

- **Basic Research**

Relationship Between Nursing Students' Quality of Life and Their Academic Achievement

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Abstract

Introduction: Quality of life was first used by the economist Pigou in 1920. He put emphasis on social wellbeing and how governmental policy could increase social wellbeing. Recently QOL can be determined as the degree of excellence or satisfaction of life including a person's existential state, well-being, life satisfaction with the exogenous (objective) facts and factors of life and by the endogenous (subjective) perception and assessment of these facts and factors. **Aim:** this study aims to explore the relationship between nursing students' quality of life and their academic achievement. **Methods:** An exploratory descriptive research design was used among systematic random sample of 440 nursing students who registered at the Faculty of Nursing, Damanhur University, at all faculty scientific departments. **Research question:** Is there a relationship between nursing students' quality of life and their academic achievement? **Tools:** two tools were used for data collection: Tool I "student quality of life assessment questionnaire, Tool II "academic achievement". **Results:** a statistically significant differences and relations were found between students' QOL satisfaction level and their academic achievement ($P < .001$). **Conclusion:** Ensuring the highest level of wellbeing and QOL among nursing students maximizes their learning and satisfaction in life, where it influences their ability to learn and achieve. **Recommendations:** specific policies should be developed centered on holistic development of nursing students physically, psychologically, socially, environmental and academic.

Keywords: quality of life, academic achievement, nursing student.

Introduction

Quality of life (QOL) is judged as a complex construct of thoughts, which can be interpreted in several ways for people of different age groups and cultural backgrounds as well as significant gender differences. It was first used in 1920 and there was no reaction to this

concept as it was ignored until the end of World War II. In the past century, QOL was determined as material welfare or wealth. Later, the perception of life meaning, and values has changed which influenced QOL concept, these changes encompassed all dimensions of an individual life, which made QOL evaluation more holistic to all these dimensions **(Becker, et al., 2014; Ruzevicius, 2012)**. The World Health Organization (WHO) (1992) defines QOL as an individual perception of his position in life in the context of culture and value system by which a person lives, relative to his aims, hopes, living standards and interests. In 1994, the WHO expanded the definition of QOL to include the concepts of physical, psychological, schooling and social well-being, which made QOL concept incorporate individuals' physical and psychological health, degree of independence, social liaisons and how they relate to their surroundings **(Theofilou, 2013; Raihana, 2018)**.

QOL is classified as objective and subjective. As Objective QOL includes general health, functional status and socioeconomic status. These objective indicators are poorly correlated with the perception and satisfaction of life quality. While, subjective QOL includes life satisfaction, self-esteem and psychological status, which differ between individuals of the same objects and condition. These indicators are a soft measure of individuals' feelings about a condition within the environment and not the condition itself. Subjective indicators data may be in opposite direction with objective data. However, information provided by both is complementary to assess quality of life **(Hoeve & Roodbol. (2013); Gou, et al (2018)**. In 1990, Hughes classified QOL to eight dimensions which include; personal autonomy (decision making and ability to control life), expressed satisfaction (individual perception and satisfaction with his life), physical and mental wellbeing (physical handicap, functional ability), socioeconomic (income, material status, standard of living), quality of the environment (warmth and security), social integration (family and social network and support), cultural factors (age, gender, religion and class background) and purposeful activity (activities of daily living, recreation and work) **(Travis, Gibson 2015;; Preposi, et al., 2018)**.

There are three main groups of stressors that may affect nursing students' QOL which are academic, clinical and personal stressors. The academic stressors may result from testing and evaluation, fear of failure in training, problems with workload, etc., while, the clinical stressors may result from work, fear of making mistakes, negative responses to the death or suffering of patients, relationships with other members of the organization, etc. While, the personal/social stressors may result from economic problems, imbalance between housework/schoolwork, etc. It is essential for educators and faculty to be aware of these stressors and to provide students with effective coping strategies to deal with the inevitable source of stress present during the undergraduate nurse education process **(Williams, 2014; Reeve, et al 2013)**.

