

## O IMPACTO DA PANDEMIA DO NOVO CORONAVÍRUS NA QUALIDADE DE VIDA DE ESTUDANTES DE ENFERMAGEM

### IMPACT OF THE SARS-CoV 2 PANDEMIC ON THE QUALITY OF LIFE OF NURSING STUDENTS

### LA CALIDAD DE VIDA DE LOS ESTUDIANTES DE ENFERMERÍA EN EL CONTEXTO PANDÉMICO POR SARS-CoV 2

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#### ABSTRACT

**Objetivo:** Identificar o impacto da pandemia do coronavírus SARS-CoV2, na qualidade de vida de estudantes do curso técnico em enfermagem, quanto ao período de suspensão do calendário acadêmico. **Método:** Estudo transversal desenvolvido mediante formulário on-line, com alunos de uma instituição pública. Utilizou-se questionário composto por questões sociodemográficas e pelo The World Health Organization Quality of Life (WHOQOL-bref). **Resultados:** Foram incluídos 55 participantes. 63,6% avaliaram sua qualidade de vida como boa e 47,3% estão satisfeitos com sua saúde. Na estratificação dos domínios do WHOQOL-bref, o “Físico” obteve o maior escore, 67,9%, enquanto o “Psicológico” teve o menor escore, 58,2%. O domínio “Psicológico” foi afetado significativamente pela situação conjugal ( $p = 0,0344$ ), trabalho ( $p = 0,0392$ ) e sustento da casa ( $p = 0,0196$ ). Já a situação conjugal ( $p = 0,0025$ ) e os filhos ( $p = 0,0212$ ) tiveram relação significativa com a autoavaliação da qualidade de vida. **Conclusão:** Identificou-se que as variáveis relacionadas à situação conjugal, filhos, trabalho e sustento da casa alteram de forma significativa a qualidade de vida, durante a pandemia, dos estudantes investigados. Verificou-se também que, apesar da autoavaliação quanto à qualidade de vida e saúde serem boas, a dimensão psicológica é a mais afetada.

**Descritores:** Qualidade de vida; Estudantes de Enfermagem; Isolamento social; Infecções por Coronavírus; Pandemias.

#### ABSTRACT

**Objective:** To identify the impact of the SARS-CoV2 pandemic on the quality of life of students of the technical nursing course regarding the period of suspension of the academic calendar. **Method:** Cross-sectional study developed using an online form with students from a public institution. A questionnaire composed of sociodemographic questions and the World Health Organization Quality of Life (WHOQOL-bref) was used. **Results:** Fifty-five participants were included; 63.6% evaluated their quality of life as good and 47.3% are satisfied with their health. In the stratification of the WHOQOL-bref domains, the Physical domain obtained the highest score, 67.9%, while the Psychological domain had the lowest score, 58.2%. The Psychological domain was significantly affected by marital status ( $p = 0.0344$ ), job ( $p = 0.0392$ ), and being provider to the household ( $p = 0.0196$ ). The marital status ( $p = 0.0025$ ) and having children ( $p = 0.0212$ ) had a significant relationship with the self-assessment of quality of life. **Conclusion:** It was identified that the variables related to marital status, children, job, and household support significantly altered the quality of life of the students investigated during the pandemic. It was also found that, despite the fact that the self-assessment of quality of life and health was good, the psychological dimension was the most affected.

**Descriptors:** Quality of life; Nursing students; Social isolation; Coronavirus infections; Pandemics.

#### RESUMEN

**Objetivo:** Identificar el impacto de la pandemia del SARS-CoV2 en la calidad de vida de los estudiantes de enfermería durante la suspensión del calendario académico. **Método:** Estudio transversal desarrollado con estudiantes de una institución pública utilizando formularios electrónicos, sociodemográfico y la Calidad de Vida de la Organización Mundial de la Salud (WHOQOL-bref). **Resultados:** Participaron 55 estudiantes, de los cuales el 63,6% calificó su calidad de vida como buena y el 47,3% dijo estar satisfecho con su salud. En la estratificación de los dominios del WHOQOL-bref, “Físico” obtuvo la puntuación más alta, 67,9%, mientras que “Psicológico” obtuvo la puntuación más baja, 58,2%. El dominio “Psicológico” se vio afectado significativamente por el estado civil ( $p = 0,0344$ ), el trabajo ( $p = 0,0392$ ) y los ingresos familiares ( $p = 0,0196$ ). El estado civil ( $p = 0,0025$ ) y los hijos ( $p = 0,0212$ ) tuvieron una relación significativa con la autoevaluación de la calidad de vida. **Conclusión:** La situación conyugal, tener hijos, trabajar y mantener el hogar interfirió con la calidad de vida de los estudiantes investigados durante la pandemia. También se encontró que, si bien la autoevaluación en cuanto a calidad de vida y salud es buena, la dimensión psicológica es la más afectada.

