

Quality of life of undergraduate nursing students

Qualidade de vida de estudantes de graduação em enfermagem Calidad de vida de los estudiantes de enfermería de pregrado

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ABSTRACT

Objective: The aim of this paper is to analyse the quality of life (QOL) of undergraduate nursing students.

Methods: A descriptive cross-sectional study with 206 students conducted in July 2013, in the city of Picos/PI, Brazil. Data were collected using the WHOQOL-BREF questionnaire. The Mann-Whitney and Kruskal-Wallis tests were used to analyse the data with a significance level of 5%.

Results: The domains with the best average scores were Physical (69.4) and Social Relations (74.3), and the domains with the worst average scores were Psychological (68.5) and Environment (54.2). For the overall assessment, the average was 66.6+10.8. A statistical significance was observed when crossing QOL with number of children (p = 0.029), where students without children performed better.

Conclusion: These results allow the early detection of difficulties experienced by nursing students and may support strategies that benefit the search for solutions to conflicts that affect QOL.

Keywords: Quality of life. Students, nursing. Health evaluation.

RESUMO

Objetivo: Analisar a Qualidade de Vida (QV) de estudantes de graduação em Enfermagem.

Métodos: Estudo descritivo e transversal realizado com 206 estudantes, em julho de 2013, no município de Picos (PI). Para tanto, utilizou-se um formulário e o questionário WHOQOL-bref. Os testes de Mann-Whitney e de Kruskal-Wallis foram utilizados na análise dos dados, com nível de significância de 5%.

Resultados: Os domínios com melhor avaliação média foram o Físico (69,4) e o das Relações Sociais (74,3); já os piores foram o Psicológico (68,5) e o Ambiente (54,2). Na avaliação global, a média foi de $66,6\pm10,8$. Houve significância estatística ao cruzar QV com o número de filhos (p=0,029). Logo, os estudantes sem filhos obtiveram melhor desempenho.

Conclusão: Estes resultados permitem a detecção precoce das dificuldades vivenciadas pelos estudantes de Enfermagem e podem cooperar com o delineamento de estratégias que beneficiem a busca por soluções para os conflitos que incidem na QV.

Palavras-chave: Qualidade de vida. Estudantes de enfermagem. Avaliação em saúde.

RESUMEN

Objetivo: Este estudio tuvo como objetivo analizar la calidad de vida (QOL) de los estudiantes de enfermería de pregrado.

Métodos: Estudio descriptivo transversal con 206 alumnos, en julio de 2013, en la ciudad de Picos/Pl. Para tanto, se utilizó formulario y WHOQOL-bref. Se utilizaron las pruebas de Mann-Whitney y Kruskal-Wallis en el análisis de datos, con un nivel de significación del 5%. **Resultados:** Las áreas con mejor nota promedio fueron física (69,4) y relaciones sociales (74,3), las peores fueron las psicológicas (68,5) y medio ambiente (54,2). Evaluación global, el promedio fue de 66,6+10,8. No hubo significación estadística al cruzar la QV con el número de hijos (p = 0,029), por lo que los estudiantes que no tienen hijos tuvieron un mejor desempeño.

Conclusión: Estos resultados permiten la detección temprana de las dificultades experimentadas por estudiantes de enfermería y podrá cooperar para diseñar estrategias que beneficien la búsqueda de soluciones a los conflictos que afectan a la calidad de vida.

Palabras clave: Calidad de vida. Estudiantes de enfermería. Evaluación en salud.

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INTRODUCTION

Quality of life (QOL) has triggered increasing interest in recent decades. However, there is no consensual definition that fully symbolises QOL since it involves the individual aspects of each person.

QOL is often synonymous with health because it is closely connected to health-related aspects. Despite the evident relationship between the two, the claim that QOL is the same as being healthy reduces it to a single aspect of human wellness⁽¹⁾.

QOL has been increasingly associated with the concept of health, which modifies the concepts of absence of disease to a broader concept that includes the physical, the psychological, the level of independence, social relationships, the environment and spirituality. Based on these premises, the World Health Organization (WHO), through its Mental Health division, defined QOL as the "individual's perception of his or her position in life in the context of culture and the system of values in which he or she lives and in relation to his or her goals, expectations, standards, worries and desires"⁽²⁾.