The success of any educational institution is measured by its students' academic achievement and how well they meet the standards settled out. Currently, institutions which offer different Bachelor of Nursing programs worldwide are under increasing pressure to graduate large numbers of students with high quality to meet the demands of diminishing qualified nurse workforce. On the other hand, nursing students' academic failure is a phenomenon, which has an economic impact and negative effects on the availability of qualified nurses in different health care systems .So, students' academic achievement has become a top priority among educators who want to make a difference, as they have been interested in exploring quality variables, which significantly contribute to the performance of learners. There are many factors that may affect students' academic achievement including socio-demographic characteristics, socio-economic status, personal factors, academic factors including; educational environment, peer and teacher relationship, academic communication, language of instruction and previous grades. (**Costanaz, et al., 2007; Salamonson, et al., 2006; Blackman, et al., 2007**).

University students in general are in their developmental period so they have additional responsibilities with increased independence such as; dealing with peer pressure, challenges of personal relationships, part time employment and time management issues (**Chaturvedi, et al., 2016**). Specifically, nursing students' lives are very stressful, as they face abundant stress in their daily lives because of the nature of their study, multiple specialties, theoretical and practical hours, clinical setting environment, transportation problems, academic assignments, workload and negative interactions with staff and faculty. So, because of QOL nature which is presented differently across varying environments, health status and psychological situations, successful nursing teaching and learning require students to have a balance between all QOL aspects to establish quality in their daily lives (**Ahmed, et al., 2018**).

2- Significance of the study:

The researchers observed during their work that; there are many stressors affecting nursing students every-day in their academic and clinical environment, especially transportation problem, work overload, complicated study, time restrain , policy regulations and how these factors affect their practice.

3-Aim of the study

Current study aims to explore the relationship between nursing students' quality of life and their academic achievement.

4-Research question

Is there relationship between nursing students' quality of life and their academic achievement?

5- Subjects and methods

5.1. Research design: an exploratory descriptive research design was used in this study.

5.2. Settings: the study was conducted at the Faculty of Nursing, Damanshur University; at all faculty scientific departments, throughout the academic year 2019-2020. Damanshur University educational system is based on the traditional grads policy without credit hours.

5.3. Subjects: the sample consisted of 440 nursing students who were selected systematic random (every other one) to represent 1014 nursing students enrolled in the 4 academic levels of Damanshur Faculty of Nursing. The sample size was estimated using EPI INFO 7 program using the following parameters:

Population size 1014

Expected frequency 50%,

Acceptable error 1%,

Confidence coefficient 99%

5.4. Tools: Two tools were used for data collection

5.4.1. Tool I: Student Quality of Life satisfaction Questionnaire (SQLAQ)

This tool was developed by the researcher after thorough review of related literature (**Harper, Power, 2004; Anderson, et al., 2003; Majed, et al., 2017; Dube, 2018**) to assess nursing students' quality of life satisfaction level. It consisted of two parts; first part was students' personal and academic data which included name, age, sex, weight, height, health status, economic status, occupational status, residence, academic year, previous grades and transportation hours /day. Second part consisted of 5 categories about quality of life including 51 items as follow: quality of life in physical and lifestyle domain (10 items), psychological and emotional domain (10 items), social and economic domain (11 items), environmental domain (5 items), academic domain (15 items). It is a 4- point- Likert scale ranging from always (4) to never (1). The total score is 204 which was interpreted as follow; from 204 to 136 indicated high QOL satisfaction, from 135 to 68 indicated moderate QOL satisfaction, less than 68 indicated low QOL satisfaction.

5.4.2. Tool II: The students' academic achievement

It was assessed by using students' final grades total and percentage after first semester exam.

5.5. Method

-Permission to conduct the study was obtained from the Research and Ethical committee at the Faculty of Nursing, Alexandria University.

-Permission to conduct the study and obtain students' grades was obtained from the Dean, Vice Dean of student affairs and the heads of all scientific departments at Faculty of Nursing, Damanhur University.

-A written informed consent was obtained from all participants after explanation of the study aim.

-**Tool Validity:** Tool I was tested for its content validity by five experts in the related field and the necessary modifications were done.

-**Tool Reliability:** Tool I was tested using Cronbach's Alpha test and it was reliable as reliability coefficient $r = .935$.

-**A pilot study** was carried out on approximately 10% of sample size (44) students to test the clarity and applicability of the tool, they were excluded from the sample and the necessary modifications were done.

-Data was collected from nursing students at the four academic levels after clinical day and/or after theoretical lecture. Questionnaire was distributed to be answered by students after explaining the study aim. The questionnaire was answered within approximately 15 minutes. The data collection covered a period of one month starting from the middle of November 2019 until second week of December. A list of sample students' names of each academic year was prepared to obtain their grades.

