International Journal for Multidisciplinary Research (IJFMR)
E-ISSN: 2582-2160 ● Website: www.ijfmr.com ● Email: editor@ijfmr.com

A Cross-Sectional Study on Prevalence and Association Between Sociodemographic Factors, Body Mass Index and the Development of Eating Disorders among Undergraduates of University of Cyberjaya

Suhaash A/L Jayaseelan[1], Muhammad Irfan bin Yassin[2], Aifaa Afiqah binti Marzuki @ Mahadi[3], Ainul Safiyyah binti Shaiful Azmi[4], Saalini A/P Rajagopal[5]

[1,2,3,4,5]Student, Faculty of Medicine, University of Cyberjaya

Abstract

Eating disorders are severe conditions marked by disrupted eating habits, thoughts, and emotions, with primary types being Anorexia Nervosa, Bulimia Nervosa, and Binge-eating disorder. The prevalence of these disorders is rising globally and pose significant threats to both mental and physical health. This study aims to determine the prevalence of developing eating disorders among undergraduates of University of Cyberjaya and to determine the associations between sociodemographic factors, gender, Body Mass Index (BMI), and the development of eating disorders. A descriptive cross-sectional study design was done among undergraduates of University of Cyberjaya across seven faculties of study who fulfil the inclusion and exclusion criteria. Stratified random sampling followed by convenience sampling was used in this research. Data collection was done by distributing online questionnaires. Out of 250 respondents, 76% of the participants were female, 65.6% were Malays and 57.6% were aged 21 to 25 years old. This study showed that 54% of the participants are at risk of developing an eating disorder. This study also proved that there is significant association between BMI ($p = 0.05$) and ethnicity ($p = 0.01$) with the development of eating disorders. However, no significant associations were found for gender ($p = 0.91$), age ($p = 0.98$), residency ($p = 0.62$), faculty of study ($p = 0.90$), and monthly allowance ($p = 0.83$). These results indicate the critical need for targeted interventions focusing on BMI and ethnic backgrounds to address and mitigate the risk of eating disorders among undergraduate students from University of Cyberjaya.

Keyword: Eating disorders, Sociodemographic factors, Undergraduate students

DECLARATION

We hereby declare that this research report is the result of our own research investigations, except where otherwise stated. We do not have any conflict of interest with the content of this research study. We also declare that it has not been previously or concurrently submitted for any other faculty or institutions.

Name	Matric Number	Signature
SUHAASH JAYASEELAN	MBBS 2010-2402	
MUHAMMAD IRFAN YASSIN	MBBS 1909-1390	
AIFAA AFIQAH MARZUKI @ MAHADI	MBBS 2010-2450	
AINUL SAFIYYAH SHAIFUL AZMI	MBBS 2010-2409	
SAALINI A/P RAJAGOPAL	MBBS 2202-4800	

Date: 6 JUNE 2024

ACKNOWLEDGEMENT

We would like to express our sincere gratitude to all those who have supported and guided us throughout the completion of our research on the prevalence and association between selected sociodemographic factors, body mass index and eating disorders among undergraduates of University of Cyberjaya. Firstly, we extend our deepest thanks to our advisor, Dr. Farah Naaz Montaz Ahmad for your expert guidance, constructive feedback and unwavering support. Your insight and encouragement have been crucial to the successful completion of this research project. We also wish to acknowledge the staff of Faculty of Medicine at University of Cyberjaya for providing the resources and a conducive environment for our research. Special thanks to Dr. Thamilvaani Manaharan, the Course Coordinator of Research and Evidence-Based Medicine (REBM) III, for your administrative support and facilitating access to necessary materials and tools. Our heartfelt appreciation goes to those that assisted in data collection, your cooperation was essential for the breadth and depth of this study. We are immensely grateful to the participants of this study, whose willingness to share their experiences made this research possible. Your contributions are invaluable and form the foundation of our findings. Additionally, we would like to thank our fellow researchers, Suhaash Jayaseelan, Muhammad Irfan Yassin, Aifaa Afiqah Marzuki @ Mahadi, Ainul Safiyyah Shaiful Azmi and Saalini A/P Rajagopal for the collaborative spirit, insightful discussions, and constant support throughout the research process. The teamwork and dedication have been vital to this project's success. Thank you all for your support and belief in our work.

