

Effect of Lifestyle Modification through the Application of Academic Advising on Academic Achievement among Nursing Students

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Abstract:

Background: Lifestyle modification is the experiences involve changing long-standing practices, as physical activity, eating behaviors, sleeping pattern, and smoking, time management, stress management and drug use through academic advising, these experiences use for months or years have been associated with academic outcomes. **Aim:** to determine the effect of lifestyle modification through the application of academic advising on academic achievement among nursing students. **Design:** Quasi-experimental design. **Subjects:** A purposive sample of 129 nursing students from the first year (62 students) and second year (67student). **Setting:** This study was conducted at the Faculty of Nursing Menoufia University, Shebin ElKom, Egypt. **Instrument:** Structured self-administered questionnaire consists of eight parts. **Results:** there were highly statistical improvement of the mean Students' knowledge and practice scores ($P < 0.001$) regarding methods of life style modification after intervention, all studied sample failed in their studying year before intervention, while their academic achievement improved $P < 0.001$, presence of positive correlation between students' academic achievement and lifestyle modification interventions in pre and post-intervention among the studied group and presence of positive correlation between students' academic achievement and effect of application of academic advising in pre and post-intervention of life style modification. **Conclusion:** the existing study concluded that; lifestyle modification had a positive effect on students' academic achievement additional the same effect of academic advising. **Recommendation:** based on the current research findings the researchers recommended that; providing a well-organized, evidence-based academic advising to reinforce the students' healthy lifestyle modification is needed.

Keywords: Academic Achievement, Academic Advising, Lifestyle Modification and Nursing Students.

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Introduction

Healthy manners have an influence on academic performance and achievement. Numerous behaviors have been associated with academic outcomes, including physical activity, eating behaviors, sleeping pattern, and smoking,

alcohol and drug use through academic advising (Cabrera, 2018) Academic advising is one of the most important methods that enhance individual, social and intellectual development of students. It is a systematic process; depend on the relationship between student and advisor

to help students in attaining academic goals, career goals, and personal goals. Moreover, some colleges have expanded academic services to improve student achievement (Al-Omari & Khasawneh, 2014).

Researches study the effect of nutrition on academic achievement concluded that healthy food improves thought, attention, concentration and enhance memory. It is important to recognize how lifestyle factors, especially eating pattern, can affect students' academic achievement. Eating regular breakfast, lunch, and dinner, involving grains, fruits, or vegetables, has been improved health status, cognitive abilities, and academic outcomes (Reuter, Forster & Brister, 2020).

Pattern of sleep has a positive or negative outcome on student's behavior. Insufficient of sleep hours may lead to anxiety, irritability, Powerlessness in study, while adequate duration of sleep aid brain to concentrate, improve thinking, and memory which progress achievement (BaHammam, et al., 2012).

One of the major impacts on student motivation is stress, which commonly has a negative relationship with academic performance. It is defined as the physical pressure, pull or other force exerted on one thing by other or is any tenseness that persons feel. Current study suggests that students who have lower levels of stress get better grades than students who feel crush by stress. Decreased stress results from effective time management behavior and can substantially consequence in higher Grade Point Averages (GPAs) among college students (Wale, 2009 & Adam, 2019).

O'Connell (2014) also suggests that; the balance between sleep, physical activity, and suitable nutrition beside a period of rest time would lead to diminish student' illness. Physical activity and exercise are associated with development of brain structures that leads to an improvement in intellectual functions (Cid & Munoz, 2017).

Regular participation in physical activity has positive effects on physical, social, and mental health. It decreases the hazard of developing chronic diseases, improves the quality of life and well-being, and improves cognitive functioning (Verret & Guay, 2012 and Conn, 2010).

Time management is organizing tasks and activities to optimize the effectiveness of an individual's efforts. The aim of it is helping people to gain more and better work done in a short period of time (Kaushar, 2013).

Proper time management is linked with better academic achievement, and lower levels of stress in students. Numerous studied have clarified the positive effect of time management on student cognitive, learning and outcomes. Also, it helps individual to control their activities (Adam, 2019). Time management is an important role in improving students' academic achievement. Student should have organized their time by setting goals and priorities to complete their duties, so obtain higher GPA (Alsalem, 2017).

Significance of the Study

In Faculty of nursing, there is no research has been done to find out how the effect of lifestyle modification on students' achievement through academic advising. Academic advisors can offer

many benefits to the students. The relationship between students and their advisor can increase student development and increase academic success for the students (Pargett, 2011). So, the current study determines the effect of Lifestyle Modification through the application of academic advising on academic achievement among nursing students.

The aim of the study:

This study aimed to determine the effect of lifestyle modification through the application of academic advising on academic achievement among nursing students.

Research hypothesis:

1- There will be change in students' knowledge and practice about methods of lifestyle modification after intervention.

2- There will be presence of a strong positive relationship between Lifestyle modification interventions and students' academic achievement (Grade Point Average).

