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SUICIDAL IDEATION AMONG HEALTH STUDENTS: PREVALENCE AND RISK FACTORS AT A PRIVATE INSTITUTION IN THE FEDERAL DISTRICT

Pedro Faria Ruelli
http://lattes.cnpq.br/7437614171003143

Carolina Ponchio Ferreira
http://lattes.cnpq.br/8195491985058682

Eliana Mendonça Vilar Trindade
http://lattes.cnpq.br/3604974456701204

Abstract: Objective: To comparatively assess the prevalence and risk factors associated with suicidal ideation in students from six health courses at a private higher education institution in Brasília. Methods: This is a qualitative-quantitative study with triangulation of methods, conducted with students from Nursing, Physiotherapy, Medicine, Veterinary Medicine, Nutrition and Psychology. Data collection took place in two stages: quantitative, using a form adapted from the Beck and Columbia scales, and qualitative, using a focus group. Results: 234 students took part. There was a higher prevalence of suicidal ideation among Veterinary Medicine and Medicine students, especially women, those under the age of 20 and those belonging to the LGBTQIA+ community. Smoking and a sedentary lifestyle were strongly associated with suicidal ideation, while quality sleep and physical activity practices had a protective effect. Qualitative discussions revealed feelings of loneliness, excessive demands and a lack of institutional care as aggravating factors. Conclusion: Early identification of factors associated with suicidal ideation is essential for building institutional strategies to prevent and promote mental health in higher education.

Keywords: Health Sciences Students; Suicidal Ideation; Mental Health; Psychosocial Risks; Higher Education.

INTRODUCTION

According to the Brazilian Public Safety Yearbook, published by the Brazilian Public Safety Forum in 2023, there were 8 suicides per 100,000 inhabitants, an increase of 11.8% compared to 2021, which registered a rate of 7.2.[1]Among young people aged 15 to 29, the age group in which most university students are included, this phenomenon is the fourth leading cause of death, behind deaths caused by traffic accidents, tuberculosis and interpersonal violence.[2]

Entering university is a period full of challenges for students, requiring personal, academic and social performance, as well as maturity, time, dedication and the exercise of autonomy. However, when difficulties arise in meeting these demands, students can feel worry, uncertainty, sadness, failure and a sense of estrangement with their own lives. These feelings can evolve into depressive thoughts and even suicidal ideation. [3]When we add these adversities inherent to the college period to the difficulties of the health course, the stressful effect is enhanced. There is a high level of demand and content, a lack of time for leisure, strong competition between colleagues and contact with patients, factors that have repercussions on academic performance and social relationships.[4]

When it comes to gender issues, in Brazil, male suicide rates were 3.8 times higher than female suicide rates between 2010 and 2019, results similar to those observed in most countries around the world. Research has shown that many people with psychological problems are reluctant to seek help from mental health professionals, with young men being the least likely of all demographic groups to seek assistance [5]. However, it is important to mention the "suicide paradox", a concept used to refer to the fact that men die more by suicide, while women have more ideation and attempts, and are therefore more affected by suicidal behavior in general[6].

The concept "suicide paradox" was first used by Dr. Silvia Sara Canetto and Dr. David Lester in 2008, when they elaborated on the gender phenomenon in question. Many studies attribute conflicts in family or love relationships as predisposing factors for female suicide, while in the male group, economic problems and unemployment would be risk factors, referring the causes of suicide to gender conditions.[7]In this sense, by thinking about suicide from a gender perspective, we

are trying to explore the possibility that the socially constructed differences between the sexes can make women vulnerable and even become the trigger for acts of suicide, a situation which encourages further study of this issue in the social sphere in order to understand its veracity today.[8]

From this perspective, the data is alarming and demonstrates the importance of debating this much-avoided topic. In 2019, the suicide rate was 6.7 per 100,000 inhabitants in Brazil. Despite a worldwide reduction of 36% in the number of suicides between 2000 and 2019, the region of the Americas showed an increase of 17% during this period, with our country showing the highest growth, at 43%.[9]

Based on the importance of this topic and the growing suicide rate among health students, plus the curiosity to understand the different elements that contribute to the act during the undergraduate period, a qualitative-quantitative study was carried out to comparatively analyze the risk factors for suicidal ideation in health students from six courses at a private institution.

