ANALYSIS OF LIFESTYLE BEHAVIORS OF BUCN STUDENTS WITH ALTERATIONS IN BODY MASS INDEX

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Abstract

Body Mass Index (BMI) is an indicator of height and weight proportion. It is a screening tool that can indicate whether a person is underweight or if they have a healthy weight, excess weight, or obesity. If a person's BMI is outside of the healthy range, their health risks may increase significantly. Nurses being a health care practitioner is seen as role model of healthy lifestyle practices (Hensel, 2011), which has been conceptualized as being caring, trustworthy, knowledgeable, self-confident, professional, having a deep sense of self, and being a role model of wellness (Darch, Baillie, & Gillison, 2017). This study intends to gather data about nursing students with alterations in BMI and assess their lifestyle. A total of 30 respondents met the selection criteria. Appropriate statistical treatment such as frequency and distribution, weighted mean, ranking, average distribution and standard deviation were used. Results revealed that eating behavior with family and friends contributes the greatest to their current weight with an average of 2.62 below BMI and 2.75 above BMI. Results on physical activity showed an average weighted mean of 2.99 above BMI and 3.24 below BMI. Under genetic predisposition, the major medical health problems are arthritis (16.67%), asthma and hypertension (10%). Both groups (43.33%) sleep approximately 6-8 hours every day. For vices, 5 out of 30 respondents drink alcoholic beverages. It is expected that nursing students who know their present BMI will practice health lifestyle to improve their health status.

Keywords: Lifestyle behavior, Body Mass Index, Nursing students

One of the greatest challenges for students is to maintain a healthy lifestyle despite workloads, schedules and responsibilities. The researchers would like to seek answers on what primarily affects the student's health in a negative and positive way to establish analysis of their lifestyle and provide therapeutic management.

Body mass index is affected by lifestyle through the food we eat, the mental activities we are involved in, the exercises we do, the spiritual practices we value, the coping and defense mechanisms we try to make, the financial income we receive, and the social groups we join. Our health is deeply affected by these aspects as we invest our time on it and our space revolves around it. Moreover, lifestyle is affected by BMI because we function depending on our weight and body proportion. We are hindered or limited because of our physical attributes causing us to make change in our lifestyle.

Lifestyle behavior is seen as a major factor in alteration in BMI among individuals. In a study made by (Shekhar, 2016) entitled Lifestyle and Body Mass Index among students of a nursing college in Bihar focused that India is encountering double burden of under nutrition and over nutrition. He focused on the Nutritional status among young population. And the result was that, the students preferred snacks and skip meals frequently. Students avoid strenuous exercise and prefer sedentary lifestyle.

In the study of Dietary patterns associated with body mass index (BMI) and lifestyle in Mexican adolescents in 2016, They found a positive correlation between BMI and high scores for westernized and high in protein/fat pattern. As conclusion, Dietary patterns of adolescents are a public health concern because there is a direct association between inadequate diet at this early age and obesity.

The aim of this study is to gather information about the dietary habits, physical activity, exercise, rest and sleep,

vices, family history, genetics, and their relationship among college students of Baliuag University. Assess its affects to the student's functioning and give proper health education regarding various health issues and concerns.

It is therefore the aim of this paper to determine BMI status of Baliuag University College students, to know the effects of their present BMI in their everyday living, and to advocate mindfulness about health to college students of Baliuag University.

Statement of the Problem

The general problem of this study is: What factors contribute to the nursing students' present BMI?

1. What are the BMI status of selected Baliuag University Nursing students?
2. What are the lifestyle of selected student nurses with BMI alterations?
3. What are the usual health concerns/ issues of student nurses with BMI alterations?

Significance of the Study

This study will help nursing students to determine their BMI status and identify the different patterns of their lifestyle that leads to their present BMI. This study will help to improve ways to have a better lifestyle not only for the students but also for their family.

Research Design

Descriptive design was used by the researchers since the concern is to determine the lifestyle, BMI status and how weight is maintained, gained, or lose by Baliuag University College of Nursing Students.

Sample and Sampling Procedures

Respondents were nursing students from all levels enrolled during A.Y. 2017-2018 with alteration results in their Body Mass Index.

Data Gathering Instrument

The researchers used questionnaire-checklist as the main instrument of the study. It is composed of seven parts, the first part is biographical data (age, sex, religion, height, and weight). The second section is eating pattern which determines the food they eat, the frequency, and it also uses a five-point scale in knowing how their behavior contributes to their weight, the third part is physical activity. The fourth part is medical history composed of checklist of diseases they have, followed by a question if they have parents who have the diseases they have checked, fifth part is self-perception on their body image, and sixth part is rest and sleep. The last part is presence of vices, specifically tobacco and alcohol consumption.