**Descriptor:** Calidad de Vida; Estudiantes de Enfermería; Aislamiento Social; Infecciones por Coronavirus; Pandemias.

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## INTRODUCTION

The arrival of the new Coronavirus - SARS-CoV-2 and the consequent advance of the Disease (Corona Virus Disease - COVID-19) in Brazil culminated in the decision by government authorities to implement social distancing as the main measure to reduce the contagion by the virus, since, to date, no specific therapy or vaccine for the disease is available. Due to social distancing, a series of economic, social and educational activities were suspended, following the international coping models that include the closure of schools, offices, public services, and the cancellation of other activities that result in crowding of people<sup>(1)</sup>.

This new social reality brought changes in people's routines and way of life; now their right to travel and contact with others is restricted. These measures, although necessary to face the pandemic, due to the risk of contagion, are responsible for numerous personal impacts, either psychological, such as stress, anxiety and depression<sup>(2)</sup>, or social and physical, such as social isolation and worsening of chronic diseases<sup>(3-4)</sup>. Psychological consequences are related to fears of the virus or infection, frustration, reduced income, inadequate information, and social stigmatization<sup>(2)</sup>.

In the academic context, changes in the way pedagogical activities are carried out due to the implementation of remote/online teaching imposed by social distancing, in addition to the uncertainties and negative impacts on academic progression, can contribute to the occurrence of psychological disorders<sup>(2-4)</sup>. The new teaching modalities and their impacts on the students' lives have been a dilemma experienced by teachers and other professionals from educational institutions. When making decisions that involve the continuity of the teaching-learning process, they need to think about maintaining the quality of education offered and how this process will impact the life of the internal community, while they need to ensure the maintenance of the physical and mental health of everyone involved.

Another aspect to consider about the impact of the pandemic on academic life refers to the inequalities experienced by students in the development of school activities in the home environment due to the different housing conditions, technological resources and even social roles assumed by men and women<sup>(5)</sup>.

With regard to the professional training of nursing technicians, it is worth mentioning that it

is directly related to care. The whole range of scientific knowledge is directly guided and grounded in professional practice, as it is from this practice that interactions between students, community and professionals occur<sup>(6)</sup>; these are needs that remote/online teaching cannot meet. Therefore, in addition to the aforementioned aspects, related to the pandemic, there are other aspects arising from this challenging context of teaching in this new modality, mainly for professions such as nursing technician whose development of technical skills requires a great workload of practical activities. Thus the situation certainly impacts the lives of educators and students in these cases.

All of these aspects can directly influence people's quality of life (QOL), and the intensity of these consequences depends on personal characteristics and how each individual perceives their QOL. It is an essential component for health, since it is permeated by indicators that are outside the biological sphere. As defined by the World Health Organization, QOL is "AN individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns"<sup>(7)</sup>.

Research on QOL has been increasingly frequent and indispensable in the academic environment, especially in courses in the health area, mainly in nursing, but with production still incipient when it comes to the technical area. To measure QOL, there are many instruments that provide a more complete assessment of its impact on the daily lives of the investigated subjects, such as the WHOQOL-bref<sup>(8)</sup>.

The generic instruments for assessing QOL apply to the most different conditions and reflect the different aspects of people's lives. This diversity of aspects is organized in sets, called dimensions or domains, which are measured individually and weighted (8) and are important for understanding the factors involved in the population's QOL.