CHAPTER 1
INTRODUCTION

1.1 Background

Eating disorders are illnesses in which a person's eating behaviour, along with accompanying thoughts and emotions, are severely disturbed. Anorexia Nervosa, Bulimia Nervosa, and Binge-Eating Disorder are the three main types of eating disorders. Each disorder is distinguished by a specific pattern of hazardous and disordered eating behaviour. It is also influenced by a fear of being overweight, which can result in a variety of weight-loss behaviours, such as extreme dieting, self-induced vomiting, and overdoing it on exercise. Eating disorders can be fatal and have both psychological and physical consequences.

According to the World Health Organization (WHO), 70 million individuals worldwide suffer from an eating disorder. Although there hasn't been a formal study or systematic research on the incidence of eating disorders in Malaysia, it's estimated that between 250,000 and 900,000 people there suffer from bulimia nervosa and anorexia nervosa, respectively, or 1% and 3% of the population, respectively. Particularly among teenagers and women, who frequently strive to look their best and fight against fears and peer pressure. One guy would have an eating disorder for every 10 to 20 females, according to a poll by the Malaysian Psychiatric Association (MPA), however men are less likely to seek treatment for such diseases (Andexer, C. 2016).

Eating problems and mental health issues are on the rise in this age of globalisation. Some people may be unaware of their eating disorders. The purpose of our study is to ascertain the prevalence of eating disorders, to study the relationship between certain sociodemographic characteristics and the emergence of eating disorders, to study the relationship between genders and the emergence of eating disorders, and to study the relationship between Body Mass Index (BMI) and the emergence of eating disorders among undergraduates of University of Cyberjaya. A survey on the EAT-26 score, which rates the indicators of an individual with eating disorders, is used to conduct the study. With the findings, we intend to inform and raise awareness among undergraduates of University of Cyberjaya about the occurrence of these eating disorders.

1.2 Objectives

1.2.1 General Objective

To estimate the prevalence of the development of eating disorders among undergraduates of University of Cyberjaya.

1.2.2 Specific Objective

1. To determine the prevalence of the development of eating disorders by selected socio-demographic factors among undergraduates of University of Cyberjaya.
2. To study the association of gender and the development of eating disorders among undergraduates of University of Cyberjaya.
3. To study the association between Body Mass Index (BMI) and the development of eating disorders among undergraduates of University of Cyberjaya.

1.3 Justification of This Study

This research is to find out the prevalence of eating disorders among undergraduates of University of Cyberjaya and to create awareness regarding eating disorders. Eating disorders are illnesses in which a person's eating behaviour changes depending on their thoughts, emotions, influence and many more which

could be fatal and have both psychological and physical consequences. Many people are not aware of eating disorders, some might have heard about it but never knew that he/she might have faced eating disorders in their life.

CHAPTER 2
LITERATURE REVIEW

2.1 Prevalence of the Development of Eating Disorders among Undergraduate Students

A cross-sectional study by Ahmed and Uddin (2016), found a high prevalence of eating disorders among medical students in Ipoh, Perak, Malaysia. The study revealed that 119 (42.7%) medical students from Quest International University Perak (QIUP) and University Kuala Lumpur Royal College of Medicine Perak (RCMP) were at high risk of eating disorders, as detected by the SCOFF questionnaire. Another study by Ngan et al. (2016), found that 29 (11.0%) out of 263 medical students at Manipal Medical College in Melaka, Malaysia, were at risk of developing eating disorders.

