

Diet Link



OFFICIAL NEWSLETTER OF THE MALAYSIAN DIETITIANS' ASSOCIATION

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- 26th Malaysian Dietitian's Association Virtual Conference
Dietetics In Aging And Elderly: Improving Nutrition Care Outcome.
20-21st June 2021.



FROM THE
EDITORIAL
DESK



Lee Zheng Yii

This is the first Diet Link of the year 2021 and my third year to be the editor-in-chief for this newsletter. I have gained much new and valuable experiences in this journey. Besides planning, inviting potential authors, reviewing articles and communicating with the designer, I am also in charge of writing the Research Methodology Corner. In fact, this is my main driver to continue the Diet Link – sharing the knowledge of research methodology and promoting evidence-based practice among the dietitians in Malaysia. I am delighted to see that our own dietitians are doing more local and high-quality research. In this issue, we present 3 local studies that have published in established international journals. We also feature a young academic dietitian that just completed his post-doc and started to be a lecturer in a local university. I wrote an article about journal ranking and how we can use them to stay updated within our field. We also have 2 students contributed two nicely written articles. Last but not least, two healthy and delicious dietitian's recipes: Japchae (Stir-fried Korean Glass Noodles) and Avocado Chicken Wrap are there for you to try yourself or recommend to your patients. Again, I would like to encourage more dietitian to contribute your knowledge, experience or talent to this newsletter. We need your ideas and creativity!

WHAT'S NEW IN THE FIELD?

Effects of 12 weeks *Cosmos caudatus* supplementation among older adults with mild cognitive impairment: a randomized, double-blind and placebo-controlled trial

Background: Mild cognitive impairment (MCI) is an etiologically heterogeneous syndrome characterized by memory performance below the age norm and represents a transitional state between normal aging and dementia. Globally, efforts have been taken to explore neuroprotective effects of nutraceutical products among the aging population aiming for the prevention of cognitive impairment. A traditional vegetable, *Cosmos caudatus* (CC) or locally known as ulam raja (Kings of ulam) contains high flavonoids and antioxidants which might potentially reduce the oxidative stress and lipid peroxidation in neuronal membrane.

Research objective: To investigate the effects of 12 weeks of *Cosmos caudatus* supplement on cognitive function, mood status, blood biochemical profiles and biomarkers among older adults with MCI through a randomized, double-blind, placebo-controlled trial.

You Yee Xing, PhD

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continue...

Methodology: The subjects were randomized into CC supplement (n=24) and placebo group (n=24). Each of them consumed one capsule of CC supplement (250 mg of CC/capsule) or placebo (500 mg maltodextrin/capsule) twice daily for 12 weeks. The nutrient composition of CC supplement per 100g is shown in Table 1. Cognitive function and mood status were assessed at baseline, 6th week, and 12th week using validated neuropsychological tests such as Mini-mental State Examination, Digit Span, Digit Symbol, Visual Reproduction, Rey's Auditory Verbal Learning Test and Profile of Mood State. Blood biochemical profiles (fasting blood sugar, lipid profile, renal profile and liver function test) and biomarkers (Brain-derived neurotrophic factor, malondialdehyde, cyclooxygenase-2, inducible nitric oxide synthase, glutathione and superoxide dismutase) were measured at baseline and 12th week. The interaction effects were analyzed using a two-way repeated measure ANOVA that was adjusted for age, education years, body mass index, physical activity, energy intake, vitamin A and C.

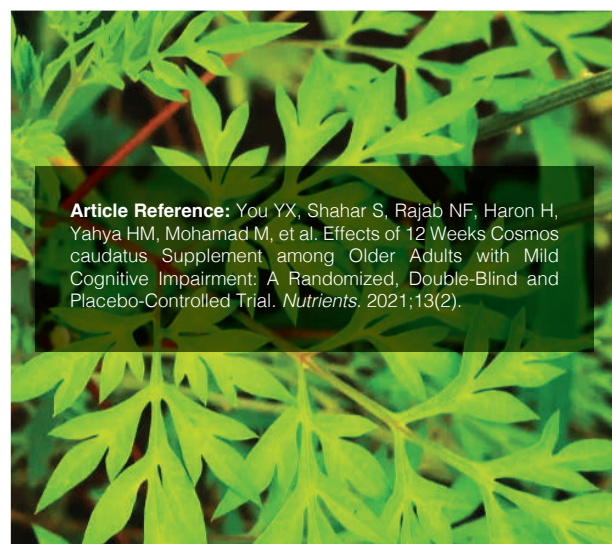
Results: A total of 48 subjects involved in this study with a mean age of 65.11 ± 4.05 years and the majority of them were women (66.7%) and Malay (60.4%). Based on their self-reported medical condition, 35.4%, 22.9% and 31.3% of them were diagnosed with hypertension, diabetes and hyperlipidemia, respectively. There were significant improvement in global cognitive function using the Mini-mental State Examination (partial $\eta^2=0.150$, $p=0.049$), significant reductions in tension (partial $\eta^2=0.191$, $p=0.018$), total mood disturbance (partial $\eta^2=0.171$, $p=0.028$) and malondialdehyde (partial $\eta^2=0.097$, $p=0.047$) following 12 weeks of CC supplementation. The CC supplement reportedly has no harmful effects based on the vital signs, liver function test and renal profile, and no serious adverse events were reported after 12 weeks.

Implication: This study could trigger health promotions of CC consumption (1 cup per day) that could lead to the population's healthier lifestyle, improved quality of life, a further reduced risk of contracting neurodegenerative diseases and lowering healthcare costs related to the disease burden.