In this sense, regardless of whether social distancing is an important strategy for the conservation of the individual's physical health, it is essential to think about its impacts on the health and the QOL of the population. Thus, based on the understanding that people react and experience this condition differently, the identification of the impact of the SARS-CoV 2 pandemic on the QOL of students in technical nursing courses, in which professionals are being trained to face situations

of morbidity and mortality, is important for pedagogical planning and for the development of emotional support actions for the return of face-to-face activities.

Given the above, the objective of this research is to identify the impact on QOL of students in the technical nursing course regarding the period of suspension of the academic calendar due to the SARS-CoV-2 coronavirus pandemic.

## METHOD

Cross-sectional study, developed with students from a technical nursing course at a public institution in the city of Curitiba-PR. During data collection period, there were 60 students enrolled and only five did not accept to participate. All students were invited, so there was no sample calculation. The inclusion criteria were: being a student entering the technical nursing course in the years 2019 or 2020, being regularly enrolled and being over 18 years of age. And the exclusion criteria were: participants who failed to answer more than three questions in the questionnaires applied.

Data collection took place through online platforms due to the suspending of the academic calendar at the participating institution since March 2020. The researchers contacted the participants through their personal e-mails, made available by the course coordinators, and sent a message inviting them to participate in the survey, providing an explanation of objectives, methodology used and the link to fill the questionnaire via Google forms<sup>®</sup>. Data were collected in July 2020 using two instruments: a sociodemographic questionnaire, prepared by the researchers, and the WHOQOL-bref<sup>(8)</sup>, an instrument validated and made available by the World Health Organization.

The sociodemographic questionnaire consisted of multiple choice questions that addressed characteristics such as: age, sex (male/female), marital status (married/with partner/in a stable union or single), number of children (zero to four or more), occupational situation (paid work and remote or face-to-face modality, does not work due to unemployment or by own option), and degree of contribution to the family income (does not contribute, partially contributes, or is the only provider).

The WHOQOL-bref<sup>(8)</sup> was applied to investigate students' QOL. It consists of 26

questions, two of which refer to general QOL and satisfaction with health and the others (24 questions) are distributed among the Physical, Psychological, Social Relations and the Environment domains<sup>(8)</sup>.

The software Stata<sup>®</sup> version 12 (Stata Corp., College Station, United States) was used for the analysis of sociodemographic data, using descriptive statistics. Relative and absolute frequencies were used as descriptive measures for categorical variables and mean and standard deviation for numerical variables.

To the analysis and treatment of data related to QOL, the following evaluations were adopted: two general questions were calculated together, to generate a single score independent of the other domains, which we call the General Quality of Life Index (GQVI); and a tool constructed by Pedroso et al.<sup>(9)</sup> available in .xls format, in which scores and descriptive statistics are calculated in an automated way, was used for the analysis of the other data from the WHOQOL-bref<sup>(8)</sup>. The logic used by this tool is the simple arithmetic mean of the scores of the 26 questions in the questionnaire - considering its four domains, to convert them into a scale from 0 to 100 and display them in graphs. The score for each domain is obtained on a positive scale, that is, the higher the score, the better the QOL in that domain.

After the descriptive analysis, as the numerical variables did not adhere to the normal distribution, non-parametric statistics was adopted for each domain and the GQVI for each sociodemographic variable in order to check whether there were significant differences between categories. For this, the Mann-Whitney test was used for variables with two categories and the Kruskal-Wallis for three or more categories, considering  $p < 0.05$  as significant.

The research was approved by the Research Ethics Committee under number CAAE 20712719.7.0000.8156, on June 17, 2020.

## RESULTS AND DISCUSSION

Fifty-five students participated in the research. The mean age was  $26.26 \pm 8.18$  years, with a minimum of 18 and a maximum of 51 years. Other sociodemographic data characterizing the participants are shown in Table 1.

Table 1 - Sociodemographic data for characterization of the participants. Brazil, PR, Curitiba, 2020.