5.6. Ethical Considerations

-Electronic informed consent was obtained from all nursing students after the explanation of the study aim and the potential benefits from participation in the study.

-According to the subject's acceptance to participate in the study, the questionnaire was distributed to them to be filled.

-Confidentiality was assured.

-The nursing students had the right to withdraw from the study at any time without any penalties.

5.7 Statistical analysis

Data were fed to the computer and analyzed using IBM SPSS software package version 20.0. (Armonk, NY: IBM Corp) Qualitative data were described using number and percent. Quantitative data were described using range (minimum and maximum), mean, standard deviation. Significance of the obtained results was judged at the 5% level. The used tests were: **Mean value, The standard deviation, Student (Unpaired-sample) “t” test, One way analysis of variance (ANOVA) was performed for comparison between more than two groups , Chi-Square test and Fisher’s exact test and Monte Carlo test**

6. Results

Table (1) shows distribution of the students according to their socio-demographic, academic and occupational data. It was found that; more than three quarters of the students were between 21-23 years old (80.5 %), while about two thirds of them were female and in rural residence (61.1 %, 62 %). About one third of the students were at their fourth academic level (33.4 %) and all students' weight ranged between 42- 111 kg, and height was between 70- 198 cm. The majority of the students' family incomes and daily expenses were enough (91.8 %, 92.3 %). Nearly all the students had no diseases (98 %). About half of second, third and fourth academic year students had excellent grade (43.2 %), while first academic year students' grades (Secondary School) ranged between (94.90 -98.2 %). More than three quarters of the students were not working (79.1 %) while the majority of worked students work less than 7 days per week and less than 50 hrs/week (87%, 73.9 %) and their transportation hours were ranged between (.50-5 hrs).

Table (2) show distribution of the students according to all aspects of the QOL domains. It was found that; there were statistically significant differences regarding all aspects of each domain in QOL and all total score except social and economic total's (<0.001* , 0.793)

Table (3) shows distribution of students according to their satisfaction level of quality of life, it was found that, near two thirds of the students had high quality of life satisfaction (58.2%), near half of them had moderate QOL satisfaction (41.8 %), while no one had low QOL satisfaction. Finally, there were statistically significant difference regarding students' descriptive overall QOL (p<0.001).

Table (4) shows distribution of the students according to academic achievement levels. It was found that; more than one third of the students had very good grade (41.1 %), near one third of them had excellent grade (29.3 %), while nearly one quarter of them had good grade (22.7 %). Also, minimal percent of students had fair grade, loaded with courses (3.4%, 2.3 %), and only 1.1 % of the students had failed grade. Finally, there were statistically significant difference regarding all students' academic achievement levels ($p < 0.001$).

Table (5) shows relation between quality of life domains and academic achievement, it was found that; there were statistically significant difference and relationship between physical and lifestyle domain and students who failed, got good, very good grade ($p = 0.005, 0.030, 0.002$). Also, there were statistically significant difference and relationship between psychological and emotional domain and students who failed, got fair ($p < 0.001$), and the same relation between social and economic domain and students who failed, got good, very good and excellent ($p = 0.002, 0.005, <0.001, 0.016$). In the same line, there were statistically significant difference and relationship between environmental domain and students who failed, got good, very good, excellent ($p = 0.001, 0.020, 0.001, 0.018$), and between academic domain and students who failed, got good ($p < 0.001, p = 0.003$). As well as there were statistically significant difference and relationship between overall QOL and students who failed, got fair, good grade ($p < 0.001, p = 0.003, 0.005$).

Table (6) shows relation between students' socio-demographic data and quality of life domains. It was found that; there were statistically significant difference and relationship between all QOL domains and academic years ($p < 0.001, p = 0.012$), while there were statistically significant difference and relationship between academic domain only and age ($p = 0.016$). Also, there were statistically significant difference and relation between physical and lifestyle, social and economic, environmental domains and sex ($p = 0.001, 0.027, p < 0.001$), on the same line there were statistically significant difference and relationship between psychological and emotional, social and economic domains and residence ($p = 0.048, 0.047$). Also, there were statistically significant difference and relationship between psychological and emotional, environmental domains and family income ($p = 0.001, 0.040$).

