community track and a healthcare track to gain an in-depth understanding of the challenges and barriers faced by the young

couples in leading a healthy lifestyle from all three perspectives and to gauge opportunities for intervention in the community and healthcare setting. Interviews were carried out with young couples and members of the community, while for the healthcare track the interviews were supported by direct observation at health clinics.

THE SETTING

The research site chosen for the project was Seremban, Negeri Sembilan due to its proven track record in demonstrating leadership and commitment to innovative health programmes. Furthermore Negeri Sembilan has the highest prevalence of (type 2) diabetes in Malaysia (22%), compared to the national average (15.2%) (NHMS 2011), which prompted a strong need to address the diabetes challenge.

Five Health Clinics in Seremban District were chosen for the healthcare track.



DATA COLLECTION

Observations, document review and interviews were carried out in the healthcare settings while interviews were conducted with the young couples and the community representatives.

All interviews were recorded and transcribed. Analyses were carried out using a combination of modified thematic analysis and narrative analysis.

FINDINGS

The pre-marital screening clinics at the government health clinics were found to be well established and were potential sites for the proposed intervention. The healthcare personnel welcomed the move despite concerns regarding recruitment of participants, manpower, space and sustainability.

It was found that the young couples lacked awareness on diabetes. Health information was obtained from electronic and printed media, and from healthcare personnel. Although aware of the association between the mother's pre-conception health and that of the baby, their eating habits and physical activity were influenced by family and the availability and accessibility of food, and their work pattern or routine respectively. However, the idea of having a healthy baby was a motivation to lead a healthy lifestyle.

With regards to the intervention, the couples preferred the content to be simple, attractive, and to not interfere with work. Incentives and strong social support were preferred as motivation to remain in the programme.

We found that despite providing the couples with support and information regarding healthy lifestyle, the influencers had little control over decisions made by the couples. Generally, they perceived the young couples to lead unhealthy lifestyles.

Five main themes associated with health problems (obesity, diabetes and hypertension) among young couples emerged: 'financial problems', 'lack of time', 'lifestyle and behaviour', 'knowledge and awareness' and 'environment'. Community informants perceived the physical environment and the socio-cultural factors to be the biggest barriers for young couples to practise healthy lifestyles.

The community representatives suggested that the awareness and practice of healthy lifestyle of the young couples were influenced by family members and there were knowledge gaps in health, religion, marriage, pregnancy, diet and exercise. If addressed appropriately, behaviour and attitude would eventually change.

CONCLUSION & RECOMMENDATIONS

It is concluded that the existing infrastructure of the Malaysian Healthcare System and the receptiveness of its personnel gives it potential to support the prospective intervention.

The young couples need to be equipped with awareness and knowledge on diabetes and its effects on pre-pregnancy health, parenting, healthy lifestyles and other life skills.

For lifestyle modification to succeed, the intervention programme needs to be attractive, enjoyable and tailored to the couples' daily routine. The programme should provide incentives and include the support of family and friends. The type and source of health information young couples access can help in the planning on the delivery to ensure acceptability by the users.

Although health clinics were initially thought to be suitable for the intervention, the workplace may be a better option. Designing a healthy work policy including continuous education programme on health (focusing on diabetes,) preferably ICT-based, introducing healthy food choices at the workplace, as well as a programme to improve the physical activity may be considered.

Collaborative efforts from various agencies are needed to support the future planning of the intervention programme.



MY BODY IS FIT AND FABULOUS : An Intervention Programme To Combat Obesity In Malaysia

The alarming state of the nation's obesity prevalence (Malaysia takes the lead in Asia), has driven Malaysia to take steps to combat obesity among the Malaysian population. In 2012, the team of researchers from the Ministry of Health, Universiti Malaya, Universiti Sains Malaysia, other Public Universities, the National Sports Institute collaborated with the Ministry of Education, Global Science and Innovation Advisory Council (GSIAC), Malaysian Industry-Government Group for High Technology (MIGHT), and The Sackler Institute for Nutrition Science, Academy of Science, New York developed a research framework of 'My Body is Fit and Fabulous' programme (MyBFF). This programme was initiated to combat obesity among school children, working adults and housewives in Malaysia.

MY BODY IS FIT AND FABULOUS AT HOME (MyBFF@home) : An Intervention Study To Combat Obesity Among Housewives In the Klang Valley



The prevalence of obesity in Malaysia has shown an upward trend. In 2013, the Institute for Public Health, Ministry of Health initiated the My Body is Fit and Fabulous at Home (MyBFF@home), an intervention study to combat obesity among overweight and obese housewives living in low-cost community flats around the Klang Valley. The study was conducted in 2 phases and involved mixed quantitative and qualitative methods. Phase 1 (development of the intervention

package) was conducted from April to December 2013. These included identification of evidence related to initial terms for the package (scoping review), development of initial package, exploratory study to identify perspectives of the housewives on obesity / weight management and review of the intervention package. The package consisted a multi component tailored intervention of physical activity, diet control, and behavioral change (self-monitoring) for weight loss.