Variable	n	%
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<b>Sex</b>		
Female	40	72.7%
Male	15	27.3%
<b>Marital status</b>		
Single	29	52.7%
Married/stable union/with partner	26	47.3%
<b>Number of children</b>		
None	39	70.9%
One	4	7.3%
Two	7	12.7%
Three	5	9.09%
<b>Are you currently working on a paid basis?</b>		
Yes. I work exclusively in face-to-face modality	17	30.9%
I was already unemployed before the COVID-19 pandemic	17	30.9%
I'm not currently working on my own choice	9	16.4%
Yes. I work exclusively remotely	4	7.3%
I lost my job due to the COVID-19 pandemic	4	7.3%
Yes. I work alternately between face-to-face and remote modality	3	5.5%
No answer	1	1.8%
<b>Are you economically responsible for providing to your household?</b>		
I am not responsible for providing to the household	30	54.5%
Yes. My income complements the livelihood of the household	22	40.0%
Yes. I am the only one responsible for providing to the household	3	5.45%

Source: own elaboration.

The profile of the students of the technical nursing course surveyed showed a prevalence of women. Data similar to those evidenced were found in a study developed in two Federal Institutions in Goiás whose objective was to investigate the quality of life of students in the technical nursing course and the challenges associated with professional training<sup>(10)</sup>. Similar results also come from other studies with the same profile of participants<sup>(11-13)</sup>, which evidenced the predominance of female participants in studies involving nursing professionals, which can be justified by the fact that the profession is predominantly made up of women<sup>(14)</sup>, which denotes that care has still been an activity related to female exercise.

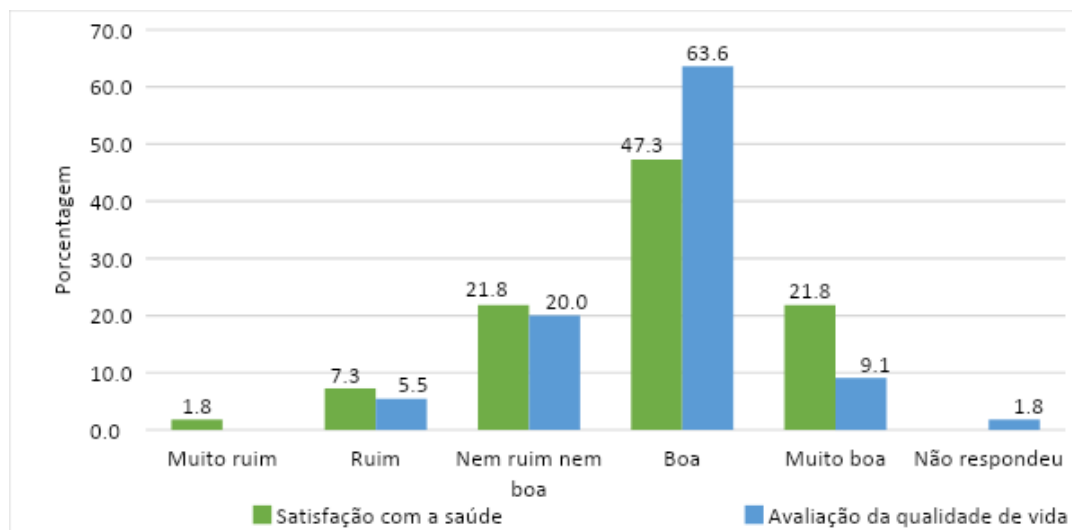
Still on the profile of the participants, the prevalence of single people, without children, and with paid job was observed. These results are corroborated by a study developed among nursing

students from Piauí<sup>(12)</sup>. These data reflect the current situation on the world scenario, in which the decision of constituting a family, including marriage and parenting is usually postponed among other choices, such as professional achievement and financial stability<sup>(15)</sup>.

Regarding the GQVI, the participants' self-assessment was 68.9%. Despite the moment of pandemic experienced, the results presented in this study are similar to others involving health students<sup>(16-17)</sup> whose indices were 65.3% and 68.4%, considered good according to a World Health Organization scale that classifies zero (0) as the worst and one hundred (100) the best perception of QOL<sup>(9)</sup>.

Most participants evaluated their QOL and their health as good, as shown in Figure 1. These results differ from those obtained in a survey conducted among nursing technicians<sup>(10)</sup> in which the scores were 35.8% and 30.9%, respectively.

Figura 1 - Avaliação dos estudantes do curso técnico em enfermagem sobre sua qualidade de vida e satisfação com a saúde. Brasil, PR, Curitiba, 2020. Figure 1 - Evaluation of students in the technical nursing course on their quality of life and satisfaction with health. Brazil, PR, Curitiba, 2020.



