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Depression, Anxiety, Stress and Quality of Life of Students from Public and Private Universities

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Abstract: *Introduction:* Variables such as depression, anxiety, stress and quality of life offer indications of health and illness of young students in the professional training phase, since they represent four of the ten main causes of disability in the world. *General Objective:* To evaluate and correlate the presence of signs and symptoms of depression, anxiety, stress and quality of life of university students from two institutions, one public and one private; *Objectives:* a) To characterize the sociodemographic profile; b) Assess symptoms of depression, signs of anxiety and stress and overall quality of life; c) correlate the variables quality of life, signs and symptoms of anxiety, depression and stress. *Method:* Quantitative research. For data collection, the following instruments were used: socioeconomic and cultural data questionnaire; WHOQOL Brief and EADS - Depression, Anxiety and Stress Scale Data were statistically evaluated with the aid of the SPSS Program - version 2.0 for Windows. *Results:* The study included 570 University Students, 344 students from the Private Institution and 226 from the Public Institution, female and male, between 16 and 55 years old. The results revealed that there was no significant difference in quality of life in the Psychological and Social domains of both institutions. The most affected domains, that is, the one in which university students find the most harm is with the Physical and Environmental domain of both institutions. *Conclusion:* Therefore, it is observed that the students obtained a mild degree of stress, depression and anxiety in both institutions. By correlating the domains of quality of life and the variables: anxiety, depression and stress, it was observed that the higher the depression, the lower the quality of life in the psychological and environmental domains. From the results, further studies are suggested.

Keywords: Quality of Life, Anxiety, Depression, Stress

1. Introduction

Concerns about the mental health of students became even more present when faced with studies that showed the incidence of psychological and psychiatric disorders in the general population, and these represent four of the top ten causes of world disability.

Depression is the leading cause of disability in the world, and is a very frequent mental disorder that, according to the World Health Organization (WHO) [22], affects more than 264 million people worldwide. Approximately 800,000 people die each year by suicide attributed to depression, the second leading cause of death for people between the ages of 15 and 29.

Mental health problems are already considered the diseases of the 21st century, especially depression, which may be the most common disease in the world by 2030, according to the WHO. [28]

In Brazil, *the Network for Mental Health Care, Crack, Alcohol and other Drugs* was agreed in July 2011, as part of the discussions to implement Decree No. 7508 of June 28th, 2011, and provides, from the National Mental Health Policy, psychosocial care centers (CAPs), therapeutic residential services, the Centers for Coexistence and Culture, the Reception Units and the beds of comprehensive care in General Hospitals. [17].

According to the Ministry of Health, in Brazil the incidence of mental illness in the population is 23 million Brazilians (12% of the population require some mental health

care); at least 5 million Brazilians (3% of the population) suffer from severe and persistent mental disorders.

In the study on the *results of the Megacity Mental Health Survey in relation to the* prevalence of mental disorders distributed in age and gender in the metropolitan region of São Paulo, it showed that the metropolitan region of São Paulo has the highest incidence of mental disorders in the world. The study revealed that 44.8% of Sao Paulo residents, and residents of the metropolitan region of São Paulo, suffer from some type of mental disorder. According to the researchers responsible for the study, the high incidence of mental disorders is caused by high urbanization associated with social deprivation. According to them, the most vulnerable groups are migrant men and women living in regions of high social vulnerability. [31]

Thus, variables such as anxiety, depression and stress, as well as the level of quality of life are implicated in this broad concept and difficult to conceptualize and describe. So, studies that give indications of stress, anxiety and depression, will all be seeking relationships with this mental health.

In addition to having a better understanding of the theme, it is necessary to bring some definitions. We will start by understanding Quality of Life (Qol).

In the study conducted [14] on Mental Health Care in Amazonas, Brazil: a look at Psychosocial Care Centers, information is revealed that the demand for people with mental disorders is significant and there are only three CAPS for a population of more than three million inhabitants, distributed 60% in the capital and 40% in the other 61 municipalities, requiring a look from managers at the municipal level, state and federal, given that the findings reveal a fragility of the organization of the mental health network due to the scarcity of physical, material and human resources. In the city of Amazonas where the research is being carried out does not yet exist the CAPS.

In addition, the State of the research and Brazil as a whole lack information of this nature and are based on scientific research data., reports, Brazilian studies on symptoms of *anxiety, depression, stress and burnout* are still few, basically transversal and non-multicenter. [4].