Research regarding this issue and involving university students has been conducted since the 1980s, however emphasis on QOL is not common in the studies of undergraduate nursing students. Considering the growing population of university students in recent years, it is important to monitor the demographic, behavioural and environmental information that may be related to health and academic performance in order to create government policies and programmes for this specific population⁽³⁾.

Moreover, aspects related to the lifestyle of this population, such as long classroom and practice hours, teacher-student relationships, lack of reception and leisure areas, little sleep/rest time, poor eating habits, lack of regular exercise, constant anxiety/pressure regarding academic performance, among others, in the university environment may not promote or may even hinder QOL⁽⁴⁾.

Corroborating the findings of this study, another study on fatigue among nursing graduates found that 44.4% of the students claimed that the main causes of fatigue are related to the nursing course, such as high workload, excessive amount of disciplines, papers, exams, and extended classroom hours. The reported causes of fatigue were daily overload of activities and the lack of time to perform them (31.2%); sleep disorders (26.4%); distance between home and school and transport conditions (22.2%); emotional burnout (19.6%); health or financial problems, inadequate meals, physical effort, lack of physical activity and oversleeping (9%); lack of leisure and rest (6.3%); extracur-

ricular activities or activities unrelated to professional training (5.8%); family problems or conflicts in interpersonal relationships (5.3%); and change of routine (2.6%)⁽⁵⁾.

Thus, it should be noted that the insertion of any student in a university routine can cause anguish, insecurity, fear and anxiety. In the particular case of nursing students, new and unique experiences related to work conditions, contact with sick individuals and performing certain procedures can have a greater impact⁽⁴⁾.

It is understood that nursing students choose to care for and help other human beings to be born and live healthy lives, to overcome health issues, to live with limitations, to find a meaning in this experience and to die with dignity. When nurses prepare to perform these actions with technical, political and communicational competence and to cope with suffering, they can either be influenced by the humanisation or by the trivialisation of their work⁽¹⁾.

Nursing students must maintain a healthy lifestyle and encourage others to achieve a happier life. The assumption that these individuals do not have a proper lifestyle (4-5) due to external stressors has triggered concerns for their quality of life during academic education.

Therefore, the aim of this paper was to analyse the quality of life of undergraduate nursing students by stratifying QOL by sex, age group, semester arrangement, socioeconomic conditions and lifestyle.

METHODS

This research originated from the final course work⁽⁶⁾ entitled "Qualidade de Vida de Estudantes de Enfermagem", presented to the Bachelor of Nursing course of the Universidade Federal do Piauí. This is a descriptive and cross-sectional study conducted at a higher education institution (IES) in the municipality of Picos – PI.

The study population consisted of 439 college students of both sexes enrolled in the Bachelor of Nursing course in the referred higher education institution. The sample size formula for the finite population resulted in a sample of 206 students. This number was stratified by each semester, using a draw, to ensure representativeness.

The criteria for inclusion were subjects aged 18 or over, since many did not live with responsible adults and could not sign the informed consent statements; subjects regularly enrolled at university; and subjects participating in all the research stages, including interview and questionnaire. The exclusion criterion was any difficulty that prevented communication.

The variables were grouped into socioeconomic, lifestyle and QOL-related. The first group investigated age, self-referred skin colour, work status, family income, economic class, marital status, number of children, city of origin, and co-residents. The second group addressed physical activity level, according to the Brazilian ministry of health; smoking, according to WHO guidelines, and drinking habits according to the adapted version for Brazil of the Alcohol Use Disorders Identification Test (AUDIT)⁽⁷⁻⁹⁾, with the classifications Zone I (0 to 7 points): Abstinence or no risk drinking; Zone II (8 to 15 points): High-risk drinking; Zone III (16 to 19 points): Hazardous drinking or dependence; and Zone IV (20 to 40 points): Dependence.