Source: own elaboration

Percentage. Satisfaction with health. Very bad, bad, neither bad nor good. Good, very good, no answer. Quality of life assessment.

These data may be explained by the suspension of the academic calendar at the institution that was the scenario of the research, which, in a way, reduces the overload of tasks. It may also be explained by the lack of perception so far about the effects of sanitary measures on the daily routines. According to research on the theme<sup>(18)</sup>, when evaluated in the academic context, the low QOL among nursing students is related to academic requirements, the realization of practical classes in health environments, the preparation of end-of-course works, among other pedagogical demands. In addition, the short period of time between the start of the pandemic and data collection may not have been sufficient for the manifestation of psychological symptoms, which usually occurs over a longer period of time.

On the other hand, participation in social activities, leisure activities, and the discussion of personal problems with friends and family are predictors of better QOL<sup>(19)</sup>. These are situations hindered by the social distancing imposed on the population at the time of COVID-19, but compatible with the Social Relations domain score obtained in the study (63.8%).

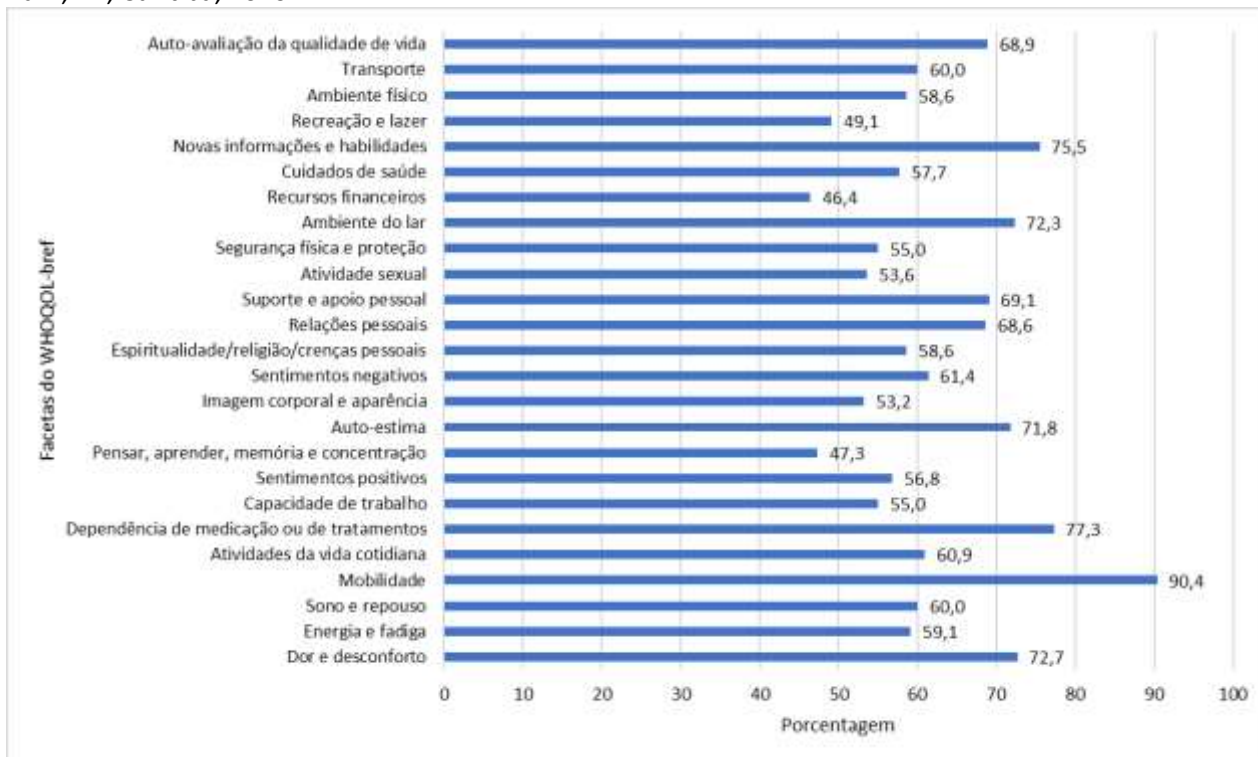
Despite the sanitary measures of social distancing, the Social Relations domain was among those with higher scores, which encourages a better assessment for the proper understanding of this result in order to identify whether it refers to non-compliance with the social distancing guidelines or whether new social interaction strategies have been developed. In addition, it is necessary to investigate the factors associated with QOL in this specific audience as

well as regarding adherence to distancing recommendations for a better understanding of the results obtained.