3- There will be presence of a strong positive relationship between application of academic advising and academic achievement.

Subjects and Methods

Research design: Quasi-experimental design was used to test the research hypothesis (pre /post-test).

Study setting: This study was conducted at the Faculty of Nursing Menoufia University, Shebin El -Kom, Egypt.

Subjects: A purposive sample of 129 from the first year (62 student) and second year (67student) nursing students enrolled in the above-mentioned setting in the academic year 2018-2019 and 2019-2020 were included in the study. They fulfill the following:

Inclusion criteria:

The student failed in the first and second year.

The student agreed to participate.

Instrument: Structured self-administered questionnaire consists of eight parts. This tool was developed by the researchers after reviewing related researches.

Part one: concerned with socio-demographic characteristics as students' age, studying year and gender.

Part two: contained first student's Grade Point Average (GPA) and Second student's Grade Point Average GPA.

Part three: the students' knowledge and practice regarding methods of life style modification about diet it contained eating healthy diet, knowing the elements of a healthy diet, taking fast food, taking a breakfast before going to faculty, etc.....

Part four: Students' knowledge and practice regarding Physical activity & sleep pattern, it involved performing daily physical exercises, students' thinking presence of relationship between performing exercises and academic achievement, etc.....

Part five: students' knowledge and practice about time management it consisted of set a specific time schedule

to complete each subject, make a list to accomplish daily tasks, etc.....

Part six: Students' behaviors during exam period it contained of students study in a place away from audiovisual distractions, etc.....

Part seven: students' stress management in exam period it consisted of three questions about complains associated with stress during period of exam, etc.....

Part Eight: Effect of application of academic Advising which consisted of two questions about satisfy with the application of academic Advising & thinking about the application of Academic Advising & it effects on GPA?

Content validity and reliability:

A multilingual group of five experts was selected to test the content and face validity of the tool. The panel included one expert from faculty of education; two experts from Medical Surgical Nursing Departments and two experts of Family and Community Health Nursing Department. Modifications of some questions were done to reach the final tool. The tool was considered valid from the experts' viewpoint. **Pilot study:** was done by 10 % of students and before starting the actual data collection. Subjects who participated in the pilot study were included in the study sample. The time required for each student to fill the questionnaire was estimated to be 25-30 minutes.

Ethical considerations:

The official permission to conduct the study was obtained by the researchers from the dean and ethical committee of the Faculty of Nursing after

comprehensive explanation of study purpose and data collection procedures. The informed consent was obtained from each contributor in the study. The contributors were informed that the participation in this study is voluntary and they can withdraw at any time without giving reasons. The purpose of the study was explained to the students and they relieved that the obtained information will be confidential.

Field work:

- Instrument and educational intervention were prepared by researchers after comprehensive reading of related information. The study was conducted during academic years 2018-2019 and 2019-2020.

- The researchers gathering data about students when the results of final exams; by taken the last academic achievement for all failed students (not passed) they were 62 student from both first and 67 student second academic year among faculty nursing students (pre-intervention academic achievement or Grade Point Average (GPA).

- The researchers met students at first week of new academic year, explained the aim of the study, obtained their agreement in sharing in this studying, all parameters and variables related to students' failure in their studying were assessed and the studied sample filled interview questionnaire (pre-test). Then the researchers met students at the second week to explain all items of lifestyle modification & established Whats App groups for follow up. (Divided items of lifestyle modification into two session per week)

- The researchers established meeting monthly to ensure students' application of interventions, additionally the researchers met the instructors for follow up students' clinical performance and lecturer who responsible for theory to follow up for their students in academic achievement through follow up activity and midterm.

- The researchers continue communicated and interacted with students to reinforcement knowledge about lifestyle modification through meeting and what app. And also assess level of stress during period of exam.

- After final exam of the academic year, taken students' Grade Point Average (GPA) compared the current their GPA with the previous pre-intervention academic achievement (post (1)-intervention academic achievement or Grade Point Average (GPA). Continuing the follow up as the previous; after the first term exam of second year of research application; taken students' Grade Point Average (GPA) compared the current their GPA with the previous pre-intervention academic achievement (post (2)-intervention academic achievement or Grade Point Average (GPA).

Statistical methodology

The data collected were tabulated & analyzed by SPSS (statistical package for the social science software) statistical package version 20 on IBM compatible computer (SPSS, Chicago, IL, USA).

Two types of statistics were done:

- **Descriptive statistics:** were expressed as mean and standard deviation (X+SD) for quantitative data or number

and percentage (No & %) for qualitative data.

