

The evaluation of Mental Health and Quality of Life of Physical Therapy Students

A Avaliação da Saúde Mental E da Qualidade de Vida dos Estudantes de Fisioterapia

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ABSTRACT

Background: The quality of life of students may suffer interference from the academic environment, especially in the first semester, as they need to adapt to a new reality. In general, students experience stress and anxiety due to the overload of practical and theoretical subjects. Despite the vast literature that evaluates the quality of life and mental health of the university population, there are few studies that specify this aspect of students in the physical therapy graduate. **Objectives:** To evaluate the quality of life and mental health of students in the physical therapy graduate. **METHODS:** Cross-sectional study involving 46 physical therapy students from the second, fifth and eighth period through self-completed questionnaires that included socio-demographic data, quality of life (WHOQOL-BREF), mental health (DASS 21). **Results:** The quality of life of physical therapy students, especially in the fifth period, was worse when compared to students in the second and eighth periods. The average in DASS 21 in the item “difficult to calm me down” obtained a significant result ($p < 0.05$) for students in the fifth period. Through the WHOQOL-BREF, quality of life was considered median by 62.5% of students in the fifth period, this being the highest value among the three groups analyzed. **Conclusion:** It is possible to propose recommendations for future research so that the results can be used in meta-analysis studies. Studies that did not show a significant relationship between the variables cannot be neglected in order to investigate other aspects of the training of physical therapy students.

Keywords: Mental Health, Quality of Life, Students, Physical Therapy Specialty

RESUMO

Contexto: A qualidade de vida dos estudantes pode sofrer interferência do meio acadêmico, principalmente nos primeiros semestres, pois precisam se adaptar a uma nova realidade. De forma geral, estudantes apresentam estresse e ansiedade devido à sobrecarga das disciplinas práticas e teóricas. Apesar da vasta literatura que avalia a qualidade de vida e saúde mental da população universitária, são escassos estudos que especifiquem este aspecto dos estudantes do curso de fisioterapia. **Objetivos:** Avaliar a qualidade de vida e saúde mental de estudantes do curso de fisioterapia. **Métodos:** Estudo transversal que envolveu 46 estudantes de fisioterapia do segundo, quinto e oitavo período através questionários auto preenchidos que incluíam dados sócio demográficos, qualidade de vida (WHOQOL-BREF), saúde mental (DASS 21). **Resultados:** A qualidade de vida dos estudantes de fisioterapia, principalmente do quinto período, evidenciou-se pior quando comparado aos alunos do segundo e oitavo período. A média no DASS 21 no item “difícil de me acalmar” obteve resultado significativo ($p < 0,05$) para os alunos do quinto período. Através do WHOQOL-BREF, a qualidade de vida foi considerada mediana por 62,5% dos alunos do quinto período, sendo esse o maior valor entre os três grupos analisados. **Conclusão:** É possível propor recomendações para pesquisas futuras de modo que os resultados possam ser utilizados em estudos de metanálise. Estudos que não apresentaram relação significativa entre as variáveis, não podem ser negligenciados para que sejam investigadas outros aspectos da formação do estudante de fisioterapia.

Palavras-chave: Saúde Mental, Qualidade de Vida, Estudantes, Fisioterapia

INTRODUCTION

The mental health and quality of life of the entire young population has stood out in recent years due to the high prevalence of anxiety, depression, risk of suicide and low quality of life. The World Health Organization defines quality of life as the individual's ability to perceive their position in life, taking into account the culture and value systems in which they live, and in relation to their goals, perspectives, standards and fears¹.

The quality of life of young adults, especially undergraduate students, may be affected by the academic environment, especially in the first semesters, as they need to adapt to a new reality, develop responsibilities and autonomy, in addition to improve time management to meet university requirements².

Students, in general, experience stress and anxiety due to the overload of practical and theoretical subjects generating fear of making mistakes and feeling of unpreparedness. Study requirements and other responsibilities interfere with relaxation and interpersonal connections³. Most university students have chronic insomnia, slowing them down, with the lowest grades, daytime sleepiness, fatigue, worry, complaints related to mental health and increased risk of traffic accidents⁴. Thus, persistent insomnia leads to higher levels of depression, anxiety, panic and phobias⁵.

