Diet Link

OFFICIAL NEWSLETTER OF THE MALAYSIAN DIETITIANS' ASSOCIATION

ISSUE 2 / 2019

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FROM THE **EDITORIAL DESK**

Welcome to the second issue of the Diet Link 2019. This time, we continue most of the section from the issue 1, with 3 additional sections: student articles, a scientific article in Bahasa Malaysia and a special article in conjunction with the theme of the 25th Malaysian Dietitian Conference. The editorial board sincerely thank all the contributors who have devoted their time and energy in writing and sharing their knowledge or experience for this issue. We hope to receive more contribution for the next issue of the Diet Link, and we welcome your idea to further improve the content and the presentation of this newsletter.

Lee Zheng Yii
BSc (Dietetic), MSc (Clinical Nutrition)

WHAT'S NEW IN THE FIELD?

International Study

The Effect of Dietary Mobile Apps on Nutritional Outcomes in Adults with Chronic Diseases: A Systematic Review.

Lee Zheng Yii[1]
[1]Department of Anesthesiology, Faculty of Medicine, University of Malaya

This study aims to systematically review the effects of the use of dietary mobile apps on nutritional outcomes in adults with chronic diseases. Four databases were searched: MEDLINE (using Ovid), PubMed, Embase (using Ovid), and CINAHL (using EBSCO). Studies among adults age18 years old and above with chronic disease that used a smartphone app to deliver dietary intervention and reported at least one nutritional outcome were included. Only study published in English language between January 1, 2007 and November 15, 2017 were selected. This time frame was selected because mobile apps began appearing on smartphones in 2008.

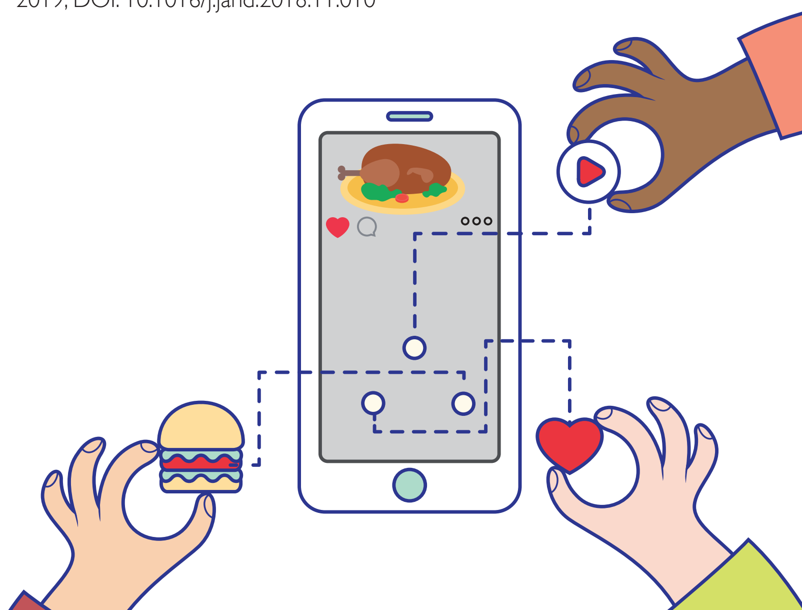
Articles were then grouped based on the intervention type (mobile apps as the sole intervention, multiple-arm interventions, and counseling interventions supported by mobile apps). Nutrition outcomes were categorized according to the nutrition care process. The methodological quality of included articles was assessed via the Academy of Nutrition and Dietetics' Quality Criteria Checklist: Primary Research. Meta-analysis was only performed among randomized controlled trials (RCTs).

A total of 22 articles were included for the qualitative analysis, and 16 were RCTs. The intervention duration mostly varied between 3 to 9 months with male and female adults between 18-80 years old. Eleven studies evaluated commercial apps (apps available to any user on app stores) while 10 studies evaluated apps developed for a specific intervention. Apps focused mainly on dietary and physical activity self-monitoring, and two consisted of in-app education. Behavioral theories were either embedded into the app's features or the interventional trial, including Social Cognitive Theory, Transtheoretical Model, and the Theory of Planned Behavior. Six studies used mobile apps as support for an intervention that consisted of in-person or phone counseling sessions. Among the 7 trials that were rated with good quality, only one failed to find favorable outcomes.

Meta-analysis of 11 RCTs showed a significant decrease in weight (-2.45 kg; 95% confidence interval [CI] -3.33 to -1.58; $p<0.001$; $I^2=96.2\%$) when an app was used compared to control. All studies included in the analysis used a self-monitoring app and 10 studies incorporated a behavioral theory. RCTs varied in duration between 1 month and 1 year, with 9 studies assessing weight loss after at least 6 months. Meta-analysis of 3 RCTs also found a significant decrease in waist circumference (-2.54 cm, 95% CI -3.34 to -1.73; $p<0.001$; $I^2=88.3\%$) and energy intake (-149.52 kcal, 95% CI -215.78 to -83.27; $p<0.001$; $I^2=0\%$). The pooled estimates were insignificant for change in BMI, HbA1C and fruit and/or vegetables intake. (Readers are advised to refer to the full articles for the qualitative analysis based on the intervention type)

The result of this study is limited by the potential publication bias and the heterogeneity ($I^2>50\%$) of the data, which precludes a strong conclusion. This study also did not look at whether the content of the apps is compliance with available dietary evidence-based practice. The result of this study is only generalizable to patients with diabetes and obesity in developed countries for short-term (3-6 months). Further study is needed to explore the effect of mobile apps for other chronic diseases, in developing countries and for a longer-term.

Reference: El Khoury, Karavetian, Crutzen, Khoja & Schols. J Acad Nutr Diet 2019; DOI: 10.1016/j.jand.2018.11.010



WHAT'S NEW IN THE FIELD?

Local Study

The state of nutrition care in outpatient hemodialysis settings in Malaysia: a nationwide survey

Khor Ban Hock[1] & Tilakavati Karupaiah[1,2]
[1]Dietetics Program, Faculty of Health Sciences, Universiti Kebangsaan Malaysia
[2]School of BioSciences, Faculty of Health and Medical Sciences, Taylor's University

Medical nutrition therapy plays a pivotal role in the management of patients undergoing maintenance hemodialysis (HD) and should ideally be provided by dietitians practicing in nephrology care. In the United States of America, it is mandatory to have a dietitian member in the multidisciplinary team for patient care. However, dietitian accessibility is known to be limited in Asia countries. We, therefore, undertook a needs assessment approach to evaluate the current state of dietitian accessibility and nutrition practices in Malaysian outpatient HD centers.

We sampled 150 HD centers representative of 13 states in Malaysia through the National Renal Registry (NRR) database. Sampling reflected sector distribution of dialysis services in Malaysia with 50% from private centers and 25% each from government and non-governmental organization (NGO) centers, respectively. A 17-item questionnaire was administered to the dialysis managers.

From the survey, 18.0% of centers reported access to a dedicated dietitian and 14.7% had access to a visiting or shared dietitian. The remaining HD centers (67.3%) had no access to a dietitian. Most government centers had access to either dedicated, visiting or shared dietitians contrasting with poor access to a dietitian in both private (84.9%) and NGO (73.3%) HD centers. This clearly indicated that dietitian accessibility is lacking in the largest sector of dialysis provision in Malaysia.

We went on to compare the nutritional parameters of patients in HD centers with a dedicated dietitian, a shared or visiting dietitian, or without a dietitian. Patients' nutritional data was retrieved from the annual submission of each center to the NRR. However, the nutritional outcomes of HD patients from centers with dedicated dietitian were no better compared to those from centers with a shared or visiting dietitian or without dietitian. One possible explanation for this observation is that dietitians are not routinely involved in the clinical practice at HD centers and only attend to selected patients based on physician referral. Therefore, it is essential for dietitians to be more proactive in routine nutrition management in HD centers.

The survey's findings are leading to the creation of an advocacy group with nephrologists and dietitians as stakeholders, to inform the Malaysian Society of Nephrology on improving dietitian accessibility at all HD centers in Malaysia. Hopefully, this approach will improve the nutritional outcomes of HD centers as well as increase the job scope for dietitians. Concurrently, competency development and credentialing for dietitians in dietetic skills related to renal patient management is also critical.