- **Analytic statistics:**

Pearson Chi-square test (χ^2) was used to study association between two qualitative variables. Student t- test (parametric test) used for comparison between two independent groups of normally distributed quantitative variables. ANOVA test (parametric test): is a test of significance used for comparison between more than two independent groups of normally distributed quantitative variables. Paired sample t- test is a test of significance used for comparison between two related groups of normally distributed quantitative variables. Wilcoxon test is a test of significance used for comparison between two related groups of normally distributed quantitative variables. McNemar test is used for comparison between two related groups of qualitative variables. Spearman correlation: is used for quantitative variables that were not normally distributed. P-value at 0.05 was used to determine significance.

Results

Table (1) shows that; the mean age of studied sample is 20.12 ± 1.11 years. More than half of them (58.1%) were male. More than half of them at second year (51.9%). Most of them hadn't smoking (93.8%).

Table (2) clarifies that; there is highly statistical improvement of the mean Students' knowledge and practice scores regarding methods of lifestyle modification about diet after application of lifestyle modification interventions from (12.13 ± 1.67 to 15.34 ± 1.84). $P (< 0.001)$. Furthermore, presence of a high statistically difference related to students'

thinking about presence of relationship between eating a healthy diet and academic achievement. Hypothesis one is supported by the data.

Table (3) presents that; most of studied sample has low level of mean knowledge and practice scores regarding performing physical exercises and sleeping pattern before life style modification ,while the mean knowledge and practice scores developed after intervention (3.26 ± 1.14 to 4.53 ± 1.06) and (18.30 ± 2.35 to 24.06 ± 3.71) respectively. Moreover, there is highly statistically significant difference related to thinking of studied sample about presence of positive relationship between performing of physical exercises and sleeping pattern and academic achievement pre and post-interventions $P (< 0.001)$. Hypothesis one is supported by the data.

Table (4) shows that; all the studied sample has knowledge and practice related to time management through a specific time schedule to complete each subject, daily task and set up a review schedule according to the exam schedule and committed to it in pre-interventions, but most of them has improvement of knowledge and practice related to the same items post-interventions (0 % to 100%) respectively, with high statistically difference between pre and post-interventions $P (< 0.001)$. Hypothesis one is supported by the data.

Table (5) illustrates that; there is improvement in Students' behaviors during exam period after application of lifestyle medication (Mean \pm SD from 8.31 ± 2.54 to 17.05 ± 4.21). Too there is highly statistically significant difference regarding Students' behaviors during exam period between pre- and post-interventions, $p (< 0.001)$. Additional to

other items of student study and behaviors with exam change from not as good as to good; with high statistically difference between pre- and post-interventions. Hypothesis one is supported by the data.

Table (6) reveals that; there is statistically significant differences regarding to stress management in exam period between pre- and post-interventions of lifestyle modification ($P<0.009$). In relation to student's academic achievement (GPA) affect by stress before intervention, all studied sample group has affect (100%), while after intervention the majorly of studied sample more than half hasn't stress effect on their academic achievement (77%).

Figure (1) demonstrates that; improvement in total score of Students' knowledge about methods of lifestyle modification in post-intervention than pre-intervention ($P=< 0.001$). Hypothesis one is supported by the data.

Figure (2) clarifies that; all studied sample failed in their studying year before intervention, while their academic achievement improved to better results; the percentage of failed students in first and second assessment is 31% and 12.4% respectively. ($P=< 0.001$).

Figure (3) illustrates that; the mean of students' score pre and post Academic Advising intervention are 2.39 & 4.18 respectively. With high statistically difference between pre and post-interventions. ($P=< 0.001$).

Figure (4) illustrates that; presence of positive correlation between students' academic achievement among the studied group and lifestyle modification interventions in pre and post-intervention

of life style modification. Hypothesis two is supported by the data.

Figure (5) shows that; presence of positive correlation between students'

Table (1): Distribution of Socio-demographic characteristics of the studied sample (n=129):

academic achievement among the studied sample and effect of application of academic advising in pre and post-intervention of life style modification. Hypothesis three is supported by the data.

Socio-demographic characteristics	Study Group	
	No.	%
Age (years):		
Mean±SD	20.12±1.11	
Range	18.0- 22.0	
Gender:		
Male	75	58.1
Female	54	41.9
Studying year:		
First year	62	48.1
Second year	67	51.9
Smoking:		
Yes	8	6.2
No	121	93.8

Table (2): Total scores of students' knowledge and practice regarding methods of lifestyle modification about diet, Physical activity, sleep pattern and Time management among the studied sample pre- and post-intervention (n=129):

Total scores of students' knowledge and practice regarding methods of lifestyle modification about diet, Physical activity, sleep pattern and Time management	Study group		Paired t test	P value
	Pre-intervention X±SD	Post-intervention X±SD.		
Total scores of students' knowledge and practice regarding methods of lifestyle modification about diet:				
Mean ±SD	12.13 ± 1.67	15.34 ±1.84	17.59	< 0.001
Range	9.0 – 17.0	11.0 – 18.0		HS
Total scores of students' knowledge and practice regarding Physical activity:			W=	< 0.001
Mean ±SD	3.26 ± 1.14	4.53 ±1.06	6.86	HS
Range	2.0 – 6.0	2.0 – 6.0		
Total scores of students' knowledge and practice regarding sleep pattern:				
Mean ±SD	18.30 ± 2.35	24.06 ±3.71	18.08	< 0.001
Range	14.0 – 24.0	14.0 – 30.0		HS
Total scores of students' knowledge and practice about Time management:				
Mean ±SD	6.79 ± 1.52	13.58 ±3.13	23.66	< 0.001
Range	6.0 – 12.0	6.0 – 15.0		HS