In the university context, the use of questionnaires for screening and measuring the severity of depression, stress and anxiety would be beneficial for detecting and managing prevention and early promotion of mental health in students⁶. The instruments aim to understand aspects of life, which go beyond physical health, thus relating to a broader concept of health⁷. A study that evaluated and compared the quality of life in students who used the World Health Organization Questionnaire for Quality of Life - Brief form (Whoqol-bref) tool revealed that, during academic training, students suffer psychological depreciation, especially students of last semester⁸.

Despite the vast literature that assesses the quality of life and mental health of the university population, there are few studies that specify this aspect of students in the physiotherapy course, verifying levels of stress and anxiety in the periods when major changes in the curriculum occur, since an early assessment could limit and prevent the problems faced by students.

The aim of this study is to assess the quality of life and mental health of students in the physiotherapy course at different times during the course.

METHODS

Study design and participants:

This study was performed with a non-probabilistic sample, for convenience, consisting of 46 students of the physiotherapy course,

from a private school in Juiz de Fora, Minas Gerais, Brazil, in March 2018. The students were in the second, fifth and eighth semester of graduation at the time of the research; the choice of undergraduate periods was made so that it was possible to make comparative analyzes of students at the beginning, in the middle, and at the end of the course.

The study was approved by the Research Ethics Committee of the School of Medical Sciences of Juiz de Fora (SUPREMA), under CAAE number 93637718.4.0000.5103 and the students signed a Free and Informed Consent Form.

Inclusion and exclusion criteria:

To be included, the student must be officially enrolled in the second, fifth and eighth period of the physiotherapy course and be over 18 years of age. Students who did not complete all linked questionnaires, who did not sign the consent form, who had suspended his registration or who were not present at the time of the collection were not included.

Procedure:

Data collection was performed through an interview with students two weeks before the institution's exam week, before or after classes, in the classroom. The researchers informed about the objectives of the study before the delivery of the questionnaires, and these were filled out by the students themselves.

Instruments:

Self-completed questionnaires of approximately 15 minutes were used, which included:

Socio-demographic data: gender, age, ethnicity, and religion;

WHOQOL-BREF- World Health Organization Quality of Life: validated for Portuguese, used by the scientific community to assess the quality of life. Composed of 26 items, answered in Likert format, distributed in four domains: (a) Physical - 7 items, (b) Psychological - 6 items, (c) Social relations - 3 items, (d) environment - 7 items and two general facets related to: "quality of life" and "health". All WHOQOL scored on a 5-point Likert-type scale. In our study, Cronbach's alpha coefficients for the total scale was $\alpha = .899$.

DASS 21 - Depression, anxiety and stress scale: scale validated for Portuguese, used to assess mental health. Comprised of 21 items, with a 4-point Likert response, divided into three subscales that simultaneously evaluate symptoms of: (a) depression (inertia, anhedonia, dysphoria, loss of interest/involvement, self-depreciation, devaluation of life, discouragement); (b) anxiety (excitation of the autonomic nervous system, skeletal muscle effects, situational anxiety, subjective anxiety, experiences); (c) stress (difficulty in relaxing, nervous excitement, easy disturbance/agitation, exaggerated irritability reaction, impatience). In the present study, Cronbach's alpha of the full scale was $\alpha = .936$

