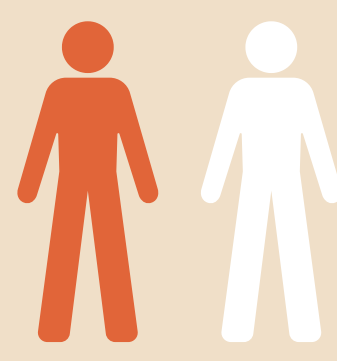



1 INTRODUCTION



1 in 2

adults in Malaysia is **OVERWEIGHT** or **OBESE**



Thus, weight management is crucial

Nowadays, there are many new dietary practices for weight loss concentrate on consuming various amounts and types of **PROTEIN** , but it is still **UNCLEAR HOW WELL THEY WORK** to reduce weight and lower BMI.

2 RESEARCH OBJECTIVES


GENERAL OBJECTIVE

- To assess the protein intake patterns and its association with BMI status among undergraduate health science students in USMKK


SPECIFIC OBJECTIVE

- To determine the protein intake patterns of undergraduate health sciences students in Kelantan.
- To determine the animal:plant protein ratio of the type of protein intake of undergraduate health science students in Kelantan.
- To determine the BMI status of undergraduate students in Kelantan.
- To determine any significant association between the protein intake (amount and animal:plant ratio) with BMI status of undergraduate health science students in Kelantan.


3 METHODOLOGY




- Cross-Sectional Study
- Simple Random Sampling



Universiti Sains Malaysia
Kampus Kesihatan, Kelantan



- 79 Subjects Involved
- Year 1 - 4 Undergraduate Health Science Students of USMKK



- Medical Student of USMKK
- Postgraduate Student
- Having Eating Disorder

RESEARCH TOOLS

- Part A: Socio-demographic Data
 - Gender
 - Race
 - Course of Study
 - Year of Study
- Part B: Anthropometric Data
 - Height
 - Weight
- Part C: Food Frequency Questionnaire
 - Adapted from FFQ in Malaysia Adults Nutritional Survey (MANS) 2014 conducted by Ministry of Health Malaysia (KKM)
 - Meat & Meat Products
 - Fish & Seafood
 - Legumes & Legumes Products
 - Eggs
 - Milk & Milk Products
 - Milk Substitutes
 - Cereals & Cereal Products

4 DATA ANALYSIS

DATA ANALYSIS

- Software Used
 - Microsoft Excel
 - Nutritionist Pro
 - SPSS Version 26
- Variables
 - Independent Variable
 - Amount of Protein Intake (g/kg)
 - Low : <0.8g/kg
 - Normal : 0.8 - 1.4g/kg
 - High: >1.4g/kg
 - Animal:Plant Protein Intake Ratio
 - Low : <1.0
 - High : >1.0
 - Dependent Variable
 - Body Mass Index (BMI) Status
 - Underweight : <18.5 kg/m2
 - Normal : 18.5 - 24.9 kg/m2
 - Overweight : 25.0 - 29.9 kg/m2
 - Obesity : >30.0 kg/m2
- Descriptive Statistics
 - BMI Status
 - Amount of Protein Intake
 - Animal:Plant Protein Intake Ratio
- Analytical Statistics (Fisher's Exact Test)
 - Amount of Protein Intake v.s. BMI Status
 - Animal:Plant Protein Intake Ratio v.s. BMI Status