Objectives

1) To evaluate the presence of signs and symptoms of depression, anxiety, stress and quality of life of university students from two institutions being one public and one private;

2) To characterize the sociodemographic profile of these university students from both institutions;

3) Correlate the variables quality of life, signs and symptoms of anxiety, depression and stress among students from both institutions.

2. Literature Review

2.1. *Quality of Life*

The concept of Quality of Life has undergone evolution throughout the 20th century, in view of divergences,

speculations and studies about the meaning and meaning of the term. Today, according to [1] quality of life is an important field for dialogue between different disciplines and schools of thought, in order to seek real advances for people from different cultures. However, it is also interesting to comment that common sense appropriated this object in order to summarize improvements or a high standard of well-being in people's lives, whether economic, social or emotional.

However, the area of knowledge in Quality of Life is in a construction phase, because they identify it now in relation to health, now to housing, leisure, physical activity habits and food; but, the fact is that this way of knowing states that all these factors lead to a positive perception of well-being. [15].

With the end of World War II, the United Nations (UN), concerned about the living conditions of people in the member countries, made a recommendation to study the variables that would interfere with these living conditions. Thus, researchers, clinicians, epidemiologists, social scientists and statisticians, conducted research on measures of human attributes, called "good life". [19] appear in the 1950s.

According to these same authors, the concept of "good life" was used with the meaning of conquering material goods (owning a house, car, electronic appliances and others) and later expanded to assess how economically developed a society, regardless of whether such wealth was well distributed, a problem still present in most countries, where there is a great concentration of wealth in the hands of a few.

From the historical point of view, as cited., [9] the expression "quality of life" was used by the President of the United States, Lyndon Johnson, in 1964, when he declared that the objectives could not be measured by the balances of bank houses. They could only be measured through the quality of life afforded to people. Interest in concepts such as "standard of living" and "quality of life" was initially shared by social scientists, philosophers and politicians. The growing technological development of medicine and related sciences has brought as a negative consequence its progressive dehumanization. Thus, the concern with the concept of "quality of life" refers to a movement within the human and biological sciences, exact and engineering in order to value broader parameters than the simple control of symptoms, and decreased mortality or increased life expectancy.

To come up with a concept, the World Health Organization has created a group to conceptualize "quality of life". Thus, the Quality of Life Group of the WHO Mental Health division defined "quality of life" as "the individual's perception of their position in life in the context of the culture and value system in which they live and in relation to their goals, expectations, standards and concerns" WHO, [20]. After this definition, the authors of the most diverse fields of action followed up the studies on the subject. Thus, the concept expanded to mean beyond economic growth, social development (health, education, housing, transportation, leisure, work, individual growth) and, thus, could describe with greater proximity and veracity the living conditions of the population.

2.2. Anxiety

According to the International Statistical Classification of Diseases and Health-Related Problems- 10th Review (ICD 10, [32], in generalized anxiety disorder the essential aspect is anxiety, which is generalized and persistent, but not restricted or even strongly. The patient should have primary symptoms of anxiety most days for at least several weeks and usually for several months. These symptoms should usually involve: apprehension (concern about future misfortunes and feeling at the limit, difficulty concentrating); motor tension (restless movement, tension headaches, tremors, inability to relax) and autonomic hyperactivity (mild head sensation, sweating, taquicardia or taquipnea, epigastric discomfort, dizziness, and dry mouth).

Anxiety is the set of signs and symptoms that cover the physical and emotional field, from the mental to the existential. At the physical level, there is a relationship between anxiety and physiological reaction called stress. In front of an external aggressor, the organism reacts by placing itself in a defensive position, ready to fight or flee, depending on the context. Heart rate increases, while blood comes out of the surface to better irrigate the muscles. Breathing gets faster and shallower and pupils contract. [23],

Feeling anxiety is at least uncomfortable, consisting of a mixture of feelings and sensations that disturb our daily lives, stealing much of the energy that would be employed in other ways, from work to fun. But although not associated with pleasure, anxiety is not a bad thing, a bad sign. The problem is the imbalance of this mechanism, both in excess and in lack. Too much anxiety can cause unproductive stress. On the other hand, its absence is equivalent to a weakened organism that cannot defend itself (Heck, [23]).

2.3. Depression

In the WHO World Health Report [21]´s approach to depressive disorders, it begins to report that Depression is characterized by sadness, loss of interest in activities and decreased energy. Regarding the present symptoms are loss of confidence and self-esteem, unjustified feeling of guilt, ideas of death and suicide, decreased concentration and sleep and appetite disorders. Several somatic symptoms may also be present.