Table (3): Students' knowledge and practice regarding Physical activity & sleep pattern among the studied group pre- and post-intervention (n=129):

Students' knowledge and practice regarding Physical activity & sleep pattern	Study group				Paired t test	P value
	Pre-intervention		Post-intervention			
	NO.	%	NO.	%		
Physical activity						
Performing daily physical exercises						
Never	88	68.1	18	14.0	W= 9.09	< 0.001
Sometimes	40	31.0	24	18.6		HS
Always	1	0.8	87	67.4		
Mean ± SD	1.33 ± 0.48		2.53 ± 0.72			
Students' thinking presence of relationship between performing exercises and academic achievement						
Yes	9	7.0	104	80.6	W= 3.24	< 0.001
No	47	36.4	17	13.2		HS
I don't know	73	56.6	8	6.2		
Mean ± SD	1.93 ± 0.43		2.20 ± 0.94			
Students' knowledge and practice regarding Physical activity:	3.26 ± 1.14		4.53 ± 1.06		W= 6.86	< 0.001
Mean ±SD	2.0 – 6.0		2.0 – 6.0			HS
Range						
Sleep pattern						
Number of sleeping hours per night						
Mean ±SD	4.93 ± 0.82		6.14 ± 0.87		12.97	< 0.001
Range	4.0 – 7.0		4.0 – 8.0			HS
Sleeping hours during exam period per night						
Mean ±SD	4.93 ± 0.82		6.14 ± 0.87		12.97	< 0.001
Range	4.0 – 7.0		4.0 – 8.0			HS
Students' thinking presence of relationship between quality of sleeping and academic achievement						
Yes	9	7.0	104	80.6	W= 3.24	< 0.001
No	47	36.4	17	13.2		HS
I don't know	73	56.6	8	6.2		
Mean ± SD	1.93 ± 0.43		2.20 ± 0.94			
Students' sleeping pattern on the night of exam						
I cannot sleep easily	108	83.7	26	20.2	12.62	< 0.001
I can sleep easily	21	16.3	103	79.8		HS
Mean ± SD	1.16 ± 0.37		1.80 ± 0.40			
Reason for awaking at night						
a-fear of exam	13	10.1	6	4.7	12.98	< 0.001
b- drinking more coffee and tea	50	38.8	10	7.8		HS
c-failure of stress management	40	31.0	7	5.4		
d-sleeping during day	5	3.9	3	2.3		
e- I can sleep easily	21	16.2	103	79.8		
Students manage this condition by:						
Pills	11	8.6	6	4.7	10.71	< 0.001
drinking warm fluid as milk	0	0.0	11	8.6		HS
nothing	97	75.2	9	6.9		
I can sleep easily	21	16.2	103	79.8		
Students' knowledge and practice regarding sleep pattern:	18.30 ± 2.35		24.06 ± 3.71		18.08	< 0.001
Mean ±SD	14.0 – 24.0		14.0 – 30.0			HS
Range						

Table (4): Students' knowledge and practice about Time management among the studied group pre- and post-intervention (n=129):

Students' knowledge and practice about Time management	Study group				Paired t test	P value
	Pre-intervention		Post-intervention			
	NO.	%	NO.	%		
Time management						
Set a specific time schedule to complete each subject						
Do	0	0.0	111	86.0	28.09	< 0.001 HS
Do not	129	100.0	18	14.0		
Mean ± SD	1.0 ± 0.0		1.86 ± 0.34			
Make a list to accomplish daily tasks						
Do	0	0.0	111	86.0	28.09	< 0.001 HS
Do not	129	100.0	18	14.0		
Mean ± SD	1.0 ± 0.0		1.86 ± 0.34			
Avoid any activity that interferes with your specific schedule						
Never	99	76.7	18	14.0	W= 9.33	< 0.001 HS
Sometimes	26	20.2	7	5.4		
Always	4	3.1	104	80.6		
Mean ± SD	1.26 ± 0.50		2.67 ± 0.71			
Use good time management when you ready to study						
Never	99	76.7	18	14.0	W= 9.33	< 0.001 HS
Sometimes	26	20.2	7	5.4		
Always	4	3.1	104	80.6		
Mean ± SD	1.26 ± 0.50		2.67 ± 0.71			
Set up a review schedule according to the exam schedule and committed to it						
Do	0	0.0	111	86.0	28.09	< 0.001 HS
Do not	129	100.0	18	14.0		
Mean ± SD	1.0 ± 0.0		1.86 ± 0.34			
Students know how distribute correctly the time for studying and review for each course						
Never	99	76.7	18	14.0	W= 9.33	< 0.001 HS
Sometimes	26	20.2	7	5.4		
Always	4	3.1	104	80.6		
Mean ± SD	1.26 ± 0.50		2.67 ± 0.71			
Students' knowledge and practice about Time management:						
Mean ±SD	6.79 ± 1.52		13.58 ±3.13		23.66	<
Range	6.0 – 12.0		6.0 – 15.0			0.001 HS