As well as there were statistically significant difference and relation between psychological and emotional, social and economic, academic domains, and daily expenses ($p = 0.001, 0.024, p < 0.001$). There were statistically significant difference and relationship between academic domain and presence of diseases ($p = 0.014$), while there were statistically significant difference and relation between all QOL domains and previous grades ($p =$

0.005, 0.007, 0.011, 0.009). And there were statistically significant difference and relationship between physical and lifestyle, social and economic, environmental domains and students' working status ($p < 0.001$, $p = 0.002$). Finally, there were statistically significant difference and relationship between academic year, family income, daily expenses, previous grades and overall QOL total score ($p = 0.016, 0.038, 0.001, 0.019$).

Table (7) shows relation between academic year and quality of life domains. It was found that about two thirds of the first, fourth year students, above three quarters of second, third year students had moderate satisfaction level in physical and lifestyle domain of QOL (61.1, 58.5, 82.8, 86.9 %). While above two thirds of first year student, above half of second year students, about three quarters of third year students, near half of fourth year students had moderate satisfaction level in psychological and emotional domain of QOL (64.2, 55.6, 79.8, 49.7%). Equal proportion of first year students had moderate and high satisfaction level in social and economic domain respectively (46.3 %), above two thirds of second year students, three quarters of third year students had moderate satisfaction level in social and economic domain of QOL, while above two thirds of fourth year students had high QOL in the same domain (61.6, 75.8, 68.7 %).

Also, near half of first year students, near two thirds of fourth year students had high satisfaction level in environmental domain of QOL, two thirds of second year students, near three quarters of third year students had moderate satisfaction level in the same domain (47.4, 57.1 %, 60.6, 72.7%).

On the same line, above half of first year students, two thirds of second year students, near two thirds of fourth year students had high satisfaction level in academic domain of QOL, above three quarters of third year students had moderate satisfaction level in the same domain (55.8, 60.6, 57.8, 78.8 %).

Finally, there were statistically significant difference and relationship between low, moderate physical and lifestyle domain, moderate and high psychological domain, all QOL levels and social and economic, environmental, and academic domain and academic years ($p < 0.001$, $p = 0.001$).

Table (1): Distribution of the students according to their socio-demographic, academic and occupational data

Socio demographic and occupational data		No.	%
Academic year	First	95	21.6
	Second	99	22.5
	Third	99	22.5
	Fourth	147	33.4
Age	19-20	86	19.5
	21-23	354	80.5
Sex	Male	171	38.9
	Female	269	61.1
Weight (kg)	Min. – Max.	42.0 – 111.0	
Height (cm)	Min. – Max.	70.0 – 198.0	
Residence	Rural	273	62.0
	Urban	166	37.7
	University dorm	1	0.2
Family income	Enough	404	91.8
	Not enough	27	6.1
	Enough and more	9	2.0
Daily expenses	Enough	406	92.3
	Not enough	34	7.7
Presence of diseases	No	431	98.0
	Yes	9	2.0
	Acute physical	5	55.6
	Chronic physical	2	22.2
	Acute psychological	2	22.2
	Chronic psychological	0	0
Previous grades	Loaded with materials	4	0.9
	Acceptable	14	3.2
	Good	85	19.3
	Very good	147	33.4
	Excellent	190	43.2
Previous grades (n = 95) first academic year	Min. – Max.	94.90 – 98.20	
Are you currently work?	Yes	92	20.9
	No	348	79.1
How many days / weeks? (n = 92)	<7	80	87.0
	≥7	12	13.0
How many hours/ weeks? (n = 92)	<50	68	73.9
	≥50	24	26.1
Transportation	Min. – Max.	0.50 – 5.00 hrs / day	

Table (2) Distribution of the students according to the QOL domains

No	Domains	Every Aspects Significance	Total Significance
1	Physical and lifestyle domain (10 aspects)	<0.001*	1390.330*(<0.001*)
2	Psychological and emotional domain (10 aspects)	<0.001*	649.704*(<0.001*)
3	Social and economic domain (11 aspects)	<0.001*	0.464(0.793)
4	Environmental domain (5 aspects)	<0.001*	35.805*(<0.001*)
5	Academic domain (15 aspects)	<0.001*	158.665*(<0.001*)

χ^2 : Chi square test p: p value Chi square (2×1 contingency table) *: Statistically significant at $p \leq 0.05$

Table (3): Distribution students according to their satisfaction level of quality of life