Statistical Treatment and data Analysis

The statistical analysis method that were used are Frequency and percentage for biographical data, ranking for Physical activity, Rest and Sleep. A 3-Point Likert Scale for Dietary Habits, 4-Point Likert Scale for Physical Activity, 5-Point Likert Scale for Self – Perception, Standard Deviation for Dietary Habits, and Self-Perception.

For Percentage, computation of Percentage using this formula:

$$\text{Percentage (\%)} = \frac{F \times 100}{N}$$

Where:

% = percentage
F = frequency or number of response to each item
N = total number of respondents

For Weighted Mean, computation of weighted mean using this formula:

$$WM = \frac{F \times D\&O}{N}$$

Where:

WM = weighted mean
F = frequency or number of response to each item
D&O = Degree of Occurrence
N = total number of respondents

Computation of the descriptive values for Dietary Habits

1.01-1.5 -Does not contribute at all
The respondents believe that the dietary habits did not contribute at all in his or her current weight.

1.51 – 2.60 Contributes a moderate amount
The respondents believe that the dietary habits contribute a moderate amount in his or her current weight.

2.61-3.0 Contributes the greatest amount
The respondents believe that the dietary habits contribute a greatest amount in his or her current weight.

Computation of the descriptive values for Physical Activity

1.01-1.50 Not at all
The respondents agree that he or she does not enjoy physical activity.

1.51- 2.60 Slightly
The respondents agree that he or she enjoys the physical activity slightly.

2.61-3.50 Moderately
The respondents agree that he or she enjoys the physical activity moderately.

3.51- 4.0 Greatly
The respondents agree that he or she enjoys the physical activity greatly.

Computation of the descriptive values for Self – Perception

1.01– 1.50 Dissatisfied
The respondents agree that he or she is dissatisfied with his self – perception concerning weight, shape and over all appearance.

1.51 – 2.60 Slightly dissatisfied
The respondents agree that he or she slightly dissatisfied with his self – perception concerning weight, shape and over all appearance.

2.61 – 3.50 Neutral
The respondents agree that he or she neutral with his self – perception concerning weight, shape and over all appearance.

3.51 – 4.60 Slightly Satisfied
The respondents agree that he or she slightly satisfied with his self – perception concerning weight, shape and over all appearance.

4.61 – 5.0 Greatly Satisfied
The respondents agree that he or she greatly satisfied with his self – perception concerning weight, shape and over all appearance.

For Standard Deviation, computation for Standard Deviation using this formula:

$$\sigma = \sqrt{\frac{1}{N}\sum_{i=1}^{N}(x_i - \mu)^2}$$

Where:

μ = the mean of all our values
x_i = They are the individual x values
Σ = sum up as many terms as we want
N = number of values
1/N = variance
σ = Standard Deviation

Results

Table 1. Frequency and Percentage Distribution of Respondents According to Age.

Age	Frequency	Percentage
18-21	78	90.70%
22-25	5	5.81%
26-29	2	2.33%
30-33	1	1.16%
	N = 86	100%

Table 1 shows that 90.70% of the respondents are ages 18-21. while the 1.16% of the total respondents is in the age of 30-33 years old. The common age group were between 18-21 because majority of the respondents were from 1st year level.

Table 2. Frequency and Percentage Distribution According to Gender

Gender	Frequency	Percentage
Female	64	74.42%
Male	22	25.58%
	N=86	100%

Table 2 represents that 74.42% of the respondents are female. While the remaining 25.58% of the respondents are male. Most respondents are female, because majority of the BUCN students enrolled are female.

Table 3. Frequency and Percentage Distribution According to Religion

Religion	Frequency	Percentage
Roman Catholic	71	82.55%
Born Again	7	8.14%
Islam	2	2.33%
Iglesia ni Cristo	4	4.65%
Latter Day Saints	2	2.33%
	N=86	100%

Table 3 states that, 82.55% of our respondents are Roman Catholic. While 2.33% belongs to Latter Day Saints and Islam. This is because, most Filipinos are born and baptized as Roman Catholic.

Table 4. Frequency and Percentage Distribution according to Weight

Weight	Frequency	Percentage
40 – 55	50	58.14%
56 – 70	29	33.72%
71 – 85	4	4.65%
86 – 100	3	3.49%
	N=86	100%

Table 4 shows that 58.14% of the respondents weighs between 40-55 kgs. While 3.49% weighs between 86-100 kgs. Based from their recorded weight from the questionnaires.