Depression has been described and defined by *the American Psychiatric Association* (Diagnostic and Statistical Manual of Mental Disorders, [7] as a mood disorder involving a heterogeneous group of symptoms: depressed mood, markedly diminished interest or pleasure, significant weight loss or gain, insomnia or hypersomnia, psychomotor agitation or retardation, fatigue or loss of energy, feeling of uselessness or excessive or inadequate guilt, diminished ability to think and thoughts of recurrent deaths.

Why we are more depressed than ever. Psychologist Jean Twenge has found that increases in depression in the last 50 years correspond to an increase in individualism and a loss of social connectivity. (Leahy, [12].

In the 19th century almost no one lived alone, however today, about 26% of households are formed by one person. Loneliness and relationship problems contribute to depression. Depression is a worldwide epidemic that deprives lives of meaning and can even kill (Leahy, [12]).

2.4. Stress in Academic Life

Contemporary life is becoming increasingly stressful. Assaults, changes in values, advanced technology, increased family disstructure, excessive competition and many other external and internal factors contribute to the human being constantly living at a high level of stress [13]. And the academic context studied, in this case, university students experience all this turbulence as reported [6] in the following paragraph.

Entering university can put students in contact with specific stressors, such as fear, anxiety and insecurity generated by possible doubts and disappointments with the chosen career, acquisition of new and greater responsibilities, problems in housing, distancing from the family, difficulty in establishing effective relationships [6]. At sometimes and situations of academic life can be characterized by a stressful environment.

3. Method

Participants: The initial sample was estimated of 400 students, 200 from each institution and in the end participated in the research 570 university students, 344 from the Private Institution) and 226 from the Public Institution), students from different university courses. They were casual and convenience samples, as recommended by [25], students of anthropology, pedagogy, letters, agrarian sciences, biology/chemistry and administration, psychology, biomedicine, veterinary medicine and human resources management.

University students duly enrolled and attending the University of several courses of both sexes/ages were included in the sample, which accepted and authorized their participation through agreement with the Informed Consent.

Students who were not enrolled and attending university courses or who refused to sign the Informed Consent form were excluded from the sample.

Location: Data collection was performed in classrooms in both institutions: public and private; at class times and from the permission of the teacher responsible and after authorization from the institutions for this survey.

Quantitative research. The Method for data collection were the following instruments: Questionnaires and Scale. The sequence of application of the instruments was as follows: 1) Sociodemographic and Cultural Data Questionnaire, 2) Anxiety, Depression and Stress Scale and 3) Brief Whoqol Questionnaire.

Procedures: Data were collected at the Public Institution in December 2012 in the morning and early periods. At the Private University, in March, April, October and November 2013, in the day and night shifts. The instruments, self-applicable, were made in classrooms after approval by the

Research Ethics Committee of both institutions), with authorization from the institutions and permission of the responsible teacher. (Opinion dated 22/11/2012).

Data collection was performed after approval by the Research Ethics Committee of both universities. The study followed ethical determinations on research with human beings according to resolution no. 196/96 of the National Health Council.

The instruments were applied by the author of this research, who is a psychologist, in the classroom space of the University in person and collectively after the participants signed and agreed to the Informed Consent Form (TCLE).

The Research project passed through the Ethics Committee of the University (Plataforma Brasil) and was approved to carry out the research in educational institutions, due to involving human beings collectively, directly or indirectly. There is a concern for the integrity and well-being of the research subjects. The project complied with the norms of Resolution No. 196/96, which approves the guidelines and regulatory standards of research involving human beings. (Opinion: 160099, CAAE: 10644412.4.1001.5508 dated 11/22/2012).

They were instructed regarding the risks that the research could bring some discomfort or minimal risk to emotional health. If this occurred, the researcher would be available for due and free psychological care, that is, care and referral if necessary once she is a psychologist, duly accredited to the Regional Council of Psychology under the number CRP 20/02644.

Benefits: The research participant could receive a return when he/she finishes the research and if he/she expresses interest in knowing his/her results.

He was granted anonymity and they could have given up participating in the survey at any time.

4. Results and Discussion

4.1. Sociocultural and Demographic Characteristics of University Students

In the table below, the average age of public university students is 24.23 years (SD=6.67) and private university students are 23.37 years (SD= 6.18), with a maximum of 55 years and a minimum of 16 years. The significant presence of singles is in agreement with the expected and with the average age was 24 years, since marital status is usually associated with age. Regarding the participants' family income, the average income of university students at the Public University was R$369.00 and the Private University was R$1388.70. The average family income was of modest standard among students from both universities. [27] who studied the profile of students from this southeast region are very close, because the authors' data pointed to a family income declared below R$ 2,000.00, indicating a modest income for students from a private institution whose monthly fee is approximately R$ 420.00. Another important aspect of being discussed is

the fact that the PNAD [11] have observed in its surveys that public universities absorb the richest layers of the population; however, regarding the specificity of this Amazon region compared to the southeast, this was not a rule. Thus, we understand that there is always a need for non-generalization when dealing with regional and cultural specificities in a country as large as our own.