Phase II (intervention) started in January 2014. Overweight / obese housewives aged 18 to 59 years (BMI of 25.0 to 39.9 kg/m²) and with no history of cardiovascular diseases were screened by Klinik 1Malaysia staff with the support from the community representatives. The intervention group received the intervention package of 12 months and was involved in individual counseling to reduce calorie intake, control food portions and low fat / sugar food choices. They were given recipe books and pamphlet to guide them in choosing healthy food. The physical activity component included moderate physical activity such as brisk walking, housework up to 45 minutes per day and exercising using dumbbells for at least 30 minutes each day. Monitoring and assessments were done using a pedometer, Metabolic Equivalent Task (MET) Calendar, Physical Activity Diary and Food Diary. Targeted weight loss was 5% of the baseline weight. The control group attended six series of women's health seminar. Anthropometric data, cardio-metabolic parameters, body composition, physical activity, dietary intake,

body pain, quality of life, health literacy level and symptoms related to weight loss were measured at baseline, 6 months and 12 months in both groups. Preliminary findings showed that the intervention has shown some effect to reduce weight, waist circumference, blood pressure and improve cardiometabolic risk factors among housewives. There were also trends of improvement in a few body composition parameters such as fat mass, visceral fat and fat percentage.

MY BODY IS FIT AND FABULOUS IN SCHOOL (MyBFF@school): An Intervention Programme To Combat Obesity Among Malaysian School Children



In Malaysia, health surveys reported a high prevalence of overweight and obesity among school children aged 13-15 years old (23.7% and 9.6% respectively) (Global School-based Student Health Survey, 2012) and aged 7-12 years old (14.4% and 20.0% respectively) (Nutrition Survey of Malaysian Children). Realizing an urgent need to address the problems, the Ministry of Health Malaysia with the cooperation of the Ministry of Education, conducted "My Body is Fit and Fabulous" (MyBFF@school) in order to combat overweight and obesity in primary and secondary students. It combined physical activity, nutrition and psychology strategies. In Phase 1 (2014), a total of 237 primary school students were recruited (aged 9-11 years old) and 188 secondary school students (aged 13-16 years old) were recruited. The study aimed to assess the effects of 16 weeks of MyBFF@school programme on years old overweight and obese children.

The findings showed a significant reduction in percentage body fat (-1.2% ± SD, p<0.005) and increment in muscle mass (+0.8

kg ± SD; p<0.005) in the primary school students. The secondary school group also reported significant reduction in both parameters (-0.6% ± SD, p<0.005 in percentage body fat, and +0.4kg ± SD, p<0.005 in muscle mass). The fitness score in the primary school students increased significantly by +16.9 point (31.5% improvement).

while the secondary school group showed an increment by 11.7 points (19.5% improvement). Significant improvement in nutrition knowledge and attitude for secondary school students were also noted. Intake for fruits, vegetables and plain water have increased significantly among the primary school students. The MyBFF@school study will be expanded nationwide in 2016.

MY BODY IS FIT AND FABULOUS AT WORK (MyBFF@Work) : An Intervention Project To Combat Obesity Among Malaysian Civil Servants In Kelantan



Obesity is increasing in Malaysia at an alarming rate. An estimated 45% Malaysian adults is either overweight or obese, with a higher prevalence in racial/ ethnic minorities (NHMS, 2011). Standard obesity control strategies, which normally target individuals through their diet and physical activity behaviors, often fail and only a small proportion of adults are able to sustain weight loss on a long-term basis. An alternative strategy that can be implemented within an existing structure is a workplace approach. The

workplace is a feasible and potentially effective setting for implementing an environmental approach to promote behavioral change. The aim of the MyBFF@work was to provide a low cost, feasible and sustainable behavioural treatment of obesity for obese Malaysian civil servants in various federal ministries and state department offices in Kota Bharu, Kelantan. The target population was the overweight or obese adults aged 18 to 59 years old with BMI ≥ 30kg/m².

Phase I of the study involved focus group discussions, in-depth interviews, surveys of workplace administrators and employees, and/ or an assessment of the workplace and the surrounding community environment to determine areas conducive to environmental interventions.

It also identified barriers to implementing the intervention including factors that could enhance participation of employees in the intervention. Screening for baseline (pre-intervention) of the intervention and control groups included questions on: anthropometric measurements, questions on physical activity (IPAQ), dietary intake (food history/ 24 hour dietary recall), white rice consumption, and binge eating/ night eating.

Phase II of the intervention involved an quasi experimental design with pre and post intervention matched controls for a duration of six months. The intervention involved behavioral approach, nutritional modification, meal replacement (replace one rice or rice-based meal with non-rice or non-rice-based meal, and inclusion of brown rice into the diet), physical activity (walking or counting steps targeting 10,000 steps per day, skipping rope and dumbbell exercises). Interventions should be innovative, feasible, low cost, and attractive to workplace administrators and to employees of varying socioeconomic levels and work schedules, and it must be of sufficient duration and intensity to be effective. Results expected are an increase in physical activity and decrease in sedentary behaviors both during and after working hours. The interventions are culturally appropriate, providing flexitime for physical activity or fitness breaks during working hours, and/or fitness-centre discounts for physical activity before and after working hours.