The QOL of the subjects was assessed using the WHO-QOL-BREF created in 1998 and validated for Portuguese, which considers the last fifteen days experienced by the respondent. This instrument consists of 26 questions. The first question is related to the overall life of the respondent and the second question is related to the general health of the respondent. These questions were not included in the results analysis equations. The remaining questions are related to domains I, II, III, IV and their respective facets: Domain I (Physical) – pain and discomfort, energy and fatigue, sleep and rest, mobility, daily activities, dependence on medication or treatment, work capacity; Domain II (Psychological) - positive feelings, thinking, learning, memory and concentration, self-esteem, body image and appearance, negative feelings, spirituality/religion/personal beliefs; Domain III (Social Relations) – personal relationships, social support, sexual activity; Domain IV (Environment) - physical safety and protection, home environment, financial resources, health and social care, opportunity to acquire new information and skills, recreation/leisure, physical environment (pollution/noise/traffic/weather), transport(10).

The variables were analysed according to the statistical model proposed by the WHOQOL GROUP – Raw Score (EB) and the Transformed Scores 4-20 (ET4-20) and 0-100 (ET0-100)⁽¹¹⁾.

Data were collected by the researcher in-charge and two trained PIBIC scholars in July of 2013, and the subjects were invited to participate in the classroom with permission of the professor. The researcher explained the objective, methodology and ethical aspects of research to the subjects. The subjects who chose to participate signed an informed consent statement containing detailed information about the study, the option to withdraw at any time, the guarantee of anonymity and the confirmation of the absence of injury or complications, and subsequently answered the instruments in their own classrooms⁽¹²⁾.

Finally, they were notified that the study would be displayed in the notice boards of the courses to provide information and allow the participation of students who had been absent during the explanations.

The data were organised using Excel 8.0 software and processed using the IBM Statistical Package for the Social Sciences (SPSS) version 20.0. The Mann-Whitney test was applied to compare the scores of two independent groups and the Kruskal-Wallis test was used to compare the scores of two or more independent groups, using p<0.05 as a reference value for statistical significance.

The project was submitted to the Research Ethics Committee of the Universidade Federal do Piauí UFPI, as specified in Certificado de Apresentação para Apreciação Ética (CAAE) 12099213.2.0000.5214, in observance of all the ethical aspects of studies involving humans.

RESULTS

This section presents the findings of the QOL investigation with nursing students.

Profile of participants:

A total of 206 academics were assessed, of which 77.7% were women. Most of the participants were between the ages of 18 to 21 (51.9%), with an average age of 22±3.5. The most common self-designated skin colour was brown (51.9%).

Most participants only studied (85.9%), 6.3% studied and had formal jobs, and 7.8% studied and performed informal work. Family income was mostly one to three minimum monthly wages (56.8%), with an average of 1905±1449.2. The predominant economic classes were C1 and C2 (47.6%).

With regard to marital status, 88.8% of the participants claimed to be single and childless (89.3%). Most of the students came from other municipalities (64.6%) and many lived with their parents (41.3%).

In relation to lifestyle, most of the students were highly sedentary (78.6%). The most common physical activity was bodybuilding (44.1%), followed by walking (17.6%), running (16.1%), and cycling (10.3%). When asked about smoking, 89.8% claimed they were non-smokers. With respect to drinking, 90.3% were in Zone I, indicating abstinence or non-risk drinking.

Regarding the WHOQOL-BREF instrument, question 1 inquired how the respondents evaluated their QOL in the last two weeks. The results showed that 56.8% rated their QOL as good; 28.2% claimed it was neither good nor bad; 9.7% rated their QOL as very good; 4.8% as bad, and 0.5% as very bad.

Question 2 inquired how participants rated their health condition in the last fortnight. It was noted that 51.5% of the students were satisfied; 26.2% were not satisfied or dissatisfied; 10.6% were dissatisfied; 10.2% were very satisfied; and 1.5% were very dissatisfied.

Table 1 – Maximum and minimum score, average score and standard deviation of the QOL of the sample. Picos – PI, July 2013

Domains	Average±SD	Minimum	Maximum
Domain I – Physical	69.4±14.3	25.0	100.0
Domain II – Psychological	68.5±11.9	37.5	95.8
Domain III – Social Relationships	74.3±15.7	25.0	100.0
Domain IV – Environment	54.2±13.4	3.1	96.9
Overall Assessment	66.6±10.8	32.5	93.9

Source: Research data, 2013.

Below, the maximum and minimum scores, the average score and the standard deviation of each QOL domain according to the Transformed Score 0-100, as well as the overall assessment, and the result of the arithmetic mean of the values obtained for the four domains. The domain Environment obtained the lowest average (54.2), while the domain Social Relations reached the highest value (74.3); the overall assessment presented an average score of 66.6±10.8.