METHOD

This is a descriptive and explanatory study, with a mixed methodological approach and cross-sectional design, conducted at the Centro Universitário de Brasília (UniCEUB), a private institution located in the Federal District. The main objective was to identify the prevalence of suicidal ideation and its associated factors among students on six health courses: Nursing, Physiotherapy, Medicine, Veterinary Medicine, Nutrition and Psychology.

The triangulation of methods, which consists of combining qualitative and quantitative approaches in a study, is a powerful methodological strategy in the social sciences. According to Maria Cecília Minayo, Brazil's leading scholar on mixed studies with triangulation of methods, this form of data evaluation, in which a quantitative and qualitative approach is proposed, highlights the existence of processes that can be explained in their magnitude and understood in their intensity. The tension between quantitative and qualitative methods is rooted in ontological and epistemological debates within the Philosophy of Science. On the one hand, the positivist view argues that the Human Sciences should adopt methods similar to those of the Natural Sciences, while, on the other hand, followers of interpretivism argue that the Natural and Social Sciences require distinct approaches due to the fundamental differences between the natural and social worlds, especially with regard to meaning and interpretation.[10-12]

Mixed methods are defined as a procedure for collecting, analyzing and combining quantitative and qualitative techniques in a single research design. This approach is justified by the central assumption that the interaction between quantitative and qualitative methods offers better analytical possibilities. [11]

The research was carried out in two complementary stages: quantitative and qualitative. In the quantitative phase, data was collected between November 2023 and March 2024, using an electronic form available on the Google Forms platform. 234 students took part, distributed as follows: Nursing (n=29), Physiotherapy (n=8), Medicine (n=129), Veterinary Medicine (n=29), Nutrition (n=13) and Psychology (n=43). The inclusion criteria were: being regularly enrolled on one of the courses mentioned. No exclusion criteria were established.

The instrument used in the quantitative stage was an adapted questionnaire based on the Beck Suicidal Ideation Scale (BSI) and the Columbia-Suicide Severity Rating Scale (C-SSRS). The adapted version comprised 18 items, with scores ranging from 0 to 18, categorized as: no risk (0-3), mild risk (4-5), moderate risk (6-8) and severe risk (9-18). Socio-demographic in-

formation was also collected, including: course, period, gender identity, sexual orientation, marital status, number of children, family income, tobacco use, alcohol consumption, sedentary lifestyle, sleep quality, satisfaction with the course, desire to drop out and age.

The qualitative stage took place on May 22, 2024, through a focus group conducted in person in a classroom at UniCEUB. Eight students took part: Nursing (n=3), Medicine (n=2), Veterinary Medicine (n=1) and Psychology (n=2). There were no representatives from the Physiotherapy and Nutrition courses. The session lasted approximately 2.5 hours and was mediated by a researcher with a PhD in Psychology. The focus group script was drawn up based on the results of the quantitative stage, with the aim of gaining a deeper understanding of the risk factors identified.

The data was analyzed in separate stages for each methodological approach. The quantitative data, obtained through the online form, was initially organized in Microsoft Excel® software, with subsequent tabulation in cross tables in the SPSS® (Statistical Package for the Social Sciences) program, with tabulation in cross tables and application of Pearson's chi-squared test to assess associations between variables. Statistical significance was considered when $p < 0.05$, and the assumptions of the test were respected to ensure the validity of the findings. This stage made it possible to structure the data in order to identify patterns and possible associations between sociodemographic, academic and behavioral variables with the different levels of risk of suicidal ideation.

Risk levels were categorized based on the scores obtained by the participants in the adapted questionnaire, based on the Beck and C-SSRS scales. The analysis sought to identify the distribution of these ranges between the different courses and student profiles, making it possible to describe the risk profile in the context studied.

For the qualitative analysis, based on the focus group, a semi-structured script was used, based on the data obtained in the quantitative stage. The discussions were conducted in person, recorded with the consent of the participants, and then analyzed in the light of the main themes that emerged, especially those related to the most recurrent risk factors identified previously. The aim of this stage was to gain a deeper understanding of the experiences, perceptions and contexts surrounding suicidal ideation among students, allowing for a broader and more contextualized view of the phenomenon.

ETHICAL CONSIDERATIONS:

The project was approved by the UniCEUB Research Ethics Committee (CAAE: 73560223.4.0000.0023) in September 2023. All participants signed the Free and Informed Consent Form (FICF) before taking part in the research stages. During data collection, the researchers' and supervisor's contact details were made available to support the participants, given the sensitivity of the subject matter.

