Original Article

The quality of life of nursing students at the College of Applied Medical Sciences, Majmaah University: A cross-sectional study

Majed S. Alamri [1], Emmanuel D. Paragas[1], Jazi Alotaibi[1], and Jamal Qaddumi, [2]

1. Nursing Department, College of Applied Medical Sciences, Majmaah University, Majmaah, Saudi Arabia
2. Faculty of Medicine and Health Sciences, An-Najah National University, Nablus, Palestine

Corresponding author; Dr. Emmanuel D. Paragas. Email- e.paragas@mu.edu.sa

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Abstract:

Background: In Saudi Arabia, educational demands may become more challenging for students, and expectations may be more competitive than in previous academic experiences. Understanding students' quality of life (QOL) is important for the success of students and any academic institutions.

Aim & Methods: A cross-sectional study with a descriptive-comparative design was utilized to determine the QOL of 100 nursing students at the College of Applied Medical Sciences, Majmaah University. The Arabic version of the World Health Organization Quality of Life (WHOQOL-BREF) instrument was used in data collection.

Results: All nursing students had an average level in the four domains of QOL, which include physical health, psychological, social relationships, and environment. Female nursing students had a greater standard of QOL than their male counterparts, particularly in

الملخص

خلفية: في المملكة العربية السعودية،اصبحت المطالب التعليمية أكثر تحديا للطلاب ، وقد تكون التوقعات أكثر تنافسية مما كانت عليه في التجارب الأكاديمية السابقة. ولذلك فان فهم نوعية حياة الطلاب مهم لنجاح الطلاب والمؤسسات أكاديمية

الهدف والطريقة: تم استخدام دراسة مقطعية ذات تصميم وصفي مقارن لتحديد ١٠٠ طالب وطالبة تمريض في كلية العلوم الطبية التطبيقية بجامعة المجمعة. واستخدمت النسخة العربية من أداة جودة الحياة لمنظمة الصحة العالمية في جمع البيانات

النتائج: كان لدى جميع طلبة التمريض مستوى متوسط في المجالات الأربعة في أداة جودة الحياة لمنظمة الصحة العالمية ، والتي تشمل الصحة البدنية والنفسية والعلاقات الاجتماعية والبيئة . وكان لدى طالبات التمريض مستوى أعلى من الذكور ،ولاسيما في الصحة البدنية والنفسية ، ومجالات العلاقة الاجتماعية. ومع ذلك ،في مجال البيئة ،كان لكل من الذكور والاناث نفس المستوى في أداة جودة الحياة لمنظمة الصحة العالمية. وعلى الرغم من أن طلبة التمريض الإناث لديهن درجات أعلى من الذكور، إلا أن الفروقات في النتائج لم تكن معنوية.

physical and psychological health, and social relationship domains. However, in the environment domain, both men and women had the same level of QOL. Although female nursing students have a higher QOL scores than males, the findings were not significant.

Conclusion: This present study shows a relatively good social dimension in the QOL of nursing students in this university. These findings suggest that administrators and faculty should always consider the various dimensions of QOL among nursing students in implementing their institutional policies and procedures. Educators should provide students with several opportunities to nurture their different skills, while considering QOL in setting both extracurricular and academic requirements.

Keywords: Quality of life, Nursing students, Physical health, Psychological health, Social relationship, Environment

مستخلص الدراسة :

تبين هذه الدراسة وجود بعد اجتماعي جيد نسبيا في كلية العلوم الطبية التطبيقية لطلبة التمريض في جامعة المجمعة. وتوحي هذه النتائج بأن على الطلبة وأعضاء هيئة التدريس أن يأخذوافي الاعتبار الابعاد المختلفة لقيمة طلبة التمريض في تنفيذ سياسات هم وإجراءاتهم المؤسسية. يجب على اخصائي التوعية تزويد الطلاب بعدة فرص لتعزيزمهاراتهم المختلفة ، مع الأخذ بعين الاعتبارمستوى الجودة في تحديد المتطلبات الأكاديمية والأنشطة اللاصفية.

Introduction

Quality of life (QOL), as defined by the World Health Organization (WHO),isan individual's perception of their position in life in the context of the culture and values systems,in which they live in connection with their goals, standards, and concerns [1]. Also, QOL is comprised of the achievement of human needs, such as a satisfying material life, health, education, security, clean environment and aesthetic and spiritual needs [2].