Table (5): Students' behaviors during exam period pre- and post-intervention (n=129):

Students' behaviors during exam period	Study group				Paired t test	P value
	Pre-intervention		Post-intervention			
	NO.	%	NO.	%		
Student study and behaviors with exam						
Students study in a place away from audiovisual distractions						
Do	0	0.0	111	86.0	28.09	< 0.001
Do not	129	100.0	18	14.0		
Mean ± SD	1.0 ± 0.0		1.86 ± 0.34			
Students review the course more than once before the exam in sufficient time						
Do	0	0.0	111	86.0	28.09	< 0.001
Do not	129	100.0	18	14.0		
Mean ± SD	1.0 ± 0.0		1.86 ± 0.34			
Students avoid discussions with their colleagues before entering the exam site						
Never	99	76.7	18	14.0	W=	<
Sometimes	26	20.2	7	5.4	9.33	0.001
Always	4	3.1	104	80.6		HS
Mean ± SD	1.26 ± 0.50		2.67 ± 0.71			
Students assess the questions and distribute the time						
Never	99	76.7	18	14.0	W=	<
Sometimes	26	20.2	7	5.4	9.33	0.001
Always	4	3.1	104	80.6		HS
Mean ± SD	1.26 ± 0.50		2.67 ± 0.71			
Students start answering easy questions at first						
Never	99	76.7	18	14.0	W=	<
Sometimes	26	20.2	7	5.4	9.33	0.001
Always	4	3.1	104	80.6		HS
Mean ± SD	1.26 ± 0.50		2.67 ± 0.71			
Students assign time at the end of the exam for review						
Never	99	76.7	18	14.0	W=	<
Sometimes	26	20.2	7	5.4	9.33	0.001
Always	4	3.1	104	80.6		HS
Mean ± SD	1.26 ± 0.50		2.67 ± 0.71			
Students' checking their answer after finishing the exam						
Never	99	76.7	18	14.0	W=	<
Sometimes	26	20.2	7	5.4	9.33	0.001
Always	4	3.1	104	80.6		HS
Mean ± SD	1.26 ± 0.50		2.67 ± 0.71			
Students' behaviors during exam period:						
Mean ±SD	8.31 ± 2.54		17.05 ±4.21		21.63	<
Range	7.0 – 17.0		7.0 – 19.0			0.001
						HS

Table (6): Students' Stress management in exam period pre- and post-intervention (n=129):

Students' Stress management in exam period	Study group				Paired t test	P value		
	Pre-intervention		Post-intervention					
	NO.	%	NO.	%				
Stress management in exam period								
During exam stress can cause								
a-Nausea	5	3.9	7	5.4	10.30	< 0.001 HS		
b- Vomiting	8	6.2	3	2.3				
c- Loss of appetite	14	10.9	5	3.9				
d- Headache	21	16.3	1	0.8				
e- Insomnia	15	11.6	7	5.4				
f-diarrhea	19	14.7	3	2.3				
g- anxiety	47	36.4	8	6.2				
j-No complain	0	0.0	95	73.6				
Mean ± SD	5.16 ± 1.83		6.98 ± 2.05					
Dealing with stress by:								
a- Exercise	0	0.0	28	21.7	W= 2.60	<0.009 S		
b-Talk to friends'	13	10.1	0	0.0				
c-Listen to Holy Quran/ music	5	3.9	0	0.0				
d- Sleep	0	0.0	0	0.0				
e- Eat	0	0.0	0	0.0				
f- Taking drugs	16	12.4	4	3.1				
g- Work	0	0.0	0	0.0				
h- Read	1	0.8	0	0.0				
l- Smoking (tobacco products(6	4.7	5	3.9				
j- Drinking of Herb/home remedies	0	0.0	0	0.0				
l-nothing	88	68.2	0	0.0				
k- no stress	0	0.0	92	71.3				
Mean ± SD	9.09 ± 3.21		9.35 ± 4.54					
Student's academic achievement (GPA) affect by stress								
Yes	129	100.0	52	40.3	W= 8.77	< 0.001 HS		
No	0	0.0	0	0.0				
I don't know	0	0.0	0	0.0				
Mean ± SD	2.0 ± 0.0		1.40 ± 0.49					
Students' Stress management in exam period:								
Mean ±SD	16.24 ± 3.91		17.73 ± 6.09		W= 3.09	<0.002 S		
Range	2.33 – 6.67		1.0 – 7.33					