Regarding the education of the mother and father "without studies" or "primary education" there were significant differences between the institutions, pointing to the fact that the young people of the Public University come from families with less schooling.

Table 1. *Distribution by gender, age, marital status, course option, change of residence, parents' education and Income of students in the sample or Distribution of sociodemographic and cultural data of the university students in the sample.*

Variables	Levels	Trust	Umesp
Sex	Female	145-25,4%	50-8,8%
	Male	81.14,2%	284-51,6%
Age	Minimal	55	53
	Maximum	16	17
Marital status	Single	188- 33%	295- 52%
	Married	22- 3,9%	42- 7,4%
Option for course	1st option	138-25,2%	225- 41%
	2nd option	61- 11%	79-14,4%
Changed residence	No	156-27,5%	317-55,8%
	Yes	66-11,6%	25 - 4,4%
Parents' schooling	Primary	50- 8,9%	44-7,8%
	Fundamental	59-10,5%	69- 12,3%
	Medium	60- 10,7%	102-18,2%
	Superior	23- 4,1%	115-20,5%
Income	Average	R$369,00	R$1389,00

4.2. Quality of Life of University Students

Table 2. *Quality of life of both groups of university students.*

QoL domains	UFAM (Medium)	UMESP (Average)
Physical	54.70	51.00
Psychological	70.80	70.00
Social	70.80	69.30
Environmental	58.60	59.00

The best levels of QoL were found in the Psychological and Social domains in both institutions. The most affected domains were the physical and environmental domains among students from both institutions studied. The students of UFAM and UMESP are satisfied with their lives in the affective, emotional, social relations and sexual activity.

This perception of being more impaired in the physical domain may be related, as suggested by [24] with the excess of performing daily and everyday tasks of these students. Nowadays there are many young people who work and study, thus taking a double journey.

On the other hand, these results are contrary to the findings [5] in African students living in João Pessoa. Also in relation to the study [30] that compared the quality of life of students who entered and completed physical education. These two studies indicated a high level of Quality of Life in the physical domain among students.

4.3. Quality of Life and Sex Domains

Data revealed that in relation to sex, women have a lower quality of life than men. In particular, it is verified that men had better results in the physical, psychological and social domains.

These results are similar to those found by [2] about students of the Psychology course of Campo Grande, Mato Grosso do Sul in which men had better QoL than women.

However, different data were found by [16] who found no significant difference in quality of life and occupational stress scores between the sexes of a sample of medical students, university students from public and private institutions in Santa Catarina. In more detail, the authors found that women had a better quality of life in relation to social and environmental issues and concluded that the female sex is more supportive, and women are more sociable and have these positive characteristics related to satisfaction with life and social relationships.

Table 3. *Domains of quality of life and gender of the sample studied (n= 570).*

Domains	Sex	Average
Physical	Male	53.70
	Female	52.00
Psychological	Male	70.17
	Female	67.36
Social	Male	72.13
	Female	69.21
Environmental	Male	55.28
	Female	56.09

4.4. Anxiety, Depression and Stress of the Sample Sex

It can be observed that the highest mean presented refers to the stress factor, female, being represented by the result of 15.00 and the lowest mean was in the male anxiety factor (6.61). Thus, it is evaluated that women are more stressed; and with regard to the other variables, women are also more anxious and depressed than men.

Table 4. *Anxiety, depression and stress of the sample sex.*

Gender Variables	Malesdo not			Female		
	Minimum Average		Maximum	Minimum Average		Maximum
Anxiety	6,61	00	26	8,41	00	42
Depression	8,16	00	36	9,69	00	42
Stress	11,61	00	34	15,00	00	42

Thus, it is observed that in all variables women had higher scores. This aspect coincides with the results of [3] who analyzed the punctual prevalence of depression, anxiety and stress in users of a Health Center in Portugal and identified very severe levels of stress and severe levels of depression anxiety, with women having high levels of stress and means of depression and anxiety. Also the study [10] who used the State Trait Anxiety Inventory in a sample of university students and found higher levels of anxiety among women, single women and up to 30 years of age.