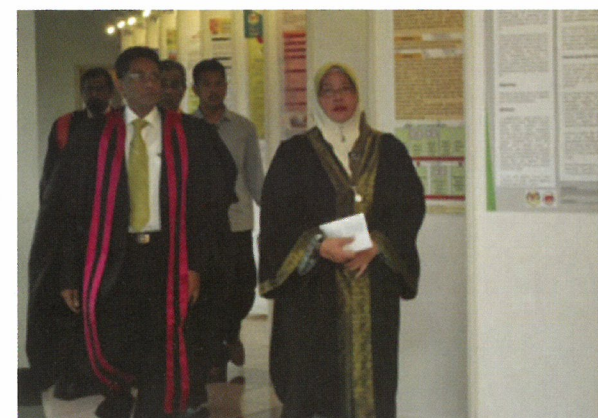
THE 11th MINISTRY OF HEALTH AND THE ACADEMY OF MEDICINE MALAYSIA (MOH-AMM) SCIENTIFIC MEETING INCORPORATING THE 18th NIH SCIENTIFIC AND ANNUAL ETHICS SEMINAR

12th - 14th August 2015 • Major Incidents & Disasters Management : Bridging The Gap

The event was co-organized by the Ministry of Health and the Academy of Medicine Malaysia (MOH-AMM) with the National Institutes of Health Malaysia (NIH). The event aimed to disseminate research information and facilitate interaction among researchers, health care providers and other stakeholders. The event was officiated by the Minister of Health Malaysia, Yang Berhormat Datuk Seri Dr. S. Subramaniam, on 13th August 2015.



A total of 809 delegates from and within the MOH, State Health Departments, NIH Institutes, NGOs and independent organisations attended this event.



A total of 122 posters were reviewed and accepted by the organising scientific committee for poster presentation. Out of these, 15 posters were related to disaster management in particular the recent floods. The top five posters were selected and each winner received RM500 in cash together with a certificate.

A total of 27 posters covering the Malaysian Health Systems Research Project were displayed during the event. The Government of Malaysia and the MOH have engaged a Senior Advisory Team (SAT) from Harvard University to work with local counterparts on the Malaysia Health Systems Research project (MHSR). A key component of the MHSR is significant transfer of technology and skill building to Malaysian researchers. At the market place during MOH-AMM, each analytical team displayed their own posters on research activities and methodology.

There was a total of four plenary and six symposium sessions with 20 speakers during the event; the speakers were from various backgrounds. In addition, the speakers also came from NGOs and the private health sector. The plenaries were chaired by the Directors of the Research Institutes under the NIH as well as senior members from the AMM. All the invited speakers were experts in disaster and crisis management. The panel of expert speakers from the public, private and academic institutions presented a wealth of knowledge in research and experience from diverse fields and disciplines. The majority of the speakers had experiences on the ground, and they were prepared to share their experiences in facing crises or incidents. The recent tragic episodes of floods, earthquakes and plane crashes attracted the delegates towards the presentations. To download slide presentations please visit : www.ihm.gov.my/index.php/muat-turun



SUMMARY Of The RESEARCH DIALOGUE On OBESITY

INTRODUCTION

Obesity is one of the most alarming public health problems in both developed and developing countries. A higher prevalence of obesity is observed in Malaysia in comparison with other South East Asian countries. The estimated prevalence of overweight and obesity for the Malaysian population has been increasing since 1996. With the increasing obesity rate, the Ministry of Health Malaysia and local universities conducted obesity-related studies to find out the causal factors of this public health problem. In order to identify the evidence on obesity research in Malaysia, a scoping review was conducted to collect all obesity-related studies in Malaysia in the past 10 years.

FINDINGS OF THE RESEARCH DIALOGUE

There are several categories of obesity research among children identified from the scoping review, such as, risk factors of obesity; perception and body image; knowledge, attitude and practice of parents and children; academic and gross motor performance; eating habits and physical activity pattern; quality of life and barriers and strategies in obesity management. Apart from those, obesity research among adults involved more topics such as risk factors of obesity; disease related with obesity; perception and body image among women; biomarkers and obesity metabolic pathway; knowledge, attitude and practice among women; obesity intervention; barriers and strategies in obesity management; functional foods, quality of life and eating habit; and physical activity pattern.

RESEARCH GAP

There are only a few local research (n = 115) in obesity in the past 10 years to support the policy makers and the health programme managers. In the Ministry of Health, the majority of obesity studies conducted were cross sectional studies (n = 24), with limited studies on obesity intervention (n = 6). In local universities, although most of the

obesity-related studies were conducted by academic professions, the majority of studies were conducted in small sample sizes for the purpose of academic recognitions and publications. In addition, almost all the studies used quantitative methods and there were limited qualitative methods used to investigate the causal factors of obesity in the population.

FUTURE RESEARCH

The technical working group suggested several future research areas for combating obesity. Weight loss intervention package based on specific sub-populations such as housewives and government servants was recommended to promote a healthy body weight. Studies of monitoring trends of obesity and evaluation of obesity programmes in Malaysia are crucial in providing fundamental data for strategy planning and policy making in combating obesity. Besides, an obesity cohort study is a good way to address obesity and to find the causal factors of obesity in the population. Several new research areas such as barriers of obesity management and quality of life of obese children and adults are also recommended to improve the effectiveness of the obesity programmes.