Reference: Khor BH, Chinna K, Gafor AHA, Morad Z, Ahmad G. Bavanandam S, Visvanathan R, Yahya R, Goh BL, Bee BC and Karupaiah T. 2018. BMC Health Services Research 18:939. https:/ doi.org/10.1186/s12913-018-3702-9

HEALTHY RECIPE

Christabelle Chong Sheau Miin
Institut Sukan Negara (ISN)

A healthy snack with own art creation attracts kids to participate in the preparation, creating a fun environment and enhances fruits consumption especially for kids who dislike fruits.

Also, the exciting combination of color and taste (sweet and sour) will attract kids to give it a try!

MR. CLOWN

10 minutes | 3 serving

Ingredients:

1. Banana (large size) x1
2. Strawberry x3
3. Grapes x3
4. Raisins
5. Button-shaped chocolate (for decoration)
6. Chocolate spread (for decoration)

Equipment:

1. Knife
2. Chopping board
3. Wooden skewers
4. Cupcake paper

Steps:

1. Wash the strawberries and grapes thoroughly under running water.
2. Cut the banana into three.
3. Skirt using the cupcake paper.
4. Thread the banana, grape, strawberry and lastly raisins onto skewer.
5. Place the button- shaped chocolate for the nose, and pipe the eyes using minimal chocolate spread.
6. Serve.

Nutrition facts (per serving):

Energy (kcal): 60	Fat (g): 0.3
Carbohydrate (g): 13.5	Fiber(g): 0.4
Protein (g): 0.6	Sodium (g): 10

HEALTHY RECIPE

Banana Peanut Butter Open Sandwich

Description of the recipe

A super easy, fast yet delicious and healthy recipe for the little ones or even yourself (the grown up, lol!). The perfect couple- banana & peanut butter lying on the toasted wholemeal bread, accompanied by the crunchy pumpkin seeds and a touch of honey for the extra sweetness! My kind of sandwich!

Georgen Thye
Dietitian
Holmusk
Founder
Georgen Cooking

Ingredients:

2 slices wholemeal bread, lightly toasted
3 Tbsp unsweetened peanut butter
1 medium banana, sliced
4 tsp pumpkin seeds
1 tsp honey

Steps:

1. Spread 1.5 tbsp of peanut butter evenly on one slice of toasted wholemeal bread.
2. Arrange half of the banana slices in a single layer on the bread.
3. Sprinkle 2 tsp of pumpkin seeds and drizzle ½ tsp of honey on the open sandwich before serving. Repeat all the steps with the remaining ingredients. Enjoy!

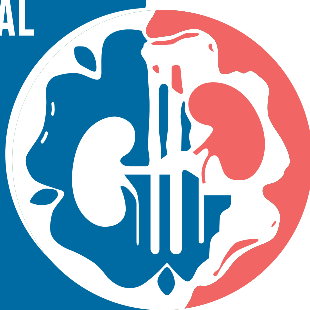
Nutrition facts (per serving):

Energy (kcal): 341	Fat (g): 17.8
Carbohydrate (g): 32.3	Fiber(g): 5.3
Protein (g): 12.9	Sodium (g): 139

Special Nutrition Information:

Peanut butter is an excellent source of protein and healthy fats. Do look for a 100% natural no sugar added peanut butter as a healthier choice to cut back the sugar content. You can also consider making your own peanut butter by blending roasted peanuts with a little olive oil and honey for sweetness. Another bonding time with your kids making peanut butter together!

EDUCATION GRANT RECIPIENT SHARING



CIAO ITALY! A Precious Experience in XIX International Congress on Nutrition and Metabolism in Renal Disease (ICRNM) June 26/30, 2018 in Genova, Italy.

Lim Jun Hao[1]
[1]Department of Nutrition and Dietetics, Faculty of Medicine and Health Sciences, Universiti Putra Malaysia

It was an unforgettable trip, traveling over 6000 miles @ 17-hour long-haul flight with my research team to attend the 19th International Congress on Nutrition and Metabolism in Renal Disease (ICRNM) in Genova, Italy. ICRNM is a scientific event organized by International Society of Renal Nutrition and Metabolism (ISRNM) biennially to provide an unparalleled opportunity for physicians, dietitians and researchers all over the world to communicate relevant clinical information, discuss the current issues and disseminate the latest scientific advances in the field of renal nutrition and metabolism.

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The recent 19th ICRNM was attended by a total of 654 participants, coming from 55 countries. The congress was very informative. It consisted of 4 plenary lectures, 61 symposia, 5 free communications sessions and 260 posters, covering the entire spectrum of basic, clinical and translational nutrition and metabolism science by more than 100 expert speakers [the abstract book and speaker's slides are available at http://www.aristea.com/icrnm18/]. One of the programme spotlights was the introduction of the new clinical guideline for nutrition in CKD, 2018 developed by the international and multidisciplinary workgroup chaired by Talat Alp Ikizler, MD and Lillian Cuppari, PhD. Besides the scientific programme, we did enjoy the early summer in Genova, a city with a variety of cultural and leisure opportunities, such as great museums, parks and friendly, charming and romantic corners as well as tourist attractions like Cinque Terre.

It was such a great honor to take part in this international event. I would like to thank my supervisors, Dr. Zulfitri 'Azuan Mat Daud and Prof. Dr. Tilakavati Karupaiah for giving me the chance to attend this congress and presented a research poster with the title 'Is the 1-Day Diet Recall Enough to Tell Us about Our Patients? Insights from the Malaysian Arm of the Palm Tocotrienols in Chronic Hemodialysis (PATCH) study' which aimed to inform the healthcare professionals the relevance of using 1-day diet recall to assess dietary intake in hemodialysis population compared to 3-day diet recall as recommended by KDOQI guideline.

Last but not least, I would like to express my gratitude to Malaysian Dietitians' Association (MDA) for awarding me the MDA Education Grant which had supported me in sharing my research finding in this international congress. As a postgraduate student, I truly appreciate this precious learning opportunity to get in touch with peers, colleagues and experts in renal field. It was indeed a great motivation and remarkable event in my research journey. Looking forward to the next ICRNM!!

https://clinicaltrials.gov/ct2/show/NCT02913690

https://www.facebook.com/nutritionkidney/

FEATURED PRACTICE

Capacity Building on Renal Nutrition for the Kidney Foundation, Bangladesh

Khor Ban Hock[1], Zulfitri Azuan Mat Daud[2], Tilakavati Karupaiah[1,3]

[1]Dietetics Program, Faculty of Health Sciences, Universiti Kebangsaan Malaysia
[2]Department of Nutrition and Dietetics, Faculty of Medicine and Health Sciences, Universiti Putra Malaysia
[3]School of BioSciences, Faculty of Health and Medical Sciences, Taylor's University

Kidney Foundation is the largest non-profit hospital that provides treatment for kidney and urological diseases in Dhaka, Bangladesh. We have an ongoing collaboration for a multinational clinical trial, the Palm Tocotrienols in Chronic Hemodialysis **(PaTCH)**, between Kidney Foundation and two universities in Malaysia, namely Taylor's University and Universiti Putra Malaysia. The norm in Bangladesh is no undergraduate programme in dietetics is offered by any local university. The Malaysia Team Leader paid the first site visit to the Kidney Foundation at the invitation of the director, Prof. Dr. Harun Ur-Rashid, and discovered that only a nutritionist was assisting in patient care at the Kidney Foundation. Given the lack of formal orientation to clinical training and nutrition care process, there was a critical need to venture into capacity building in nutrition screening protocol required for PaTCH.

To support the collaboration, representatives from the Malaysia PaTCH research group subsequently visited the Kidney Foundation, Dhaka to provide the necessary training on renal nutrition for both physicians and the nutritionists. Our new 'dietetic practitioners' would be trained, tested and assigned to core competencies necessary to deliver the nutrition screening protocol for PaTCH. We found to our surprise that over the next few days both the Malaysia and Bangladesh teams got along very well, sharing notes and generally learning about the cultural differences between our respective countries. We, for instance, were amazed at how patient and cooperative Bangladesh patients are post-dialysis, comparatively.