However, the WHO World Health Report [21] reveals that most studies have come to the conclusion that the overall prevalence of mental disorders is approximately the same in males and females. Some existing differences are explained by the differential distribution of disorders; but, severe mental disorders are equally common, with the exception of depression, which is more common in females, and substance use disorders, which occur more frequently in males.

4.5. Correlation Between Depression. Stress and Anxiety of Both Groups of University Students

Table 5. *Correlation between depression, stress and anxiety in both groups of University Students (r Person).*

Variables	Institution	Depression	Stress	Anxiety
Depression	UMESP	-	0,73	0,71
Stress	UMESP	0.73	-	0,76
Anxiety	UMESP	0,71	0,76	-
Depression	TRUST	-	0,66	0,70
Stress	TRUST	0,66	-	0,73
Anxiety	TRUST	0,70	0,73	

The results revealed positive and significant correlation rates between the three variables of stress/anxiety, anxiety/depression and depression/stress/anxiety of umesp and ufam university students. The data indicate that the higher the depression, the greater the stress, the greater the anxiety and vice versa.

In the study in question there was a significant correlation between anxiety and depression, although it was not the strongest, because according to [26], anxiety is usually closely associated with symptoms of depression and, until the end of the 19th century, anxiety disorders were not part of other mood disorders.

4.6. General Correlation Between Domains and Anxiety, Depression and Stress - Total Sample (n=570)

The data revealed that the correlation (in the total sample) between quality of life (overall) and anxiety, depression and stress were statistically negative. There was a high negative correlation between depression and psychological domain ($r= -0.32**$), this indicates that the higher the depression, the lower the quality of life - in the psychological domain. There was a correlation, but low between anxiety and physical domain ($r=-0.10**$). There was a high correlation between anxiety and the environmental domain ($r=-0.30**$), indicating that the greater the anxiety, the fewer resources to deal with the issues of: physical safety and protection, home environment, financial resources, health care.

Table 6. *General correlation between domains and anxiety, depression and stress of the total sample (n=570).*

Variables	General	Physical	Psychological	Social	Environmental
Anxiety	-0,20	-0,10**	-0,19**	-0,20*	-0,30**
Depression	-0,20**	-0,17**	-0,32**	-0,23**	-0,25**
Stress	-0,19**	-0,16*	-0,23**	-0,19*	-0,24**

The psychological domain as explained by [8] is related to psychological variables such as: self-esteem, feelings, thoughts, learning, memory and concentration, body image and appearance, spirituality, religiosity, personal beliefs. Therefore, there are indications that such variables (depression and psychological domain of Qol) are related, even if they do not reach worrying percentages, attention to the fact that the characteristics of depression, such as fatigue, feeling of guilt, low self-esteem, cause the exacerbation of symptoms and impair the coping strategies of the subject before life and daily events. In addition, lifelong depressive disorder [18] partially or totally incapacitates personal relationships, at work and at leisure. The same can refer to QoL in its psychological domain, which, when impaired, gives indications of low self-esteem, pessimistic feelings and thoughts, difficulties in memory and concentration, as well as personal beliefs of discouragement and pessimism.

Thus, it is also important in this question about the relationships between signs of depression and low quality of life (psychological domain), as this indicates the effectiveness of assessment instruments (EADS). And, regarding these relationships between the psychological domain and depressive indicators, [29] observed in a study with Portuguese university students, the narratives of the depressed subjects evidenced references to negative life events, and the most frequent were the experience of illness,

the end of a loving relationship, the death of an affectively significant figure and the associated negative emotions.

4.7. General Correlation Between Domains and Anxiety, Depression and Stress - Sample of Students of the Public Institution, n=226

The table shows a negative correlation between the domains of quality of life and anxiety, depression and stress of university students of the UFAM Institution. The data revealed a higher correlation between anxiety and environmental domain (UFAM) (r=-0.34**), and later depression and the environmental domain (r=-0.28**), depression and psychological domain (r=-0.27**) and stress-environmental domain (r= -0.30**). These data lead us to point out that the higher the depression, anxiety and stress, the lower the quality of life domains (psychological, social and environmental). That is, the more depressed, anxious and stressed these young participants are, the lower their quality of life in all their domains and vice versa.

The region where the group of students of the Public University lived has specific problems related to transport, because first there is considerable distance from the capital, and there are difficulties in access to other nearby regions. Thus, the fact that access to the region is limited and hindered can be seen by young people as also an unfavorable environment.