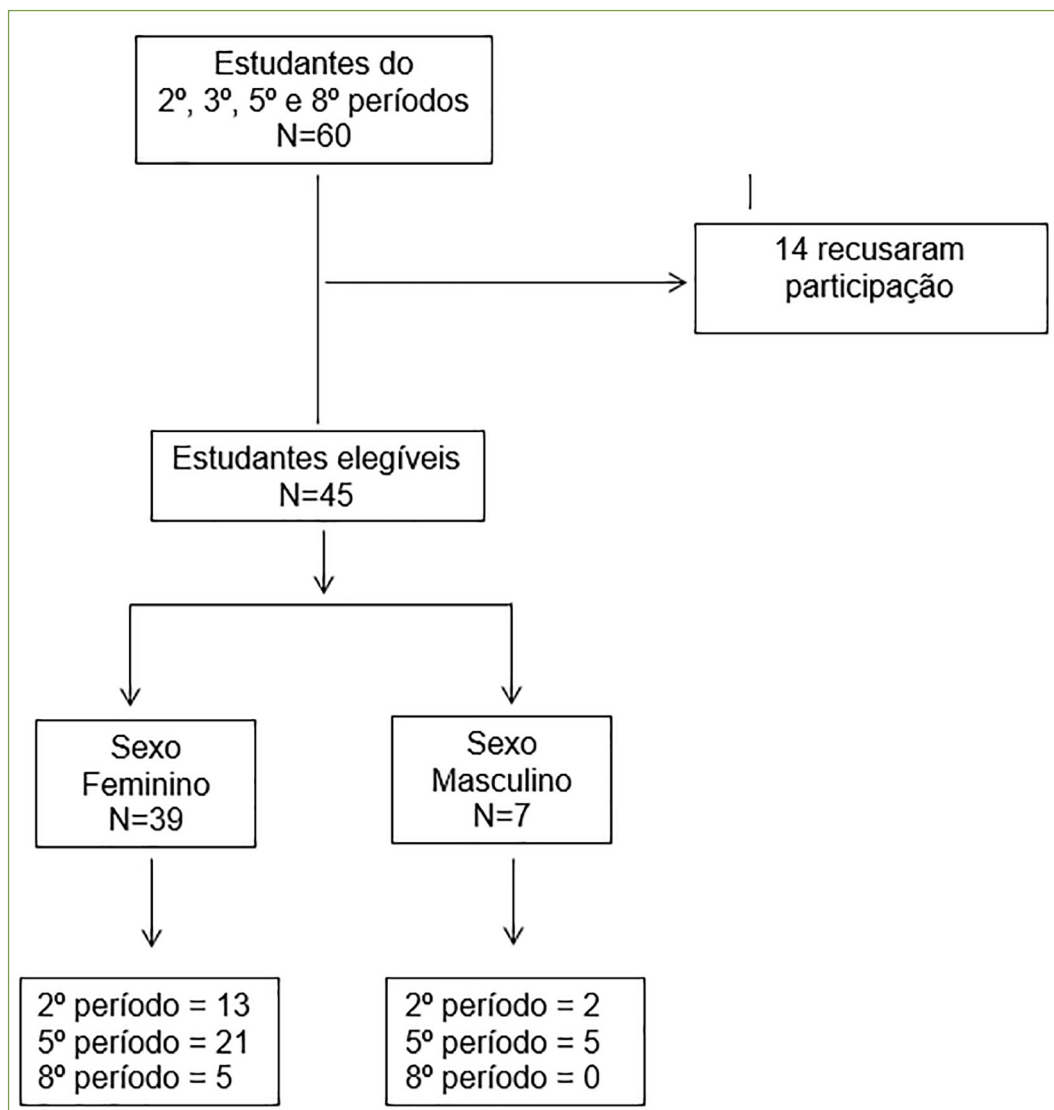


Figura 1. Fluxograma da seleção dos participantes.

The descriptive analyzes of the data were presented by the mean, standard deviation of the mean and the categorical variables, as absolute and relative frequency, accepting a significance of $p < 0.05$ and 95% confidence interval. The statistical software GraphPad (version 5.01, GraphPad, La Jolla CA) was used for data analysis.

RESULTS:

The analyzed group consisted of 46 students in the physiotherapy course. Their average age was 22 (± 1.5) with a minimum of 18 and a maximum of 27 years. Of the total, 39 were female, representing approximately 85% of the sample, and 7 male, approximately 15% of the sample. Regarding the declared ethnicity, 69.7% were white, 10.8% black and 19.5% belonged to other ethnicities. The analysis of sociodemographic variables is shown in table 1.