When evaluating the contribution of different domains to the QOL of students, it was observed that the Physical domain contributed positively, 67.9%, as well as the Social Relations domain, 63.8%. On the other hand, the Environmental (59.3%) and Psychological (58.2%) domains obtained the lowest scores, which means that they had the lowest contribution to the GQVI. These results are similar to other studies on the theme<sup>(10,12)</sup>, a fact that draws attention in the researched population, in this period of pandemic, since social distancing has been one of the practices recommended by science and has been one of the guidelines of the Secretariat of Health, maintained until today in the city of Curitiba. With this practice, which seeks to restrict the movement of people with the objective of reducing the circulation of the virus and, consequently, reducing the number of infected people<sup>(1)</sup>, it was expected that Physical and Social Relations domains would be evaluated with lower scores, given the limitation in social activities, physical activity, in addition to the psychological impact, common in situations of risk of illness, in addition to the financial impacts.

Graph 2 shows the score of students in the technical nursing course in each facet of the WHOQOL-bref<sup>(8)</sup>. The facet that obtained the highest score was "Mobility" (90.4%), while the one with the lowest score was "Financial resources" (46.4%).

Figure 2 - Score of students in the technical nursing course in the different facets of the WHOQOL-bref<sup>(8)</sup>. Brazil, PR, Curitiba, 2020.



Source: own elaboration

WHOQOL-BREF facets. Percentage.

Self-assessment of quality of life.

Transportation, Physical environment, Recreation and leisure, New information and skills, Health care, Financial resources, Home environment, Physical security and protection, Sexual activity, Personal support, Personal relationships, Spirituality/religion/personal beliefs, Negative feelings, Body image and appearance, Self-esteem, Thinking, learning, memory and concentration, Positive feelings, Ability to work, Dependence on medication or treatment, Activities of daily living, Mobility, Sleep and rest, Energy and fatigue, Pain and discomfort .

In this pandemic period, it has been shown that the prevalence of Common Mental Disorders (CMD) is clearly growing<sup>(20)</sup>. In the present study, the negative feelings facet, whose percentage was 61.4%, denotes the frequency with which participants feel sulky and/or sad, indicating a risk for the occurrence of CMD. A study developed to assess the quality of life of 42 undergraduate nursing students also found similar results<sup>(21)</sup>. Although negative feelings are evidenced in studies, in other social contexts, at the present time, this may be more noticeable, as the population and students are unable to detach themselves from the theme and, therefore, from the suffering, as also evidenced in a Chinese study<sup>(4)</sup>, whose population experienced the beginning of the pandemic.

Another facet that calls attention is related to thinking, learning, memory and concentration, whose percentage was 47.3%, denoting the frequency with which participants remember what they learned and feel tired or stressed when

concentrating on some activity. This result indicates that most participants are unable to perform essential actions for learning new content and skills, a relevant fact when it comes to students. It is noteworthy that students surveyed were not participating in remote classes previously or during data collection; however it is urged on the importance of considering this finding in discussions about the offer of remote activities, especially in the health area. Furthermore, this facet may also be related to satisfaction with sleep and rest, belonging to the physical domain, which obtained a percentage of 60%.

Table 2 shows the QOL percentiles for each of the WHOQOL-bref domains<sup>(8)</sup>. Regarding age, participants were categorized into tertiles, namely: 1<sup>st</sup> tertile - 18 to 20 years old (34.55%, n = 19); 2<sup>nd</sup> tertile - 21 to 28 years old (36.36%, n = 20); 3<sup>rd</sup> tertile - 29 to 51 years old (29.09%, n = 19).