Table 7. *Correlation between qoL and anxiety domains, depression and stress (sample of students from the Public Institution, n=226).*

Variables	General	Physical	Psychological	Social	Environmental
Anxiety	-0,23	-0,11**	-0,14**	-0,13*	-0,34**
Depression	-0,20**	-0,19**	-0,27**	-0,19**	-0,28**
Stress	-0,20**	-0,14*	-0,19**	-0,15*	-0,30**

4.8. General Correlation Between Domains and Anxiety, Depression and Stress - Sample of Students from Umesp Institution, n=344

Table 8. *Correlation between qoL and anxiety, depression and stress domains (sample of private institution students, n=344).*

Variables	General	Physical	Psychological	Social	Environmental
Anxiety	-0,17	-0,11**	-0,25**	-0,25*	-0,27**
Depression	-0,20**	-0,17**	-0,38**	-0,27**	-0,23**
Stress	-0,20**	-0,14*	-0,23**	-0,22*	-0,26**

We found that by correlating the domains (physical, psychological, social and environmental) with anxiety, depression and stress of the UMESP Institution, we obtained the highest correlation between depression and the psychological (r=-0.38**) and social (r=-0.27**) domains. This represents that the higher the value of depression, the lower the quality of life in the psychological and social domain, that is, the greater the depression, the lower the self-esteem, social support and sexual activity.

This correlation is important observation, considering that

the WHO itself (21) in a report on Health in the World, describes that "mental" and "physical" diseases are influenced by a combination of biological, psychological and social factors; in addition, it recognizes that thoughts, feelings and behavior have a significant impact on physical health. Similarly, it is recognized that physical health exerts considerable influence on mental health and well-being. Factors that are all related to each other and that, in our hypothesis, will depend on the type of sample studied and, therefore, on the ability of people and groups to deal with

adverse situations in their lives.

Private university students also perceived their environment as unfavorable and were related to anxiety. However, the region has all possible modern or postmodern features. In addition, the richest borders the city of the country in technological development and financial resources. There are plenty of cultural and leisure attractions at their disposal. However, the region presents serious problems with transport and locomotion, difficulties with the preservation of culture, local/regional history and problems with housing, given the great migration of people who came in search of work, forming extensive areas of poor housing "slums".

5. Conclusion

The present study aimed to evaluate and correlate the presence of signs and symptoms of anxiety, depression, stress and quality of life of university students from two institutions (public and private), as well as to characterize the sociodemographic profile of this sample of university students from different regions of the country (north and southeast).

Thus, the sample of 570 university students with a mean age of 24 years, mostly women, single, who lived with their families. These students with modest family income, mostly from families whose parents had little study and who comprised a layer of the population on social growth, presented average to good overall quality of life, and mild signs of anxiety, depression and stress. Regarding sex, the domains of quality of life and signs of anxiety, depression and stress, it was observed that women were more anxious, depressed and stressed and lower quality of life than men.

When the quality of life domains were evaluated, it was observed that the most affected, that is, those that the university students perceived as most impaired were the physical and environmental domains of both institutions studied. When comparing the domains of quality of life with the variables – anxiety, depression and stress between the two groups of students, it can be verified: that in both psychological domains had a strong correlation with depression, indicating that in both groups the students tended to be dissatisfied with themselves, there was presence of negative feelings, depressed mood, they tended to have a negative view of themselves, of the world and feel dissatisfied with various aspects of their life. It was also verified that the variables - anxiety, depression, stress were strongly related to the environmental domain, especially among Amazonian students; while among the students from São Paulo the environmental domain had a strong relationship with anxiety.

This relationship of psychological states with the environment deserved attention, considering that even being in different regions, young people were dissatisfied with the environment. The hypothesis was raised that, even for different environmental and regional reasons, both regions imposed insatism. Young students of the Public University could perceive specific problems related to transportation, leisure, considerable distance from the capital, lack of resources, including access routes to other regions; in addition, the conservation and environmental maintenance of riverside populations are poorly seen or valued and give rise to the valorization of hegemonic cultures; which can provide the young person with a desire for the resources of the cosmopolitan world (large shopping centers, theaters, bars, cinemas), and that can then visualize their environment as unfavorable. In addition, these young students, in fact, face great difficulties with transportation to get to the university every day due to the precariousness of the region and the real geographical difficulty of access.

It was possible to perceive a fragility present in these young students and this situation needs to gain greater relevance in the academic-scientific and clinical context, not only due to the growth of the academic population in view of the greater ease of access to the university, but also because of its meaning in terms of public health.