At a later date, the Malaysia PaTCH team members were also invited to conduct a renal nutrition workshop during the international CME organized by Kidney Foundation. The workshop was attended by staff of the Kidney Foundation as well as undergraduate and postgraduate students of the Food Science and Nutrition from Noakhali Science and Technology University, Bangladesh. Barely 2 weeks after this event, we returned for our 3-monthly check-in for data collection, and we gained a sense of satisfaction that our capacity building activities paid off. Our 'new dietitians' were ably completing their tasks.

Dr Zulfitri Azuan Mat Daud demonstrating the landmarking technique for anthropometric measurements as per the ISAK protocol.

Renal Nutrition Workshop during the International CME.

Prof Dr Tilakavati Karupaiah demonstrating the landmarking technique for anthropometric measurements as per the ISAK protocol.

Khor Ban Hock supervising the diet recall collection from hemodialysis patients.

FEATURED DIETITIAN

Dr Noor Safiza Mohamad Nor

Deputy Director (Strategic and Planning Section),
Allied Health Sciences Division, Ministry of Health Malaysia
Interviewd by: Georgen Thye Choong Jean

1. Can you tell us a little bit about yourself and your childhood?
My name is Noor Safiza Mohamad Nor (nickname Fiza), I was born and raised in Mantin, Negeri Sembilan. I went to:
- Sekolah Kebangsaan Pusat Mantin (Primary school)
- Sekolah Menengan Agama Ampangan Seremban (Form 1-3)
- Sekolah Menengah Agama Persekutuan Labu (Form 4-5)
- UKM Matriculation Kuala Pilah (1990-1991)

2. What is your academic qualification?
- BSc (Hons) Food Science and Nutrition (Dietetics) – 1995 UKM
- MSc Nutrition and Dietetics – 2003 Flinders University South Australia
- PhD Medical Sciences – 2012 Newcastle University UK

3. Can you share with us your PhD story in the UK?
My PhD research is about development and validation of a standard questionnaire for community professionals to assess feeding problems, gastrointestinal symptoms and impact of these problems on children with Autism Spectrum Disorders (ASD). I really enjoyed my PhD journey and feel grateful that my PhD work was supported by various organizations which include the British Dietetic Association (Autism Specialist Group), NHS, the North East Mental Health Group, Pediatric Research Group UK, as well as teachers and parents from Special Schools for ASD. The questionnaire has been utilized by various health and education professional mainly in the Newcastle upon Tyne area. A few years ago, researchers from the Philippines and India also used it as part of their research work and clinical practice. My PhD research work has been presented in various conferences locally and internationally.

Most importantly, this year I and my research team (from NIH and Rehabilitation Hospital MOH) will translate this questionnaire to Bahasa Malaysia and will field testing the translated questionnaire in Malaysia. I hope this work will get a research grant so in the future all community professionals in Malaysia can use it.

4. Can you share with us your career journey?
After graduated from UKM, I started my career as a Clinical Dietitian/ Head at Hospital Kluang Johor in 1996. After one year (in Jan 1997) I got my transfer to the Institute for Public Health (Institut Kesihatan Umum@IKU) in Bangsar, KL as a Dietitian, The scope of my job is more towards training the nutrition components for the Post Basic Public Health Nurses and Health Inspectors and also conducting public health research mainly on nutrition epidemiology research.

Working as a Research Dietitian at IKU is the longest amount of time I ever stayed with one position. I was there from Jan 1997 until February 2019 (almost 22+ years) and the feeling was amazing!

Currently, I am a Deputy Director at the Allied Health Sciences Division, Ministry of Health Malaysia, under the policy and strategic planning section. One of my responsibilities is to strengthen the R&D activities for 28 allied health professionals in the MOH.

5. What is your most significant accomplishment as a professional?
I think my greatest accomplishment as a professional is that I have initiated several activities for community dietetics training and research (especially for children with disabilities). That was way back in early 2000, whereby I introduced one concept i.e. Visiting Dietitian to health clinics and community-based rehabilitation centers (PDK). I am very happy to see that now we have many dietitians who were employed to work at health clinics and in different community settings.

6. I understand you have a great interest in the welfare of kids with disabilities, would you be able to share with us why and what are some of the things and project you're currently doing around this?
Yes, I always have a great interest in the welfare of kids with disabilities. They are so close to my heart and I always cherish each moment working with these children and their families. I remember that in 2004 (after I returned back from my Master degree), I started a small community dietetic project for kids with disabilities in a very small scale (2 CBR centers in Gombak district). It was very tough to convince everybody including the programme managers in the MOH. So, I started a pilot project on a voluntary basis at CBR Selayang with some support from the National Community-Based Rehabilitation Coordinating Committee (NCBRCC). I incorporated community dietetic within training and research activities. After 4 years of consistently working on the project, there have been lots of improvement in terms of the knowledge and awareness of teachers, parents and their children regarding healthy food choices and dietary practices. I started this project with 6 children but ended up with 350 children (from 9 CBRs) registered with IKU. This project also inspired me to pursue my PhD in 2008. When I completed my PhD in 2012, I then continue my consultancy work to various groups including dietitians who are working with children with special health needs. Starting this year until 2021, I will be collaborating with researchers and clinicians from various institutions within the MOH including Holmusk and conduct a behavioral intervention study. The purposes of the intervention are to improve the nutritional status of children with ASD, Cerebral Palsy and Down Syndrome; and to empower the parents to make suitable food choices at home and outside. This will be the first intervention study in Malaysia to improve dietary practices among children with disabilities. At present, the research team is in the middle of preparing and finalizing the intervention protocol in order to seek the research grant from MOH.

7. What are some of the major milestones in your life?
One of the major milestones in my life was my PhD journey, whereby I lost my dear mum in 2011. She was diagnosed with breast cancer in 2009 during my first year of my PhD. Breast cancer runs in my mum's family and my great grandmother and my aunts also died because of cancer. It was really tough for me because I was not there to give full support to her. She was a strong lady and a fighter. Although her condition was not good during her treatment, yet she still able to laugh, share her stories and motivate me to continue my study. She passed away after 3 years battling with breast cancer and I feel grateful to God that I managed to spend time with her at the hospital. With her full blessing and words of encouragement, I managed to complete my PhD within the timeline with flying colors.

Another major milestone in my life was my work life journey. In 2013, I was appointed as a Principal Investigator (PI) of a community-based weight loss intervention study (MyBFF@home) focusing on obese housewives from 14 low-cost flats in Klang Valley. Although my area of expertise is dietary rehabilitation for children with disability, I took that challenge and conducted the study with my team. We worked so hard to complete the intervention for 12 months. At the end of 2014, my general health is deteriorating and in February 2015, I was diagnosed to have breast cancer and I have to take 2 years of cancer leave to complete my treatment. My research team is very dedicated to completing the study and worked very hard to finish the study until December 2016. When I returned back to work in November 2017, I and my team published MyBFF@home supplement in the BMC Women's Health Journal and shared the success story of the intervention.

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8. Can you share with us your breast cancer journey?

I was diagnosed with breast cancer Stage II on 9th February 2015. Actually, it was very shocking news to me and to all my friends and family members. The fact that I am a very fit person, I exercise regularly, eat healthily and I do not have any major illness. But then, I took this news positively as a gentle reminder for myself to take care of my own good health. Due to my cancer characteristics (Her2 positive) and a very strong family history of breast cancer, I have to undergo 2 major operations (Mastectomy and Total Abdominal Hysterectomy and Bilateral Salpingo-Oophorectomy [Tahbso]) on 20th February 2015. I then received chemotherapy for 6 months, followed by radiotherapy and then Herceptin treatment for 17 times. It took me about 2 and a half years to complete my treatment and I feel grateful that the surgery and all treatments went well. Love and support from my family, my children and my friends are the biggest motivation for me. They are my biggest inspiration and motivation throughout my cancer journey.

9. How do you push through your worst times?

I always believe that if we have worst times, at a certain point we will get through these worst times with good outcomes. Honestly speaking, there were good days and bad days during my cancer treatment, but I would say that overall, I was quite active during my cancer sick leave.