Table 2 - WHOQOL-bref domains<sup>(8)</sup> according to the age variable. Brazil. PR. Curitiba. 2020

Domain	Variable						p-value*
	Age						
	1 <sup>st</sup> tertile (n = 19)		2 <sup>nd</sup> tertile (n = 20)		3 <sup>rd</sup> tertile (n = 19)		
Median	25 – 75%	Median	25 – 75%	Median	25 – 75%		
Physical	14.3	13.1 - 15.4	16.0	12.6 - 16.6	15.1	13.4 – 16.9	0.5528
Psychological	13.3	11.3 - 15.3	13.7	10.3 - 16.0	14.0	13.0 – 15.3	0.7129
Social relationships	12.0	10.7 - 16.0	15.3	12.7 - 17.3	14.7	12.7 – 16.0	0.3260
Environment	13.0	12.0 - 15.0	13.8	11.8 - 15.3	13.3	12.3 – 14.3	0.7661
Self-assessment of QOL	14.0	14.0 - 16.0	16.0	14.0 - 16.0	16.0	15.0 – 18.0	0.0942

Source: own elaboration.

\* Kruskal-Wallis test.

For the other sociodemographic variables quartiles were used to categorize and evaluate each of the WHOQOL-bref domains<sup>(8)</sup> (Table 3).

Table 3 - WHOQOL-bref domains<sup>(8)</sup> according to sociodemographic variables. Brazil. PR. Curitiba. 2020.

Domain	Variable				p-value
	Median	25 – 75%	Median	25 – 75%	
	<b>Sex</b>				
	<b>Female (n = 40)</b>		<b>Male (n = 15)</b>		
Physical	14.9	13.1 - 16.6	15.4	13.7 – 17.1	0.3677 <sup>‡</sup>
Psychological	13.7	11.3 – 15.3	14.7	10.0 – 17.3	0.4146 <sup>‡</sup>
Social relationships	14.7	12.0 – 16.0	14.7	10.7 – 17.3	0.9619 <sup>‡</sup>
Environment	13.0	12.0 – 14.5	14.5	12.5 – 15.0	0.3018 <sup>‡</sup>
Self-assessment of QOL	16.0	14.0 – 16.0	16.0	14.0 – 16.0	0.6299 <sup>‡</sup>
	<b>Marital status</b>				
	<b>Single (n = 29)</b>		<b>with partner (n = 26)</b>		
Physical	14.3	13.1 – 16.0	16.0	13.7 – 16.0	0.1217*
Psychological	12.7	10.0 – 14.7	14.3	13.3 – 16.0	0.0344*
Social relationships	12.0	10.7 – 16.0	16.0	13.3 – 16.0	0.0541*
Environment	13.0	12.0 – 15.0	13.5	12.0 – 14.5	0.9663*
Self-assessment of QOL	14.0	14.0 – 16.0	16.0	16.0 – 18.0	0.0025*
	<b>Do you have kids?</b>				
	<b>No (n = 39)</b>		<b>Yes (n = 16)</b>		
Physical	14.9	13.1 – 16.0	16.6	13.7 – 17.1	0.1119 <sup>‡</sup>
Psychological	13.3	10.0 – 15.3	14.0	13.0 – 16.0	0.3719 <sup>‡</sup>
Social relationships	13.3	10.7 – 16.0	15.3	13.3 – 16.0	0.3536 <sup>‡</sup>
Environment	13.5	12.0 – 15.5	13.3	12.0 – 14.0	0.4407 <sup>‡</sup>
Self-assessment of QOL	16.0	14.0 – 16.0	14.5	13.2 – 15.5	0.0212 <sup>‡</sup>
	<b>Are you working at the moment??</b>				
	<b>Yes (n =24)</b>		<b>No (n = 30)</b>		
Physical	14.9	13.4 – 16.9	14.9	13.1 – 16.6	0.6624 <sup>‡</sup>
Psychological	14.7	12.7 – 16.3	13.3	10.0 – 14.7	0.0392 <sup>‡</sup>
Social relationships	15.3	12.7 – 18.0	13.3	10.7 – 16.0	0.0564 <sup>‡</sup>
Environment	13.8	12.3 – 15.5	13.0	12.0 – 14.5	0.3876 <sup>‡</sup>
Self-assessment of QOL	16.0	13.0 – 18.0	16.0	14.0 – 16.0	0.6841 <sup>‡</sup>
	<b>Are you responsible for the financial support of the household?</b>				
	<b>Yes (n =25)</b>		<b>No (n = 30)</b>		
Physical	16.0	13.7 – 17.1	14.9	13.1 – 16.6	0.1643 <sup>‡</sup>
Psychological	14.0	13.3 – 16.0	13.0	10.0 – 14.7	0.0196 <sup>‡</sup>
Social relationships	14.7	13.3 – 16.0	13.3	10.7 – 16.0	0.1325 <sup>‡</sup>
Environment	13.0	12.0 – 14.5	13.5	12.0 – 15.0	0.8922 <sup>‡</sup>
Self-assessment of QOL	16.0	14.0 – 18.0	16.0	14.0 – 16.0	0.3887 <sup>‡</sup>