In addition, a cross-sectional study by Ko et al. (2014) involving university students in Hanoi, Vietnam, found that 48.8% of the participants had a very high likelihood of exhibiting eating disorder symptoms. Furthermore, a study by Kuek et al. (2010) conducted at the Department of Psychiatry, Singapore General Hospital, with a sample of 271 patients, revealed that 199 patients (73.4%) met the criteria for the restrictive subtype of anorexia nervosa, while the remaining patients were classified as having the binge/purge subtype of anorexia nervosa.

Lipson and Sonneville (2015) carried out a cross-sectional study involving students from 12 colleges and universities in the United States, all participants in the Healthy Bodies Study. Their findings revealed that 11.9% of the sample were at an elevated risk of eating disorders, as indicated by their global EDE-Q scores. Similarly, Memon et al. (2011) conducted a cross-sectional study in Karachi, Pakistan, with a sample of 435 medical students. Their results showed that a significant proportion of these students, specifically 99 individuals (22.8%), scored above the threshold for the EAT-26 questionnaire, indicating a higher risk of eating disorders.

2.2 Prevalence of the Development of Eating Disorders by Selected Socio-Demographic Factors among Undergraduate Students

2.2.1 Age

A study conducted among medical students at private institutions in Malaysia found that the highest prevalence of eating disorders was in the 20-24 age group, with 72.4% affected (Ngan et al., 2017). Similarly, research in Karachi, Pakistan revealed that the highest percentage of individuals scoring above the threshold on the EAT-26 questionnaire was among those aged 22-25 years, at 26.4% (Memon et al., 2012). While eating disorders are generally more common in younger individuals, the average age for anorexia nervosa and bulimia nervosa was found to be in the 30s, and for other eating disorders, in the 40s or 50s (Hay, Girosi, & Mond, 2015).

2.2.2 Ethnicity

In a study of medical students in Ipoh, Perak, it was found that eating disorders were most prevalent among Chinese students, with a rate of 50.0%, followed closely by Indian students at 48.1%, and Malay students at 36.6% (Ahmed & Uddin, 2018). Another study conducted by Ngan et al. (2017) in Malaysia revealed that the highest prevalence of eating disorders was among the "Others" category at 16.6%, while the Chinese had the lowest prevalence at 6.2%.

2.2.3 Gender

In a 2015 study using the SCOFF questionnaire, it was found that females are more likely to have eating disorders compared to males (Andexer D, 2017). A 2009 cross-sectional survey in Spain registered 164 patients with eating disorders, showing a prevalence of 82.8 per 100,000 people over 15 years old. The study revealed that the prevalence was significantly higher in females than in males (A. Larranaga, M.F. Docet, R.V. Garcia-Major, 2012). Another study from 2016 found that out of 119 respondents who scored 2 or above on the SCOFF questionnaire, 23 (33.3%) were males, while 96 (45.7%) were females (Ahmed, M. K., & Uddin, S., 2018).

Another study conducted in Egypt in 2016 corroborated the findings of previous research. This study found that females had a significantly higher prevalence of positive eating disorders compared to males, with rates of 73.8% versus 26.2% respectively (Eladawi, N. et al., 2018).

2.2.4 Monthly Allowance

A cross-sectional study conducted in the United States revealed that eating disorders are most prevalent among individuals with higher income levels. Specifically, 0.34% of people with an income of $70,000 or more are affected, compared to 0.27% of those earning between $40,000 and $69,999, 0.17% of those with incomes between $25,000 and $39,999, and 0.22% of those earning less than $25,000 (Udo & Grilo, 2018).

A study conducted among medical undergraduates at a private medical institution in Malaysia found that students with a monthly allowance exceeding RM1000 had the highest risk of developing eating disorders, at 76.6%. This was followed by those with a monthly allowance between RM500 and RM1000, at 70.9%, and students with a monthly allowance of less than RM500, at 70% (Ngan, S. W., 2017).

2.2.5 Residency

A study conducted in Pakistan found that students living in hostels face a higher risk of developing eating disorders, with a prevalence rate of 75% (Din, Z. U. et al., 2019). Similarly, research from Brazil involving first-year university students in the first semester of 2006 revealed that hostel residents had a higher prevalence of eating disorders (9.5%) compared to those living with relatives (8.7%) (Costa, L. C. F. et al., 2010). Another cross-sectional study among medical undergraduates at a private medical institution in Malaysia reported that 15.5% of hostel-dwelling students were at risk for eating disorders, compared to 8.1% of those not living in hostels (Ngan, S. W., 2017).