Figure (1): Total score of Students' knowledge and practice about methods of lifestyle modification (n=129):

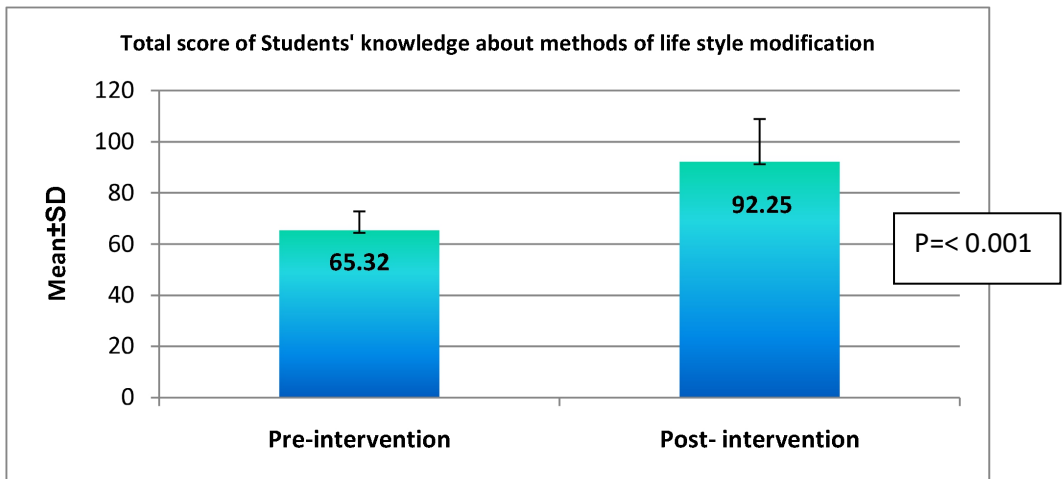


Figure (2) Academic Achievement and GPA of the studied group pre and post-intervention (n=129)

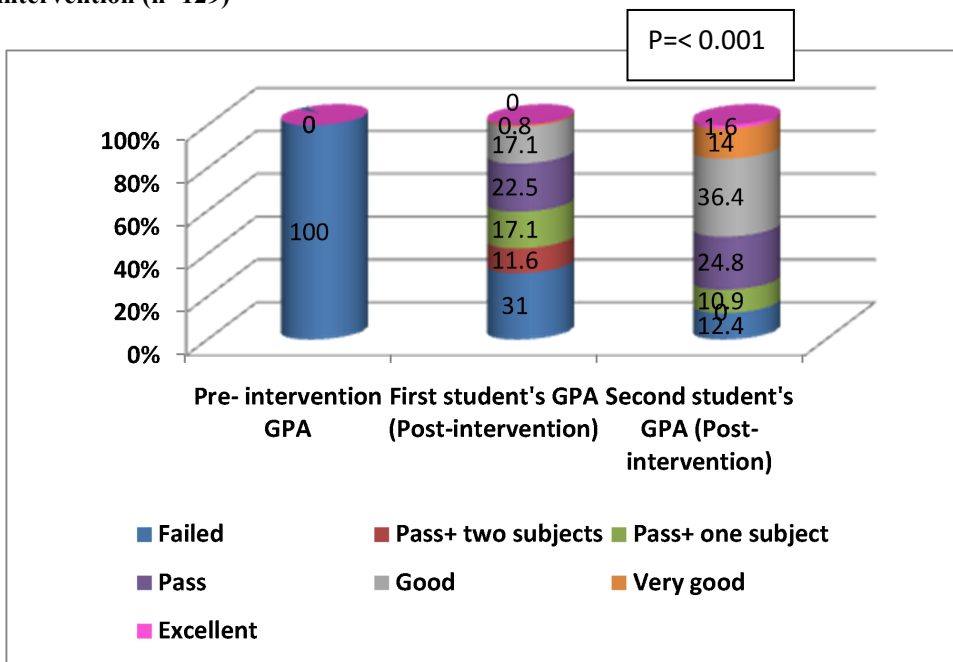


Figure (3): Students' score pre and post Academic Advising intervention (n=129):