In Saudi Arabia, as around the world, the transition of students from high school to college is life-changing experience. Their biggest adjustment is adapting from the previous mode of teaching — especially when the medium of instruction shifted from Arabic to English — as well as with the higher level of learning in colleges and universities. Educational demands may become more challenging for them, with higher, more competitive expectations than in their previous

academic environments. Aside from this adjustment,most college students are in the transition from adolescence to young adulthood. This alone has been linked to stress that can result in depression, which is believed to be a public health problem and one of the leading causes of disability worldwide [3]. Moreover, Pozderac [4] posits that faulty lifestyle, such as inversion of sleep, smoking and presence of stress-related exams, can adversely influence the cardiac health of students. Understanding how some of these factors can impact an individual's QOL is important for any academic institutions.

Nursing students in particular are at an essential stage of learning, and clinical practice is vital for them to mature and develop significant values to become a caring competent nurse. Hence, their health status during this period affects their attitudes in clinical practice as well as their career values. Moreover, there is a possibility that the low QOL during clinical practice discourages the students to continue their career in nursing; thus, it is imperative for nursing educators to understand and value the importance of the QOL of the nursing students. However, only quite a few studies have been accomplished to measure the QOL of the nursing students [5]. Therefore, the aim of this study is to determine the QOL among nursing students at Majmaah University, College of Applied Medical Sciences. The findings of this research would be a valuable contribution to the awareness of the nursing educators and administrators of this institution regarding the current status of QOL of the nursing students. Specifically, this study could help them to make better learning opportunities and necessary programs to enhance the QOL of the nursing students, thereby increasing their satisfaction and sense of accomplishment.

Methods

Design

This research was designed as a cross-sectional descriptive comparative study to determine the QOL of nursing students at the College of Applied Medical Sciences, Majmaah University.

Sample

One hundred nursing students in both the male and female departments responded anonymously to a questionnaire. The following inclusion criteria were applied: (1) Saudi Arabian; (2) currently enrolled in the nursing program; and (3) able to read and sign an informed consent and to complete successfully all the research instruments written in Arabic. This study focuses more on gender due to some inconsistencies in the literature whether males have a higher QOL than females, and vice versa.

On the other hand, a *priori* power analysis was conducted using G*Power 3 statistical software to determine the appropriate sample size. The following elements were used: (1) medium effect size of 0.5; (2) power of 0.80; and (3) level of significance at 0.05. It

was revealed that there should be at least 100 participants to achieve the power of at least 0.80. Medium effect size was used due to the limited number of studies which investigated the QOL of nursing students.

Instrument

An Arabic version of the WHO Quality of Life (WHOQOL-BREF) instrument was used in data collection. The WHOQOL-BREF is a well-established cross-culturally accepted international instrument to assess QOL. Developed by the WHO, it is composed of 26 items and is offered in diverse languages for both developed and developing countries. The composition of the four domains in the instrument made it suitable to determine the QOL of the nursing students since the QOL encompasses the attainment of basic human needs, such as material life, health, education, security, clean environment and aesthetic and spiritual needs [2].

The instrument comprises four domains: First, the physical health which covers activities of daily living, dependence on medicinal substances and medical aids, fatigue, mobility, pain and discomfort, sleep and rest, and work capacity. Second, the psychological health includes bodily image and appearance, negative feelings,positive feelings, self-esteem, spirituality, thinking, learning, memory and concentration. Third, the social relationship comprises personal relationship, social support, and sexual activity. Lastly, the environment involves financial resources, freedom, physical safety and security, health and social care, home environment, opportunities for acquiring new information and skills, participation in and opportunities for recreation, physical environment, and transport.

Response options on a 5-point Likert scale range from 1 (very poor/very dissatisfied/not at all) to 5 (very good/very satisfied/an extreme amount). The raw score on each domain was converted, from 0 being the least favorable to 100 being the most favorable, using the transmutation table.

Data Gathering Procedure and Ethical Considerations

A written approval to conduct the study was obtained from the Dean of the College of Applied Medical Sciences, and the Ethics Review Board. A copy of the instrument was submitted for review. Signed informed consent was secured from students, and anonymity and confidentiality were assured before their participation in the study. Data collection was done in the classroom wherein students independently answered the questionnaire, which took 10-15 minutes. The response rate was 95.24%.

Data Analysis

Descriptive statistics, using frequencies, percentages, means, standard deviations (SD), and mean differences were performed to examine the students' responses. To determine the QOL scores for each domain, means and SD with transmutations values, as recom-

mended by the WHO, were calculated. The differences in QOL scores based on gender were analyzed using the independent *t*-test with 95% confidence interval (CI). All analyses were considered significant whenp-value was<0.05. All data were analyzed using IBM SPSS Statistics (IBM Corp., Armonk, NY) version 23.0.

