COMPARING THE ANTROPOMETRIC DATA AND DIET QUALITY AMONG INTERMITTENT FASTING PRACTITIONERS(IFPs) VERSUS NON-INTERMITTENT FASTING PRACTITIONERS (non-IFPs) IN TERENGGANU

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INTRODUCTION

Intermittent fasting was an effective strategy in promising health outcomes in anthropometric parameters and its dietary impact among IF practitioners. Considering the increase trend of IF practising among adult population, this could be an alternative way or strategy to reduce calories intake, body mass, and other health benefit. (*Liu et al., 2020; Ramadas et al., 2021)*

Systematic review in 2018, found *IF* to be a more effective treatment for weight loss using the IF method(*Ismail et al., 2018)*

METHODOLOGY

This study conducted based on online survey

Anthropometry Assessment

measurement using suitable home equipment with guidance was given via google form

Diet quality

Food frequency questionnaire (FFQ) for diet quality was assisted via phone call and scoring was based on Malaysian Healthy Eating Index (M-HEI).

Sampling method: Convenience sampling

Statistical analysis: Descriptive, Independent T-test and Pearson Chi Square or Fischer exact test(if assumption not met)

RESULT AND DISCUSSION

Characteristics	Mean ± Standard Deviation / n (%) Total n=130	IFPs n=92	Non-IFPs n=38
Anthropometry assessment			
Height(cm)	162.3±9.4	160.2±7.5	167.3±11.7
Weight(kg)	61.3±15.6	60.1±13.6	64.3±19.6
Waist circumference(WC)	77.6±13.4	76.8±13.1	79.5±14.3
Normal	96(73.9)	67(72.8)	29(76.3)
Abdominal obesity (Men > 90 cm; Women > 80 cm)	34(26.2)	25(26.3)	9(23.7)
Waist-to hip ratio(WHR)	0.84±0.13	0.82±0.14	0.9±0.1
Normal	60(46.2)	42(45.7)	20(53.6)
At risk men>0.9 and Women 0.8	65(52.4)	50(54.4)	18(47.4)
Body mass index(BMI)	23.0±5.3	23.6±5.1	22.0±4.5
Underweight	20(15.3)	13(14.1)	7(18.4)
normal	51(38.9)	34(37.0)	17(44.7)
overweight	23(17.6)	16(17.4)	7(18.4)
Obese class I	27(20.6)	23(25.0)	4(10.5)
Obese class II	9(6.9)	6(6.5)	3(7.9)
Diet Quality			
M-HEI score	42.8±0.4	42.8±0.4	42.9±0.4
Need Improvement	23(16.2)	15(16.3)	6(15.8)
Poor Quality	109(83.8)	77(83.7)	32(84.2)

- Non-IFPs group had a higher mean of body weight, body mass index, waist circumference, waist hip ratio compared to IFPs group
- Body weight shown higher mean in non-IFPs group than IFPs group.
- Non-IFPs have shown higher percentage of normal waist circumference and waist to hip ratio than IFPs

There was no significant mean difference on anthropometric assessment between IFPs and Non-IFPs group

Study done	IF outcome
Rahimi et al; 2017	no statistically significant change in body weight
Arabi et al.2016, 2015,	no significant change in BMI values.
Enríquez Guerrero et al., 2021	Meta analysis review, 13 articles showed no significant differences in terms of weight loss and waist circumference.

Means Standard Deviation / n (%) total

Components	Score range	Total(n=130)	IFPs (n=92)	Non IFPs (n=38)	*P value
Total grains	0-10	1.4±0.9	1.4±0.8	1.3±1.1	0.748
Whole grains	0-10	1.6±1.3	1.5±1.3	1.6±1.3	0.720
Fruits	0-10	2.7±2.4	2.8±2.5	2.5±2.3	0.517
Vegetables	0-10	3.3±2.4	3.4±2.5	3.0±2.3	0.381
Fish	0-10	5.8±3.4	5.5±3.4	6.4±3.4	0.187
Meat, poultry and eggs(MPE)	0-10	5.4±2.9	5.6±2.8	5.0±3.05	0.309
Legume and nuts	0-10	3.7±3.2	3.8±3.2	3.6±3.2	0.726
Milk and milk products	0-10	2.6±2.5	2.6±2.5	2.7±2.6	0.802
Total Fat	0-10	3.1±1.2	3.0±2.4	3.3±2.3	0.443
Added sugar	0-10	7.0±2.5	7.0±2.6	7.1±2.5	0.704
Sodium	0-10	3.1±4.6	3.0±4.6	3.2±4.7	0.879
M(hei)score	0-100	2.8±0.4	2.8±0.4	2.8±0.4	0.943
Total calories intake(T.kcal)		2521.3±1097	2470.1±1059.4	2645.5±1188.9	0.409

- The M-Hei score interpreted as poor quality for both groups with mean value 42.8±0.4. As for calorie intake the IFPs group consume less than non-IFPs
- IFPs group's diet quality was not improved depend on calorie distribution, the quantity and quality of food consumed during the fasting period especially when breaking the fast(Rogers et al., 2016)

- IFPs group failed to stick to a high-quality diet due to behavioural factors such as appetite, eating, and food reward, which influence meal selection during the fasting period. (Cameron et al., 2014)
- Adhere to the IF diet if they eat more flavourful meals, which are likely to be more energy rich and thus picked in fewer portions on fasting days(Rogers & Brunstrom, 2016)

CONCLUSION

No significant difference in anthropometric measurements and diet quality was observed between both groups. Furthermore, this study also highlight that importance of choosing a good quality diet during IF would improves anthropometric results and may also improve cardio metabolic variables and act as the most important tool when comparing with non-IFPs group.

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