RESULTS

QUANTITATIVE STAGE:

234 students from the Nursing, Physiotherapy, Medicine, Veterinary Medicine, Nutrition and Psychology courses took part in the study. The overall mean score on the adapted suicidal ideation scale was 5.72 (SD = 4.41), indicating a moderate risk in the sample analyzed. The Veterinary Medicine (6.08) and Medicine (5.99) courses had the highest mean scores, while the Nutrition (4.54) and Physiotherapy (5.0) courses had the lowest. With regard to variability, the highest standard deviation was recorded among Physiotherapy students (SD = 5.01), which may be related to the small sample size in this group.

As for the academic period, there was a progressive increase in risk between the first and third years, with an average of 6.33 in the last two. The fifth year had the highest average (8.67), while the fourth saw a reduction (4.39). In the sixth year, although the average remained high (7.0), the number of participants was reduced. Also noteworthy was the presence of maximum scores (18 points) concentrated in the first year, suggesting possible vulnerability among freshmen.

The women had an average score of 5.81, slightly higher than the men (5.36). No male student achieved the maximum score, unlike the female students. With regard to sexual orientation, homosexual (7.0) and bisexual (6.56) students had higher averages compared to heterosexuals (5.38), reinforcing the hypothesis of greater vulnerability among sexual minorities.

Married or cohabiting students had the highest average (7.09), followed by single people with a partner (5.86) and single people without a partner (5.5). Those without children (5.75) had a higher average than those with one child (4.0). With regard to family income, the highest averages were observed among students with incomes between R$1,500 and R$3,000 (8.25) and between R$3,000 and R$5,000 (6.22), although the samples in the lower brackets were small.

Tobacco use was associated with higher risk scores. Students who reported frequent use (7.5) or occasional use (7.71) had higher mean scores than non-users (5.52). With regard to alcohol, students who consumed alcoholic beverages once a month or less had a mean score of 6.18, higher than those who never consumed (5.24) or who consume more frequently.

Regular physical activity was associated with a slightly lower risk (5.65) than sedentary students (5.87). Sleep quality was inversely related to risk: students with excellent sleep had an average of 3.22, while those with poor sleep quality had an average of 5.69.

Dissatisfaction with the course was strongly associated with suicidal ideation: dissatisfied students (7.75) and very dissatisfied students (7.33) had the highest mean scores. Those who thought about dropping out or changing course also had a higher mean (6.51) than those who didn't consider this possibility (5.32).

Finally, the data revealed that 50% of the participants had thought about suicide throughout their lives, 15% reported suicidal ideation in the last month and 11% had tried to take their own lives. In addition, 45% reported that the topic of suicide is not addressed during academic training, pointing to an important gap in mental health education in the university context.

QUALITATIVE STAGE:

The qualitative stage was based on focus group interviews involving students from different health courses. The analysis of the empirical material, guided by Fernando Rey's Qualitative Epistemology, resulted in the identification of three main categories: the generational aspect as a risk factor, the vulnerability of the female gender and the feeling of loneliness and institutional helplessness in the academic environment.

The first category highlighted the emotional fragility of students in the face of academic demands and the construction of their professional identity, especially in the early stages of the course. Experiences of insecurity about the choice of course, intensification of anxiety and psychosomatic manifestations associated with the academic context were reported. There was also an association between these factors and the presence of chronic pain or worsening of pre-existing conditions, which contributes to emotional overload.

The second category highlighted the vulnerability of women in the university context, particularly in female-dominated courses.

Cases of moral and sexual harassment by teachers, as well as the imposition of standards of conduct related to physical appearance, were pointed out as factors that increase students' psychological suffering. These experiences, added to the academic pressures, constitute a scenario of increased risk for the mental health of university women.

The third category dealt with the general feeling of loneliness and lack of acceptance in the university environment. Difficulties in interpersonal relationships between colleagues and a lack of institutional support from course coordinators were reported. In particular, students from the Nursing and Veterinary Medicine courses reported suffering related to the perception of institutional unpreparedness to deal with emotional demands. Academic pressure, especially in areas with a high emotional load such as Veterinary Medicine, was associated with feelings of impotence and exhaustion.

There was also a significant difference in the approach to suicide between the courses. While in Medicine the subject is treated as taboo, with little openness to discussion, Psychology students reported greater preparation to deal with situations of psychological distress, including episodes in which the intervention of colleagues prevented tragic outcomes. This disparity suggests important gaps in students' training in the management of mental health, both their own and that of others.