During my recovery and treatment, I managed to focus on other interests/ hobbies such as morning walk with my neighbors, gardening, baking, attending language classes and a short holiday with my sisters. Once a month, I taught the community (ladies group) on how to make homemade bread and scones with low-fat products. I also joined the Breast Cancer Foundation Malaysia as a volunteer (Diet Advisor) and support their weekly activities such as fun run for cancer, jungle tracking and Zumba. But once a while, I also delivered lectures at local universities on research methodology, scoping review and how to search for evidence effectively. These activities are very important to keep my brain from freezing haha.

RESEARCH METHODOLOGY CORNER

Epidemiologic Study Design

Lee Zheng Yii[1]

[1]Department of Anesthesiology,
Faculty of Medicine, University of Malaya

The Need to Make an Accurate Causal Inference

In our daily life, we encounter many different questions; most of them need us to make a certain decision based on what (we think) we have known. One of the questions that we often ask is: Can an exposure A cause an outcome B? Some of the time, the answer may be quite straightforward. For example, I feel full after taking a meal and I decided to stop eating. We know that the meal is the exposure and the feeling of fullness is the outcome. We made a causal inference based on our experience of feeling full after taking a meal, and that lead to our decision to stop eating.

However, most of the time, causal inference is not that straightforward; and as a human being, due to our inherent bias and limitations, we tend to make a wrong inference and end up in an unfavorable decision. This is seen in the previous examples of the man taking the survey after a bumpy flight and the old grandmother (see Diet Link Issue1/2019). The erroneous causal inference that was made by the two examples will not harm themselves or other people. However, in the clinical/healthcare setting, a wrong decision may be disastrous. Therefore, it is very important that we make an accurate causal inference.

In order to make an accurate causal inference, we need data. The context of how the data is obtained and the accuracy or reliability of the data is very important to help us to make the right inference and hence decision. Over the years, epidemiologists have developed several study designs to answer different clinical questions. Generally, there are 4 types of clinical questions:[1]

- Therapy: Questions of treatment in order to achieve some outcome. May include drugs, surgical intervention, change in diet, counseling, etc.
- Diagnosis: Questions of identification of a disorder in a patient presenting with specific symptoms.
- Prognosis: Questions of progression of a disease or likelihood of a disease occurring.
- Etiology/Harm: Questions of negative impact from an intervention or other exposure.

We use epidemiologic study design to answer one of the 4 clinical questions above. An investigator begins the research process with the development of a hypothesis that includes a conceptual causal factor and an outcome of interest. Once that has been decided the appropriate study design is selected.

Characteristics of Each Study Design[2]

Figure 1 helps us to determine the type of design of a particular study.

Depending on whether an investigator assigns the exposure of interest (eg: a treatment) or observe a usual clinical practice, a study can be divided into two main categories: Observational or Experimental.

For experimental studies, we need to distinguish whether the exposures were assigned by a truly random technique (with concealment of the upcoming assignment from those involved, this is known as allocation concealment) or whether some other allocation scheme was used, such as alternate assignment. A valid randomization must include allocation concealment.

With observational studies, we need to ascertain whether the study has a comparison or control group. If so, the study is termed analytical. If not, it is a descriptive study.

If the study is analytical, the temporal (time) direction of the trial needs to be identified. If the study determines both exposures and outcomes at one-time point, it is termed cross-sectional. For example, to associate the estimated sodium intake (calculated from 24-hour diet recall or food frequency questionnaire) with the hypertension status of a group of subjects.

If the study begins with an exposure (sodium intake) among all subjects without the outcome of interest (healthy subjects without hypertension), and follows the subjects for a few years to measure the development of the outcome (hypertension)– then it is deemed a cohort study.

By contrast, if the analytical study begins with an outcome (all hypertensive subjects) and looks back in time for an exposure (level of sodium intake 5 years ago), then the study is a case-control.

Studies without comparison groups are called descriptive studies. Some cross-sectional study can be purely descriptive (no comparison between groups). A case description of a single patient is known as case report. When more than one patient is described, it becomes a case-series report.

The level of evidence generated from each type of study design in ascending order is case report, case-series report, descriptive cross-sectional study, analytical cross-sectional study, case-control study, cohort study, non-randomized controlled trial and randomized controlled trial. As the level goes higher, the risk of bias (error) is lower. The higher the level of evidence, the stronger the causal inference we can make from the result of the study.

In the next issue, we will talk about each study design in depth.

RESEARCH METHODOLOGY CORNER

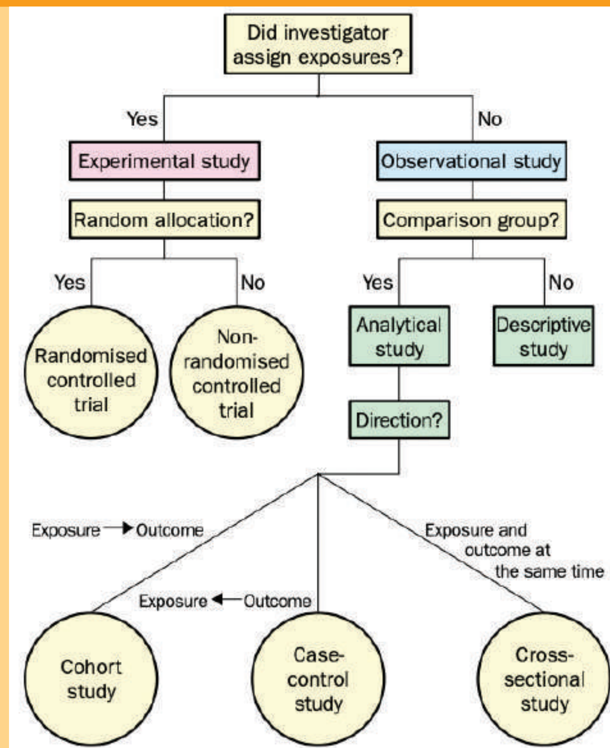


Figure 1: Algorithm for classification of types of clinical research
(Adapted from Grimes & Schulz. Lancet 2002;359:57-61)

Reference

1. Oxman, Sackett & Guyatt. Users' Guides to the Medical Literature [1]. How to Get Started. JAMA 1993; 270(17):2093-2095.
2. Grimes & Schulz. An overview of clinical research: the lay of the land. Lancet 2002;359:57-61

COUNSELING SKILLS

Motivational Interviewing Skills and Strategies

The practice of Motivational Interviewing (MI) involves the skillful use of certain techniques for bringing to life the "MI spirit", demonstrating the MI principles, and guiding the process toward eliciting client change talk and commitment for change. Change talk involves statements or non-verbal communications indicating the client may be considering the possibility of change.

OARS

Often called micro-counselling skills, OARS is a brief way to remember the basic approach used in Motivational Interviewing. **Open-Ended Questions, Affirmations, Reflections,** and **Summaries** are core counsellor behaviors employed to move the process forward by establishing a therapeutic alliance and eliciting discussion about change.

- **Open-ended questions** are those that are not easily answered with a "yes/no" or short answer containing only a specific, limited piece of information. Open--ended questions invite elaboration and thinking more deeply about an issue. Although closed questions have their place and are at times valuable (e.g., when collecting specific information in an assessment), open-ended questions create forward momentum used to help the client explore the reasons for and possibility of change.

- **Affirmations** are statements that recognize client strengths. They assist in building rapport and in helping the client see themselves in a different, more positive light. To be effective, they must be congruent and genuine. The use of affirmations can help clients feel that change is possible even when previous efforts have been unsuccessful. Affirmations often involve reframing behaviors or concerns as evidence of positive client qualities. Affirmations are a key element in facilitating the MI principle of Supporting Self-efficacy.

- **Reflections** or reflective listening is perhaps the most crucial skill in Motivational Interviewing. It has two primary purposes. First is to bring to life the principle of Expressing Empathy. By careful listening and reflective responses, the client comes to feel that the counselor understands the issues from their perspective. Beyond this, strategic use reflective listening is a core intervention toward guiding the client toward change, supporting the goal-directed aspect of MI. In this use of reflections, the therapist guides the client towards resolving ambivalence by a focus on the negative aspects of the status quo and the positives of making change. There are several levels of reflection ranging from simple to more complex. Different types of reflections are skillfully used as clients demonstrate different levels of readiness for change. For example, some types of reflections are more helpful when the client seems resistant and others more appropriate when the client offers statements more indicative of commitment to change.