Table 2 illustrates the crossing of QOL (in the Overall Assessment) with current semester of the students, the socioeconomic variables and lifestyle variables. The descriptive statistics used to describe the data revealed the predominance of the proportions of high QOL for the following groups: students who attend semesters VII -VIII – IX, men, aged 22 to 25 years, black, who study and work formally with monthly household income greater than 3 minimum wages, pertaining to economic classes B1-B2, single, without children, from other cities, living with their families, physically active, non-smokers and those who do not have drinking problems.

However, the use of analytical statistics only determined significance when QOL was crossed with the variable number of children (p = 0.029).

DISCUSSION

The sample mostly consisted of women, aged between 18 and 21 years, single, without children, who do not work and who belong to economic classes C1 or C2. Similar data were collected at the Universidade de São Paulo, where 70% of the students were women, 67.4% were aged between 19 and 25, and 81.5% were single⁽¹³⁾. This can be associated with the fact that most nursing students are women, who tend to be more concerned with health issues.

The predominance of single students reflects the current reality, where women choose to get married later in life

and give priority to their professional training and insertion into the labour market. In addition, the higher incidence of students that only study is explained by the fact that the nursing course of the studied institution is full-time, which reduces their chances of holding a remunerated job. In the Universidade de São Paulo, however, 42% of the students worked and 67% of this total were health workers⁽¹³⁾.

The lifestyle of the students revealed a prevalence of sedentary non-smokers with low-risk drinking habits. These data diverged from data obtained by European scholars who analysed 548 students at the Universidad de Murcia, Spain, and found that 80% exercised, 33% were smokers and 58% used alcohol regularly⁽¹⁴⁾. In Brazil, the academic load of the undergraduate course is very high, with two shifts, which often prevents the routine practice of exercise.

In relation to drinking, the data collected in a study in the state of Maranhão with 337 students of medicine differed from the data of this analysis. In the Maranhão study, the same instrument was used to assess alcohol consumption (AUDIT) and showed that 55.8% of the sample were in Zone I (0.38 times lower), 38.2% were in Zone II (0.79 times higher), 4.6% were in Zone III (approximately 0.58 times lower), and 1.4% were in Zone IV⁽¹⁵⁾.

In relation to the first question of the instrument used to asses QOL, most students classified their quality of life as good. Other studies found similar results: 85.4% of the nursing students of the Faculdade de Ciências da Saúde of the Universidade de Brasília assessed their QOL as good or very good⁽¹⁶⁾ and 75% future nurses at the Universidade Fernando Pessoa, Porto, rated their QOL as good⁽³⁾.

In the second question, most responded they were satisfied with their own health condition over the past two weeks. Several inquiries can ratify these outcomes, including a study in which 54.4% of the students of the Escola Paulista de Enfermagem of the Universidade Federal do Estado de São Paulo claimed they were satisfied with their health, and research at the Universidade Fernando Pessoa

Table 2 – Stratification of quality of life in relation to the current semester, socioeconomic variables and lifestyle variables. Picos – Pl, July 2013 (continue)

Overall QOL Assessment Variables Average p-value ± SD Current semester 0.110* | - | | - | | |64.6+10.7 V - V - VI66.8±10.3 VI - VIII - IX68.7±11.1 Sex 0.418** Female 66.2+11.1 Male 68.1±9.7 Age 0.748* 18 - 2166.6±9.7 22 - 2567.0±11.2 > 26 64.7+15.4 Colour (self-referred) 0.187* White 67.2+10.5 Black 71.9±11.8 Asian 61.6±9.0 Brown 65.7±10.8 **Work status** 0.099* Studies only 66.9±10.7 Studies and formal employment 69.8±8.4 Studies and informal employment 60.5±12.4 Income 0.916* < 1 minimum wage 65.5±11.7 1 – 3 minimum wages 66.5+10.9 > 3 minimum wages 67.3±10.4 **Economic class** 0.587* A1 - A263.4±7.7 B1 - B267.8±9.6 C1 - C265.9±12.0 D - F66.2±10.0 **Marital status** 0.166* Married/Consensual union 64.6±11.2 Single 67.0 + 10.5Separated 47.9±21.7 **Number of children** 0.029* Zero 67.2±10.7