Based on these results, public policies are suggested to improve quality of life, health, transportation and leisure; in addition, it can be suggested the possibility of partnerships between the university community and local society with regard to the development of joint programs that can promote health, prevent diseases, and social projects to support the young student.

However, there is a limitation of studies on this theme, and further investigations are needed to expand the possibilities of intervention in the current context.

Authors' Contributions

Guimarães MF participated in the general organization, writing of the scientific article and organization of the final version of the article. Avoglia HRMC participated in the co-orientation of the article. Vizzotto MM participated in the review and organization of the article. Paiva EAF participated in the organization of the abstract.

Conflicts of Interest

All the authors do not have any possible conflicts of interest.

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References

[1]   Almeida, M. A. B, Gutierrez, G. L & Marques, R. (2012). (Orgs.). *Quality of life*. EACH. http://each.uspnet.usp.br/edicoes-each/qualidade_vida.pdf

[2] Andrade, K. O., Souza, J. C., Leite, L. R. C., Figueiró, M. T, & Cunha, B. V. S. (2011). Quality of life in Psychology Students. *Psychologist Information*, *15* (15), 129-141. http://pepsic.bvsalud.org/scielo.php?script=sci_arttext&pid=S1415-88092011000100009

[3] Apostle, J. L. A., Figueiredo, M. H., Mendes, A. C., & Rodrigues, M. A. (2011). Depression, anxiety and stress in primary health care users. Latin American Journal of Nursing, 19 (2), 1-06. https://www.scielo.br/j/rlae/a/GQqtYNjzjMYVKXVPGQL4mJK/?format=pdf&lang=en#:~:text=Identified%2Dse%20n%C3%ADveis%20graves%20or,est%C3%A3o%20forte%20e%20positively%20 associated.

[4] Baldassin, S. (2010) Anxiety and depression in medical students: Review of Brazilian studies s. *Notebooks ABEM*, *6* (6), 19-26. http://docplayer.com.br/14923626-Ansiedade-e-depressao-no-estudante-de-medicina-revisao-de-estudos-brasileiros.html

[5] Barreto, L. M. S., Coutinho, M. P. L., & Ribeiro, C. G. (2009). Quality of life in the migratory context: a study with African immigrants living in João Pessoa-PB, Brazil. Changes - Health Psychology, 17 (2), 116-122. https://www.metodista.br/revistas/revistas-ims/index.php/MUD/ article/view/2127/2089

[6] Calais, S. L., Carrara, K., Brum, M. M., Batista, K., Yamada, J. K & Oliveira, J. R. S. (2007). Stress between freshmen and journalism veterans. *Psychology Studies (Campinas), 24* (1), 69-77. https://doi.org/10.1590/S0103-166X2007000100008

[7] Diagnostic and Statistical Manual of Mental Disorders (2002). *Diagnostic and statistical manual of mental disorders.* (4th ed). Artmed.

[8] Fleck, M. P. A., Borges, Z. N., Bolognesi, G., Rocha, N. S. (2003). Development of WHOQOL, spirituality module, religiosity and personal beliefs. *Revista de Saúde Pública, 37* (4), 446-455. https://doi.org/10.1590/S0034-89102003000400009

[9] Fleck, M. P. A., Leal, O. F., Louzada, S., Xavier, M., Chachamovich, E., Vieira, G., Santos, L., & Pinzon, V. (1999). Development of the Portuguese version of the WHO Quality of Life Assessment Instrument (WHOQOL-100). *Revista Brasileira de Psiquiatria, 21 (*1), 19-28. https://doi.org/10.1590/S1516-44461999000100006

[10] Gamma, M. M. A.; Mr. Moura. G. S.; Araújo, R. F.; Teixeira-Silva, F. (2008). *Trait anxiety in university students from Aracaju (SE). Revista de Psiquiatria do Rio Grande do Sul,* v. 30, n. 1, p. 19-24. https://doi.org/10.1590/S0101-81082008000100007.

[11] Brazilian Institute of Geography and Statistics. (2011). PNAD 2011. https://www.ibge.gov.br/graficos_dinamicos/pnad2011/

[12] Leahy, R. L. (2015). *Beat the depression before she beats you.* Translation: Sandra Maria Malmann da Rosa; Technical Review: Bernard Ranjé- Porto Alegre. Artmed.