- **Summaries** are a special type of reflection where the therapist recaps what has occurred in all or part of a counseling session(s). Summaries communicate interest, understanding and call attention to important elements of the discussion. They may be used to shift attention or direction and prepare the client to "move on." Summaries can highlight both sides of a client's ambivalence about change and promote the development of discrepancy by strategically selecting what information should be included and what can be minimized or excluded.

Change Talk

Change talk is defined as statements by the client revealing consideration of, motivation for, or commitment to change. In Motivational Interviewing, the therapist seeks to guide the client to expressions of change talk as the pathway to change. Research indicates a clear correlation between client statements about change and outcomes with client-reported levels of success in changing a behavior. The more someone talks about change, the more likely they are to change. Different types of change talk can be described using the mnemonic **DARN-CAT.**

Preparatory Change Talk		Implementing Change Talk
Desire (I want to change) **A**bility (I can change) **R**eason (It's important to change) **N**eed (I should change)	And most predictive of positive outcome:	**C**ommitment (I will make changes) **A**ctivation (I am ready, prepared, willing to change) **T**aking Steps (I am taking specific actions to change)

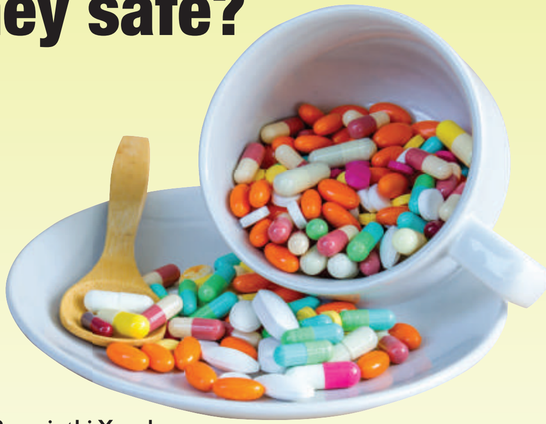
There are specific therapeutic strategies that are likely to elicit and support change talk in Motivational Interviewing:

1. **Ask Evocative Questions:** Ask an open question, the answer to which is likely to be change talk.
2. **Explore Decisional Balance:** Ask for the pros and cons of both changing and staying the same.
3. **Good Things/Not-So-Good Things:** Ask about the positives and negatives of the target behavior.
4. **Ask for Elaboration/Examples:** When a change talk theme emerges, ask for more details. "In what ways?" "Tell me more?" "What does that look like?" "When was the last time that happened?"
5. **Look Back:** Ask about a time before the target behavior emerged. How were things better, different?
6. **Look Forward:** Ask what may happen if things continue as they are (status quo). Try the miracle question: If you were 100% successful in making the changes you want, what would be different? How would you like your life to be five years from now?
7. **Query Extremes:** What are the worst things that might happen if you don't make this change? What are the best things that might happen if you do make this change?
8. **Use Change Rulers:** Ask: "On a scale from 1 to 10, how important is it to you to change [the specific target behavior] where 1 is not at all important, and a 10 is extremely important? Follow up: "And why are you at ___and not ____ [a lower number than stated]?" "What might happen that could move you from ___ to [a higher number]?"
   Alternatively, you could also ask "How confident are that you could make the change if you decided to do it?"
9. **Explore Goals and Values:** Ask what the person's guiding values are. What do they want in life? Using a values card sort activity can be helpful here. Ask how the continuation of target behavior fits in with the person's goals or values. Does it help to realize an important goal or value, interfere with it, or is it irrelevant?
10. **Come Alongside:** Explicitly side with the negative (status quo) side of ambivalence. "Perhaps _______is so important to you that you won't give it up, no matter what the cost."

This article is adapted from:
https://www.umass.edu/studentlife/sites/default/files/documents/pdf/Motivational_Interviewing_Definition_Principles_Approach.pdf (Accessed 8th Dec, 2018)

1)Weight loss supplementation:

Are they safe?



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Believe it or not, almost one out of ten people are consumed by the desire to be considered 'beautiful' and 'fit'. Having not satisfied with our own body image, we always wanted to be like others and often tend to worry about other's perception on us that we overlooked the most important viewpoint of all: Health. But because making diet and lifestyle changes can be difficult, we want something that promises instant results in our weight loss goal. This is where the weight loss supplement industries play a big role. They tend to impart unrealistic expectations among consumers by visualizing healthy and happy people. Like how a vacuum cleaner is to dirt, we expect weight loss supplements to suck out all the unwanted fats in our body instantly. With the mushrooming supplement industries in Malaysia, Malaysian Adult Nutrition Survey (MANS) 2014 shows that the prevalence of the food supplement intake has increased up to 34% especially among the urban population from 2003(Institute of Public Health Malaysia 2014). However, the questions are, what is weight loss supplement, are they "safe" to be consumed?

There are always misconceptions that both dietary and weight loss supplements are the same since both are sold in forms such as capsules, tablets, liquids, and powders. According to the Merriam-Webster, dietary supplements are products taken orally that contains one or more ingredients (such as vitamins or amino acids) that are intended to supplement one's diet and are not considered food. However, weight loss supplements, on the other hand, are supplements that contain many ingredients such as herbs, fiber, and minerals—in different amounts and many combinations. They are claimed to work by blocking the absorption of fat or carbohydrates, curbing your appetite, or speeding up your metabolism.
Are they safe?

- Most of the weight loss supplements contain fat blockers which decrease the nutrient absorption and cause stomach upset. Other reported side effects of these supplements include constipation, headaches and mood swings (Pittler et al. 2005).
- Many weight loss pills contain caffeine and other diuretics which causes water loss. Consumers will eventually believe their weight reduction is due to the fat loss; however, fluid loss may lead to serious dehydration. Since caffeine is also a known central nervous system (CNS) stimulant, it may also cause shakiness, heart palpitations, and low blood sugar levels for some. At higher doses, it can cause nausea, vomiting, rapid heartbeat, and seizures (Nichols & Weather spoon 2017).
- It is difficult to isolate the effects of each ingredient and predict the effects of the supplements because most of the weight-loss dietary supplements contain multiple ingredients. Evidence may exist for just one of the ingredients in a finished product, and no evidence may be available for an ingredient when it is combined with other ingredients. Furthermore, dosages and amounts of active components vary widely among weight-loss supplements, and a product's composition is not always fully described in published studies (Astell et al. 2013).
- The U.S. Food and Drug Administration (FDA) is not required to review or approve dietary supplements prior to their market release. However, they can remove the item from the market if they happen to find it unsafe (National Institutes of Health 2017).
- Most of the weight loss supplements rarely carry out studies on the safety of their product.
- Often studies are done with small sample size and for a short duration.
- Disclaimers are often being neglected in most of the supplements.

Attached below are some of the myths we often hear about the **weight loss supplements** and the facts that prove otherwise.

WEIGHT LOSS SUPPLEMENTS
4 things you think you know, but you don't...

MYTHS	FACTS
Green Tea supplements helps to loose weight	Studies shows that green tea supplements isn't likely to produce significant or lasting weight loss.
Natural supplements are "safe"	Safety depends on the supplement's chemical makeup and what it does to the body, how it is prepared and the dosage used. An individual supplement may be safe,however the combination of several products may be risky and harmful to your liver.
You don't have to exercise or diet if you are taking the weight-loss supplement	A healthy diet and regular exercise are important for certain supplement to attain its full fat burning potential
If it is being sold in the market, it is safe	The U.S. Food and Drug Administration (FDA) are not required to review or approve dietary supplements prior to their market release. Hence, the product safety is dubious.

Figure 1: Myths and facts about weight loss supplements

In Malaysia, the National Pharmaceutical Regulatory Agency under the Ministry of Health is responsible for drug registration/ cosmetic notification scheme through evaluation of technical data, laboratory analysis, research and information received from international agencies. Hence, it is important for consumers to consider whether the supplement being purchased have been approved by the National Pharmaceutical Regulatory Agency. The Malaysian Dietary Supplement Association (MADSA)formed by a small group of concerned dietary supplement companies claims to market only products approved by the National Pharmaceutical Regulatory Agency of Malaysia (NPRA). However, there will always be falsely claimed product in the market. Hence the manufacturers should take responsibility to ensure that they comply with the national regulations being set and to prove that their supplement is safe. The consumer, on the other hand, should always query on the product safety and consult a health professional before consuming one.