Nutrients	<i>Cosmos caudatus</i> supplement (per 100g)
Energy (kcal)	284 ± 4
Carbohydrate (g)	47.35 ± 0.92
Protein (g)	20.30 ± 0.42
Fat (g)	1.40 ± 0.14
Ash content (g)	26.70 ± 1.27
Moisture content (g)	4.25 ± 0.49
Vitamin C (mg)	100.50 ± 2.12
Vitamin E (mg)	2.10 ± 0.42
Calcium (mg)	2255 ± 7.07
Iron (mg)	7.69 ± 0.16
Potassium (mg)	9610 ± 466.69
Sodium (mg)	71.60 ± 5.52
Zinc (mg)	2.77 ± 0.52
Total Dietary Fibre (g)	7.80 ± 2.97
Quercetin (%w/w)	0.9
Quercitrin (%w/w)	1.0

Table 1: Nutrient composition of *Cosmos caudatus* supplement per 100g (Source: You et al. 2021)

Conclusion: 12 weeks of *Cosmos caudatus* supplementation might potentially reduce lipid peroxidation using malondialdehyde biomarkers. It might also have the ability to improve global cognitive function using the neuropsychological test, reduce tension and total mood disturbance among older adults with MCI. The results must be considered preliminary until such effects can be studied in a longer clinical trial and larger sample size to elucidate the neuroprotective effects of CC supplement.



Article Reference: You YX, Shahar S, Rajab NF, Haron H, Yahya HM, Mohamad M, et al. Effects of 12 Weeks *Cosmos caudatus* Supplement among Older Adults with Mild Cognitive Impairment: A Randomized, Double-Blind and Placebo-Controlled Trial. *Nutrients*. 2021;13(2).

Nurul Iman Hafizah binti Adanan
Department of Dietetics, Faculty of Medicine and
Health Sciences, Universiti Putra Malaysia.

Investigating Physical and Nutritional Changes During Prolonged Intermittent Fasting in Haemodialysis Patients: A Prospective Cohort Study



Background: Ramadan fasting imposes lifestyle changes such as a shift in meal timing, reduced daytime activity and increased nocturnal activities due to night prayers¹. End-stage renal disease patients undergoing maintenance haemodialysis (HD) treatment are of concern to many health care practitioners as they are at higher risk for dehydration during long fasting hours and increased fluid intake at breaking of fast, leading to fluid overload and imbalance². Furthermore, prolonged fasting hours may lead to insufficient energy intake, causing loss in protein and energy reserves, including loss of fat and muscle³. Previous studies have noted heterogenous findings regarding dietary practices and health-related outcomes among fasting HD patients; however, none of these studies addressed dietary intake and practices for this pool of patients in relation to the changes in nutritional and physical outcomes during Ramadan.

Research objective: The main objective of this study is to evaluate the effects of intermittent fasting during Ramadan on nutritional and functional status among maintenance HD patients.

Methodology: This was a multi-centred prospective observational study with three timepoints of study assessments: pre-Ramadan (V_0), during Ramadan (V_1) and post-Ramadan (V_2). A total of 102 subjects who fit into the selection criteria were recruited into the study based on consecutive sampling. A comprehensive nutritional outcome involving anthropometry (body weight, height and body composition), biochemistry (albumin, renal profile, lipid profile, inflammatory marker and *n*PCR), clinical (blood pressure) and dietary parameters (3 days dietary recall) were assessed in the study. In addition, handgrip strength was evaluated to assess functional status changes during Ramadan via JAMAR handgrip dynamometer. In this study, analysis of subjects were further categorized based on number of fasting days of <20 days and ≥ 20 days. This cut-off points were selected as previous studies have shown that metabolic and physiological changes pertaining to fasting occurs after three weeks of fasting^{4,5}. Repeated measures analysis of variance was used to determine differences across all three timepoints.

Results: A total number of 87 subjects who completed all study assessments were included in the analysis in which 55.2% were male and mean \pm SD age was 54.3 \pm 2.2 years with dialysis vintage of 85 \pm 147 months. In this study, majority of the subjects (78.2%) were able to fast for more than 20 days. Among subjects fasted for ≥ 20 days, Ramadan fasting led to significant reductions in body mass index (V_0 : 26.0 \pm 4.2 vs V_1 : 25.8 \pm 4.1 vs V_2 : 25.9 \pm 4.2 kg/m²; $p=0.007$), interdialytic weight gain (V_0 : 2.6 \pm 0.9 vs V_1 : 2.2 \pm 0.8 vs V_2 : 2.5 \pm 1.0 kg; $p=0.001$), waist circumference (V_0 : 92.0 \pm 11.4 vs V_1 : 90.3 \pm 10.7 vs V_2 : 91.5 \pm 11.6 cm; $p<0.001$), mid-arm circumference (V_0 : 30.2 \pm 3.9 vs V_1 : 29.7 \pm 3.9 vs V_2 : 30.0 \pm 4.2 cm; $p=0.015$), fat tissue mass (V_0 : 23.2 \pm 8.4 vs V_1 : 22.2 \pm 8.8 vs V_2 : 23.1 \pm 8.3 kg; $p=0.045$), and body fat percentage (V_0 : 29.0 \pm 8.5 vs V_1 : 28.8 \pm 8.4 vs V_2 : 29.0 \pm 8.4 %; $p=0.007$), but these were not accompanied by any significant change in lean tissue mass ($p>0.05$) which may be indicative of increased fat oxidation and preservation of muscle mass during fasting. In addition, significant improvement was observed in serum phosphate levels (V_0 : 2.0 \pm 0.5 vs V_1 : 1.8 \pm 0.6 vs V_2 : 2.0 \pm 4.9 mmol/L; $p=0.004$), but serum albumin (V_0 : 43.7 \pm 2.7 vs V_1 : 41.1 \pm 2.3 vs V_2 : 42.7 \pm 2.5 mg/dL; $p<0.001$), urea (V_0 : 20.7 \pm 5.0 vs V_1 : 18.5 \pm 4.9 vs V_2 : 20.0 \pm 4.9 mmol/L; $p<0.001$), and creatinine (V_0 : 974.6 \pm 229.7 vs V_1 : 912.1 \pm 258.1 vs V_2 : 908.6 \pm 238.4 μ mol/L; $p=0.003$) were also reduced significantly during Ramadan. There were no significant changes in other biochemical markers. Dietary assessment revealed that total energy, macronutrients and micronutrients intake remained unchanged during Ramadan except for reduction in dietary phosphate (V_0 : 1070 \pm 914 vs V_1 : 548 \pm 202 vs V_2 : 608 \pm 239 mg; $p<0.001$) and increased in dietary potassium intake (V_0 : 880 \pm 317 vs V_1 : 1000 \pm 292 vs V_2 : 1055 \pm 440 mg; $p=0.002$) which could be attributed by the type of food and drink consumed during Ramadan. Additionally, functional status as measured by handgrip strength improved significantly during Ramadan and further improved after Ramadan (V_0 : 21.6 \pm 8.1 vs V_1 : 22.8 \pm 8.0 vs V_2 : 23.6 \pm 8.5 kg; $p<0.001$).