Results

Gender

Participants included 100 nursing students (male, 66%; females, 34%) with age range between19 and 35 years (mean age, 21.36;SD ±2.01).

Physical Domain

Table 1 shows that 35% of students are not experiencing any pain or discomfort, and 25% are experiencing only a little amount, but 9% are suffering "very much" to "extreme level" of pain and discomfort. On the other hand, more than half of students (51%) expressed no dependence on medical treatment, while 43% reported "a little" to moderate reliance on medical care.

Less than half of students (47%) had a moderate amount of energy, and 41% reported having"very much" to "extreme level" of energy for everyday life. Half of students

Table 1. The quality of life scores of nursing students in the physical domain (n=100)

Questions	No. of respondents (%)				
	Not at all / Very Poor / Very dissatisfied / Never	A little / Poor / Dissatisfied / Seldom	Moderately / Neither / Quite Often	Mostly / Very Much /Good / Satisfied / Very Often	Completely / Extremely/ Very Good / Very Satisfied / Always
To what extent do you feel that physical pain prevents you from doing what you need to do?	35 (35)	31 (31)	25 (25)	7 (7)	2 (2)
How much do you need any medical treatment to function in your daily life?	51 (51)	29 (29)	14 (14)	6 (6)	0 (0)
Do you have enough energy for everyday life?	4 (4)	8 (8)	47 (47)	29 (29)	12 (12)
How well are you able to get around?	5 (5)	6 (6)	39 (39)	36 (36)	14 (14)
How satisfied are you with your sleep?	8 (8)	22 (22)	32 (32)	30 (30)	8 (8)
How satisfied are you with your ability to perform your daily living activities?	(3) 3	(13) 13	(40) 40	(36) 36	(8) 8
How satisfied are you with your capacity for work?	(4) 4	(13) 13	(29) 29	(44) 44	(10) 10

(50%) classified mobility as "good" to "very good", while 39% said it was neither poor nor good. It is noteworthy that satisfaction with sleep and rest seemed to be evenly divided among those surveyed; only 38% of students are satisfied to very satisfied with their sleep and rest, 32% are sometimes satisfied and sometimes dissatisfied, and 30% are dissatisfied to very dissatisfied.

Of students surveyed, 44% are satisfied to very satisfied with their ability to do their activities of daily living, 40% are sometimes satisfied or sometimes very dissatisfied. Meanwhile, more than half (54%) of students said they are satisfied to very satisfied with their capacity to work, while 29% are in the middle of being satisfied and dissatisfied.

Table 2. The quality of life scores of nursing students in the psychological domain (n=100)

Questions	No. of respondents (%)				
	Not at all / Very Poor / Very dissatisfied / Never	A little / Poor / Dissatisfied / Seldom	Moderately / Neither / Quite Often	Mostly / Very Much /Good / Satisfied / Very Often	Completely / Extremely/ Very Good / Very Satisfied / Always
How much do you enjoy life?	(3) 3	10 (10)	38 (38)	42 (42)	7 (7)
To what extent do you feel your life to be meaningful?	(5) 5	(6) 6	(32) 32	(37) 37	20 (20)
How well are you able to concentrate?	5 (5)	12 (12)	46 (46)	30 (30)	7 (7)
Are you able to accept your bodily appearance?	3 (3)	12 (12)	17 (17)	46 (46)	22 (22)
How satisfied are you with yourself?	3 (3)	10 (10)	13 (13)	47 (47)	27 (27)
How often do you have negative feelings such as blue mood, despair, anxiety, depression?	5 (5)	43 (43)	30 (30)	16 (16)	6 (6)

Psychological Domain

Table 3. The quality of life scores of nursing students in the social domain (n=100)

Questions	No. of respondents (%)				
	Not at all / Very Poor / Very dissatisfied / Never	A little / Poor / Dissatisfied / Seldom	Moderately / Neither / Quite Often	Mostly / Very Much / Good / Satisfied / Very Often	Completely / Extremely/ Very Good / Very Satisfied / Always
How satisfied are you with your personal relationships?	3 (3)	(12) 12	(25) 25	(37) 37	23 (23)
How satisfied are you with your sex life?	17 (17)	(12) 12	(19) 19	32 (32)	20 (20)
How satisfied are you with the support you get from you friends?	7 (7)	15 (15)	29 (29)	32 (32)	17 (17)

In Table 2, almost half (49%) of students classified their enjoyment of life as "very much" to "extreme amount". However, 48% described having a "little" to "moderate amount" of enjoyment. More than half (57%) of respondents felt their lives were meaningful.