Source: own elaboration.

\*Kruskal Wallis test; <sup>‡</sup>Mann Whitney test.

In this study, it was observed that variables related to the marital situation, job and support of the house significantly change the QOL, especially with regard to the psychological dimension, which is consistent with other studies that also identified

an association between psychological disorders (depression), family income<sup>(3,21)</sup> and marital status<sup>(3)</sup>. According to recent studies, psychological impacts arise from situations such as rapid spread of the virus throughout the world,



difficulties in control and treatment, unpredictability related to the duration of the pandemic and its consequences<sup>(22)</sup>, the risk of illness of family members, as well as ignorance about prevention and control measures, among others<sup>(4)</sup>.

The findings of this study agree with those of other studies carried out to date on the mental health and the impacts caused by the pandemic. For example, a study carried out with 619 university students whose objective was to analyze whether the levels of depression, anxiety and stress changed in the pandemic period, compared to previous periods found a significant increase in psychological disturbance (anxiety, depression and stress)<sup>(2)</sup>.

It was also identified that the variables marital status and employment had an impact on the dimension of social relationships, which are related to one of the important facets in the assessment of QOL, namely, personal support, whose index was 69.1%. This result corroborates the findings of a study carried out among medical students in Turkey<sup>(3)</sup>, which identified that the marital situation and job act as health protection factors, since they reduce the effects of the pandemic, adding that those who living with the family also felt lesser effects.

In addition, given the self-assessment of QOL, the marital situation and children were the variables that determined a significant impact, since the presence of a partner to share anxieties and/or daily activities positively influences the QOL, as well as the absence of children, which would demand the use of physical, psychological and financial energy, as also evidenced in other studies<sup>(4,21)</sup>.

It was found that the pandemic period interfered with the QOL of the population studied, especially with regard to the psychological aspects already discussed. The pandemic raises a problem to be addressed by educational institutions in future projects to help these students, when face-to-face classes are resumed and strategies to protect the mental health and improve QOL during remote education must be created.

The fact that psychological disorders have a slow evolution and manifestations occur in a prolonged and gradual way, which can be evidenced only years after the end of the pandemic period<sup>(23)</sup>, these results may not yet be reflecting the real impact of social isolation in this public; however, they already provide subsidies for the planning of actions in the short and long

term, within the scope of educational institutions, in order to minimize possible consequences for student learning, for teaching performance and, consequently, interference in training and professional performance.

## CONCLUSION

The study showed that the pandemic moment influenced the QOL of students in the technical nursing course during the suspension period of the academic calendar. Despite the positive self-assessment for QOL and general health, the psychological dimension obtained the lowest score in the domain assessment. In addition, it was found that variables related to marital status, children, job and household support have significantly altered the QOL of the students investigated during the pandemic.

Knowing the impact of the pandemic on the QOL of students in the technical nursing course can contribute to training institutions in order to develop strategies that minimize its effects on the health and QOL of this population, such as, for example, the implementation of psychological follow-up programs that can contribute to prevent pathologies of a psychological nature and assist in coping with anxieties, in the resumption of the face-to-face activities in the course, as well as of daily routines of life.

The limited sampling was a limitation of this study, for it prevents the generalization of the results as well as more robust analyses. There is also a scarcity of studies specifically assessing the QOL of students of the technical nursing course, a fact that made it difficult to discuss data. Other characteristics of cross-sectional studies are the limitations attributed to potential memory bias and reverse transversality. Despite the limitations, it is believed that the guarantee of anonymity may have reduced the information bias.

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