Overall quality of life	No.	%	χ^2	P
Low	0	0.0	–	–
Moderate	184	41.8	11.782*	0.001*
High	256	58.2	11.782*	0.001*
Total score				
Mean ± SD.	138.39 ± 18.48			
% Score				
Mean ± SD.	57.12 ± 12.08			

χ^2 : Chi square test p: p value Chi square (2×1 contingency table) *: Statistically significant at $p \leq 0.05$

Table (4): Distribution of the students according to their academic achievement levels

Academic achievement	No.	%	P
Failed	5	1.1	<0.001*
Loaded with courses	10	2.3	
Fair	15	3.4	
Good	100	22.7	
Very good	181	41.1	
Excellent	129	29.3	

χ^2 : Chi square test p: p value Chi square (2×1 contingency table) *: Statistically significant at $p \leq 0.05$

Table (5): Relation between quality-of-life domains and academic achievement

Quality of life	Academic achievement					
	Failed (n = 5)	Loaded with courses (n = 10)	Fair (n = 15)	Good (n = 100)	Very good (n = 181)	Excellent (n = 129)
A) Physical and lifestyle domain	0.005*	0.434	0.318	0.030*	0.002*	0.832
B) Psychological and emotional domain	<0.001*	0.512	<0.001*	0.111	0.840	0.743
C) Social and economic domain:	0.002*	0.330	0.066	0.005*	<0.001*	0.016*
D) Environmental domain	0.001*	0.075	0.068	0.020*	0.001*	0.018*
E) Academic domain	<0.001*	0.178	0.075	0.003*	0.096	0.874
Overall quality of life	<0.001*	0.219	0.003*	0.005*	0.054	0.181

F: F for ANOVA test *: Statistically significant at $p \leq 0.05$

Table (6): Relation between students' Socio demographic data and quality of life domains

Socio demographic data	Quality of life					Overall quality of life Total score
	Physical and lifestyle domain	Psychological and emotional domain:	C) Social and economic domain	D) Environmental domain	E) Academic domain	
Academic year F(p)	(<0.001*)	(0.012*)	(<0.001*)	(<0.001*)	(<0.001*)	(0.016*)
Age t(p)	(0.106)	(0.114)	(0.928)	(0.319)	(0.016*)	(0.657)
Sex t(p)	(0.001*)	(0.072)	(0.027*)	(<0.001*)	(0.684)	(0.146)
Residence F(p)	(0.917)	(0.048*)	(0.047*)	(0.333)	(0.629)	(0.215)
Family income F(p)	(0.183)	*(0.001*)	(0.172)	(0.040*)	(0.192)	(0.038*)
Daily expenses t(p)	(0.272)	(0.001*)	<0.001*	(0.078)	(0.024*)	(0.001*)
Presence of diseases t(p)	(0.641)	(0.740)	(0.118)	(0.908)	(0.014*)	(0.279)
Previous grades F(p)	(0.005*)	(0.007*)	(0.011*)	(0.009*)	(0.009*)	(0.019*)
Are you currently work? t(p)	4.260*	0.922	(<0.001*)	(0.002*)	(0.478)	(0.504)

Table (7): Relation between academic years and quality of life domains (n = 440)

Quality of life	Academic year								χ^2	p
	First (n = 95)		Second (n = 99)		Third (n = 99)		Fourth (n = 147)			
	No.	%	No.	%	No.	%	No.	%		
Physical and lifestyle domain										
Low (<33.3%)	35	36.8	17	17.2	12	12.1	61	41.5	34.762*	<0.001*
Moderate (33.3%–66.6%)	58	61.1	82	82.8	86	86.9	86	58.5	34.484*	<0.001*
High (≥66.6%)	2	2.1	0	0.0	1	1.0	0	0.0	3.749	0.098
Psychological and emotional domain										
Low (<33.3%)	6	6.3	3	3.0	1	1.0	10	6.8	5.918	0.099
Moderate (33.3%–66.6%)	61	64.2	55	55.6	79	79.8	73	49.7	24.274*	<0.001*
High (≥66.6%)	28	29.5	41	41.4	19	19.2	64	43.5	18.724*	<0.001*
Social and economic domain										
Low (<33.3%)	7	7.4	11	11.1	4	4.0	2	1.4	11.979*	<0.001*
Moderate (33.3%–66.6%)	44	46.3	61	61.6	75	75.8	44	29.9	55.685*	<0.001*
High (≥66.6%)	44	46.3	27	27.3	20	20.2	101	68.7	70.729*	<0.001*
Environmental domain										
Low (<33.3%)	7	7.4	16	16.2	1	1.0	0	0.0	34.955*	<0.001*
Moderate (33.3%–66.6%)	43	45.3	60	60.6	72	72.7	63	42.9	25.990*	<0.001*
High (≥66.6%)	45	47.4	23	23.2	26	26.3	84	57.1	39.348*	<0.001*
Academic domain										
Low (<33.3%)	7	7.4	0	0.0	0	0.0	2	1.4	12.550*	0.001*
Moderate (33.3%–66.6%)	35	36.8	39	39.4	78	78.8	60	40.8	48.293*	<0.001*
High (≥66.6%)	53	55.8	60	60.6	21	21.2	85	57.8	42.137*	<0.001*