2.2.6 Education

According to a study conducted among students at a medical college hospital in South India, 62% of the participants were familiar with the term "eating disorders." However, they lacked knowledge about its causes, symptoms, or manifestations, and they had not encountered anyone who had experienced such a condition. Within a health facility, 10.5% of the students were completely unfamiliar with the term "eating disorder" and had never come across it before. In a survey conducted at a medical university, a total of 241 students (72.5%) admitted that they were unsure how to recognize an eating issue or where to seek help for it. This study suggests that medical and paramedical students are at a notable risk for eating disorders, despite the low level of awareness (Iyer, S. & Shriraam, V., 2021).

2.3 Association between Selected Socio-Demographic Factors and the Development of Eating Disorders among Undergraduate Students

The findings from 86 studies investigating the sociodemographic factors related to eating disorder (ED) epidemiology have been summarized. The main factors examined were age, gender, ethnicity, education

level, socioeconomic status, urban living, and marital status. The results indicate a clear link between EDs and being female and younger. However, the association between ED epidemiology and ethnicity, education, socioeconomic status, urban living, or marital status is less conclusive. Interestingly, an equal number of analyses found significant associations between both lower and higher education levels and ED epidemiology (Mitchison, & Hay, 2014). Additionally, a study conducted in Pakistan revealed a significant association between sociodemographic factors such as age and residency and the development of eating disorders (Din, Z. U. et al., 2019).

In a study conducted among medical undergraduates at a private medical institution in Malaysia, researchers found no notable links between socio-demographic factors such as age, gender, ethnicity, residency, and monthly allowance, and the onset of eating disorders (Ngan, 2017). Similarly, another study involving medical students in Perak, Malaysia, revealed no significant correlation between socio-demographic factors like age, gender, and ethnicity, and the likelihood of developing eating disorders (Ahmed, & Uddin, 2018).

A study conducted in South Australia found that household income does not significantly correlate with an individual's likelihood of reporting eating disorder features, with a p-value of less than 0.01 (Mulders-Jones et al., 2017). Similarly, a separate study among adolescents in the United States also found no correlation between income and eating disorders (Najjar et al., 2018).

2.4 Association between Obesity, Disordered Eating and the Development of Eating Disorders among Undergraduate Students

In 2006, a 5-year longitudinal study conducted by the Journal of the American Dietetic Association focused on a population-based group of Adolescents (N=2,516) from various ethnic and socioeconomic backgrounds who participated in Project EAT (Eating Among Teens) surveys in 1999 and 2004. The study's results indicated that adolescents engaging in unhealthy weight-control behaviors in 1999 experienced an increase in their body mass index by approximately 1 unit more than those who did not employ any weight-control behaviors. Furthermore, these adolescents were about three times more likely to be overweight in 2004 (odds ratio [OR]=2.7 for girls; OR=3.2 for boys). Those utilizing unhealthy weight-control methods were also at a heightened risk of developing binge eating with loss of control (OR=6.4 for girls; OR=5.9 for boys) and extreme weight-control behaviors like self-induced vomiting, diet pill usage, laxatives, and diuretics (OR=2.5 for girls; OR=4.8 for boys) five years later, compared to those abstaining from such behaviors. These findings underscore the predictive nature of dieting and unhealthy weight-control practices on obesity and eating disorders outcomes after a 5-year period. The study advocates for a shift towards promoting long-term adoption of healthy eating habits and physical activity to curb obesity and eating disorders among adolescents (Neumark-Sztainer et al., 2006).