*remarks: V_0 = Pre-Ramadan assessment; V_1 =During Ramadan;
 V_2 =Post-Ramadan assessment

Implications for dietetics practice: While several studies have investigated the effects of Ramadan fasting in HD populations, this is the first Malaysian study that covers nutritional and functional status assessment for HD patients following Ramadan fasting. This study will be able to guide dietitians to identify nutritional issues that may arise for patients who plan to fast prior to Ramadan. Besides that, the findings of this study would give a better understanding of Ramadan fasting practices and its effects on health outcomes that may impact the nutritional management of HD patients.

Recommendation for future research: A more extensive research is needed to provide a broader perspective and understanding on the effects of Ramadan fasting across Muslim populations with different food culture and dietary practices. As Ramadan is typically celebrated with special and various cuisine, especially during the breaking of fast, it is recommended that future studies should consider dietary intake patterns to further describes the overall diet, food groups and nutrients consumed. In fact, there is growing evidence that linked dietary patterns with health outcomes rather than quantification of dietary intake alone.



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Article Reference: Adanan NIH, Md Ali MS, Lim JH, et al. Investigating Physical and Nutritional Changes During Prolonged Intermittent Fasting in Hemodialysis Patients: A Prospective Cohort Study. *J Ren Nutr*. 2020;30(2):e15-e26. doi:10.1053/j.jrn.2019.06.003

Dietary Factors and Sleep Quality Among Hemodialysis Patients in Malaysia



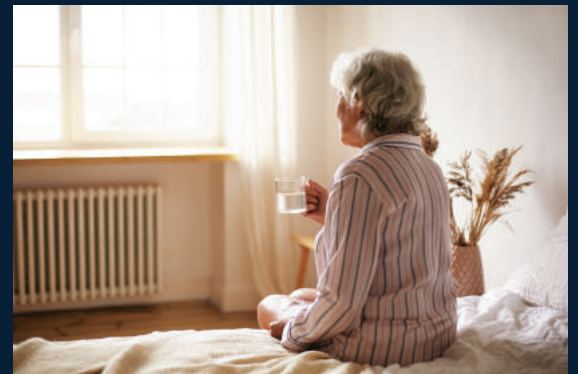
Background: Poor sleep quality is very commonly seen among hemodialysis (HD) patients, where one in two of them has suffered from poor sleeping.^{1,2} Various factors have been documented in affecting the sleep quality which include biological factors,¹ psychological factors,³ and malnutrition.⁴ Many observational studies suggested a relationship between sleep and dietary factors, however there is a paucity of data on dietary aspects and sleep quality among HD patients.

Research objective: This study aimed to investigate the association between dietary factors and sleep quality among HD patients.

Methodology: A cross-sectional study was conducted in four HD units including government hospital and private dialysis units in Sibul, Sarawak, Malaysia in 2017. A total of 184 patients aged more than 21 years old and undergoing regular HD treatment thrice weekly for ≥ 3 months were enrolled in this study. The co-primary outcomes of this study were sleep quality and dietary intake. Sleep quality was assessed by using Pittsburgh Sleep Quality Index (PSQI) and the patients were classified as good and poor sleepers

based on the PSQI scoring. A higher PSQI score also indicated poorer sleep quality. Dietary intake of the patients was obtained through 24-hour dietary recall for 3 days inclusive of a dialysis day, a non-dialysis day, and a weekend, as suggested by Kidney Disease Outcomes Quality Initiative (K/DOQI) Clinical Practice Guidelines for Nutrition in CKD: 2000 update.⁵ Dietary intake of the patients were then compared to K/DOQI⁵ and European Best Practice Guidelines on Nutrition⁶ guidelines to determine their dietary adequacy.

Main Findings: The average age of the patients was 54.3 ± 12.6 years, with 37% elderly (age ≥ 60) and 61% men. Two in three of them reported that they took longer time in falling asleep and had a sleep duration less than 7 hours per night. Events such as early waking in the middle of night, inability to breathe comfortably, coughing or snoring, feeling too hot or too cold, having bad dreams, body pain, itchiness, or leg muscle cramps were of the common sleep disturbances experienced by the patients.