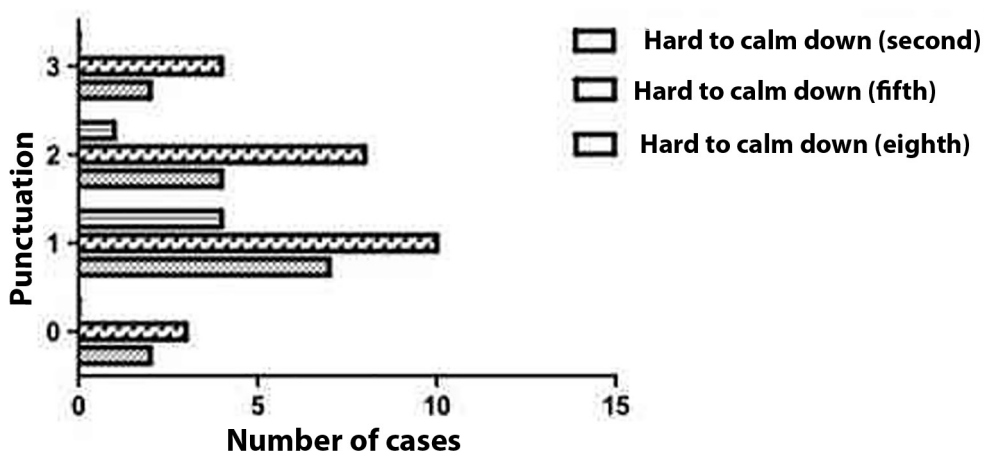
Regarding the DASS 21 instrument, with the Frequency Distribution performed by the GraphPad program, the predominance of signs and symptoms of anxiety, mainly in the fifth period students became evident. As an example, the item “difficult to calm me down”, presented a significant result ($p < 0.05$), and these showed difficulty to calm down to some degree, or for a short time and to a considerable degree, or most of the time, according to data obtained in the graph below:

In addition, through the WHOQOL-BREF analysis, it was possible to verify that the majority of students in the fifth period reported worse results regarding the quality of life when compared to students in the second and eighth period. Table 2 shows the item on the assessment of the quality of life. In this context, it was taken into account that the number five indicates a good assessment of the quality of life, and

Table 1. Sociodemographic characteristics (ethnicity and religion)

Variables		n=46 / (%)
Ethnicity	White	32 / 69,5 %
	Black	5 / 10,8%
	Others	9 / 19,5%
Religion	Catholic	31 / 63,3%
	Spiritist	5 / 10,8%
	Another	2 / 4,3%
	I believe, but I have no religion	2 / 4,3%
	Evangelical	1 / 2,1%
	Protestant	5 / 10,8%

Hard to calm down



Graph 2. Predominance of signs and symptoms of anxiety

the number one, in turn, is equivalent to a low/bad assessment of the quality of life.

DISCUSSION:

The quality of life of physiotherapy students, especially in the fifth period, was worse when compared to students in the second and eighth periods, and this factor was not influenced by the Sociodemographic data. The predominance of the fifth period points to another hypothesis that, due to the curriculum, this moment of the course requires students to commit themselves more, otherwise they feel unmotivated.

During graduation, due to the stressful routine, more than half of the physiotherapy students showed symptoms of depression and anxiety according to the additional workload in the curriculum⁹.

According to a study by Syed et al (2018), it was possible to observe that of 267 physiotherapy students at an institution, 52% did not show signs of depression, 16.4% had mild signs, 21% moderate signs, 9% severe signs, and only 5% of students showed severe signs. In addition, about 68.54% of students had symptoms of anxiety and 53.2% of stress⁹.

In the present study, it was possible to observe symptoms of anxiety and depression in students in the second, fifth and eighth periods, but these symptoms predominated significantly in students in the fifth period of the physiotherapy course. Another important finding was that students in the fifth period reported worse quality of life when compared to students in the second and eighth periods. In this way, such predominance may occur due to changes in the curriculum, presenting mostly specific disciplines that are associated with clinical practices.

Due to the increase in the number of hours and changes in the curriculum, the student tends to abandon his leisure activities and the family context to dedicate himself to studies, which increases his effort, making them vulnerable to the emergence of symptoms of anxiety and depression¹⁰. Thus, not having healthy lifestyle habits, with time for physical activities and leisure, it was harmful to students' mental and physical health¹¹.

The correlation between religion and academic life was an important factor for the development of student satisfaction, improving quality of life, generating positive thoughts, thus reducing psychic illness. In this way, the managers of the health courses

Tabela 2. A avaliação da qualidade de vida

WHOQOL bref	n=46 / (%)
1. Quality of life assessment	
Second period	
1	0 %
2	7.1%
3	21,4 %
4	42,8
5	28,5 %
Fifth period	
1	0%
2	62,5%
3	33.3%
4	4.1%
5	
Eighth period	
1	0%
2	20%
3	40%
4	40%
5	0%

1. Nothing 2. Very little 3. Medium 4. Very 5. Completely

stimulated the creation of groups for the religious experience and exchange of experiences¹².