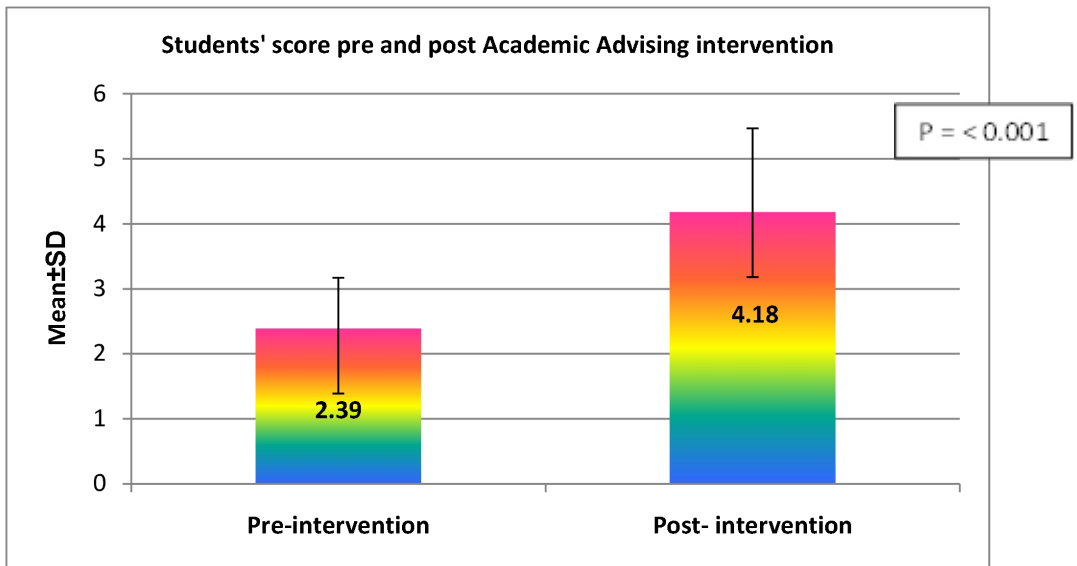


Figure (4): Correlation between students' academic achievement among the studied group and Lifestyle modification interventions (n=129):

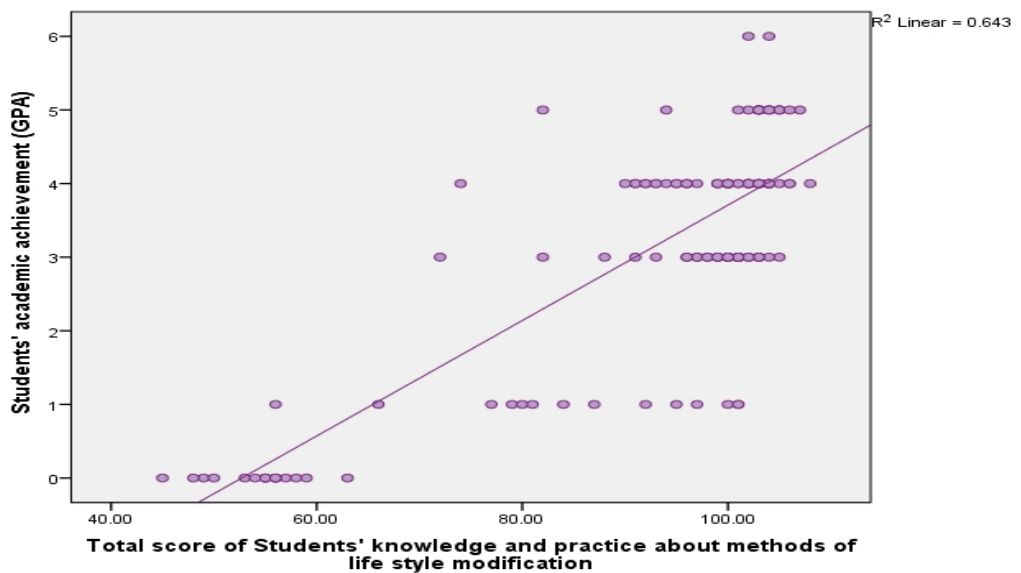
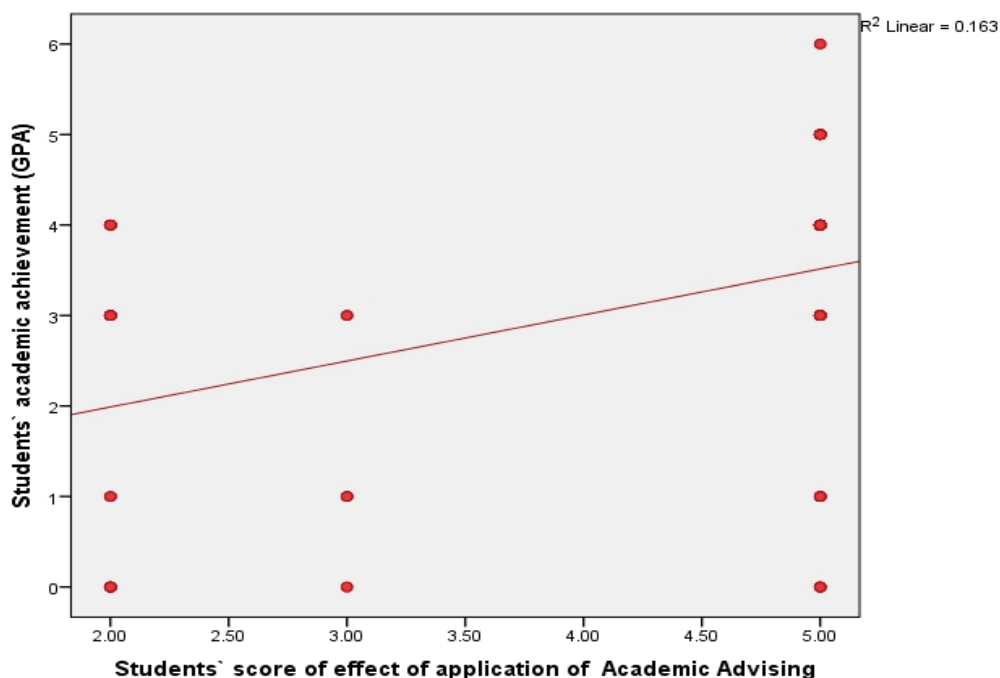