As a conclusion, in life nothing comes easy. Weight loss supplements can be expensive, and their effectiveness is unknown and might differ for each person. The best way to lose weight and keep it off is to follow a healthy eating plan and exercise regularly. Remember to always, consult a health practitioner before consuming any supplements because 'Health is Wealth'.

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STUDENT ARTICLES

2) Mindful Eating:

An Approach to Manage Blood Sugar

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Are you frustrated with the poor blood glucose result due to the strict diet regime? According to the International Diabetes Federation, there were over 3,492,600 cases of diabetes in Malaysia in 2017, with a prevalence of 16.9%.

Nowadays, people tend to multi-task in many aspects of their lives which also include meal time. It is now common to see someone eating and scrolling a mobile device at the same time. This is likely to lead to over-eating if one disregards the type and amount of food consumed as time passes. Another scenario is during a buffet meal where some diners piled on mountain of foods on their plates. It has been known that individuals also tend to have a greater appetite for food with high palatability, such as sweet and high-fat food.

Here is a significant discovery for people with diabetes which can help them to control their blood sugar level. Mindful eating is the key strategy of self-care management in diabetes. In simple term, mindful eating is defined as being aware and pay attention to the food when eating. It is a change in eating behavior that enables us to avoid excessive food intake.

Benefits of Mindful Eating

1. Portion Control

Being mindful helps us to watch out on the amount of food taken. This is especially important for individuals with diabetes to avoid overeating, particularly foods high in carbohydrate and rich in sugar content. Mindfulness in eating helps individuals to understand and choose from complex carbohydrate food sources such as whole grains and fresh fruits, with the correct quantity.

2. Weight Management

Based on a systematic review (Olson & Emery, 2015), mindful eating results in significant weight loss. It brings to light the consequences of eating habit, resulting in either from internal or external triggers, or both. Individuals who practice mindfulness eat in response to the body signals, whether our body is in hunger or in satiety. This prevents us from eating out of control and putting on excess weight. This practice is important for obese people with a tendency of having episodes of binge eating. A study had shown that 5-10% loss of initial weight has significant improvement in glycemic control among Type 2 diabetes patients (Safford et al., 2011).

3. Stress Management

By practicing mindful eating, individuals will be able to develop a proper relationship with food and reduce the incidence of stress-related eating. Diabetic individuals can often be stressed by the restriction they faced in the diet, especially carbohydrate food. A study by Khan and Zadeh (2013) showed that subjects who practiced mindful eating are less likely to eat in reaction to emotional feelings. There is a saying: "things will develop in the opposite direction when they become extreme." Diabetic individuals with rigid dietary habits have a higher tendency to binge on high carbohydrate foods in response to the cues of body stress. Type 2 diabetes patients showed a higher rate of diabetic distress as evidenced by Fisher et al. (2008). Therefore, mindful eating is helpful in improving the well-being of mental health among diabetic individuals through increased self-regulation, thus avoiding emotional eating.

How to be a Mindful Eater?

a) Put down your utensils

After sending the food into your mouth, put down your utensils. This action allows you to bite and savor your food slowly and thoroughly. Allow the saliva in the mouth to mix well with each bite of your food which aid in your digestion. You only pick the utensils up after swallowing the food in your mouth.

b) Chew your food slowly

Try to chew each and every bite of your food for 20-30 times before swallowing. The recommended meal time is about 20 minutes. This is because it takes about 20 minutes to tell your brain that you are full. In a normal condition, when the stomach is filled with food, it will send signals to the brain. In turn, our brain will release signals to stop us from eating, preventing excessive food intake. This is supported by a study stated there is a decrease in meal size when increasing the number of chewing before swallowing (Zhu & Hollis, 2014).

c) Have a proper seat to eat

Minimize the chance of eating on the go as one pays little attention to the amount of food taken. This is supported by a study which showed that overeating can be triggered as a result of eating while walking (Ogden, Oikonomou & Alemany, 2017). It is important to allow to be properly seated and enjoy your meal in a comfortable and pleasurable eating environment. Having healthy, home-cooked meals with family members also helps in developing mindful eating habits and results in better blood sugar control.

d) Get rid of distractions

Make sure you turn off your electronic devices such as phones, computers or televisions while eating. Individuals are less likely to experience an increased tendency of acute food intake during distracted eating. Watching TV while eating causes attention to be drawn away from the food, and leads to overconsumption of food (Hetherington et al., 2006). Focus on the food attributes, for example, how does it look like, it tastes, and how soft or hard is its texture. Cultivate yourself with gratitude as there is food on the plate served in front of us.

e) Recognize real hunger cues

It is important for individuals with diabetes to eat only to cure hunger, and not for comfort. To tackle comfort eating, follow this easy rule of thumb: Drink a large glass of water and wait for 10 minutes. This allows your body to determine whether it's true hunger or just food craving for emotional reasons. True hunger remains even as time passes.

f) Take deep breaths

You are encouraged to take a few deep breaths before ordering or taking meal. This practice enables you to be aware of the body sensations, for example, hunger, and decide how to respond. The moment provides time for us to make proper food choices and amount of food to eat which corresponding to our hunger level (Miller, 2017).

In conclusion, eating should be pleasurable, and the same goes for diabetic individuals. Enjoy every forkful, nourish your body with an appropriate amount of healthy food, and feel the sense of goodness from optimal blood sugar level. It does not happen overnight. Remember "practice makes perfect" is the key to develop this lovely act, mindful eating.

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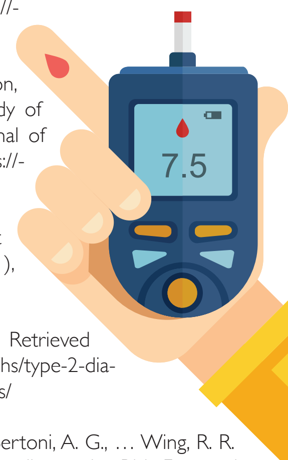

3) Has Modernization Cost Us

Obesity?

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Malaysia was once a sleepy backwater country with a focus on agricultural development. The modernization boom came in the 1980s when Malaysia's then Prime Minister, Tun Dr. Mahathir Mohammad decided to develop Malaysia into an industrialized nation. The move was a bold one and it rapidly increased the wealth and technology of the country.

Forty years later, Malaysia is an economically stable country free from any wars or internal conflict, but we are paying the price of industrialization with our obesity rates and health status. The prevalence of overweight and obesity in adults has increased by 80.7% and 302% respectively in just fewer than two decades (Institute for Public Health, 2015). The prevalence of obesity in children below 18 years old is 11.9% (Institute for Public Health, 2015). Chronic diseases such as diabetes mellitus, high blood pressure, stroke and heart problems are at its highest and children are suffering from health problems which only plagued adults once upon a time (Institute for Public Health, 2015).

At an individual level, obesity results from an energy imbalance-too many calories consumed, too few calories burned. However, food and physical activity choices are not the only ones to be blamed as modernization has affected the environment, we live in which indirectly contributes to obesity.

(i) 75% of Malaysians live in urban cities

- In urban, most Malaysians work on sedentary desk jobs. This results in limited physical activity (World Bank, 2017).

(ii) Poor Eating habits

- Approximately 64% of Malaysians eat at least one meal per day outside of their home (Poulain, Tibere, Laporte, &Mognard., 2014).
- According to the Malaysian Adult Nutrition Survey (MANS) 2014, Malaysians consume most of their carbohydrates in the form of rice (about 2-3 plates daily) and sugar (3-4 teaspoons). Due to the shift in lifestyle where Malaysians are mostly inactive, this excess carbohydrate intake is stored as fats in the body. Malaysians also tend to consume high-fat foods like kuih-muih, sweetened condensed milk & biscuits.(National Health Institute Malaysia, 2014)
- More and more fast food restaurants are opening every year in Malaysia. Around 39% of Malaysians eat fast food one to three times a week (Poulain, Tibere, Laporte, &Mognard., 2014).