ISSUES AND CHALLENGES IN CONDUCTING THE RESEARCH

The first issue in conducting obesity research was the existing gap between research and practice because very few studies had been translated into clinical or community practice to support an obesity programme and to make findings of the research for practical application in the community. The second issue was that the Ministry of Health Malaysia only focused on epidemiological studies and obesity intervention in the last 10 years. More research outcomes from different areas are needed to identify the root causes of obesity in Malaysia. Besides, an obesity cohort study could be the best way to address obesity but we need more research funding to support such a cohort study.

NIH GUIDELINES FOR CONDUCTING RESEARCH IN MOH INSTITUTIONS AND FACILITIES

Since the introduction of the web-based National Medical Research Registry (NMRR) in 2007, the MOH research application process has reached another milestone where all research applications in the MOH are processed online. However there were numerous areas that needed improvement. Among the areas that require enhancements are the approval process, the turn around time of review by the institutional review board pending the approval by MREC and effective coordination between NIH and MREC secretariats.

The new NIH Guidelines for Conducting Research in the Ministry of Health Institutions and facilities came into force on the 1st October 2015. The Guidelines, that were published on the NMRR website (<http://www.nmrr.gov.my>); placed emphasis on certain important requirements for MOH policies governing the conduct of research in MOH Institutions and facilities.

The Guidelines were aimed:

- to streamline the review process
- to improve overall turn around time of approval of study protocols
- to ensure researchers both in the Ministry of Health or non-MOH staff who conduct research on/ at MOH patients / facilities have obtained permission to carry out their research by their Heads of Department and Directors of Hospitals/ Institutions (Investigator agreement /HOD and Institutional approval form)
- to ensure researchers have obtained permission from their respective Heads of Department and Directors of Hospitals/ Institutions to carry out research in their facilities (Study Site Approval)

The policy statements in these Guidelines were based on a review of previous circulars issued by the MOH. Where necessary, changes in the Guidelines were in line with the international practice on research ethics and governance. The policy statements and the use of information technology to facilitate the review and approval process are also included. It is important that every researcher involved in research at MOH Institutions and facilities understand and adhere by the Guidelines .

These Guidelines describe Ministry of Health (MOH) policies governing the conduct of research in MOH institutions and facilities. The policy statements in these Guidelines are based on a review of existing circulars issued by the MOH.

All Research must obtain the approval of the Ministry of Health through predetermined settings by category as follows:

New entities were formed to review study protocols before forwarding to the Medical and Ethics Committee (MREC) for approval.

1. National Institute of Health Research Review Committee (JPP- NIH Panel)
2. CRC Hospital Research Review Committee (JPP-CRC / HRRC Panel)

Study protocols submitted through NMRR will be checked for completeness by the JPP-NIH Secretariat. The JPP-NIH Secretariat will then forward the protocols to JPP-NIH Panel and to the HRRC (via JPP-CRC Secretariat) for review.

ENTITIES	SECRETARIAT RESPONSIBLE	REVIEWERS
JPP-NIH PANEL	JPP-NIH Secretariat jppnih@moh.gov.my	Head of NIH Institutes Senior NIH Researchers NMRR Reviewers
JPP-CRC / HRRC PANEL	JPP-CRC Secretariat (CRC Staff) jppcrc@crc.gov.my	Head of Hospital CRC, researchers at Hospital CRC, clinicians , pharmacists, others subject matter experts NMRR Reviewers

JPP-NIH and JPP-CRC/HRRC supported protocols will be forwarded to MREC for approval.

MREC approved protocols requesting for grants will be reviewed by the MRG Review Board, chaired by the Deputy Director General of Health (Research and Technical Services) for the final approval of research funding.

For further information on the Surat Pekeliling Ketua Pengarah Kesihatan Malaysia and the NIH Guidelines for Conducting Research in the Ministry of Health Institutions and Facilities please visit <http://www.nmrr.gov.my>

SIX MONTHS MyBFF@Home INTERVENTION PROGRAMME INDUCED DIETARY CHANGES AMONG OVERWEIGHT-OBESE HOUSEWIVES

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INTRODUCTION

The current prevalence of overweight and obesity in Malaysia has been doubled in less than 20 years. Finding has shown that women were notably at risk as the number of overweight and obese women were more than men. Based on Malaysian National Health Morbidity Survey (NHMS), the proportion of women that classified as overweight and obese in Malaysia were 7% in 1996, and it was increasing steadily to 29.6% in 2011 (NHMS, 2011)¹. Lifestyle modification has been consistently successful in reducing the weight gain. Therefore, the need of sustainable weight loss programme involving dietary and physical activity are important element of actions to be implemented.