Table 5. Frequency and Percentage Distribution According to Height

Height	Frequency	Percentage
4’ 9” – 5’ 0”	19	22.09%
5’ 1” – 5’ 4”	39	45.35%
5’ 5” – 5’ 8”	23	26.75%
5’ 9” – 6’ 0”	5	5.81%
	N=86	100%

Table 5 represents that, 22.09% are between the height of 4’ 9” – 5’ 0”. While 5.81% of them are in between 5’ 9” – 6’ 0”. Based from the data obtained from the questionnaires answered by the respondents.

Table 6. Frequency and Percentage Distribution according to Year Level

Level	Frequency	Percentage
1st Year	55	63.95%
2nd Year	7	8.14%
3rd Year	10	11.63%
4th Year	14	16.28%
	N=86	100%

Table 6 shows that 63.95% are from the 1st year level. While 16.28% are from the 4th year level. Majority of the participants are 1st year level, because they have the most number of respondents than the 4th year level.

Table 7. Frequency and Percentage Distribution According to BMI Classifications

BMI	Frequency	Percentage
Very severely underweight	0	0
Severely underweight	5	5.81%
Underweight	11	12.79%
Normal	56	65.12%
Overweight	9	10.47%
Obese 1	5	5.81%
Obese 2	0	0
	N=86	100%

Table 7 shows that majority of our respondents have normal BMI, which is 65.12%. The 10.47% of the respondents are classified under overweight and underweight. The 5.81% are obese, 4.65% are severely underweight. The least of the respondents are 3.48%, who are very severely underweight. Based from the obtained data, most nursing students have normal BMI.

Table 8. The Degree to Which the Dietary Habits Contribute to the Current Weight of Re-

Dietary Habits	Contributes the greatest amount	SD	Contributes the moderate amount	SD	Does not contribute at all	SD
1. Eating with family and friends	21	*3.83*	9	*2.33*	0	*3.49*
2. Eating when socializing/ celebrating	17		11		2	
3. Eating when happy	14		14		2	
4. Eating in response to sight or smell of food	11		18		1	
5. Overeating at dinner	13		13		4	
6. Eating while cooking or preparing food	6		12		12	
7. Eating when stressed	16		13		2	
8. Eating alone	13		12		5	
9. Snacking between meals	11		13		6	
10. Snacking after meals	12		10		8	

Table 9. Distribution of weighted mean in the relation of their dietary habits

Dietary habits	SU	U	O	OBI	Interpretation	SD U	SD O
1. Eating with family and friends	2.60	2.64	2.89	2.60	The students under severely underweight and obese 1 classification believe that eating with family or friends contribute a moderate amount to their current weight, while students under underweight and overweight believe that it contributes the greatest amount to their weight.	0.21	0.27
2. Eating when socializing/ celebrating	2.40	2.45	2.67	2.40	The students under severely underweight, underweight, and obese 1 classification believe that eating when socializing or celebrating contributes a moderate amount to their current weight, while students under the overweight classification believe that it contributes the greatest amount to their current weight.		
3. Eating when happy	2.60	2.27	2.56	2.20	The students under all classification believe that eating when happy contributes a moderate amount to their current weight		
4. Eating in response to sight or smell of food	2.40	2.36	2.22	2.40	The students under all classification believe that eating in response to sight or smell of food contributes moderately to their current weight.		

12

Table 9. Continuation

Dietary habits	SU	U	O	OBI	Interpretation	SD U	SD O
6. Eating while cooking or preparing food	1.80	1.90	1.78	1.60	The students under all classifications believe that eating while cooking or preparing food contributes a moderate amount to their current weight		
7. Eating when stressed	2.60	2.18	2.67	2.60	The students under severely underweight, underweight, and obese 1 classifications believe that eating when stressed contributes a moderate amount to their current weight, while students under overweight classification believe that it contributes the greatest amount to their current weight.		
8. Eating alone	2.40	2.27	2.11	2.40	The students under all classifications believe that eating alone contributes a moderate amount to their current weight		
9. Snacking between meals	2.40	1.90	2.11	2.60	The students under all classifications believe that snacking between meals contributes a moderate amount to their current weight		
10. Snacking after meals	2.40	1.81	2.00	2.60	The students under all classifications believe that snacking after meals contributes a moderate amount to their current weight		

13

Table 9 shows 4 weighted mean based on the respondents answer on the 10 questions. And to sum it up all, placing on the top, is the Obese class 1 classification, because they top at 4 questions which are eating in response to sight or smell of food, eating alone, snacking between meals and snacking after meals, that they believe those contributes to their current weight. But the researchers believe that the rest of the results is not that significant because even all of the classifications are having an equal result, it doesn't mean that they also have the same serving amount of food or beverages.