(iii) Higher Spending Power

- Malaysia has upgraded itself from a middle-income country to an upper-middle income country with a Gross National Income of RM 39,400 (World Bank, 2017). With an increase in income per capita, Malaysians have more money on hand to spend.

iv) Sedentary Leisure Activities

- Malaysian adults spend a lot of time on social media (around 3.5 hours daily) and limited amounts on sporting activities (Poh et al., 2010). Only 14.2% of Malaysian adults achieved adequate exercise (5 times per week for 30 minutes) (Poh et al., 2010). Similar patterns were observed with children where most of them spent more than 2 hours daily on-screen time and only 22.8% achieved adequate physical activity (60 minutes or more daily) (Sharif et al., 2016)

(v) Sleep deprivation

- Most adult Malaysians only get an average of 6.4 hours of sleep, short of the recommended 8 hours of sleep due to being carried away by online networking sites and social media (AIA Vitality, 2017). Other factors resulting in sleep deprivation are stress, anxiety and depression related to work or personal life (AIA Vitality, 2017). Sleep deprivation increases the appetite of an individual making them eat more and subsequently gaining weight (Yau & Potenza, 2013).

(vi) High Stress Levels

- 70% of Malaysian employees are afflicted with diseases which stem from rising stress levels at work (AIA Vitality, 2017). Some have musculoskeletal diseases like carpal tunnel syndrome or shoulder pains while others suffer from high anxiety and depression at the workplace (AIA Vitality, 2017). All of this leads to poor productivity and inability to carry out daily life activities which results in a decrease in energy expended. Stress also releases a hormone called cortisol which encourages fat deposition at the belly area (Yau & Potenza, 2013).

(vii) Advent of Technology

- In the villages in Malaysia, the new generations prefer less active jobs in the service and manufacturing industries rather than getting involved in their family business of farming and fishing. Most of the farms nowadays are run by migrant workers (World Bank, 2017).
- In jobs such as farming, people use less energy than they did decades ago due to mechanized farm equipment.
- Increased use of microwaves, washing machines, vacuum cleaners, and other labor-saving devices has cut down human energy needed for house chores.
- People can now order everything from food, groceries, toiletries and clothes using their handphones and it will be hand-delivered to them.

(viii) Modes of Transportation

- With higher spending power, most Malaysians can own vehicles like car and motorcycles. Public transports like trains are only available in the cities and not in smaller towns while buses are never on schedule. This is the reason why 74% of adult Malaysians travel using passive mode of transportation (car and motorcycle) while only 26% uses active modes of transportation (public transport, walking & cycling) to work or school (Poh et al., 2010). The active modes of transportation allow individual to get some physical activity compared to the passive mode of transportation which involves sitting and operating the vehicle only.

There is no question that modernization has improved the quality of life of Malaysians, but the high rates of obesity and its associated diseases are increasing the medical costs of the country. The Ministry of Health has carried out numerous campaigns on tackling obesity but none of it has been fruitful till now. Hence, the Ministry should look beyond educational campaigns and focus more on policy-making. Some of the policies that can be implemented are:

- Fiscal measures to shift consumption away from unhealthy products towards healthier ones.
- Improving current exercise facilities and introducing new sporting activities like jousting and dance classes in school.
- Traffic light labeling in front of packages
- Government are to set a limit for salt and fat content in processed and packaged foods and food industry are to adhere to it or otherwise be taxed.

It is hoped that with these measures, we will one day be able to see the obesity rates in Malaysia dwindling.

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MAKANLAH SAYANG:

GAYA PEMBERIAN MAKAN IBU BAPA

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Pemakanan memainkan peranan penting dalam perkembangan anak-anak terutama semasa tiga tahun pertama kehidupan bagi mencapai perkembangan yang optima dari aspek fizikal dan mental mereka. Disamping memastikan kepelbagaian dan keseimbangan pengambilan makanan, kajian menunjukkan bahawa gaya pemberian makan oleh ibu bapa turut mempengaruhi pertumbuhan anak-anak.

Ibu bapa adalah agen penting dalam menentukan corak pemakanan anak-anak dimana ia turut dipengaruhi oleh gaya pemberian makan oleh ibu bapa. Musher-Eizenman dan Holub (2007)[1] menerangkan tentang lima gaya pemberian makan ibu bapa yang biasa dinilai seperti diringkaskan dalam Jadual 1.

Bilangan	Gaya pemberian makan	Penerangan
1	Memberi tekanan (*Pressure to eat*)	Ibu bapa memberi tekanan untuk makan lebih banyak pada waktu makan
2	Menyekat makan (*Restriction*)	Ibu bapa mengawal pengambilan makanan anak dengan tujuan mengurangkan makanan tidak sihat
3.	Kawalan kendiri anak (*Child control*)	Ibu bapa membenarkan anak mengawal dan menentukan sendiri corak pemakanan mereka
3	Dorongan untuk makan (*Encouraging*)	Ibu bapa memberi dorongan mengambil makanan yang seimbang termasuk pelbagai jenis makanan dengan pilihan yang sihat
4	Memantau untuk makan (*Monitoring*)	Ibu bapa memantau pengambilan makanan yang tinggi kalori

Jadual 1: Cara pemberian makan oleh ibu bapa dan peneranganya

Kita biasa dengar di klinik ibu bapa yang mengadu "Puan, saya telah mengawal pemakanan anak-anak di rumah, namun tidak faham kenapa berat badan anak saya makin naik. Saya perasan anak saya terlalu obses dengan makanan manis dan berlemak sekiranya mereka makan dengan kawan-kawan".

Adakah faktor lain selain pengambilan pemakanan dan persekitaran turut memberi kesan kepada pertumbuhan anak-anak? Artikel ini membincangkan gaya pemberian makan ibu bapa dan kesannya kepada pertumbuhan anak-anak.

Perkaitan antara gaya pemberian makan dan status pertumbuhan anak-anak

Terdapat perkaitan antara gaya pemberian makan dengan status pertumbuhan anak-anak terutama gaya pemberian makan memberi tekanan, menyekat makan dan memantau untuk makan. Gaya pemberian makan ini turut dikaitkan dengan tingkahlaku pemakanan anak-anak. Pemahaman tentang gaya pemberian makan ibu bapa boleh membantu dietitian dalam menilai gaya tertentu dan kesannya terhadap perilaku makan dan pertumbuhan kanak-kanak.

Banyak kajian menunjukkan perkaitan rapat antara menyekat makan dengan obesiti. Ibu bapa yang menyekat makan sering dikaikan dengan peningkatan IJT dan kadar lemak tubuh anak-anak.[2] Ini mungkin disebabkan apabila ibu bapa menyekat makan makanan tertentu seperti yang berlemak dan manis, ia boleh meningkatkan keinginan melampau anak-anak kepada makanan yang disekat lalu makan tanpa kawalan lantas menyebabkan peningkatan berat badan. Anak-anak berkemungkinan terlalu memikirkan makanan yang disekat dan menyebabkan mereka hilang kawalan apabila dapat makan makanan sedemikian.[3]

Dalam konteks anak-anak yang mengalami kurang zat makanan, kajian mendapati bahawa kurang memantau untuk makan meningkatkan risiko mengalami kurang zat makanan dalam kalangan kanak-kanak bertatih. Sebagai contoh, anak yang mengalami pertumbuhan terbantut mempunyai ramai ibu bapa yang kurang memantau pengambilan makanan tinggi kalori dan memberi tekanan berbanding ibu bapa dengan anak yang yang mempunyai berat badan optima.4 Sebaliknya, sentiasa memantau anak-anak untuk makan mengurangkan risiko mengalami pertumbuhan susut.[4]

Kurang memantau untuk makan terutama makanan tinggi kalori adalah secara konsisten berkait dengan kurang zat makanan4. Ini menunjukkan pentingnya peranan ibu bapa dalam memantau pengambilan makanan anak-anak yang mengalami kurang zat makanan. Oleh itu, ibu bapa perlu dibantu untuk mengenalpasti makanan tinggi kalori dan berkhasiat serta menggalakkan anak memilih makanan sedemikian tanpa memberi tekanan untuk makan bagi mencapai pertumbuhan optima anak-anak. Telah menjadi naluri semulajadi ibu bapa untuk memberi tekanan untuk makan dengan banyak kepada anak-anak yang kelihatan kurus atau susut bagi memastikan anak-anak mendapat makanan yang secukupnya. Ironinya, gaya pemberian sedemikian mungkin menyebabkan anak yang sensitif dengan tekanan menjadi cepat kenyang dan akhirnya makan sikit lantas memberi kesan kepada pertumbuhan.