CHAPTER 3:
MATERIALS AND METHODS

3.1 Study Design, Participants and Location

The study was conducted using a descriptive cross-sectional study design. Cross-sectional study aimed to determine the likelihood of developing eating disorders and to investigate the quality of life among undergraduate students of University of Cyberjaya. The study was chosen to be conducted at University of Cyberjaya, Cyberjaya, Selangor. From a reference population of over 7000 students of University of Cyberjaya, only undergraduate students were selected to participate in this study with informed consent.

Undergraduates represent a distinct demographic that is vulnerable to developing eating disorders due to the unique stressors and transitional challenges associated with university life, such as academic pressure, social dynamics, and changes in living environments. Focusing on undergraduates allowed for a more nuanced understanding of eating disorders due to the homogeneity of the undergraduate population in terms of age, lifestyle, and social influences. This had provided a more controlled setting to identify and analyse specific factors contributing to eating disorders. University of Cyberjaya offered a concentrated and accessible commute, facilitating higher response rates and more efficient data collection.

The inclusion criteria of the study were current full-time undergraduate students at University of Cyberjaya. The student must be in between of 16 to 30 years of age, could be a citizen of Malaysia of any race or an international student with the ability of literacy in English. Students who gave a written consent were to participate in this study. The exclusion criteria for this study were those students without a registered matrics number of University of Cyberjaya, enrolled in a post-graduate course, diploma or foundation studies and students who are over 30 years old and below 16 years old. The non-respondent were students who refused to partake in the study or did not give their consent. Students were deemed as non-respondent after not providing consent on first attempt.

3.2 Sample Size and Methods

According to Student Council of University of Cyberjaya, there were 7 faculties for the undergraduate programme. These include Faculty of Medicine, Faculty of Pharmacy, Faculty of Allied Health Sciences, Faculty of Psychology and Social Sciences, Faculty of Safety and Health, Faculty of Traditional & Complementary Medicine and Faculty of Business and Technology consisting of a total of 2348 undergraduates of University of Cyberjaya.

The minimum sample size was determined based on previous literature, indicating that 42.7% of medical students in Perak were at high risk of suffer from eating disorders. Assuming a margin of error of 5%, a confidence interval of 1.96 and 10% contingency were set for non-respondents, a sample size of 216 undergraduates of University of Cyberjaya were required for this study. This research was a quantitative study which allowed fair and equal chances of representation and the outcomes were to be explored facts. Stratified random sampling proportionate ratio was used to determine the number of samples from each faculty, followed by convenient sampling method selecting the number of students involved in this study. The study protocol was reviewed and approved by the University of Cyberjaya Research Ethics Committee (CRERC).

3.3 Data Collection

The collection of data was open for responses over a four-month period. Data was collected via a digital questionnaire using an online secure survey platform. Participants were recruited within the compound of University of Cyberjaya. The study targeted undergraduate students across 7 faculties of different academic years. An initial screening survey was distributed to all students to identify those who met the inclusion criteria. A total of 412 students responded to the survey. However, 250 expressed interest and agreed to participate with electronic written consent, making a response rate of 115.74% of sample size(n=216). Informed consent was obtained from all participants, ensuring they were aware of their rights, the voluntary nature of their participation, and the measures taken to protect their confidentiality. Participants were assured that they could withdraw from the study at any time without any consequences. The questionnaire was self-administered. The respondents will be asked to answer a total of 36 questions

in the questionnaire. All personal information will be strictly kept private and confidential. Respondents were given the choice to receive further updates regarding the status of developing eating disorder. Participants with high-risk of developing eating disorder were notified to allow them to reach out for further consult with the healthcare professionals (psychiatrist or psychologist).

3.4 Study Instruments

A questionnaire was used to collect quantitative data in order to evaluate the prevalence and association of developing eating disorders among the undergraduates of University of Cyberjaya. The questionnaire was divided into 2 sections which was composed of the Section A: Selected Sociodemographic and Section B: Eating Disorders (EAT-26). There were 10 questions in Section A and 26 questions in Section B. Section A consisted of questions regarding selected socio-demographic information of the respondents. Collected data were on age, gender, ethnicity, body mass index (BMI), faculty of study, academic year, working status, residency and monthly allowance.