OBJECTIVE

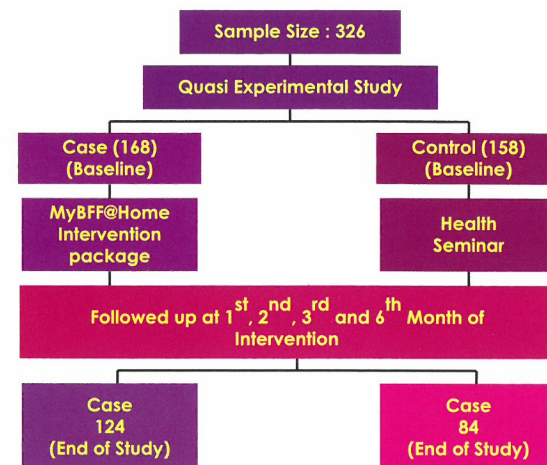
To study the efficacy of dietary intervention of MyBff@home (My Body is Fit and Fabulous at home) intervention package's among overweight - obese housewives in selected low- cost flat in Klang Valley.

METHODOLOGY

This study was a quasi-experimental study design and was conducted in 2014. It included a control and intervention group. The control group received the health seminar while case group received dietary counseling, physical activity and self- monitoring behavior programme that was in MyBFF@home intervention package.

The dietary outcome was assessed with three days food diary at first, second, third and sixth months intervention.

Nutritionist Pro was used to analyze the dietary intake of the participants



RESULTS

Table 1 : Macronutrient intake of control (G0) and intervention group (G1) at baseline and after 6 months of intervention

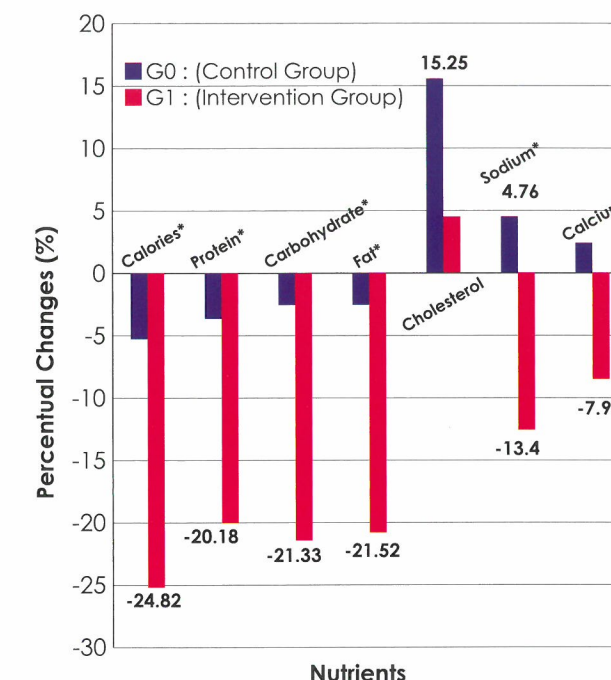
Nutrien Intake (Per Day)	Baseline N=(G0-124, G1-138)		End of Intervention N=(G0-83, G1-124)	
	Mean	SD	Mean	SD
Total Calorie (kcal)	G0 1552.44	521.86	1383.90	533 ^{a,b}
	G1 1496.07	508.75	1028.40	563 ^b
Carbo-hydrate (g)	G0 205.85	75.85	187.49	83.30 ^a
	G1 199.87	71.46	142.32	82.95 ^b
Protein (g)	G0 60.56	21.09	53.59	19.09 ^{a,b}
	G1 56.81	20.83	39.81	21.51 ^b
Total Fat (g)	G0 52.84	19.95	47.32	19.21 ^{a,b}
	G1 49.74	21.24	32.70	18.76 ^b
PUFA (g)	G0 8.65	22.50	5.25	2.53 ^{a,b}
	G1 5.82	3.19	3.81	2.87 ^b
MUFA (g)	G0 10.19	4.69	8.20	3.77 ^{a,b}
	G1 12.36	32.46	5.59	3.79 ^b
SFA (g)	G0 22.87	57.56 ^a	9.79	4.65 ^{a,b}
	G1 10.63	7.41	6.65	4.88 ^b
Cholesterol (g)	G0 224.76	131.08 ^a	210.96	113.99 ^a
	G1 191.40	126.58	128.72	105.65 ^b
Trans Fat (g)	G0 0.21	1.27	0.14	1.09
	G1 0.19	1.29	0.02	0.07

^a Statistically significant between group (p <0.01)
^b Statistically significant after intervention within group (p <0.01)

Table 2 : Dietary fiber and micronutrient intake of control (G0) and intervention group (G1) at baseline and after 6 months of intervention

Nutrien Intake (Per Day)	Baseline N=(G0-124, G1-138)		End of Intervention N=(G0-83, G1-124)	
	Mean	SD	Mean	SD
Total Dietary Fiber (g)	G0 5.32	3.15	4.94	2.98
	G1 5.69	3.87	6.32	26.08
Insoluble Fiber (g)	G0 0.54	0.96	0.18	2.53
	G1 3.12	23.56	0.61	1.54
Soluble Fiber (g)	G0 0.10	0.23	0.17	0.33
	G1 0.56	3.31	0.15	0.31
Sodium (mg)	G0 2089.26	890.86	1947.56	919.58 ^{a,b}
	G1 1951.49	949.04	1439.84	887.44 ^b
Potassium (mg)	G0 1132.49	544.44 ^a	936.09	373.22 ^{a,b}
	G1 998.56	462.57	746.36	442.11 ^b
Calcium (mg)	G0 477.37	262.36	390.00	222.05 ^{a,b}
	G1 427.03	228.59	305.24	211.99 ^b
Iron (mg)	G0 13.33	6.02	11.29	4.97 ^{a,b}
	G1 15.80	31.06	8.73	8.48 ^b
Acid Folic (mg)	G0 60.26	41.38	57.90	46.19
	G1 76.95	186.67	46.98	41.63
Vitamin C (mg)	G0 71.93	66.54	51.56	50.63
	G1 63.59	58.95	73.67	315.33