Further, 37% of students revealed they were able to concentrate on their activities, but 46% expressed they were able to concentrate but only to some extent. The majority of students (68%) accept their body image and appearance, and students are satisfied (74%) with themselves. In addition, almost all students (73%) expressed that they experience negative feelings about themselves from "seldom" to "quite often".

Social Domain

More than half of students (Table 3) conveyed they are "satisfied" to "very satisfied" with their personal relationships (60%), as well as with their sex life (52%). However, 25% and 19% respectively,are neither satisfied nor dissatisfied with their personal relationships and sex life. On the other hand, almost half (49%) of students are "satisfied" to "very satisfied" with the social support they receive from their friends, while 29% are neither "satisfied" nor "dissatisfied".

Table 4. The quality of life scores of nursing students in the Environment Domain (*n*=100)

Questions	No. of respondents (%)				
	Not at all / Very Poor / Very dissatisfied / Never	A little / Poor / Dissatisfied / Seldom	Moderately / Neither / Quite Often	Mostly / Very Much /Good / Satisfied / Very Often	Completely / Extremely/ Very Good / Very Satisfied / Always
How safe do you feel in your daily life?	5 (5)	2 (2)	14 (14)	34 (34)	45 (45)
How healthy is your physical environment?	7 (7)	17 (17)	47 (47)	22 (22)	7 (7)
Have you enough money to meet your needs?	7 (7)	23 (23)	44 (44)	20 (20)	6 (6)
How available to you is the information that you need in your day-to-day life?	2 (2)	13 (13)	53 (53)	28 (28)	4 (4)
To what extent do you have the opportunity for leisure activities?	11 (11)	29 (29)	41 (41)	15 (15)	4 (4)
How satisfied are you with the conditions of your living place?	5 (5)	9 (9)	15 (15)	43 (43)	28 (28)
How satisfied are you with your access to health services?	5 (5)	10 (10)	25 (25)	39 (39)	21 (21)
How satisfied are you with your transport?	9 (9)	13 (13)	20 (20)	30 (30)	28 (28)

Environment Domain

In Table 4, a majority of students (79%) feel they are safe. Nearly half (47%) reported their home environment is moderately good, and only 27% claimed to have a good to very good home environment. Finances were a different matter; 67% of students declared they have a little to moderate amount of financial resources.

It is noteworthy that 66% claimed they have low to moderate opportunities for acquiring new information and skills, while 32% reported having experienced opportunity"mostly" to "completely". Further, 70% expressed having little to moderate opportunities to participate in leisure activities.

Students stated they were"satisfied" to "very satisfied" in their home environment (71%) as well as with the accessibility and quality of health services (60%). Also, more than half (58%) of students were satisfied to very satisfied with their transport.

Table 5. The quality of life scores of nursing students in the four domains (n=100)

Domains	Male (n=66)			Female (n=34)		
	Mean	Standard Deviation	Transmutation (100 scale)	Mean	Standard Deviation	Transmutation (100 scale)
Physical Health	20.27 / 35	3.69	44	21.06 / 35	2.41	50
Psychological	20.35 / 30	4.32	56	20.94 / 30	2.40	63
Social Relationship	10.12 / 15	3.12	56	10.59 / 15	2.24	69
Environment	26.89 / 40	5.80	63	27.18 / 40	3.72	63

Overall QOL scores in the four domains

The WHOQOL-BREF has four domains: physical health, psychological health, social relationship and environment. The mean scores in the four domains for male and female nursing students are presented in Table 5. Male nursing students obtained the highest transmuted score in the environment domain (63%), followed by both the psychological and social domains (56%). The scores, as mentioned earlier, can be interpreted as above average. However, it is noteworthy that scoring in the physical domain was lower (44%), and is considered to be below average.

Female nursing students attained the highest transmuted scores in the social domain (69%), followed by the psychological and environment domain (63%), which were considered above average. Similar with male nursing students, the women had the lowest score in the physical domain (50%); however,their scores were average.

Table 6. The difference in the quality of life scores between male and female nursing students in the four domains (n=100)

Domains	Mean Difference	95% Confidence Interval	*p*-value [a]
Physical	-0.79	0.60 ,-2.17	0.26
Psychological	-0.59	0.99 ,-2.18	0.46
Social	-0.47	0.73 ,-1.66	0.44
Environment	-0.29	1.89 ,-2.46	0.80

[a] *t*-test, significant at <0.05 level

The difference in the overall QOL scores in the four domains

Table 6 show the difference in the QOL scores between male and female nursing students. Although in general, female nursing students obtained higher scores than the males in all four domains, there were no significant differences among their scores. Specifically, physical health obtained a p-value of 0.26, whereas the psychological domain acquired a p-value of 0.46. In addition, the social and environment domains attained a p-value of 0.40 and 0.80, respectively. All these p-values are >0.05, which means no significant difference.