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The important dietary markers in HD nutrition that were evaluated in this study including total energy, macronutrients (carbohydrate, protein, and fat), micronutrients (calcium, phosphate, potassium, and sodium), and fluid intakes. From independent sample t-test, poor sleepers had significant higher overall dietary protein intake (52.5 ± 14.4 vs 47.1 ± 13.5 g/day; $p = 0.010$), higher dietary protein intake based on dry weight (0.9 ± 0.3 vs 0.8 ± 0.3 g/kg/day; $p = 0.039$), and higher sodium intake (2099.3 ± 910.6 vs 1811.8 ± 859.8 mg/day; $p = 0.029$) than good sleepers. From correlation analysis, both higher dietary protein and sodium intakes were correlated with overall poorer sleep quality. In addition, higher dietary protein intake was also correlated with longer time in falling asleep (sleep latency) ($r = 0.200$, $p = 0.007$). Meanwhile, higher dietary sodium intake was correlated with decreased sleep efficiency ($r = 0.169$, $p = 0.022$). In multiple linear regression analysis, dietary sodium was one of the significant contributors towards poor sleep quality ($\beta = 0.001$, $p = 0.020$, data not published).

Implication/ Recommendation for practising dietitians based on study findings : More studies are needed to explore the relationship between diet and sleep among HD patients. The study findings also urge the practising dietitians to strengthen efforts in providing dietary interventions especially in protein and sodium intake managements. Although higher protein intake was found to be associated with poorer sleep, adequate protein intake is still crucial for HD patients in preventing malnutrition and adverse effects of malnutrition. Dietitians should advise HD patients to choose fresh protein sources instead of processed protein foods.

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Article Reference: Ho LL, Chan YM, Daud Z'M. Dietary Factors and Sleep Quality Among Hemodialysis Patients in Malaysia [published online ahead of print, 2021 Apr 7]. *J Ren Nutr.* 2021;S1051-2276(21)00063-7. doi:10.1053/j.jrn.2021.02.003

Japchae (Stir-fried Korean Glass Noodles)



Haslina Rameli
Food Service Dietitian,
Majlis Sukan Negara

No. of serving: 4		Total time (min): 30 • Preparation time (min): 10 • Cooking time (min): 20	
Ingredients	Measured quantity	Household measurement	Notes
Dongmyeon (Sweet potato starch noodle), dry	100g		
Carrot	65g	0.5 cup	Cut into julienne
Spinach	100g	2 cups	Cut to 5cm length
Shitake mushroom	100g	1 cup	Cut into slices
Onion	65g	0.5 cup	Cut into slices
Yellow capsicum	60g	0.5 cup	Cut into slices
Red capsicum	60g	0.5 cup	Cut into slices
Beef/chicken	120g		Cut into thin strips
Cooking oil	20 ml	3.5 tsp	
Egg	1 nos		Separate egg white and yolk
Salt		0.5 tsp	
Light soy sauce	50ml	3 tbsp	
Sugar	12g	1 tbsp	
Sesame oil	8ml	0.5	
Black pepper	3g	0.5 tsp	
Sesame seed	4g	1 tsp	



Unique Selling Point

Satisfy your foreign taste bud with this well-known Korean dish is savory and colorful, suitable for appetizer and also as main contains protein and vegetable in one dish. It is also vegan friendly, simply remove beef/chicken from the recipe and change to tofu/plant protein.



Preparation steps

1. Boil dongmyeon in boiling water until soft for around 10 minutes. Toss, use a scissor to cut the dong myeon shorter and set aside. Let the water drain.
2. Blanch carrot and spinach in boiling water for 5 and 3 minutes, respectively. Toss and set aside.
3. In a non-stick pan, sautee onion, mushroom and capsicum with cooking oil for around 5 minutes until the vegetables soft and season with salt. Set aside.
4. In the same pan, wipe some cooking oil using kitchen tissue paper and pour the egg white. Cook with low heat and turn over the egg. Take it out and set it aside. Do the same with egg yolk.
5. In the same pan, stir fry the beef/chicken strip until cooked and set aside.
6. For the sauce, combine soy sauce, sugar, sesame oil and black pepper in a bowl. Mix well.
7. In a large bowl, pour the sauce over dongmyeon and mix well until fully combined.
8. Add in the sautéed vegetables and beef to the dongmyeon and mix well.
9. Cut the cooked egg white and yolk into thin strips.
10. Serve the noodle and garnish with sesame seeds, egg white and yolk strip on top.

Nutrient Analysis (Per serving)

Calorie (kcal)*	335	Carbohydrate (g)^	34.1
Protein (g)^	10.9	Dietary fiber (g)^	1.6
Fat (g)^	11.2	Sodium (mg)~	968

References:

1. Energy & Nutrient Composition of Food, Singapore
2. USDA National Nutrient Database for Standard Reference

* No decimal point
^ One decimal point
~ No decimal point

Avocado Chicken Wrap

No. of serving: 1 nos	Total time (min):		
	1. Preparation time (min): 10minutes 2. Cooking time (min): 20 minutes		
Ingredients	Measured quantity	Household measurement	Notes
Chicken Breast Boneless, Skinless	50 gm		
Paprika Powder	2 gm		
Thyme	1 gm		
Oregano	1 gm		
Salt Fine	1 gm		
White Pepper Powder	1 gm		
Olive Oil	15 ml	1 tablespoon	
Avocado	20 gm	1tablespoon	Mashed
Lemon Juice	15ml	1tablespoon	
Lettuce Mesculin Mix Salad		1 cup	Coarsely chopped
Tomato Medium		1/2 cup	Julienned
Mozarella Cheese	50 gm	1/4 cup	Shredded
Tortilla Wrap Wholemeal	1 pcs		



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Unique Selling Point

Making a healthy and delicious meal for a diabetic patient shouldn't be complicated! Take a burrito size tortilla, layer it with avocado spread, lettuce, tomatoes, chicken, and mozzarella cheese, wrap it up, and it's ready to eat! It's perfect for diabetic patient as it is pack with vegetables, protein and adequately portion size for carbohydrate as it is wrapped with a wholemeal tortilla.