^a Statistically significant between group (p <0.01)
^b Statistically significant after intervention within group (p <0.01)



* Significant at P value <0.05

Figure 1 : Percentual nutrient intake change of control (G0) and intervention group (G1) after 6 months of intervention

DISCUSSION AND CONCLUSION

The intervention in MyBFF@home has successfully reduced the calorie, protein, carbohydrate, fat and sodium intake in the study intervention group. However, the low intake of dietary fiber and the reduction of calcium, potassium and iron intake that below the dietary recommendation shall need further monitoring. An advocacy of weight loss programme monitoring in this study not only benefit to the intervention group. It also gives an added advantage to nonintervention group as close weight monitoring enhance the encouragement to practice healthier diet.

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EFFECT OF A WEIGHT LOSS INTERVENTION ON ANTHROPOMETRIC MEASURES AMONG OVERWEIGHT AND OBESE HOUSEWIVES IN KLANG VALLEY

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INTRODUCTION

Obesity is a growing global public health problem and is prevalent among women in the general population.

My Body is Fit and Fabulous at Home (MyBFF@Home) is one of the intervention study with the aim to combat obesity among housewives in Klang Valley.

AIM

The aim of this presentation was to report the changes in anthropometric measurement in the 5 month intervention phase of MyBFF@home.

RESULTS

- Of 163 participants in intervention group and 158 in control group, 124 (73.8%) and 92 (58.2%) respectively, completed the 6-month follow-up assessments.
- Mean weight loss of 1.33kg (P<0.001) was observed during the first 6 month from intervention group while control group lost 1.00kg (P<0.05) of their initial weight.
- Among respondents in the intervention group, 71.8% experienced weight reduction and 74.6% experienced waist circumference reduction.

METHODS

Demographic and anthropometric information were assessed at baseline 1st, 2nd, 3rd and 6th month

Design

Quasi Experimental

Target Population

Overweight and obese housewives living in the low cost flats (PPR) in Klang Valley with Body Mass Index 2 (BMI) of 25.0 to 39.9 kg/m : 8 PPR intervention, 6 PPR control

Data Collection

Conducted from January to December 2014

Intervention Group

Received a weight loss intervention package that included dietary advise, physical activity and self-monitoring behavior.

Control Group

Received 6 times women's health seminar.

Table 1 : Weight and waist circumference reduction between group

Anthropometric Measures	Intervention Group (n=124)		Control Group (n=92)		p value ^a
	n	%	n	%	
Weight					
Experience weight	89	71.8	55	40.2	p=0.045
No weight reduction	35	28.2	37	59.8	
Waist Circumference					
Experience waist circumference reduction	91	74.6	57	62.0	p=0.034
No waist circumference reduction	31	25.4	35	38.0	

^a = Chi square test

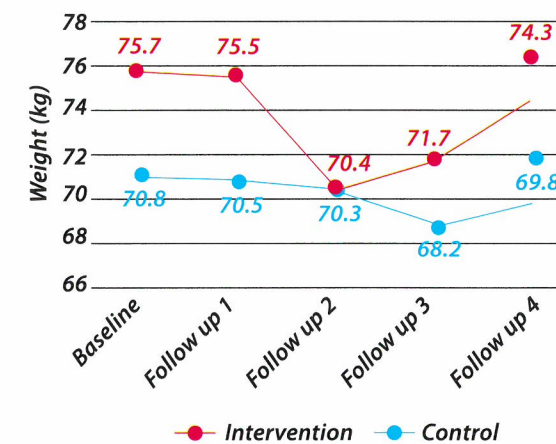


Figure 1 : Weight changes from baseline until 6 month follow up

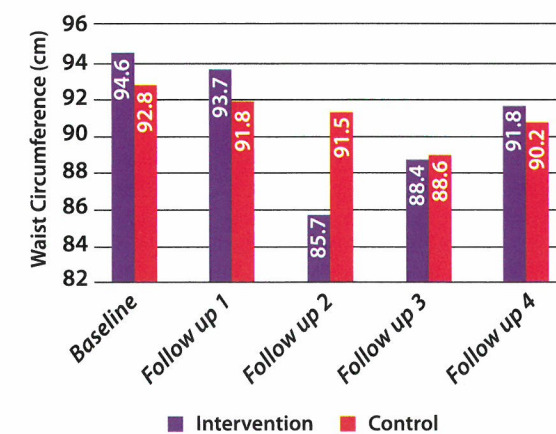


Figure 2 : Waist circumference changes from baseline until 6 month follow up

DISCUSSION AND CONCLUSION

- Based on the findings, there are significant difference on weight and waist circumference reduction between intervention and control groups.
- Respondents in control group experienced weight loss may due to self awareness on obesity and took own action to lose weight.
- Structured weight loss intervention will empower overweight and obese housewives to reduce weight and sustain weight loss in long term.