Discussion

This study was conducted to determine the QOL of nursing students, and to assess if there is a QOL difference between the males and females. The findings corroborate that all nursing students have an average QOL which implies they have functional activities of daily living, enough energy, less pain and discomfort, good capacity for work, adequate positive feelings about the future, balance, and good personal relationships. However, female nursing students have a higher QOL than males specifically in physical and psychosocial health, and social domains, but not in the area of environment, where they scored equally to the men. Moreover, it is noteworthy that differences in scores in the four domains were not significant.

The finding of this study about the average level of the QOL of nursing students is supported by the study conducted by Moura and co-researchers [6], wherein they found that the overall QOL score in their study among undergraduate nursing students in Brazil obtained an average score. Moreover, they also established that the social domain acquired the highest score among their students. In addition, Yildirim and colleagues [7] also established that the nursing students in their study acquired an average level of QOL in the four domains. On the other hand, another study in Brazil claimed that their students acquired an unfavorable score in the health domain with only 34.6% [6], which is quite similar to the findings of this study.

Further, this study asserts the results of an investigation conducted by Zahran and colleagues [8], which revealed that gender has a strong association with health-related quality of life. However, this study contradicts their findings in that female students reported more physically and mentally unhealthy days than other students. Also, this study diverges from previous studies that showed male students reflect a more stable quality of life in the psychological domain [9,10]. On the other hand, both male and female nursing students acquired the same level of quality of life in the environment domain, which was average. This posits that these students have almost the same environment which covers financial resources, safety and security, home, participation in leisure activities, and transportation.

It is remarkable that both male and female nursing students acquired the lowest

score in the physical health domain, with men attaining below average ratings. It may be related to the bulk of work an individual has to address, because it influences all aspects of life including physical, psychological, mental, and social human [11]. Extreme levels of workload have been associated with workplace conflicts, physical and psychological burnout, stress, exhaustion, [12] sleep problems, and compromised physical health [11, 13] which decreases the quality of life [12]. Further, it is well known that quality of life of students is compromised by a variety of factors. Aside from personal stressors, academic stressors can provoke feelings of fear, incompetence, uselessness, anger, and guilt which can lead to both psychological and physical morbidity [14-16].

The findings about the average range of the QOL of nursing students implies that some of them may be discouraged not to pursue their nursing career in the future because of the negative connotation that they will acquire a poor to average level of QOL in the actual practice. In addition, this could also limit the number of students who will graduate on time because this would also affect their performance in school due to the possibility of having a low to average range of QOL. Therefore, it is imperative for nursing educators and administrators to help their nursing students in improving the level of their QOL.

This study has certain limitations. First, the study was conducted in one comprehensive state university; thus, limiting the representativeness of the survey results. Second, students conveyed their responses using a questionnaire, which limits the depth of their answers. As a result, a caution must be exerted in the generalize ability of the results. A large scale multi-regional investigation is needed for further verification of the findings.

Conclusion

This present study shows a relatively good social dimension in the QOL of nursing students in this university. The analysis of the four domains of QOL among nursing students resulted in average scores. Specifically, female students, in comparison with their male counterparts,had acquired higher scores in the physical, psychological, and social domains but not in the environment wherein they were equal. Although women achieved higher QOL scores than men, the differences were not significant. However, due to the limitations of the study, these findings must be treated with some caution.

These findings suggest that administrators and faculty members should consider the different dimensions of QOL among nursing students. Educators should provide students with various opportunities to nurture their skills, while considering QOL in planning extracurricular and academic requirements. Moreover, the amount of the given academic requirements must not exhaust nursing students because these can lead to lack of sleep and stress. Thus, current programs related to this should be developed, such as student

counselingservices and involvement in various curricular and extracurricular activities, to further promote QOL among nursing students.

KEYPOINT BOX:

- Our findings found out that nursing students enrolled in our university have an average level of quality of life.
- Female nursing students have a higher quality of life than males particularly in the physical health, psychological, and social domains. However, both male and female nursing students have the same level of quality of life in the environment domain.
- There is no significant difference in the four domains of quality of life between male and female nursing students.

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