Table 10. Average Distribution of Meals per day in a Week

Meals of the Day	SU	U	O	OB1	SD U	SD O
Breakfast	5	4	4	5	*1.41*	*1.86*
Morning Snack	1	3	3	4		
Lunch	6	6	6	6		
Afternoon Snack	3	3	3	3		
Dinner	7	7	7	6		
Evening Snack	2	3	3	3		

Table 10 shows that underweight and overweight shares the same frequency of eating meals per day in a week. The difference of total no. of meals per day in a week between obese class 1 and severely underweight has no significance that contributes to their present BMI. However, this table assesses the no. of meals per day in a week eaten by the respondents and not the quality, quantity, and caloric intake.

Table 11. Frequency and Percentage Distribution of who Cooks the Food

Person	SU	%	U	%	O	%	OB1	%
Myself	0		1	9.09	3	33.33		
Mother	2	40	7	63.64	5	55.56	3	60
Father	1	20	1	9.09	1	11.11	1	20
Maid							1	20
Grandmother	2	40						
Relatives			2	18.18				
	N= 5	100	N=11	100	9	100	5	100

Table 11 shows that majority of respondents under all classifications answered that their mother cooks the food. While the rest of the respondents answered maid. This is because most mothers are housewives and they are very familiar about the family's food preference.

Table 12. Frequency and Percentage Distribution of who Buys the Food

Person	SU	%	U	%	O	%	OB1	%
myself	0		2	18.18	2	22.22		
mother	2	40	7	63.64	6	66.67	3	60
father	1	20					1	20
maid							1	20
grandmother	2	40						
relatives			2	18.18	1	11.11		
		100	N=11	100	9	100	5	100

Table 12 shows that most of the respondents under all classifications answered that their mother buys the food while the least of the respondents answered maid. This is because the mother manages the family finances.

Table 13. Ranking of Fluids That is Consume by Glasses per day

Fluids	Severely Underweight	Underweight	Overweight	Obese Class 1
Water	8 glasses	8 glasses	9 glasses	9 glasses
Juice	1 glass	1 glass	1 glass	1 glass
Milk/ Chocolate	2 glasses	1 glass		1 glass
Coffee	1 glass	2 glasses	1 glass	1 glass
Soda		1 glass		2 glasses
Beer				

Table 13 shows that water which is a choice in fluids that is consumed per day has the highest rank among other fluids, based on respondents in all classification. Most people often drinks water for it is tasteless, can be paired in different kinds of foods, and also most available anywhere.

Table 14. Average Distribution of Meals per day in a Week From Fast-Food

Meals of the Day	Severely Underweight	Underweight	Overweight	Obese Class 1
Breakfast	0	2	1	2
Lunch	3	2	2	2
Dinner	1	2	2	1

Table 14 shows that underweight visits fast-food 6meals per day in a week, second was the overweight and obese1 who eats 5 meals per and lastly the 4 meals per day in a week who visited in fast-food. Respondents food choices are affected by availability as convenience is more of a concern now than at any time in the past and usually, easy-to-prepare foods are known to be nutritionally deficient. (Drummond & Brefere, 2016)

Table 15. The Degree to Which the Respondents Enjoy Doing Physical Activity

Physical Activity	Greatly	Moderately	Slightly	Not at all
1. To what extent do you enjoy physical activity?	5	18	5	2

Table 15 shows that 18 out of 30 respondents agreed that they enjoy physical activity moderately, and 5 out of 30 respondents agreed that they enjoy physical activity greatly and slightly. Physical activity gives individuals a lot of advantages. As stated by WHO (2013), promoting mental health, self-esteem, mood and reducing the risks of stress and depression are among the benefits of physical activity.

Table 16. Distribution of Weighted Mean in the Extend of Enjoying Physical Activity

Physical Activity	SU	U	O	OBI
1. To what extent do you enjoy physical activity?	3.75	2.73	2.78	3.20

Table 16 shows that severely underweight believe that they greatly enjoy the physical activity while under-weight, overweight and obese 1 believe that they moderately enjoy the physical activity. According to Lee, et. al., (2011) with changing social and economic patterns all over the world, sedentary lifestyle had become more phenomenon. These phenomenon is common in teenagers, adults, and elderly people worldwide.