[13] Lipp, M. N. (2007). Adaptation Disorder. Bulletin Paulista Academy of Psychology, 1 (7), 72-82. https://www.redalyc.org/ PDF/946/94627112.pdf

[14] Lopes, D. N; Vieira, H. W. D; Arruda, A. T; Farina, H. A. D. (2009). Mental Health Care in Amazonas, Brazil: a look at psychosocial care centers. Brazilian Notebooks of Mental Health. Santa Catarina. v. 1, n. 2. p. 23-37. https://periodicos.ufsc.br/index.php/cbsm/article/view/68470

[15] Marques, R. F. R. (2007). *Sport and quality of life: sociological reflection* [master's thesis, State University of Campinas]. Red of Latin American Repositorios. https://repositorioslatinoamericanos.uchile.cl/handle/2250/1312566.

[16] Meyer, C., Guimarães, A. C. A., Machado, Z., & Parcias, S. R. (2012). Quality of life and occupational stress in medical students. *Revista Brasileira de Educação Médica*, *36* (4), 489-498. http://dx.doi.org/10.1590/S0100-55022012000600007

[17] Ministry of Health. (2010*). Department of Primary Care: NASF Guidelines: Family Health Support Center.* Ministry of Health. http://bvsms.saude.gov.br/ /publicacoes/diretrizes_do_nasf_nucleo.pdf

[18] Moreno, D. H., Moreno, R. A., & Souza, M. G. S. (2012). Lifelong depressive disorder. In: O. V. Forlenza, Miguel E. C., Orgs. *Compendium of Psychiatric Clinic*. Manole.

[19] Oliveira, J. A. C., & Oliveira, L. C. (2011). Quality of life: evolution of the concept. In: J. C. Souza. (Org). *Quality of life and Health*. Vector.

[20] World Health Organization. (1998). *WHOQOL and spirituality, religiosity and personal beliefs (SRPB).* https://apps.who.int/iris/bitstream/handle/10665/70897/WHO_MSA_MHP_98.2_eng.pdf;sequence=1

[21] World Health Organization (2001). *Mental health: new conception, new hope* Geneva: World Health Organization. https://www.who.int/whr/2001/en/whr01_djmessage_po.pdf

[22] World Health Organization. (2020). Depression. https://www.paho.org/pt/topicos/depressao.

[23] Heck, J. (2008) *Anxiety has healing. Rio de Janeiro.* Imprimatur.

[24] Petrini, A. C., Margato. G., & Martins, G. C. (2011). *Evaluation of the quality of life of university students from different periods: night and day.* 9° Academic Exhibition of UNIMEP, Piracicaba, SP, Brazil. http://www.unimep.br/phpg/mostraacademica/anais/9mostra/5/348.pdf

[25] Rea, L. M.; Parker, R. A. (2002). Research methodology: from planning to execution. São Paulo: Pioneer Thompson Learnig.

[26] Ribeiro, J. L. P; Honored, A; Leal, I (2004). *Contribution to the study of the Portuguese adaptation of the anxiety, depression and stress scales (EADS)* of 21 items by Lovibond and Lovibond. Psychology, Health and Disease. v. 05, n. 02, p. 229-239. Available in: https://www.redalyc.org/pdf/362/36250207.pdf

[27] Rossetti Junior, H., Schimiguel, J. (2014). Economic and social profile of students of higher technology courses in private educational institutions. R*evista Acadêmica de Economia.* http://www.eumed.net/cursecon/ecolat/br/11/rjjs.html

[28] Brazilian Society - Medical Clinic. (2009). *Depression will be the most common disease in the world by 2030, says WHO.* https://www.sbcm.org.br/v2/index.php?catid=0&id=1317

[29] Souza, A. B., & Cruz, J. P. (2008). Narrative: (31) Prototype of depression. *Changes- Health Psychology, 16* (1), 71-80. https://doi.org/10.15603/2176-1019/mud.v16n1p71-80

[30] Souza, L. A.; Ines, L. L.; Paiva, T. A.; Melo, J. G.; Rechenchosky, L. (2012*). Quality of life of physical education students: freshmen and graduates.* Research Collection in Physical Education - Goiás, v. 11, n. 5, p. 129-136. https://fontouraeditora.com.br/periodico/upload/artigo/989_15 03352138.pdf

[31] Viana, M. C., & Andrade, L. H. (2012). Prevalence of psychiatric disorders distributed by age and gender in the Metropolitan Region of São Paulo, Brazil: results of the Epidemiological Study of Mental Disorders São Paulo Megacity. *Brazilian Journal of Psychiatry. 34* (3), 249-260. https://doi.org/10.1016/j.rbp.2012.03.001

[32] World Health Organization. (2008). Classification of mental and behavioral disorders of the ICD10. Artmed.