χ^2 : Chi square test MC: Monte Carlo Statistically significant at $p \leq 0.05$

7. Discussion

Quality of life is defined as the degree to which an individual is healthy, comfortable and able to participate in or enjoy life events. It can refer to both the individual life experience and living conditions in which they live. QOL is highly subjective as wealth or satisfaction with life or capabilities, it encompasses the whole person as it affects their abilities to work, enjoy life and learn. It requires individuals to be in a good physical, psychological, social and environmental status to be able to concentrate, be attentive, study, do assignments, communicate with teachers and students, able to handle stressors, enjoy life, manage their times and handle their personal responsibilities successfully (**Mathebula, 2016**).

In relation to physical and lifestyle domain, it was found that; there were statistically significant difference regarding all aspects and total score of physical and lifestyle domain and quality of life, also significant relation between presence of diseases and QOL which is consistent with **Moura (2016)** who stated that health is associated with QOL as it affects students' concentration, energy, abilities to participate in life events and absenteeism. in the same line **MCcall (2016)**, supported that; good physical health, capacity and healthy life style as diet and exercise affect QOL positively as it improves health status by preventing nutritional deficiencies, improves circulation and avoidance of diseases . **Alamri (2017)** concluded that there were significant relationship between physical domain and quality of life confirming that students had average level of QOL in physical domain as they are not dependent on medical treatment, satisfied with their functional activities, physical health, activity of daily living, physical energy, diet, exercise, sleep, have less pain or discomfort, and learn which improve their QOL score.

In relation to psychological and emotional domain, there were statistically significant difference regarding all aspects and total score of psychological domain and QOL. This finding is consistent with **Burrows (2017)** who stated that; students who usually enjoy life, able to concentrate, satisfied with bodily appearance, rarely have negative feelings have positive QOL. In the same line **Vilar (2015)**, supported that; body image may have negative impact on self- acceptance, self-esteem and QOL. Also self- understanding, self-esteem and self-awareness affects QOL positively. Moreover, Vinaccia- **Alpi (2017)**, supported that; psychological factors as anxiety, stress and happiness had significant effect on QOL and relationships. **Also Daniels & Mthimunye, (2017)** stated that; self- awareness positively affect psychological status and overall QOL as it enable students to be open minded, accepting critique and evident change, also help them to improve self-acceptance, confidence and emotional stability and improve QOL.

Regarding socio-economic domain it was found that, there were statistically significant difference between all aspects and total score of socioeconomic domains and QOL. This finding is consistent with **Keyvanara (2018)** supported that social support is significantly

correlated with QOL that feeling socially supported and accepted increase motivation to enjoy life and improve social functioning and those with low or moderate social support were significantly associated with decreased QOL. Moreover, **Kang (2018)** asserted that; absence of friends and limited social support network increase loneliness which decrease motivation, self-esteem and QOL. Also, **Richard (2017)** asserted that loneliness affects negatively QOL as lonely participants were more likely to report chronic diseases, distress, depression and poor self-rated health and QOL than those who did not feel lonely. In addition, **Abd elrahman & Abou Shousha (2013)** asserted that; perception of the public and image of nursing among baccalaureate nursing students influence students' attraction to the profession and self –esteem which influence their QOL. Also, **Abd Elrahman (2018)** added that poor nursing image affects self-image, self-esteem, life satisfaction and functioning of nurses. In addition, **Aboshaiqah, & Cruz (2019)** supported that monthly family income and socio-economic status had a significant effect on QOL domains, that it affects students' needs satisfaction and happiness.