Section B: EAT-26 was a validated self-report questionnaire that measure for eating disorder psychopathology and to assess for eating disorder risks, assess eating attitudes and behaviour (Garner DM. et al., 1982). The English version of EAT-26 had been validated in university and college sample (Taib, Hanum, & Khaiyom, 2019). EAT-26 has shown desirable internal reliability coefficient from 0.77 to 0.83 (Edman JL. et al., 2004). Section B was formatted into multiple-choice questions mainly these 3 domains; dieting, food preoccupation and oral control The respondents were given 5 options; Always, Usually, Sometimes, Rarely and Never. Respondents were allowed to choose only one by ticking a circle. The questionnaire is included in the appendix.

The items were graded using a scale of 0 (Rarely and Never), 1 (Sometimes), 2 (Usually) and 3 (Always). These grading were used across all questions except question #25. For Question #25, the items were valued as 0 (Usually and Always), 1 (Sometimes), 2 (Rarely) and 3 (Never). After scoring each item, the total values were added. If the score is over 20, respondents will satisfy the “Yes” criteria for Development of Eating Disorders (Garner DM. et al., 1982).

CHAPTER 4
RESULTS

4.1 Prevalence of the Development of Eating Disorders among Undergraduates of University of Cyberjaya.

A study of 250 students at the University of Cyberjaya revealed that 54% of them were potentially at risk for developing eating disorders. (Table 4.1)

4.2 Prevalence of the Development of Eating Disorder by Body Mass Index (BMI) among Undergraduates of University of Cyberjaya.

Those who are overweight have a higher risk of developing an eating disorder (67%), followed by those who are obese (61%), and those who are underweight (42%). (Table 4.2)

4.3 Prevalence of the Development of Eating Disorder by Gender among Undergraduates of University of Cyberjaya.

Based on Table 4.3, the prevalence of eating disorders is greater in females (54%), as opposed to males (53%).

4.4 Prevalence of the Development of Eating Disorder by Selected Sociodemographic Factors among Undergraduates of University of Cyberjaya.

26- to 30-year-olds have the highest frequency of eating disorder development (57%) followed by 16 to 20 and 21- to 25-year-olds (54%). In terms of ethnicity, the others (person not from any age mentioned) (62%) has the prevalence of developing eating disorder, were followed by Malay (59%), Indian (51%), and Chinese (27%). The prevalence of students living in hostel was found to be higher than that of students living with parents (55% versus 49%, respectively). The largest prevalence of eating disorder development, however, is found in others (not in a hostel or with parents), where it is 59%. The Faculty of Safety and Health has the highest prevalence of developing an eating disorder (61%), followed by the Faculty of Pharmacy (60%) in Table 4.4. The Faculty of Psychology and Social Sciences was found to have the lowest prevalence (46%), out of the seven faculties. There is a higher-than-average risk of developing eating disorders among students (59%) whose monthly allowance is more than RM 1000. (Table 4.4)

4.5 Association between Selected Socio-Demographic Factors and the Development of Eating Disorders among Undergraduates of University of Cyberjaya.

It has been observed that the development of eating disorders is correlated with ethnicity. (Table 4.4). The null hypothesis cannot be rejected because the data P value is 0.011, which is less than 0.05. Additionally, there is a P value of 0.05 correlation between BMI and the development of eating disorders. (Table 4.2) The data P value for the other chosen sociodemographic characteristics (gender, age, faculty of study, residency, and monthly allowance) is >0.05, indicating that there is no significant association between these factors and the development of eating disorders. (Table 4.4)

Table 4.1 Prevalence of the Development of Eating Disorders among Undergraduates of University of Cyberjaya.

Eating Disorder	Frequency (n)	Percentage (%)
Yes	135	54
No	115	46
Total	250	100

Table 4.2 Prevalence and Association between Body Mass Index (BMI) and the Development of Eating Disorders among Undergraduates of University of Cyberjaya.