The identification of factors associated with depression and anxiety in the academic context allowed prevention strategies and the promotion of mental health to be created, such as support groups, student assistance in the management of studies concerning time, relaxation activities such as meditation and exercises. aerobic activities aimed at brain health, maintaining the general well-being of students, minimizing possible weaknesses within the course and optimizing the learning process^{11,13}.

This study presented as a limitation the sample size and the difficulty of applying the questionnaires to the students of the eighth period since they were approached during the mandatory internship time, causing them to refuse to participate in the study. In addition, this study did not consider socio-demographic data as a factor associated with the quality of life and mental health of physiotherapy students. On the other hand, the present study also has strengths. In addition to being innovative in researching mental health and quality of life among physiotherapy students, the questionnaires used in this study are validated in the language of the volunteers, which are easy to apply and understand, with worldwide reproducibility.

CONCLUSION

Considering the above, it is possible to propose recommendations for future research so that the results can be used in meta-analysis studies. Despite the little significant relationship between the variables, studies should not be neglected in order to investigate other aspects of the educational training of physiotherapy students.

REFERENCES:

1. The Whoqol Group: The World Health Organization Quality of Life Assessment (WHOQOL): Position paper from the Health Organization. *Soc. Sci. Med*, 1995, 41(10):1403-1409.
2. Fleck MPA, Louzada S, Xavier M, Chamovich E, Vieira G, Santos L, Pinzon V. Aplicação da versão em português do instrumento abreviado de avaliação da qualidade de vida "WHOQOL-bref". *Revista de saúde pública*, 2000, 34(2):178-183.
3. Fleck MPA. O instrumento de avaliação de qualidade de vida da Organização Mundial da Saúde (WHOQOL-100): características e perspectivas. *Ciênc. Saúde coletiva* 2000; 5(1): 33-8.
4. Claumann GS, Maccari FE, Ribovski M, Pinto AA, Felden ÉPG, Pelegrini A. Qualidade de vida em acadêmicos ingressantes em cursos de educação física. *J. Phys. Educ* 2017; 28: 1-11.
5. Chernomas WM, Shapiro C. Stress, depression, and anxiety among undergraduate nursing students. *Int J Nurs Educ Scholarsh* 2013; 10(1):255-66.
6. Taylor DJ, Bramoweth AD, Grieser EA, Tatum JI, Roane BM. Epidemiology of insomnia in college students: relationship with mental health, quality of life, and substance use difficulties. *Behavior Therapy* 2013; 44(3): 339-48.
7. Nyer M, Farabaugh A, Fehling K, Soskin D, Holt D, Papakostas GI, Pedrelli P, Fava M, Pisoni A, Vitolo O, Mischoulon D. Relationship between sleep disturbance and depression, anxiety, and functioning in college students. *Depress Anxiety* 2013; 30(9): 873-80.
8. Yoon S, Lee Y, Han C, Pae CU, Yoon HK, Patkar AA, Steffens DC, Kim YK. Usefulness of the patient health questionnaire-9 for Korean medical students. *Acad Psychiatry* 2014; 38(6): 661-7.

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9. Chazan ACS, Campos MR. Qualidade de vida de estudantes de medicina medida pelo whoqol-bref - UERJ, 2010. Ver. Bras. Educ. med 2013; 37(3): 376-84.
 10. Parol CA, Bittencourt ZZLC. Qualidade de vida de graduandos da área da saúde. Ver. Bras. Educ. med 2013; 37(3): 365-75.
 11. Syed A, Ali SS, Khan M. Frequency of depression, anxiety and stress among the undergraduate physiotherapy students. Pak J Med Sci. 2018 Mar-Apr; 34(2): 468-471.
 12. Mondardo AH, Pedon EA. Estresse e desempenho acadêmico em estudantes universitários. Ver. Ciênc. Hum. Educ. 2005; 6(6).
 13. Barlen ELD, Dalmolin GL, Vasconcellos SJL, Barlen ELD, Andolhe R, Magnago TSBS. Depressive symptoms among health care undergraduate students. Ver LatAm Enfermagem 2020; 28.
 14. Fleury LFO, Gomes AMT, Rocha JCCC, Formiga NS, Souza MMTS, Marques SC et al. Religiosidade, estratégias de coping e satisfação com a vida: Verificação de um modelo de influência em estudantes universitários. Ver. Portuguesa de Enfermagem de Saúde Mental 2018;