4 STUDY FLOWCHART

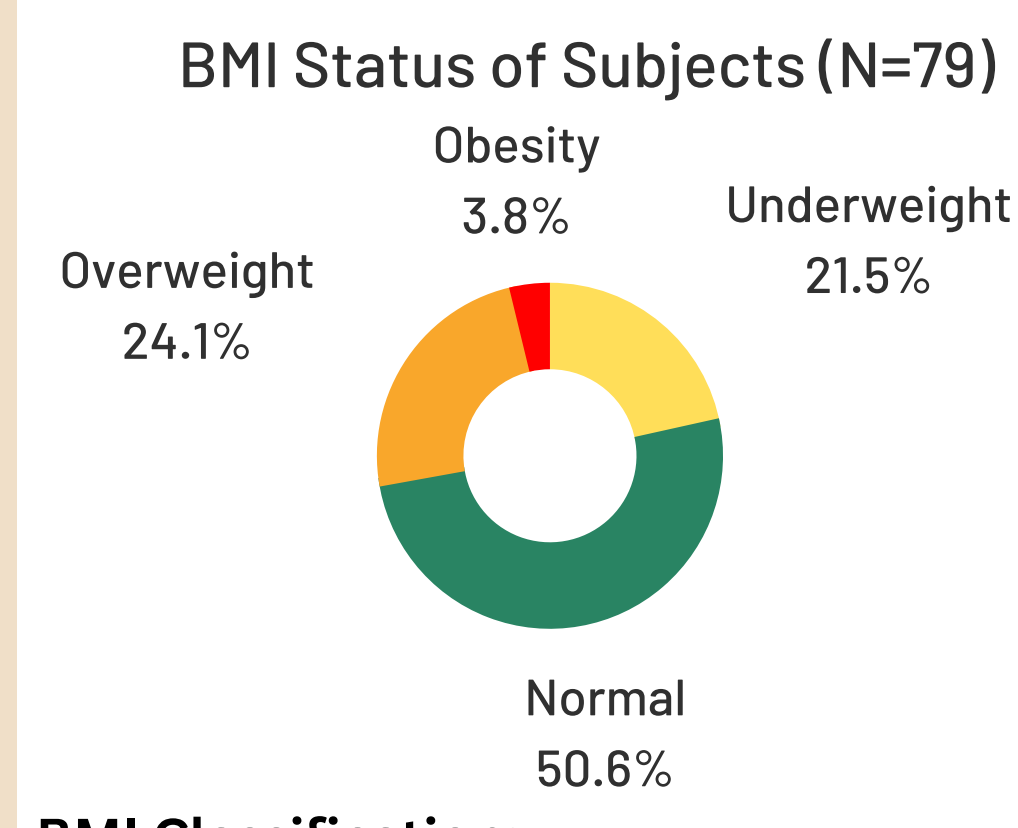
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graph TD; A[Research Proposal] --> B[Presentation of Proposal]; B --> C[Ethical Approval]; C --> D[Data Collection]; D --> E[Briefing and Obtain Consent From Subjects]; E --> F[Consent Obtained]; E --> G[Consent Not Obtained]; F --> H[Give Questionnaire]; H --> I[Complete Data Collection]; I --> J[Data Analysis]; J --> K[Thesis Writing]; G --> L[Excluded From Study];
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5 RESULTS & DISCUSSION

Descriptive Statistics

A. BMI Status of Subjects

BMI Status of Subjects (N=79)

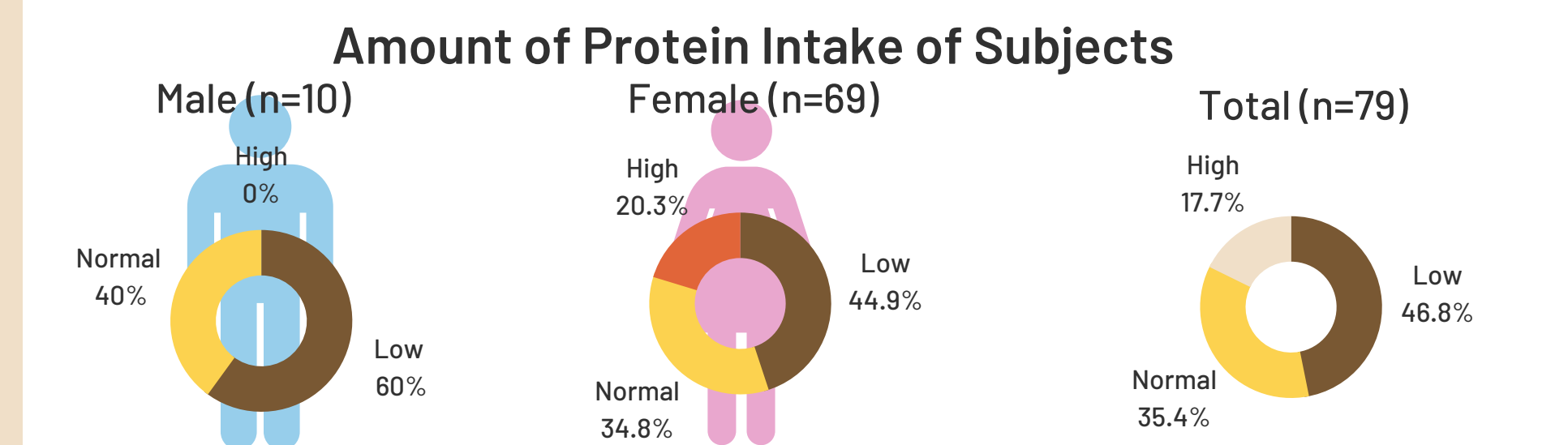


BMI Status	Percentage
Overweight	24.1%
Underweight	21.5%
Normal	50.6%
Obesity	3.8%