Lack of physical activity is now identified as the fourth leading risk factor for global mortality in which it predisposes individuals to some conditions or diseases they have right now. (WHO, 2010)

Table 17. Frequency and Percentage Distribution of Respondents Who Have Problems That Limit Their Physical Activity

Choices	SU	%	U	%	O	%	OB1	%
yes			2	18.18	3	33.33		
no	5	100	9	81.82	6	66.67	5	100
	N=5	100	N=11	100	N=9	100	N=5	100

Table 17 shows that 5 out 30 respondents agreed that they had problems that limit their physical activity. 2 respondents came from below normal and 3 respondents came from above normal BMI classification. 25 out of 30 respondents agreed that they do not had problems that limit their physical activity. 14 respondents came from below normal while 9 respondents came from above normal BMI classification. Breathing problems such as shortness of breath, over fatigue, being easily tired, having back pain were conditions mentioned that limit their physical activity. Generally, adolescents enjoy physical activity such as exercises and sports. Another contributing factor might be the lack of sleep leads to fatigue and results in less physical activity. (Zeratsky, 2018)

Table 18. Ranking of Exercises Usually Done by the Respondents

Exercises	SU	Rank	U	Rank	O	Rank	OB1	Rank
walking	4	1st	10	1st	9	1st	5	1st
jogging	1	4th	5	5th	4	3rd	2	4th
biking	3	2nd	8	3rd	1	4th	4	2nd
aerobics		none	2	6th	1	4th	2	4th
dancing	3	2nd	9	2nd	5	2nd	3	3rd
sports	2	3rd	7	4th	4	3rd	3	3rd

This table states that, under all classifications, walking is the most common exercise usually done by the respondents while aerobics is the least common exercise among the respondents because walking is the cheapest and easiest way to exercise. Walking is perfect exercise for many people, also a great way to get fit and stay healthy in which people can decide on their own pace, time, and intensity of work-out. (Robinson, May 2018)

Conversely, a sedentary lifestyle increases the risk for overweight and obesity and many chronic diseases, including heart disease, high blood pressure, type 2 diabetes, certain types of cancer, and osteoporosis. Overall, mortality rates from all causes of death are lower in physically active people than in sedentary people. Also, physical activity can aid in managing mild to moderate depression and anxiety. (Drummond & Brefere, 2016)

Table 19. Frequency and Percentage Distribution of Common Medical Problems Among the Participants

Condition	SU	%	U	%	O	%	OB1	%
Heart					1	11.11	1	20
Stroke								
Asthma			2	18.18			1	20
Hypertension					2	22.22	1	20
Arthritis			1	9.09	4	44.44		
Kidney disease					1	11.11		
Liver Disease								
Cancer							1	20
Diabetes							1	20

Table 19 shows a variety of common diseases, generally Arthritis is the most common disease among participants who have answered that they have a condition. Having rheumatoid arthritis is a challenge at any age, but adults in their late teens or early 20s face particular trials

that older adults may not. Adapting to a chronic disease while leaving home, attending college, developing relationships, and starting a family and career can feel both daunting and unfair. (Dorothy Foltz-Gray, 2018). But in Obese 1 classification, it shown that they had the most checked disease among all classifications. This condition puts people at a higher risk for serious diseases, such as type 2 diabetes, heart disease, and cancer. (Moores, 2018). Other diseases that 3 of the participants has are rheumatic fever, hyperacidity, and lactose intolerance.

Table 20. Frequency and Percentage Distribution of Whose Parents Have Diseases

Choices	SU	%	U	%	O	%	OB1	%
Heart	1	20						
Stroke								
Asthma			2	18.18				
Hypertension	1	20	1	9.09	1	11.11	3	60
Arthritis					1	11.11		
Kidney disease			1	9.09				
Liver disease								
Cancer							1	20
Diabetes	1	20	1	9.09	1	11.11	1	20

Table 20 shows a variety of common diseases. And it is for the parents of the participants already, which the participants answered. In general, hypertension is the common disease that is present in all classifications. Hypertension is common among adults, specifically for those who are under stress, and hardworking which is common to parents who is caring for their children's needs.

Table 21. The Degree to Which how Satisfied are the Respondents to Their Selves

Self-perception	Satis-fied	Slightly Satis-fied	Neutral	Slightly Dissatis-fied	Dissatis-fied
1. How satisfied are you with your current weight?	1	5	12	6	6
2. How satisfied are you with your current shape?	1	6	8	11	5
3. How satisfied are you with your current overall appearance?	2	6	11	9	2

Table 21 shows the summary of degree of satisfaction of respondents in regards their perception about themselves. Majority are neutral when it comes to their appearance and over-all weight. According to self-perception theory by Daryl Bem (1972), we interpret our own actions the way we interpret others' actions, and our actions are often socially influenced and not produced out of our own free will, as we might expect. We are what we do and our lifestyle and way of living obviously reflects on our appearance.