Regarding environmental domain, it was found that, there were statistically significant difference between all aspects and total score of environmental domain and QOL and significant relationship between residence and psychological, social and economic domains of QOL. This finding is consistent with **Lee & Chong (2018)** who asserted that; level of safety and services access in environmental variables were significantly associated with QOL level. In the same line, **Todd (2018)** added that transportation affects QOL as it affects access to services and activities, it is time consuming and may cause financial burden and accident risk. While **Ketis (2011)** supported that; socio-economic status and healthy environment affect place of residence, privacy and affordable environmental resources, level of sanitation and safety which affects greatly on QOL. Also, **Wong (2018)** asserted that; environment quality can influence physical, psychological health and social relationships so affect QOL. In addition, Cheung, et al., 2016 asserted that community type had multivariate effect on QOL that rural areas were different than urban ones as they are different in socio-economic status, standard of living and availability of resources and services

Regarding academic domain it was found that there were statistically significant difference between all aspects and total score of academic domain and QOL. This finding is consistent with **Dube (2018)** who supported that; academic communication, classrooms facilities, good supportive relationship between students-nurse educator, peer relationships, computer technological gadgets, internet access, school library, labs, previous grades, availability of qualified educators, appropriate use of teaching strategies, rules and regulations of school are perceived by students as fostering QOL. In addition, **Tsai (2017)**, added that there was significant relation between teacher-student relationship and students' satisfaction, engagement and achievement that positive relationship improves students' confidence level,

produce mutual respect so enhance students' satisfaction. Also, **Ivic (2017)** added that teachers influence the development of cognitive, affective and psychosocial abilities of students by their effective use of suitable interactive teaching strategies and multimedia which satisfy students' learning styles and enhance their satisfaction. Also, **Torres & Paragas (2018)** concluded that the effective use of motivational teaching strategies and communication skills of teacher positively affect students' satisfaction and relationship with teacher.

Regarding overall QOL there were statistically significant difference regarding overall QOL which is consistent **Arronqui (2011)** asserted that; most of students had good QOL which is affected by their satisfaction with health status, social relationships. While **Araujo (2014)** concluded that; the nursing students have low QOL and students who were in their first academic year had low QOL while students of second, third and fourth academic year had better QOL. Regarding relationship between quality-of-life domains and academic achievement's levels, there were significant relationship between physical and lifestyle domain and failed, good and very good grades. This finding is consistent with **Shaw (2015)** who indicated that; academic performance is affected by health through maintaining good nutrition, healthy weight and physical fitness which improve students' concentration, physical and cognitive abilities. Besides **Broaddus (2019)** concluded that there were significant relationship regarding students' health, physical fitness, life style and academic achievement. In the same line, significant relationship was found between psychological and emotional domain and failed, fair grades, this finding was consistent with **Pascoe (2019)** who asserted that; academic success is affected by stress which is mainly caused by teachers and parents so teacher can play vital role in decreasing students' academic stress and improving their QOL, added that students with higher perception to stress had lower academic achievement.

As well as there were significant relationship between socio-economic domain and failed, good, very good and excellent grades. Which is congruent with **Higgins (2011)** who proved that; social and family support is very important determinant of academic achievement as it increases students' motivation and effort to achieve. Besides **Lacour & Tissington (2011)** concluded that poverty cause lack of resources that are necessary for students' success and affects academic achievement negatively. Moreover, there were significant relationship between environmental domain and failed, good, very good and excellent grades, which is congruent with **Broer (2019)** who proved that students with poor living environment resources had lower achievement level as it affects educational opportunities access, availability of learning materials, ambition and goals in education.

On the other hand, there were significant relationship between academic domain and failed, good achievement levels which is consistent with **Akessa (2015)** who asserted that;

academic factors affecting success were institutional facilities including classrooms, labs, library, academic support services, communication, low student-teacher ratio and good school climate. In the same line **Bararabe (2019)** concluded that; teacher qualifications and years of experience positively affect students' academic achievement.