BMI Classification:
<18.5 kg/m² : Underweight
18.5 - 24.9 kg/m² : Normal
25.0 - 29.9 kg/m² : Overweight
>30.0 kg/m² : Obesity

B. Amount of Protein Intake

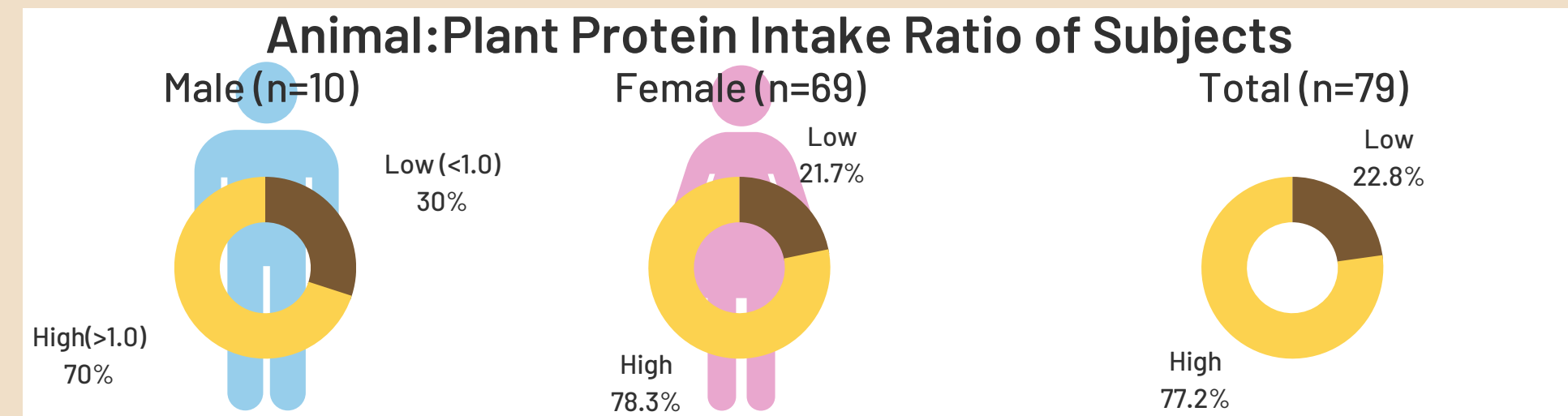
Amount of Protein Intake of Subjects



Gender	High (%)	Normal (%)	Low (%)
Male (n=10)	0%	40%	60%
Female (n=69)	20.3%	34.8%	44.9%
Total (n=79)	17.7%	35.4%	46.8%

C. Animal : Plant Protein Intake Ratio

Animal:Plant Protein Intake Ratio of Subjects



Gender	High (%)	Low (%)
Male (n=10)	70%	30%
Female (n=69)	78.3%	21.7%
Total (n=79)	77.2%	22.8%

Inferential Statistics

D. Association Between Amount of Protein Intake & BMI Status

Variable	Association Between Amount of Protein Intake & BMI			X ²	p-value
	Amount of Protein Intake (%)				
	Low	Normal	High		
BMI Status				7.260	0.257
Underweight	5 (29.41)	9 (52.94)	3 (17.65)		
Normal	18 (45.00)	12 (30.00)	10 (25.00)		
Overweight	12 (63.16)	6 (31.58)	1 (5.26)		
Obesity	2 (66.67)	1 (33.33)	0 (0)		

*Tested Using Fisher's Exact Test

- There is **NO** significant association between amount of protein intake and BMI among undergraduate health science students in USMKK (p>0.05)

E. Association Between Animal : Plant Protein Intake Ratio& BMI Status

Variable	Association Between Animal:Plant Protein Intake Ratio & BMI		X ²	p-value
	Ratio of Animal:Plant Protein Intake (%)			
	Low	High		
BMI Status			7.601	0.055
Underweight	7 (41.18)	10 (58.82)		
Normal	10 (25.00)	30 (75.00)		
Overweight	1 (5.26)	18 (94.74)		
Obesity	0 (0.00)	3 (100.00)		

*Tested Using Fisher's Exact Test

- There is **NO** significant association between Animal:Plant Protein Intake Ratio and BMI among undergraduate health science students in USMKK (p>0.05)

6 CONCLUSION

- Almost half of the subjects (46.84%) does not meet the recommended protein intake by RNI 2017 (0.8g/kg) while 17.72% of subjects have high protein intake exceeding 1.4g/kg.
- More subjects (77.22%) consume more animal-based protein than plant-based protein.
- There is no significant association between amount of protein intake and BMI. (p=0.257, p>0.05)
- There is no significant association between type of protein intake and BMI (p=0.055, p>0.05)

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