Table 22 . The Distribution of Weighted Mean in Their Self-perception

Self-perception	SU	U	O	OBI	Interpretation	SD U	SD O
1. How satisfied are you with your current weight?	2.6	3	2.00	3.00	The students under severely underweight and overweight classification are slightly dissatisfied with their current weight, while students under, underweight, and obese 1 feels neutral with their current weight.	0.79	
							0.85
2. How satisfied are you with your current shape?	2.6	3.1	1.89	2.60	The students under severely underweight, overweight, and obese 1 classification are slightly dissatisfied with their current shape, while students under underweight feels neutral with their current shape.		
3. How satisfied are you with your current overall appearance?	2.6	3.18	2.78	2.80	The students under severely underweight classification are slightly dissatisfied with their current overall appearance, while students under underweight, overweight and obese 1 feels neutral with it.		

Table 22 shows that most of the respondents are neutral when it comes to their physical appearance. Some does feel slightly dissatisfied which may trigger change for the individuals. Psychology has long recognized that people must know themselves to survive and adapt in life. The value of self-knowledge stems from the fact that the self represents the only constant throughout life. Because of this if the self is well defined, it can provide a solid basis of values, preferences, and attitudes to manage the many decisions of daily life including change for the betterment of their health. (Bem, 1972)

Table 23. Frequency and Percentage Distribution of Respondents According to Their Hours of Sleep

Hours	SU	%	U	%	O	%	OB1	%
3.5 hours	4	80	3	27.27	3	33.33	1	20
6.8 hours	1	20	8	72.73	1	11.11	3	60
9-10 hours					5	55.56	1	20
	N=5	100	N=11	100	N=9	100	N=5	100

Table 23 shows that 7 respondents below normal weight had 3-5 hours of sleep and 4 respondents in above normal BMI classification. 6 respondents from Overweight and obese 1 states that they make total sleep of 9-11 hours and no respondents from below normal BMI classification. In adults, sleeping 4 hours a night compared with 10 hours a night, appears to increase hunger and appetite. One explanation states that sleep duration affects hormones regulating hunger ghrelin and leptin. (Zeratsky, 2018)

Table 25. Frequency and Percentage Distribution of Respondents Who Take a Nap at Noon

Choices	SU	%	U	%	O	%	OB1	%
Yes	3	60	7	63.64	8	88.89	5	100
No	2	20	4	36.36	1	11.11	0	0
	N=5	100	N=11	100	N=9	100	N=5	100

Table 25 shows that majority of the respondents under all classifications take a nap at noon whenever they have free time. Most students take the opportunity to sleep for a couple of hours after a stressful work.

Table 26. Frequency and Percentage Distribution of Respondents Who Have Time for Relaxational Activities

Choices	SU	%	U	%	O	%	OB1	%
Yes	3	60	6	54.55	7	77.78	5	100
No	2	20	5	45.45	2	22.22	0	0
	N=5	100	N=11	100	N=9	100	N=5	100

Table 26 shows that majority of the respondents under all classifications have time for relaxation activities while the least of the remaining respondents do not have time for relaxation activities. Relaxation activities enables them to divert their time and attention from stress.

Table 27. Ranking of Relaxational Activities Done by the Respondents

Activities	SU	Rank	U	Rank	O	Rank	OB1	Rank
Spa and massage			1	4th	1	4th	2	3rd
Surfing on net	5	1st	9	1st	8	1st	5	1st
Outing/Vacation	1	3rd	3	3rd	5	2nd	2	3rd
Going to mall	2	2nd	5	2nd	4	3rd	3	2nd

Table 27 shows that under all classifications, surfing on the net is the most common form of relaxation activities of the respondents, while the least common are going to spa and massage. Surfing on the net entertains them despite o the stress and pressure on school.

Table 28. Frequency and Percentage Distribution of Respondents in Relation to Alcohol Consumption

vices	SU	%	U	%	O	%	OB1	%
4. Do you drink alcoholic beverages?								
yes			2	22.22	1	11.11	2	40
how many times a week								
once a week			1	50			2	100
twice a week					1	100		
once a month			1	50				
how many bottles								
1 bottle			2	100			1	50
3 bottles					1	100	1	50
no	5	100	9	77.78	8	88.89	3	60

Table 28 shows that the classification which has the highest drinking consumption are underweight and overweight which has 2 respondents each. According to a study, alcohol is (next to fat) the second most energy-dense macronutrient consumed and also has an appetite enhancing effect, which could lead to an increased energy-intake, thereby causing weight gain. In addition, alcohol is known to reduce the oxidation of fat, thus leading to fat storage – especially in the abdominal area of the body. These findings indicate a causal relation from alcohol to obesity. And it makes you feel full or bloated without even having the proper nutrients. All classifications answered no for other vices such as tobacco smoking and using of vape or e-cigarettes.