Regarding relationship between students' socio-demographic data and quality of life domains, there were significant difference and relationship between age and academic domain only. Also there were significant relationship between sex and physical and lifestyle, socioeconomic, environmental domains. Moreover, there were significant relationship between previous grades and QOL domains and overall QOL total score. Finally, there were significant relationship between occupational status and physical, social and economic, environmental domains. This finding is consistent with **Moritz, et al(2016)** who asserted that gender had multivariate effect on QOL that females student had lower scores in QOL domains than males as they are more emotionally unstable, sensitive and had decreased coping ability also he added that older students had better QOL score and they were more independent. Also, **Pulido-Martos(2012)** stated that high previous grades improves self-esteem, family support which positively affects QOL, and **Shalaby, & Aljezani, (2019)** proved that students' part time employment affects negatively physical and mental health as it affects their sleep, diet so affects students' QOL.

Regarding relationship between quality of life domains and academic years, there were significant relationship regarding low and moderate physical and lifestyle, moderate and high psychological and emotional, and also low, moderate and high social and economic, environmental, academic domain and academic year, which is consistent with **Alborz (2017)**who asserted that academic year had effect on all domains of QOL as students in advanced years able to adapt and cope with academic stressors easier than student in first academic year. Also, **Akatheri (2019)** indicated that academic level significantly affect QOL based on nature of study, specialties, student cognitive maturation. Moreover, **Yang & Fan,(2017)** concluded that; first academic year students had lower QOL than students in second, third and fourth academic year. In the same line, **Mahmoud & Fared (2018)** revealed that; academic year is significantly associated with environmental and physical health domain.

8. Conclusion

Ensuring the highest level of wellbeing and QOL among nursing students maximizes their learning and satisfaction in life, where it influences their ability to learn and achieve. Students should enjoy good physical status, energy and cognitive abilities to be able to pay attention, concentration and perform different academic tasks. Also, they should enjoy good psychological stability, self-esteem which are required to be self-regulated, open minded, enjoys learning and meaningful life especially for the reason that nursing students' life is very busy and loaded. So, the psychological status, academic workload and stressors must

be assessed more concisely with stress level assessment tool and to explore how and to what extent such stressors affect their QOL and academic achievement.

9.Recommendations

It can be recommended that; policies centered on holistic development of nursing students physically, psychologically, socially, environmental and academic should be developed . Also redesign education system to make students more active to improve their life satisfaction and QOL.

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الملخص العربي

العلاقة بين جودة الحياة والتحصيل الأكاديمي لطلبة كلية التمريض

المقدمة: استخدم الخبير الاقتصادي بيغو مصطلح جودة الحياة لأول مرة في عام 1920 ، حيث ركز على الرفاهية الاجتماعية وكيف يمكن للسياسات الحكومية أن تزيد الرفاهية الاجتماعية. يمكن تحديد جودة الحياة مؤخرًا على أنها درجة التميز أو الرضا عن الحياة بما في ذلك الحالة الوجودية للشخص ورفاهيته ورضاه عن حياته عن الحقائق الخارجية (الموضوعية) وعوامل الحياة ومن خلال الإدراك الداخلي (الذاتي) وتقييم هذه الحقائق والعوامل.

الهدف من الدراسة: تهدف هذه الدراسة إلى استكشاف العلاقة بين نوعية جودة حياة طلاب التمريض وتحصيلهم الأكاديمي.

سؤال البحث: هل هناك علاقة بين جودة حياة طلاب التمريض وتحصيلهم الأكاديمي؟

منهجيته البحث: تم استخدام تصميم بحث وصفي استكشافي لدى عينة عشوائية منهجية من 440 طالب تمريض مسجلين في كلية التمريض جامعة دمنهور في جميع الأقسام العلمية بالكلية.

الأدوات: تم استخدام أداتين لجمع البيانات:

الأداة الأولى: استبيان تقييم جودة حياة الطالب

الأداة الثانية: التحصيل الأكاديمي

النتائج: قد افرت نتائج البحث عن الآتي: توجد فروق ذات دلالة إحصائية وعلاقات بين مستوى رضا الطلاب في QOL وتحصيلهم الأكاديمي

الخلاصة: إن ضمان أعلى مستوى من الرفاهية وجودة نوعية الحياة بين طلاب التمريض يزيد من تعلمهم ورضاهم في الحياة ، حيث يؤثر على قدرتهم على التعلم والإنجاز.

التوصيات: يجب وضع سياسات محددة تتمحور حول التنمية الشاملة لطلاب التمريض جسديا ونفسيا واجتماعيا وبيئيا واكاديميا