Figure (5): Correlation between students' academic achievement among the studied group and effect of application of Academic Advising (n=129):



Discussion

Lifestyle modification is the experiences involve changing long-standing practices, as of eating diet, physical exercises, and keeping the good behavior for months or years. Numerous behaviors have been associated with academic outcomes, including physical activity, eating behaviors, sleeping pattern, and smoking, alcohol and drug use through academic advising. The current study aimed to determine the effect of lifestyle modification through the application of academic advising on academic achievement among nursing students.

Concerning to sex, the current study showed that; more than half of

studied sample who failed in their academic achievement were male, this study was in line with **Khatun, Khatun and Akter (2020)** who found that; nursing male students had lower academic achievement with higher percentage of failure than the female. The researchers explained that; these perhaps female students had well studying abilities and work hard.

In relation to students' academic achievement and Lifestyle modification interventions (eating healthy diet; physical activity and sleeping pattern);

The present study documented that; presence of positive correlation between lifestyle modification and academic achievement, when the studied samples changes their lifestyle as eating healthy

diet, perform physical activity and change sleeping pattern which led to improvement in their academic achievement; this result was agreement with **Williams, (2018)** who found that, the improvement occurred in students' academic performance after they ate healthy food, sleeping well during night and performing daily physical exercises. This may be explained by good preparation through using adequate knowledge through academic advising about change in life style led to improve in student' manner of life.

Concerning to students' knowledge and practice about methods of life style modification; the current data mentioned that; the improvement happened in total score of students' knowledge and practice about methods of life style modification post intervention than pre intervention. This result supported with **Jafari, Shahriari, Sabouhi, Farsani, and Babadi (2016)** who stated that; the mean score of knowledge and practice of the studied sample improved immediately after the intervention.

Regarding to time management; the present study denoted that; all the studied sample who not applied time management through a specific time schedule to complete each subject, daily task and set up a review schedule according to the exam schedule and committed to it had low level of knowledge and practice pre interventions, while post-interventions most of them had improvement of knowledge and practice related to the same items. This result in line with **Razali, Gan and Arbin (2018)** who said that; time planning and management were significantly positively related to students' academic achievement. The researchers clarified that; the importance of time

planning and its effect on students' academic performance and achievement were very important corrected indicator for enhancement in students' academic achievement.

Regarding to stress management; the current study mentioned that; there was statistically significant differences regarding to stress management in exam period pre and post-interventions of life style change. Also, GPA is affected by stress before intervention; these findings were congruent with **Yikealo, Yemane and Karvinen (2018)** who documented that; elevated stress levels among university students cause a weakening in the students' academic performance and achievement. The researchers elucidated that; during a period of exam, stress and anxiety level increased without academic advising, while interviewing, and interaction with advisor help students to management stress through time management which organize thought, arrange task, so the level of stress decreased.

Regarding students' behaviors; the current study showed that; there was highly statistically significant difference regarding students' behaviors during exam period pre and post interventions. This data agreed with **Janssen, Susan and O'Brien and Maureen (2014)** who mentioned that; the grade point average (GPA) of students improved after changed their behaviors and use of self-regulatory behaviors during exam studying schedule and exam period.

Regarding to correlation between students' academic achievement and application of Academic Advising; the current study approved that; presence of a strong positive correlation between them after application of academic advising, the

result was consistent with **Fussy (2018) & Awadh (2018)** who showed that; the academic advising program is generally had an important role in enhancing students' academic performance and educational outcomes among college students.

Conclusion

The findings of the existing study concluded that; lifestyle modification had a positive effect on students' academic achievement additional the same effect of academic advising.

Recommendation

Based on the current research findings the researchers recommended that; providing a well-organized, evidence-based academic advising to reinforce the students' healthy lifestyle modification is needed; sustainability of enhanced continuous academic advising helps in improving grade point achievements of the student. Further researches are needed to provide applicable strategies for overcoming the obstacles that may hinder the students in their studies and apply this research on other academic years for large sample.

Conflict of interest

There were no conflicts of interest.

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