Nutrient Analysis (Per serving)

Calorie (kcal)*	486	Carbohydrate (g)^	32.7g
Protein (g)^	32.3	Dietary fiber (g)^	6.8g
Fat (g)^	24.2	Sodium (mg)~	1355

References for the above analysis:

1. Energy & Nutrient Composition of Food, Singapore
2. USDA National Nutrient Database for Standard Reference
3. Food label

* No decimal point
^ One decimal point
~ No decimal point

Preparation steps



1. Rinse and pat dry chicken breasts. Marinate the chicken breast with thyme, oregano, paprika, salt, pepper and olive oil on both sides. Leave the chicken marinated for about 1-2 hours. Roast the chicken in the oven at 160°C for about 15-20 minutes. The timing will depend on the size of the chicken.
2. Then, prepare the dressing by mixing the mashed avocado with the lemon juice.
3. Assemble the ingredients. Slice the cooked chicken, chop lettuce, tomatoes and grated mozzarella cheese.
4. Put a tortilla on a plate, spread with a tablespoon avocado dressing and then layer with about ½ cup chopped lettuce, ¼ cup tomatoes, few slices of grilled chicken, and top with 1/4 cup grated mozzarella.
5. Preheat a pan on medium-high heat (you don't need to grease it with oil).
6. Roll the wrap tightly and place the wraps with edges down to the pan and grill for a couple of minutes, until brown/golden colour, then flip and grill on the other side.





Life of a Young Academician



Khor Ban Hock, PhD
Senior Lecturer & Dietitian,
Faculty of Food Science & Nutrition,
Universiti Malaysia Sabah

1. Could you please tell us briefly about your background before becoming an academician?

- 2011-2012: Clinical Dietitian (Daily Paid), Hospital Selayang.
This was my first job after graduation. I was very grateful for this opportunity because I gained much clinical experience and learned a wide range of things at this job.
- 2013-2014: Head, Dietetic & Food Service Department, Hospital Kapit I was recruited by the Ministry of Health as permanent staff and was then appointed to Hospital Kapit. As the first and only dietitian in this hospital, I set up the Dietetic Department. Besides my routine clinical work, I had to oversee the food service and be involved in the hospital administrative work.
- 2015-2020: PhD. Candidate and Postdoctoral Researcher, UKM
I decided to resign from the Ministry of Health and was enrolled in the PhD program in UKM. As I received a scholarship for my postgraduate study, I had to work as a postdoctoral researcher for a year after finishing my PhD.

2. What motivated you to leave clinical and join academic?

To do research that has a beneficial impact on our local community.

3. What is your field of expertise?

Fatty acid metabolism and renal nutrition.



Oral presentation in Kidney Foundation, Bangladesh

4. Could you please tell us more about your research work?

My PhD study included evaluating the effects of dietary and circulating fatty acid profiles on clinical outcomes of patients undergoing maintenance hemodialysis and a randomized clinical trial investigating the effects of vitamin E supplementation in ~300 patients hemodialysis patients.

5. Tell us about your day-to-day routine as an academician?

I do not have a fixed routine. My works generally include delivering lectures, handling labs or practical sessions, supervising final year projects for undergraduate students, and attending "endless" meetings.

6. What are the challenges that you face as a young academician, and how do you overcome them?

My challenge would be balancing between teaching and research. I first thought that I would have much free time since I only have to teach about 6 hours a week (comparing spending 6 to 7 hours a day seeing patients at a clinical position). However, I underestimated the preparation time needed for a lecture and a lab or practical session as well as out-of-class activities such as preparing exam questions, marking assignments and exams, and doing all the paperwork. This has left me with little time for writing manuscripts or proposal for research grants that are important for the academic career ladder. I am trying to manage my time more effectively now. Hopefully, I would allocate more time for activities that could help achieve my career goal.



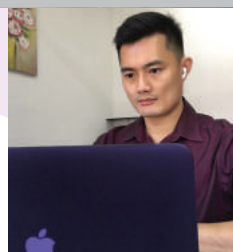
Clinical Dietitian in Hospital Selayang

7. What is your advice to dietitians who would like to become an academician?

I think it is important to know your strengths and interests and get a position in an institution that fits your professional objectives. Make sure your postgraduate experience has prepared you sufficiently to deliver the expectations of the position.

8. Any final comments?

I would like to quote a statement by Steve Jobs, which goes, "You cant's connect the dots looking forward; you can only connect them looking backwards. So you have to trust that the dots will somehow connect in your future". I strongly believe that my previous experience in clinical, research, food service, or administration has made me a better academician, although I did not know that it would eventually lead me to who I am today. So, be sincere in everything you do now because you will definitely find that it worthwhile in the future.



Giving online lecture from home.



Postgraduate students and research assistants that were working together during my PhD.

Use of Journal Ranking to Stay Up-To-Date with the Latest Nutrition Research

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As a dietitian, it is very important for us to stay up-to-date to the most current research, especially in our own field. For example, if you are a renal dietitian, you should at least stay updated to the research in the renal nutrition field. If you are a dietitian that deals with cancer patients, you should know the latest research in oncology nutrition. This will ensure that we give the best available care to our patients.

One of the very important resources that we can refer to is the Incites Journal Citation Reports (JCR) generated by the Clarivate Analytics Web of Science (WoS) database. The JCR was originally produced by the Institute for Scientific Information (ISI), founded by Eugene Garfield.