Discussion

Lifestyle and Body Mass Index among students play a crucial role in the development of undernutrition and over-nutrition because of the challenges in maintaining a healthy lifestyle despite of their workloads and responsibilities. This study was conducted in Baliuag University College of Nursing to explore the lifestyle behavior of nursing students with

alterations in their BMI status. Three research questions were used in this study to determine BMI status of all respondents, lifestyle and health concerns of selected BUCN students with BMI alterations. By using the appropriate statistical treatment such as frequency and distribution, weighted mean, ranking, average distribution and standard deviation, it is found that It is found that under dietary habits, both group's eating behavior with family and friends contributes the greatest amount to their current weight, with an average of 2.62 for below BMI and 2.75 for above BMI. For the average distribution of meals per day in a week, dinner in both group has the highest result of 7 while average distribution of meals per day in a week from fast-food, lunch in both groups has the highest result of 2.5 for below BMI and 2 for above BMI. It is the mother who buys the food with the percentage of 50% for the below BMI and 57% for the above BMI and cooks foods with the highest percentage of 50% for the former and 64.29% for the latter. In physical activity, both groups moderately enjoy the extent of the physical activity with an average of weighted mean 2.99 for above BMI and 3.24 with below BMI, however 5 out 30 respondents agreed that they had problems that limit their physical activity. Under genetic predisposition, the top 3 medical health problems on both groups are arthritis with 16.67% followed by asthma and hypertension with 10% on each disease. For their self-perception, both groups feel neutral about their current overall appearance with average weighted mean of 2.89 for below BMI and 2.79 for above BMI. For the rest and sleep, both groups with the percentage of 43.33% sleeps approximately 6-8 hours per day and majority of the respondents take a nap with percentage of 62.5% for below BMI and 92.86% for above BMI. For the vices, none of the respondent's smoke tobacco or e-cigarette. 5 out of 30 respondents, drink alcoholic beverages.

The number of individuals being overweight and obese are seen as a global public health concerns. Negative attitudes towards obese and overweight people are prevalent among health care professionals. Nurses and nursing

students have a significant role in health promotion of people who are obese or overweight and can assist people in achieving healthy lifestyles. However, results in this study suggests that some nursing students fail to engage in healthy lifestyles themselves. Such unhealthy lifestyle puts nursing students in a precarious position when advising overweight and obese people to adopt healthy lifestyles

The institution where the nursing students are enrolled should embrace the need for nursing students to enhance their own healthy lifestyle behaviors as an important component of their well being. This may strengthen the credibility and suitability of nursing students as future nurses in health promoting activities of patients who are overweight and obese.

Recommendations

The results will help the student nurses understand what to promote and what to avoid specially in the areas of healthy dietary habits, physical exercise, sleeping patterns, self-perception and vices which will be all beneficial when they become professional nurses as they project a healthy lifestyle, for they are ambassadors of health, who teach the clients and people of the community about health and wellness. The University Clinic can also utilize the data regarding BMI alterations to provide health teachings that will promote physical and mental wellness hence, improving their academic performance. The future researchers can enhance the study with the use of correlational design that will differentiate the relationship of the two variables in this study, which is lifestyle and BMI, how the former affects the latter and vice versa. It is also recommended for the researcher that the participants be extended to other departments or college to establish similarities and differences in the BMI and lifestyle behaviors. Further studies are also recommended to explore differences and similarities of the lifestyle of people with the same BMI.

References

AFP RelaxNews (2014). Reading and sleeping keys to keeping mentally fit. Philippine Star, 20.

Anne, M. (n.d.). Azcentral. Retrieved from https://healthyliving.azcentral.com/consequences-high-low-bmi-2937.html

Baccouche, M., Arous1, I., Sellami, H., and Elloumi, A. (2014). Association between body mass index and cognitive performance in rugby players. International Journal of Scientific and Research Publications, 4(6), 1-5. Retrieved from www.ijsrp.org/research-paper-0614/ijsrp-p3058.pdf

Bem, D. J. (1972). Self-perception theory. Advances in experimental social psychology, 6, 1-62.

Berman, A., et al., (2015). *Kozier & Erb's Fundamentals of Nursing Concepts, Process, and Practice, Volume 2 10th Edition*. Singapore: Pearson Education Limited

Bruso, J. (2017). Livestrong. Retrieved from https://www.livestrong.com/article/141665-the-average-bmi-age/

Chua, P. S. (2017). 12 Truths about sleep. Malaya Business B5, 5.