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BODY COMPOSITION USING BIOELECTRICAL IMPEDANCE ANALYSIS IN THE MyBFF@Home STUDY

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INTRODUCTION

There has been an increased of occurrence of diseases associated with obesity. The amount of body fat is one of the risk factors for cardiovascular disease¹. Studies have shown a link between high levels of visceral fat and impaired glucose tolerance, dyslipidemia, hypertension, insulin resistance and metabolic syndrome².

OBJECTIVE

To measure the difference in body composition between baseline and 6-month intervention among overweight and obese housewives participating in the My Body is Fit and Fabulous at Home (MyBFF@Home)

METHODS

- The MyBFF@home is a quasi-experimental intervention study which involved pre- and post-intervention (6 month of weight loss intervention and 6 months of weight sustainability) among housewives aged between 18-59 years old living in low cost flat in Klang Valley.

- A total of 326 overweight and obese housewives were recruited from 14 low cost flats (Projek Perumahan Rakyat/Awam) around Klang Valley. After 6 month intervention, 148 have complete BIA data : (intervention group (INT):86, control group (CON):62). Data collection was conducted from January to December 2014.
- We measured Body Fat Mass (BFM), Percent Body Fat (PBF), Visceral Fat Area (VFA) and Skeletal Muscle Mass (SMM) comparing the difference between before and after the 6-months intervention measured using the bioelectrical impedance analysis (BIA) device (InBody 720, Biospace, South Korea)

RESULTS

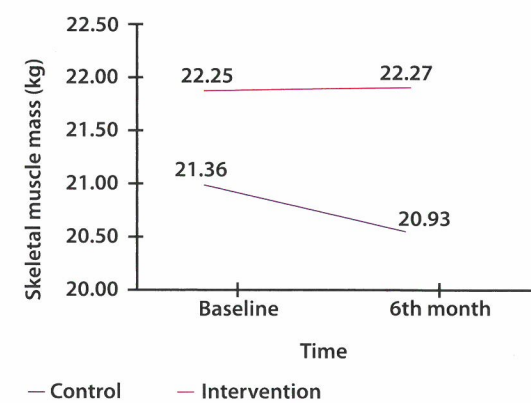


Figure 1 : Changes in skeletal muscle mass within 6 months among intervention and control groups

Table 1 : Baseline body composition

Parameters	Control (n=158)	Intervention (n=168)
BMI (kg/m ²)	30.79 ± 4.06	31.42 ± 4.09
Body Fat Mass (kg)	33.51 ± 8.22	34.80 ± 8.08
Percent body fat (%)	44.89 ± 4.84	45.19 ± 4.75
Visceral fat area (cm ²)	122.12 ± 23.64	126.17 ± 24.21
Skeletal muscle mass (kg)	21.36 ± 3.37	22.25 ± 2.77

There is no significant difference between CON and INT for all parameters in baseline

Table 2 : Differences between 6 months intervention and baseline

BIA parameters	Groups	Mean difference (6 month baseline)	One-way Repeated measure ANOVA		
			Time effect	Group effect	Intervention effect
Body Mass Index (BMI)	CON	-0.37 kg/m ²	0.001	0.220	0.241
	INT	-0.56 kg/m ²			
Body Fat Mass (BFM)	CON	-1.02 kg	0.001	0.009	0.179
	INT	-1.81 kg			
Perfect Body Fat (PBF)	CON	-0.91 %	0.001	0.245	0.543
	INT	-1.12 %			
Visceral Fat Area (VFA)	CON	-4.52 cm ²	0.001	0.007	0.373
	INT	-5.73 cm ²			
Skeletal Muscle Mass (SMM)	CON	-0.43 kg	0.137	0.040	0.097
	INT	+0.02 kg			

BFM and VFA were reduced significantly in both groups.

However, no difference was observed between those groups.

SMM has increased in INT group compared to decreased SMM in CON group (Figure 2). This could indicate effectiveness/ improvement of exercise in the intervention package.

DISCUSSION AND CONCLUSION

- At baseline, there is no statistically significant difference between the intervention and control groups in all parameters studied.
- There are trends of improvement in a few body composition parameters in both groups. This is probably due to awareness of healthy lifestyle, including in the CONT group.
- Quantification of obesity and determination of body fat amount using BIA is very important in assessing future health risks and monitoring effectiveness of weight loss programme and motivating individuals to continue weight reduction.

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THE METHODOLOGY OF THE MY BODY IS FIT AND FABULOUS AT HOME

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INTRODUCTION

MyBFF@home is a community - based intervention study to combat obesity among housewives aged 18-59 years old living in the low cost flats (Projek Perumahan Rakyat/ Awam (PPR/PPA)) in Klang Valley Malaysia

AIMS

The aims of this paper were to describe the methodology of the MyBFF@home study.

MyBFF@home had 2 aims :

Primary Aim

To develop a weight loss intervention package for overweight and obese housewives aged 18-59 years old.