Since year 1975, journals listed under the JCR are given a score known as the impact factor. According to Clarivate, "Journal Impact Factor is defined as all citations to the journal in the current JCR year to items published in the previous two years, divided by the total number of scholarly items (these comprise articles, reviews, and proceedings papers) published in the journal in the previous two years. Though not a strict mathematical average, the Journal Impact Factor provides a functional approximation of the mean citation rate per citable item. A Journal Impact Factor of 1.0 means that, on average, the articles published one or two years ago have been cited one time. A Journal Impact Factor of 2.5 means that, on average, the articles published one or two years ago have been cited two and a half times. The citing works may be articles published in the same journal. However, most citing works are from different journals, proceedings, or books indexed in Web of Science Core Collection.¹

For example, one of the top journal in nutrition field is the American Journal of Clinical Nutrition, the 2019 impact factor is 6.766. The calculation is shown in the figure below:

$$\text{JIF} = \frac{\text{Citations in 2019 to items published in 2017 (2,628) + 2018 (1,066)}}{\text{Number of citable items in 2017 (321) + 2018 (225)}} = \frac{3,694}{546}$$

Figure 1: Calculation of Journal Impact Factor (JIF)

Although there are many limitations, the impact factor is a gauge of a journal quality. This is because leading experts in a field tend to publish their important work in high impact journals. However, we must be cautious that not all papers published in high impact journals are of high quality.

Currently, JCR indexed a total of 236 categories of journals in different subject fields. One of the categories is 'Nutrition and Dietetics', which consist of 89 journals. This category was started in year 2003.

All journals are ranked according to their calculated impact factor. The top 25% (first quartile) journals in the category are known as Q1 journals. This is followed by the Q2, Q3 and Q4, according to the quartile that a journal's impact factor fall into (Table 1).

It is not easy for a journal to be indexed in the WoS database. The link below is the WoS journal evaluation process and selection criteria.² Hence, journals indexed in WoS are usually of higher quality.



Besides the JCR impact factor by Clarivate's WoS, another company (Elsevier) also indexed journals in their database (Scopus) and calculated the CiteScore of a journal.³ They also calculate SNIP (Source Normalized Impact per Paper)⁴ and SJR (SCImago Journal Rank)⁵, which are field-normalized metric that allow comparison of journal between subject fields. Scopus indexed more journals than WoS, including some lower-quality journals. Hence, a journal indexed Scopus only but not WoS is usually a newer or lower-quality journal.

Table 1 list the ranking of all 'Nutrition and Dietetics' journals impact factor in the year 2019 from the JCR. Note that the impact factor changes every year, but usually, the numbers do not change drastically.

I subscribe to the table of content email alert of most of the top journals in this list (related to my field) to stay up-to-date with the latest studies. Besides the Nutrition and Dietetics category, I will also recommend you to be aware of the top journals of your respective field. For example, I also subscribe to the email alerts of journals under 'Critical Care Medicine' category as I am involved in critical care nutrition research. If your expertise is diabetes, you may also subscribe to the top journals in the category of 'Endocrinology & Metabolism'. If your expertise is oncology nutrition, you may subscribe to the top journals in the category 'Oncology'.

Table 1: 2019 InCites Journal Citation Report for 'Nutrition and Dietetics'

Rank	Full Journal Title	Journal Impact Factor	Quartile
1	Progress in Lipid Research	15.083	1
2	Annual Review of Nutrition	10.897	
3	Critical Reviews in Food Science And Nutrition	7.862	
4	Nutrition Research Reviews	7.641	
5	Advances in Nutrition	7.265	
6	American Journal of Clinical Nutrition	6.766	
7	International Journal of Behavioral Nutrition And Physical Activity	6.714	
8	Nutrition Reviews	6.500	
9	Clinical Nutrition	6.360	
10	Food Chemistry	6.306	
11	Proceedings of The Nutrition Society	5.577	
12	Hepatobiliary Surgery and Nutrition	5.296	
13	Current Obesity Reports	5.259	
14	Journal of The International Society Of Sports Nutrition	5.068	
15	Journal of Nutritional Biochemistry	4.873	
16	European Journal of Nutrition	4.664	
17	Nutrients	4.546	
18	International Journal of Obesity	4.419	
19	Nutrition & Diabetes	4.357	
20	Journal of Nutrition	4.281	
21	Genes and Nutrition	4.258	
22	Food Policy	4.189	
23	Journal of The Academy of Nutrition and Dietetics	4.151	
24	Food Reviews International	4.113	
25	Nutritional Neuroscience	4.028	
26	International Journal of Sport Nutrition and Exercise Metabolism	3.884	
27	Current Opinion in Clinical Nutrition and Metabolic Care	3.775	
28	Obesity	3.742	
29	Journal of Functional Foods	3.701	
30	Nutrition Metabolism and Cardiovascular Diseases	3.700	
31	International Journal of Eating Disorders	3.668	
32	Food & Nutrition Research	3.647	
33	Nutrition	3.639	
34	Appetite	3.608	
35	Obesity Facts	3.514	
36	International Journal of Food Sciences And Nutrition	3.483	
37	Beneficial Microbes	3.370	
38	Frontiers in Nutrition	3.365	
39	Nutrition Journal	3.359	
40	British Journal of Nutrition	3.334	
41	European Journal of Clinical Nutrition	3.291	
42	Nutrition & Metabolism	3.211	
43	Public Health Nutrition	3.182	
44	Journal of Human Nutrition and Dietetics	3.146	
45	Journal of Pediatric Gastroenterology And Nutrition	2.937	
46	Journal of Renal Nutrition	2.929	
47	Lipids In Health And Disease	2.906	
48	Plant Foods for Human Nutrition	2.901	
49	Journal of Parenteral And Enteral Nutrition	2.853	
50	Annals of Nutrition And Metabolism	2.848	
51	Journal of Eating Disorders	2.828	
52	Journal of Nutrition Health & Aging	2.791	
53	Maternal and Child Nutrition	2.789	
54	Nutrition Research	2.767	
55	Nutrition in Clinical Practice	2.573	
56	Applied Physiology Nutrition and Metabolism	2.522	
57	Journal of Nutrition Education and Behavior	2.502	
58	Food Science and Human Wellness	2.455	
59	Journal of Clinical Biochemistry and Nutrition	2.405	
60	Nutrition and Cancer-An International Journal	2.363	
61	Journal of The American College Of Nutrition	2.297	
62	Journal of Nutrigenetics And Nutrigenomics	2.125	
63	Obesity Research & Clinical Practice	2.062	
64	European Journal of Lipid Science And Technology	2.056	
65	Journal of Medicinal Food	1.981	
66	Lipids	1.919	
67	Bioscience of Microbiota Food And Health	1.906	
68	Nutrition Research and Practice	1.792	
69	Nutrition & Dietetics	1.742	
70	Lifestyle Genomics	1.500	
71	Food and Nutrition Bulletin	1.485	
72	Journal of Nutritional Science And Vitaminiology	1.424	
73	Asia Pacific Journal of Clinical Nutrition	1.236	
74	Endocrinologia Diabetes Y Nutricion	1.180	
75	Ecology of Food And Nutrition	1.066	
76	Food and Drug Law Journal	0.905	
77	Nutricion Hospitalaria	0.888	
78	Canadian Journal of Dietetic Practice and Research	0.821	
79	International Journal For Vitamin and Nutrition Research	0.765	
80	Archivos Latinoamericanos De Nutricion	0.759	
81	Ermahrungs Umschau	0.742	
82	Current Topics in Nutraceutical Research	0.564	
83	Acta Alimentaria	0.458	
84	Revista De Nutricao-Brazilian Journal Of Nutrition	0.387	
85	Topics In Clinical Nutrition	0.350	
86	Progress in Nutrition	0.344	
87	World Review of Nutrition And Dietetics	0.300	
88	Nutrition Clinique Et Metabolisme	0.274	
89	Correspondances En Metabolismes Hormones Diabetes Et Nutrition	0.018	
			2
			3
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Reference:

1. Journal Impact Factor <http://help.incites.clarivate.com/incitesLiveJCR/glossaryAZgroup/g8/4346-TRS.html>
2. Web of Science Journal Evaluation Process and Selection Criteria <https://clarivate.com/webofsciencegroup/journal-evaluation-process-and-selection-criteria/>
3. What is CiteScore? https://service.elsevier.com/app/answers/detail/a_id/14880/supporthub/scopus/
4. How is SNIP (Source Normalized Impact per Paper) used in Scopus? https://service.elsevier.com/app/answers/detail/a_id/14884/supporthub/scopus/related/1/
5. How is SJR (SCImago Journal Rank) used in Scopus? https://service.elsevier.com/app/answers/detail/a_id/14883/supporthub/scopus/

*Note: All references are retrieved on 30th May 2021



Picky Eaters



Is mealtime always create a big headache for you as a parent, especially when your kid refuses to eat other food except for the fried chicken? Is the picking eating behaviour making you feel like surrendering and leave your kids to behave in such a way? I feel you but let's face it!

A study has shown that picky eaters had significant detrimental impacts on growth, nutritional status, development, physical activity, and health status.¹ Picky eating has been referring to the food consumption that is lacking in variety and quantity from the rejection of a significant amount of familiar or even novel foods.² Therefore, finding ways to stop the mealtime battles are crucial. Parents should not neglect the kids' picky eating behaviour, which may lead to unfavourable outcomes. Now, here are some of the tips you may try to whittle down picky eating habits before raising your hands high and give up:

(1) Be a role model

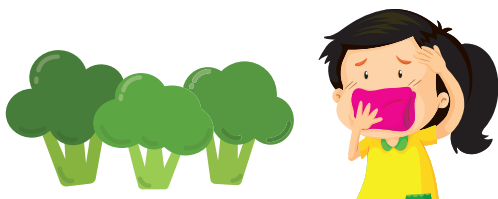
Most kids always love to mimic the closest persons' behaviour around them. At this time, parents are the first role models for the kids to develop healthy eating habits. In other words, parents who eat various food are more likely to have kids imitate the same positive behaviour. Conversely, for parents who demonstrate reluctance towards certain food types, the kids will also follow the lead.³ Hence, start being the very first role model to your kids today!

(2) Offer some choice

Allowing your kids to make food choices can increase the tendency to accept the less favourable food items.⁴ Parents may also increase the availability of healthier foods at home.⁵ When your kids are allowed to make choices from all sorts of items, the curiosity will drive them to try new-looking food or give a second chance to the less favoured food.

(3) Repeat, repeat and repeat

Some kids may not accept the afro-looking broccoli for the first time. However, parents should always introduce new food items repeatedly before concluding that they are a picky eater. A study has shown that some kids may accept the new food items when the rejected foods are presented for tasting at least six times or more.⁶ So, don't be demoralized if your kids turn their head away for the first few times. They may end up loving the food items with repeating exposure.



(4) Participating in meal preparation

The COVID-19 pandemic has lessened outdoor activity due to the movement control order (MCO), bringing family members closer. Try to get your kids involved in simple meal preparation such as washing the raw fruits and vegetables, cutting soft foods that do not require a sharp knife, or even developing your own version of a healthy sandwich. The study showed that kids involved in-home meal preparation have a higher intake of fruits and vegetables.⁷ It is also a great bonding time between you and your dearest kids.

(5) Food is not a reward or punishment

Food is precious, and there is no good or bad food. Bear in mind that foods should not be used as a reward or force act to kids. The emotion attached to the food items will indirectly reinforce the kids' food preference. For instance, offering confectioneries as a reward to kids will cause them to recognize it as "favourite food".⁸ On the other hand, forcing the kids to take fruits and vegetables, the unpleasant emotion will cause them to refuse the same food again in the future.⁹

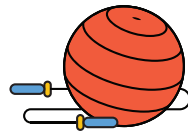
Dealing with a picky eater kid is not an easy task. Starting new strategies on kids may also cause more cry time initially, leading to frustration during parenting. BUT do not give up! As time goes by, you will be surprised by the result.