Cline, K., and Ferraro, K. (2006). Does religion increase the prevalence and incidence of obesity in adulthood. J sci study relig. 45(2), 269-281. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3358928/

Daniels, S. (2009). *The use of BMI in the clinical setting.* Retrieved from http://pediatrics.aappublications.org/

Dellova, C., et al., (2009). *ABC's of Nutrition and Diet Therapy* (For Nursing Students and Healthcare Practitioner)

pp 139-140. Malabon City: Mutya Publishing House Inc.

Pliego, L., Romero, E., et al., (2016). Dietary patterns associated with body mass index (BMI) and lifestyle in Mexican adolescents. Retrieved from https://doi.org/10.1186/s12889-016-3527-6

Doshi, T. (2017). Assessment of the effectiveness of lifestyle on BMI in adult people in Arabia. Egyptian Journal of Hospital Medicine. 69(3), 2105-2108.

Dovey, D. (2016). Medical daily. Retrieved from http://www.medicaldaily.com/does-race-affect-weight-bmi-differs-among-races-according-muscle-mass-and-fat-397199

Drummond, K., & Brefere, L. (2016). *Nutrition for food service and Culinary Professionals* (^{3}th Ed.). New York: Wiley & Sons, Inc.

Elwood, P. (2013). Healthy lifestyles reduce the incidence of chronic diseases and dementia: evidence from the Caerphilly cohort study. PLoS One. Retrieved from https://doi.org/10.1371/journal.pone.0081877

Foltz-Gray, D. (2018). Young people with rheumatoid arthritis. Retrieved from https://www.painfree living-life.com/pain-conditions/rheumatoid-arthritis/young-people-with-rheumatoid-arthritis/

Grønbæk, M. (2009). The positive and negative health effects of alcohol- and the public health implications. Copenhagen, Denmark. First published: 10 March 2009 https://doi.org/10.1111/j.1365-2796.2009.02082.x

Handel, S. (2009). The emotion machine. Retrieved from http://www.theemotionmachine.com/six-aspects-of-a-well-balanced-person-part-1/

Homayunnia Firouzjah, M., Sheikh, M., & Homayouni, A. (2014). Investigating the relationship between emotional intelligence, body image, and eating disorders in team and individual athletes. Journal of Motor Behavior, 15, 141-154.

Jacobs, O. (2017). Livestrong. Retrieved from https://www.livestrong.com/article/290197-what-is-the-meaning-of-lifestyle/

Lajunen, H. & Kaprio, J. et al., (2009). Genetic and environmental effects on body mass index during adolescence: a prospective study among Finnish twins. International journal obesity. 33, 559–567.

Mizuta, A. & Fujiwara, T. et al., (2016). National Institutes of Health. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5103506/

Moores, D. (2018). Obesity. Retrieved from https://www.healthline.com/health/obesity

Movahhedi, A. (2015). The effects of obesity on emotional intelligence in overweight in overweight children. International Congress of Mother and Child Obesity.

Nordqvist, C. (2017). Medical news today. Retrieved from https://www.medicalnewstoday.com/articles/255712.php

Nurmehamadian, G. (2016). The relationship between body image, emotional intelligence, and body mass index. International journal of humanities and cultural studies. April 2016, 723- 732. Retrieved from https://www.ijhcs.com/index.php/ijhcs/article/viewFile/953/845

Phiri, L. (2014). Nurses' lifestyle behaviors, health priorities and barriers to living a healthy lifestyle: a qualitative-

descriptive study. Biomed central. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4264254/

Valenzuela, A. (2016). Reading as Pastime. Manila Bulletin D1, 3-4.

Ranjbordar, S. (2010). Emotional intelligence and ways of increasing it. Journal of Counselor, 5 (3), 12-14.

Schwartz, L. (n.d.). Azcentral. Retrieved from https://healthyliving.azcentral.com/purpose-bmi-15098.html

Shekhar, R. (2016). Lifestyle and body mass index among students of a nursing college in Bihar. Biomedical research. Retrieved from http://www.alliedacademics.org/articles/lifestyle- and-body-mass-index-among-students-of-a-nursing-college-in-bihar.html

Steven, M. (2013). Stress, lifestyle, and diet in college students: analysis of the study. Open access master's theses. Paper 27. Retrieved from http://digitalcommons.uri.edu/theses/27

Tiruneh, G. (2009). The Relationship between Physical Activity and Body Mass Index. Retrieved from http://www.gizachewtiruneh.com/wp-content/uploads/2009/06/BMI-Exercise-2010.2.pdf

Walsh, R. (2011). American psychologist. Retrieved from https://www.apa.org/pubs/journals/releases/amp-66-7-579.pdf