Secondary Aim

To determine the effectiveness of the intervention package in reducing the body weight among overweight and obese housewives.

METHODS

MyBFF@home included mixed quantitative and quantitative method¹⁻⁵

There were 2 phases in this study :

METHOD (Phase I)

Activities in Phase I included scoping reviews, in-depth interviews and pre-test of items

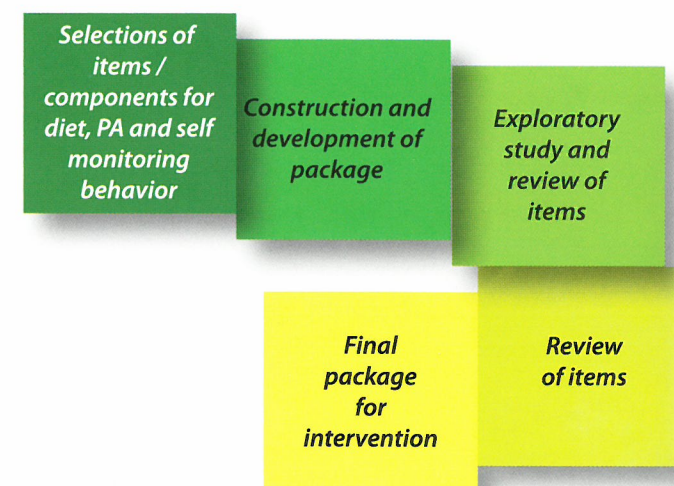


Figure 1 : Several activities involved in Phase I

METHOD (Phase II)

Design :

Quasi Experimental (non-randomisation, pre and post intervention, unmatched control)

Period of intervention :

12 months (6 months weight loss programme, 6 months for weight loss sustainability)

Target population :

Housewives (aged 18-59 years old living in the Projek Perumahan Rakyat/Awam (PPR/PPA in Klang Valley)

Sample for intervention :

Overweight or obese female in Klang Valley (BMI > 25 - 39.9 kg/m², aged 18-59 years old)

Total sample recruited :

N=332, Control : 164, Intervention :168

Individual Counselling	Reduced Calorie Diet
Diet and Physical Activity by Dietitian and Nutritionist at the PPR/PPA (Standard counseling protocol)	1200 - 1500 kcal//day (modification based on individual requirement), portion control and food substitution. Low fat, low sugar and high fibre choices-recipes book and flyers)
Self Monitoring Tools	Standard Regime For Exercise
Pedometer (with 7 days memory) to monitor steps on daily basis 3-day food diary for housewives (2 week days and 1 weekend) once a month (within the same week) 3 day physical activity diary with MET calendar (2 weekdays and 1 weekend) - once a month (within the same week)	Group : 1x/month and at home (7 days/week) Total : 60 minutes Brisk walking (30mins) Pillow dumb bell exercise with 12 steps (30mins)

Figure 2 : MyBFF@home Weight Loss intervention Package

DISCUSSION AND CONCLUSION

- Various assessments and measurements were conducted according to the protocol which include height, weight, waist & hip circumference, blood pressure, cardio metabolic profiles, dietary intake, physical activity, health literacy and quality of life.
- Control Group received 6 women's health seminar while the intervention group received a weight loss intervention package (Figure 2).
- Phase I of the MyBFF@home has completed in 2013, and Phase II is currently in progress. It is envisaged that the findings of the MyBFF@home will support the weight management and other health programme in Malaysia.

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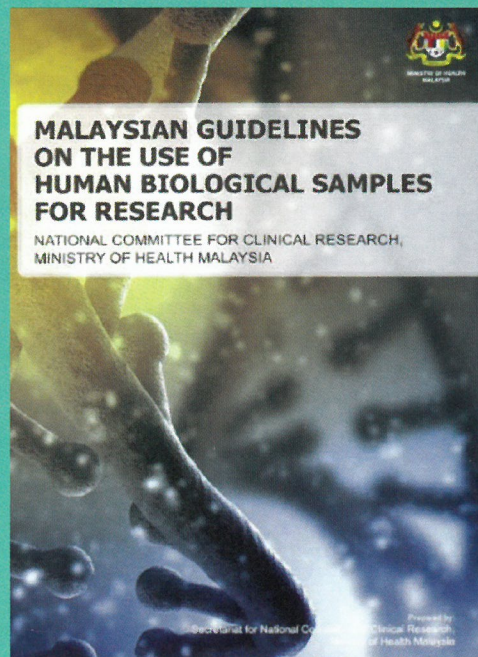
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LAUNCHING of the Malaysian Guidelines on the Use of Human Biological Samples for Research

There are many ethical issues surrounding the use of human tissues and biological samples in research of which researchers working with human samples and other relevant parties need to be aware. Thus, the National Committee for Clinical Research (NCCR) of the Ministry of Health has come up with general guidelines for research involving human biological samples to ensure that they are conducted in accordance with accepted ethical standards.

The 12-page document is available on the Clinical Research Malaysia website :

(<http://www.clinicalresearch.my/guidelines-andregulations/>) and may be freely downloaded.



UPCOMING EVENTS



NCCR 2016

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