Eating Disorder	BMI Index			
	Underweight (<18.5) n (%)	Normal weight (18.5-24.9) n (%)	Overweight (25.0-29.9) n (%)	Obese (>30.0)
Yes	18 (42)	61(50)	42(67)	14(61)
No	25(58)	60(50)	21(33)	9(39)
Total, n (%)	43(100)	121(100)	63(100)	23(100)
P value	0.05			

Table 4. 3 Prevalence and Association of Gender and the Development of Eating Disorders Among Undergraduates of University of Cyberjaya.

Gender	Eating Disorder		Total, N %	P value
	Yes	No		
Male	32 (53)	28 (47)	60 (100)	0.91
Female	103 (54)	87 (46)	190 (100)	

Table 4.4 Prevalence and Association of Selected Socio-Demographic Factors and the Development of Eating Disorders among Undergraduates of University of Cyberjaya.

Selected Socio-demographic Factors		Eating Disorder		Total, N %	P-value
		Yes, n (%)	No, n (%)		
Age	16-20 years	53 (54)	46 (46)	99 (100)	0.98
	21-25 years	78 (54)	66 (46)	144 (100)	
	26-30 years	4 (57)	3 (43)	7 (100)	
Ethnicity	Malay	97 (59)	67 (41)	164 (100)	0.01
	Chinese	8 (27)	22 (73)	30 (100)	
	Indian	22 (51)	21 (49)	43 (100)	
	Others	8 (62)	5 (38)	13 (100)	
Residency	Living in Hostel	88 (55)	73 (45)	161 (100)	0.62
	Living with Parents	28(49)	29(51)	57 (100)	
	Others	19 (59)	13 (41)	32(100)	
Faculty of Study	Faculty of Medicine	52 (54)	45 (46)	97 (100)	0.90
	Faculty of Pharmacy	15 (60)	10 (40)	25 (100)	
	Faculty of Allied Health Sciences	9 (56)	7 (44)	16 (100)	
	Faculty of Psychology and Social Sciences	16 (46)	19 (54)	35 (100)	
	Faculty of Safety and Health	19 (61)	12 (39)	31 (100)	
	Faculty of Traditional and Complementary medicine	12 (55)	10 (45)	22 (100)	
	Faculty of Bussiness and Technology	12 (50)	12 (50)	24 (100)	
Monthly Allowance	RM 100-200	21 (58)	15 (42)	36 (100)	0.83
	RM 300-400	23 (55)	19 (45)	42 (100)	
	RM 500-700	30 (55)	25 (45)	55 (100)	
	RM 800-1000	37 (49)	39 (51)	76 (100)	

	>RM 1000	24 (59)	17 (41)	41 (100)	

CHAPTER 5
DISCUSSION

5.1 Prevalence of the Development of Eating Disorders among Undergraduates of University of Cyberjaya.

The study results revealed that 54% of 250 undergraduates at the University of Cyberjaya are at risk of developing eating disorders through the EAT-26 questionnaire. This meant that more than half of our student community was potentially struggling with serious health issues, likely influenced by the unique pressures and challenges of university life. Another study by Ahmed and Uddin (2018) showed that 42.7% out of 119 medical students in 2 universities in Ipoh, Perak had risk of eating disorders detected through SCOFF questionnaire. However, their study only involved medical student whereas our study involved other faculties in the university. The difference in use of questionnaire and number of faculties involved could be factors to higher percentage in our study.

5.2 Prevalence of the Development of Eating Disorder by Selected Socio-Demographic among Undergraduates of University of Cyberjaya.

The age group of 26-30 years old had the highest percentage in developing eating disorders with 57% , followed by age group 16-20 years old and 21-25 years old, both with 54%. However, another study showed that highest prevalence of developing eating disorders was the youngest age group of 20-24 years old with 72.4% (Ngan et al., 2017). Small number of sample size could be the reason in this difference as there were only 7 individuals with age group of 26-30 years old. This study focussed on undergraduates and age group of 26-30 years old mostly are postgraduate students.