Memahami gaya pemberian makan ibu bapa bersama dengan penilaian status pemakanan yang lain mungkin boleh membantu dietitian untuk menentukan intervensi yang sesuai dan berkesan kepada kanak-kanak bagi mencapai status pertumbuhan yang optima.

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SPECIAL ARTICLE

Digital Trend in Healthcare

Georgen Thye Choong Jean
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Digital health in simple term is the use of technology to help improve individuals' health and wellness as well as enhance the efficiency of health-care delivery (helping healthcare professionals to do a better and more efficient job). These technologies can cover everything from mobile health apps to artificial intelligence, from wearable gadgets to ingestible sensors, from robotic carers to electronic health records. It is a wide and growing sector. The US digital health industry has grown from $1.7 billion in 2010 to a $5.7 billion market in 2015[1] and it is estimated to continue growing with more interest and investment coming from the pharmaceutical company and insurance industry.

Why digital health? The increasing number of population and the shortage of healthcare professionals is one of the great opportunities for digital health solutions.[2,3] With the limited time a patient spent with a healthcare professional in the clinic or hospital, they are usually left managing and dealing with the disease on their own most of the time. This often caused frustration and hence defaulted treatment when a patient has no one to turns to for reliable advice and guidance. Hence, the adoption of digital health solution that enables remote monitoring of patient's vital signs, diet, sleep pattern, medication adherence, weight and etc. will allow caregivers to develop a more timely and customized care plan for individuals, managing care and improving the health of the patient.

Big data analytics and artificial intelligence (AI) are also another big part of digital health.[4] Big data refers to large scale data collection via either wearables, mobile apps or online software. These large and varied data sets will then be analyzed via a complex process to uncover information including hidden patterns, unknown correlations and trends that can provide insights in helping providers predict diseases and find a new treatment.

Artificial intelligence (AI) is a device or product that can imitate intelligent behavior or mimics human learning and reasoning. In general, AI includes machine learning, neural networks, and natural language processing. Machine learning is one of the most rapidly growing areas of AI, it is used to design an algorithm or model via automated training with data. (It may sound a little bit alien here, haha! But in simple terms, AI learns from the data feed by human and then utilize different mathematic algorithms to solve a dedicated problem). Some of the examples of AI utilized in health care now are an imaging system that uses algorithms to provide diagnostic information for malignant melanoma or skin cancer in patients and A smart ECG device that estimates the probability of acute cardiac ischemia (ACI), a common form of heart attack.

One of the very common worries and I would say misperception of ours as a healthcare professional, is whether artificial intelligence and digital health solutions are going to replace us and eventually take our job? Undoubtedly, they are going to bring great impacts to our world in the soon future, however, we should first understand what AI does and think of the opportunities created by all these digital solutions, instead of blindly worrying the fourth industrial revolution would replace all of the jobs.[5] From my point of view as a dietitian working in the digital health industry, they have definitely helped me to function more efficiently and effectively. I am able to spend more time with my patients on things that really matter. Besides that, it also allows me to provide timely advice, guidance and more holistic care to my patients with all the data in place.

In short, come join us in the 25th Malaysian Dietitians' Conference to learn more about digital health in combating NCD!

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MDA PAST EVENTS

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1) Dinner Talk with Professor Dr. Daren Heyland

(15 Feb 2019 @ Le Meridien Kuala Lumpur)

MDA is honored to have invited Professor Dr. Daren Heyland from Canada to Malaysia to give us an update on the current controversies in critical care nutrition. Professor Dr. Daren Heyland is one of the pioneers in critical care nutrition. He maintains a website at **www.criticalcarenutrition.com** and regularly updates the Canadian Clinical Practice Guidelines (CCPG). The CCPG updates and summarizes the evidence in the field by conducting systematic review and meta-analysis of randomized controlled trials of various topics related to critical care nutrition. Besides, he actively conducts large-scale multicenter trials to generate new evidence in order to improve the nutrition care of critically ill patients. This dinner talk has attracted over 200 participants from all over Malaysia. Among them, about 150 are medical doctors! MDA thank all the participants for their attendance and Nestle Health Science for sponsoring the event.

2) East Malaysia Medical Nutrition Therapy & Nutrition Care Process for the Critically Il Patients Workshop

(23-24th March, 2019 @ Mercure Hotel, Kota Kinabalu)

For the first time, MDA has combined the experts from both the MNT critical illness team and the NCP team to conduct a workshop that marries both MNT (science) and NCP (art). About 60 dietitians from both the government and private hospitals/ institutions from Sabah, Sarawak and Labuan attended the workshop. The first day of the workshop started at 1.30pm and end at 9.30pm, with the delivery of lectures from Dr Tioh Beng Siong, a specialist anesthetist from Hospital Duchess of Kent Sandakan, the MNT team, and the NCP team. The second day starts at 8.00 am and end at 2.00pm, where the participants learn the skills to apply their knowledge into a case study. The workshop utilized Mentimeter for Q&A and Kahoot for group competition. It was a great learning experience for both the speakers and participants. MDA thank Nestle Health Science for supporting the event.

BOOK YOUR CALENDAR - MDA UPCOMING EVENTS

Malaysian Dietitians' Association 25th Pre-Conference

Theme	: Passion for Excellence IV
Date	: 22nd June 2019
Venue	: ParkRoyal, Kuala Lumpur
Time	: 2pm to 8.30pm

* Dinner is provided

Malaysian Dietitians' Association 25th Annual Conference

Theme	: Digital Dietetics to combat Non-Communicable Diseases
Date	: 23rd - 24th June 2019
Venue	: Hotel Istana, Kuala Lumpur

HAVE A LAUGH - DIET JOKES

1. Definition
a) Calories (noun): Tiny devious creatures that live in our closets, and make our clothes smaller and smaller every night.
b) Diet (noun): An odd process where, instead of watching what we eat – we watch what other people eat.

2. A professional dietitian was lecturing in front of a group of people who wanted to lose weight.
"The food we eat is so bad for us, that it will still hurt our health several years down the road," she said.
"Sugary drinks eat up the lining of our stomach, processed food is full of chemicals, meat is full of preservatives, and even our water is filled with germs. And I haven't even gotten to fatty foods yet! Do you know which type of dessert will give you the most troubles and suffering for many years after you've eaten it?"
The whole group fell silent, until an 80-year-old man sitting in the back stood up and said: "A wedding cake…"

3. Last week, I was driving through town and passed by a small bakery.
The cakes and cookies in the window seemed to summon me, and the smells from within didn't help my self-control.
I knew then and there that this is not a coincidence, but fate, so I prayed to the lord: "God, why do you tempt me so? If you truly want me to stop dieting, give me a sign and open up a parking space right in front of the bakery."
It appears that I was right, and my prayer came true – after driving in circles around the place, a parking spot opened up right in front!

4. The new dieter's 10 commandments:
i. If you eat something and no one saw it – it has no calories.
ii. When you eat with someone else, the calories don't count if they ate more.
iii. Tasting someone else's food doesn't count.
iv. If people around us gain weight, we automatically become thinner.
v. If your movie ticket comes with a free tub of popcorn, it doesn't count as food.
vi. Every food you split into smaller pieces will contain less calories.
vii. Tasting food while preparing it is essential, and therefore – healthy.
viii. Foods with similar colors contain the same amount of calories. This is why it's fine to eat pistachio ice cream instead of spinach.
ix. Chocolate has a dedicated area in the stomach, which is why you should have it with every meal.
x. Frozen foods, such as ice cream, contain no calories. The reason is that a calorie is a measurement of heat units.

Source:
Source: http://www.ba-bamail.com/content.aspx?emailid=17791 (Retrieved 1st April, 2019)

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