Table 2 – Stratification of quality of life in relation to the current semester, socioeconomic variables and lifestyle variables. Picos – Pl, July 2013 (conclusion)

Variables	Overall QOL Assessment	
variables	Average <u>±</u> SD	p-value
One	65.4±7.7	
Two or more	56.1±12.7	
Hometown		0.444**
Picos – Pl	66.0±11.4	
Other localities	66.9±10.5	
Living with		0.947*
Parents	66.8±11.1	
Family members	67.1±11.3	
Friends	67.0±9.7	
Partner	66.7±12.1	
Alone	62.0±12.4	
Physical activity		0.841**
Active	66.9±10.1	
Sedentary	66.5±11.0	
Smoking		0.943*
Daily smoker	65.5	
Occasional smoker	65.7±8.9	
Non-smoker	66.7±11.0	
Drinking		0.160*
Zone I	67.0±10.9	
Zone II	62.1±8.2	
Zone III	66.0±9.4	

Source: Research data, 2013.

found that 62.5% were satisfied with their health⁽³⁻⁴⁾. However, in research conducted at the Universidade de Brasília, a divergent and unfavourable point was detected: 34.6% of the sample were dissatisfied or neither satisfied nor dissatisfied with their health⁽¹⁶⁾.

In each of the QOL fields, the domains Physical and Social Relations obtained the best results, and the domains Psychological and Environment obtained the worst results. In accordance with such data, an investigation on the QOL of students of the undergraduate courses in pharmaceutical sciences at the Universidade de Brasília revealed that the average achieved for the domains Physical (65.79)

^{*}Kruskal-Wallis test

^{**}Mann-Whitney test

and Social Relations (65.25) were higher than the averages of the domains Psychological (61.32) and Environment (61.62)⁽¹⁷⁾.

With regard to the Global Assessment obtained by the sampling set, the average was 66.6 with minimum and maximum values of 32.5 and 93.9, respectively. In a recently published inquiry on university students of Campo Mourão in northwestern Paraná, the QOL levels were more satisfactory than those found in the present investigation, especially in the Overall Assessment, where the score average was approximately 70.81⁽¹⁸⁾.

The stratification of QOL among the students for the variables of interest revealed a predominance of high scores for the students in the later semesters, men, aged 22 to 25 years, black, who study and work formally with monthly household income greater than 3 minimum wages, pertaining to economic classes B1-B2, single, without children, from other cities, who live with their families, physically active, non-smokers and those who do not have drinking problems.

However, statistical analysis showed that the differences in most of the variables did not have a statistically significant association. The only statistically significant contrast was found when QOL was crossed with number of children, which revealed that students without children performed better.

Analogically, scholars have found that first graders presented lower QOL scores than second graders in all the domains, and that the scores of second graders were greater than the scores of third graders in the domain Physical and higher than the fourth graders in the domain Environment⁽⁴⁾.

However, these results were different to the results of a study with medical students in the city of Brasília, Distrito Federal, that found a significant decrease of QOL among students on completion of the course when compared to students in the initial years, for the total score (p<0.01) (19). The data of psychology students of the Universidade Católica Dom Bosco revealed higher QOL scores among married participants (p=0.033)⁽²⁰⁾.

CONCLUSIONS

It is important to monitor the QOL of the population, especially among students given the individual socioeconomic conditions, curriculum and daily living activities of this population.

Despite the limitations of the study (sample obtained using the convenience sampling technique), the analysis of the data collected in this study shows that the QOL of nurs-

ing students is undefined and is especially influenced by the marital status and number of children of the students. The domains Environment and Psychological obtained the worst scores, probably as a result of the difficulties faced during the course.

These results allow the early detection of the difficulties experienced by nursing students and can help define strategies that solve conflicts related to QOL and provide physical, emotional and psychological support. However, the main obstacle during this investigation was the lack of time students had to answer the data collection instruments.

Strategies to improve QOL include the creation of groups for the practice of physical activity, talks about healthy eating and studies, and the availability of psychologists, social worker, nurse and other professionals at the university. It should also be noted that the university is responsible for educating future professionals and must therefore meet the needs of students and implement strategies that enhance their quality of life.

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