Jess Tan Ying Chien,
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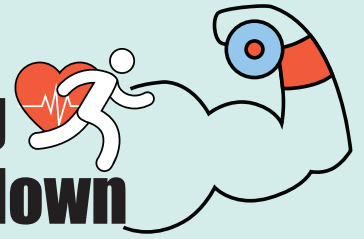


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Physical Activity during Covid-19 Induced Lockdown



It has been more than a year since the Covid-19 pandemic hit us all. To date, there are more than 160 million cases with more than 3.3 million deaths reported worldwide ¹. Malaysia is not spared either as our cases continue to rise. Isolation of confirmed diagnosed cases combined with social distancing, self-isolation, and community lock-downs has been implemented to flatten the rate since March 2020 has severely impacted the quality of life of people. The imposed lock-down resulting in the closure of business activities, schools, public places, fitness and activity centers, and overall social life has hampered many aspects of the lives of people including routine fitness activities of fitness freaks, which resulted in various psychological issues such as depression and anxiety and serious fitness and health concerns ².

Decreased physical activity of all exercise intensities and increased daily sitting time, as well as unhealthy pattern of food consumption, has become a norm. The physical activity status among Malaysian abated from 74.9% (which involved 3 or more days of regular exercise) ³ prior to the pandemic to 42.3% (which involved regularly exercising 3 to 7 days) ⁴ during lock-down. This could be due to longer working hours requires sitting, home schooling kids, loss of income, travel restriction, and self-isolation. Prior to pandemic, families were able to travel and play in the group in public parks during weekdays and weekends. School children were able to play during recess and sports lesson. People could also commute to work using public transport, walk outdoors, and meet their friends at coffee stalls.

Physical activities and exercise maintain physical and psychological health and help our body respond to the negative consequences of several diseases such as diabetes, hypertension, cardiovascular disease, and respiratory disease. Regular physical activities increase life expectancy and keep other physical function (i.e., respiratory, circulatory, muscular, nervous and skeletal systems) intact and support other systems (i.e., endocrine, digestive, immune or renal system) that are important in fighting any known or unknown threat to our body ⁵.

World Health Organization (WHO) physical activity recommendation ⁶:

- Adults and elderly performing 150 min of moderate or 75 min of vigorous-intensity exercise per week.
- Training volume could be reduced by 40% for children and adolescents.



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Tips for children and adolescents (20 min or more per session):

- Play around the home (i.e., jumping rope)
- Video games with motion sensor (i.e., Oculus, PlayStation)
- Games that require standing or walking (i.e., Nintendo Labo, Cyber Coach)
- Making up with clays
- Swimming in pooling bath



Tips for adults and the elderly:

- Morning and evening walk around the house (10 min per session)
- Gardening (i.e., raking the lawn, trimming shrubs, planting trees)
- Cleaning house (i.e., mopping, laundry, scrubbing the floor or bathtub)
- Dancing with music (more than 30 min per session)
- Online Yoga and Zumba (more than 30 min per session)
- Breaking up prolonged sitting with short active breaks
- Stationary bikes (i.e., Treadmills) (more than 30 min per session)
- Balance and flexibility (i.e., taking stairs, swiss ball) 10 – 20 min, the compromised balance should hold on the rails
- Muscle-strengthening exercise (30 min per session)
- Plank
- Squats
- Knee-to-elbow
- Sit up and push up
- Working with resistance band
- Lift weights (i.e., dumbbells)



Novice exercisers should start with shorter bouts (5-10 minutes, 2-3 times per week) with low intensity increasing gradually on volume and intensity. Starting with shorter bouts and building up activity time gradually might be more accessible for currently inactive people. To limit adverse events, no physical activity should be performed during acute infection (COVID-19) and in case of absolute contraindications⁷.

In conclusion, physical activity and exercise are important preventive strategy during the pandemic as they have positive impacts on physical and immune function. In short, physical activity has the potential to ward off detrimental cardiometabolic effects on inactivity.

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7. Fuzeki E, Groneberg DA, Banzer W. Physical activity during COVID-19 induced lockdown: Recommendations. *J Occup Med Toxicol.* 2020;15(1):1-5.



BOOK YOUR CALENDAR - MDA UPCOMING EVENTS

1 26th Malaysian Dietitian's Association Virtual Conference

Theme : Dietetics In Aging And Elderly: Improving Nutrition Care Outcome.

Date : 20 - 21st June, 2021

Venue : Virtual

Registration: <https://conference.dietitians.org.my/>

2 The Food & Nutrition Conference & Expo <https://eatrightfnc.org/>

The above events may be subject to change. Kindly refer to the latest news shared by email from the **Malaysian Dietitians' Association**. If you have any inquiries on the events, please email to the secretariat (admin@dietitians.org.my)

HAVE A LAUGH
- DIET JOKES



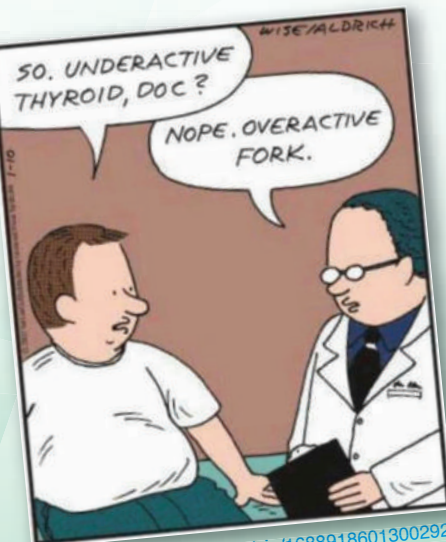
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