Among the undergraduates in University of Cyberjaya, the category Others (Non-Malay, Non-Indian, Non-Chinese) proved to be the highest percentage of developing eating disorders with 62%, followed by Malays (59%), Indians (51%) and Chinese (27%). This contradicted with a previous study done among medical students in Ipoh, Perak where Chinese ethnicity proved to have the highest percentage of developing eating disorders with 50% (Ahmed & Uddin, 2018). However, they only conducted the study among medical students and not other faculties. This could be the factor affecting the results as undergraduates of University of Cyberjaya consist of international students.

Under residency, the category Others (Non-hostel and Not living with parents) had the highest prevalence in developing eating disorders with 59%. The lowest prevalence is category living with parents with 49%. This result was inconsistent with a previous study where the highest prevalence of developing eating disorders was among the students living in hostels with 15.5% (Ngan, S. W., 2017). Our study should have categorized it into hostel or non-hostel only to have more consistent results.

The faculty with highest prevalence of developing eating disorder was Faculty Safety and Health with a percentage of 61%. The lowest faculty was Faculty of Psychology and Social Sciences with 46%. Previous studies only focussed on Faculty of Medicine and no other faculties involved.

Undergraduates with monthly allowance more than RM1000 proved to be the highest prevalence to develop eating disorder with a percentage of 59%. A previous study among medical students in Malaysia also revealed the same results where students with monthly allowance more than RM1000 had the highest risk of developing eating disorder with a percentage of 76.6% (Ngan, S. W., 2017).

5.3 Association between Gender and the Development of Eating Disorders among Undergraduates of University of Cyberjaya.

According to the results, females had higher prevalence of developing eating disorders than male. Out of 190 females, 54% had risk of developing eating disorders while male only 53%. Another study done by Ahmed and Uddin in 2018 revealed that female have higher risk of developing eating disorders with 45.7% while males only 33.3% using SCOFF questionnaire. However, the difference in types of questionnaires could be the factor of having higher prevalence percentage in our study.

5.4 Association between Body Mass Index (BMI) and the Development of Eating Disorders among Undergraduates of University of Cyberjaya.

This study found that overweight individuals (BMI 25.0-29.9) had the highest percentage of developing eating disorders (67%) whereas underweight individuals (BMI <18.5) were least likely to end up with an eating disorder (42%) which correlates with a study done by Tsekoura et al. (2021). The result of our research was also in line with a previous study carried out by Brown et al. (2018) which showed that individuals with higher BMI were more likely to develop an eating disorder, specifically binge eating disorder.

CHAPTER 6
LIMITATION, CONCLUSION AND RECOMMENDATION

6.1 Limitation and Recommendation

The sample selected for our study was chosen and focused only on the undergraduates University of Cyberjaya students from the selected faculties such as Faculty of Medicine, Faculty of Pharmacy, Faculty of Allied Health Sciences, Faculty of Psychology, Faculty of Safety and Health, Faculty of Traditional and Complementary medicine, and Faculty of Business. Thus, this study is restricted to only these faculties and not to the other faculties as well as other outside this designation. We hope that a study involving all groups of students regardless of faculty or course of study can be included in the future to get a clearer result regarding the prevalence and association between sociodemographic factors, BMI and eating disorders among the chosen population.

6.2 Conclusion

Eating disorders are complex and serious mental health conditions that significantly impact individuals' physical and psychological well-being. It could impact individuals across various BMI categories, with underweight individuals more prone to anorexia nervosa and overweight individuals at higher risk for binge eating disorder. These disorders, influenced by genetic, psychological, and societal factors, lead to severe physical and psychological health consequences. Students in University of Cyberjaya have a high prevalence of developing eating disorders. The need to increase awareness and implement strategies to reduce the prevalence of of eating disorders must be done to help others be aware of this condition. Although this study did not help recognize the types of eating disorder, it benefits the participants as they were aware of their risk of developing eating disorders and seek professional help earlier. With identified triggering factors in this study, actions should be taken by all parties to increase awareness and prevent these conditions from getting worse.

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