Finally, the lack of psychological support spaces on campus was highlighted. The creation of a place for emotional support, with the presence of mental health professionals, was pointed out as an urgent need by several participants. The lack of an institutional structure aimed at students' psychological well-being was seen as an aggravating factor in their suffering, reinforcing the importance of policies to promote mental health in the university environment.

DISCUSSION

The results of this study highlight the relevance of suicidal ideation among health students, showing that the prevalence of this phenomenon is high and multifactorial. The difference between the 50% of previous ideation and the 15% of recent ideation suggests that, although many students have experienced suicidal thoughts throughout their lives, there are important fluctuations when considering the immediate context. This reinforces the need for ongoing prevention and support actions, especially in the academic environment.

The adapted version of the Beck Suicidal Ideation Scale used in this study proved adequate for assessing risk at different levels, with an overall average score of 5.72, corresponding to moderate risk. This average, however, hides significant fluctuations related to factors such as course, academic year, gender identity, sexual orientation, marital status, family income, lifestyle habits and sleep quality.

It was found that the risk of suicidal ideation intensifies at key moments in the academic career, especially in the second, fifth and sixth years of the courses, which may be related to curricular transitions, increased practical workload and the expectation of professional insertion. In addition, female students were at greater risk, which is consistent with findings in the literature on psychological distress in university women. Non-heterosexual students also registered higher scores, pointing to the need for policies to welcome and promote diversity in the educational context.

Another risk factor identified was marital status: students who were married or in a stable union showed a higher risk, which may be related to reconciling academic demands with family responsibilities. The influence of family income, although noticeable, was limited by its low representation in lower income brackets, which reinforces the need for future research with a broader socioeconomic scope.

Among lifestyle habits, frequent tobacco use was strongly associated with an increased risk of suicidal ideation, while its absence showed a protective effect. Alcohol consumption, although high in part of the sample, showed no statistically significant correlation with risk levels, suggesting complexity in the relationship between psychoactive substances and mental suffering. Older age (over 25), a sedentary lifestyle and, especially, good quality sleep were shown to be protective factors, with sleep being identified as the variable most directly related to risk reduction.

The qualitative analysis, in turn, made it possible to understand the subjective nuances that run through the students' experience. Three categories stood out: the generational aspect as a risk enhancer, the vulnerability of the female gender and the archetype of the "wounded healer". Young students reported difficulties in adapting, insecurities about their choice of course and the psychosomatic impact of academic pressure. Women highlighted experiences of harassment and devaluation, revealing that the university environment, far from being neutral, still reproduces gender inequalities. Finally, the "wounded healer" symbolizes health students who, despite being immersed in care-oriented training, feel helpless and emotionally isolated.

The lack of spaces for psychological support within the institution was also a recurring theme. The lack of formal support, coupled with the invisibility of the topic of suicide in some courses - such as Medicine - exacerbates the scenario of vulnerability. In contrast, the Psychology course showed greater preparation and capacity for intervention, indicating that academic training can have a direct influence on support networks among students.

These findings reinforce the need for interventions adapted to the characteristics of different student profiles, taking into account specific vulnerabilities related to gender, sexuality, age, academic context and institutional support. Suicide prevention in university environments cannot be limited to information campaigns; it requires structural actions, teacher training that is sensitive to the issue, investment in mental health and active listening to the student community.

Suicide prevention guidelines cover different aspects. Strategies have been adopted, especially since 2000, through manuals aimed at mental health professionals, primary care, the media, education and counselors, launched by the Ministry of Health, following the guidelines of the World Health Organization (WHO) and the Pan American Health Organization (PAHO). These guidelines recommend strategies for promoting quality of life, preventing harm and recovering health, as well as developing methods for raising awareness in society about the prevention of this phenomenon, organizing comprehensive lines of care and carrying out strategic projects based on efficacy and quality studies.[13]These initiatives have filled a gap that previously existed. However, the feeling of loneliness arising from the disqualification of psychological suffering by people, according to the social environment in which the individual is inserted, is constant and has a direct impact on a future act, since when this suffering is not recognized by others, people find suicide as a solution to this unsatisfied demand.[14]

Suicidal ideation is a highly relevant public health phenomenon, especially among adolescents and young adults.[15,16]It is estimated that up to 20% of adolescents have a psychiatric disorder[17], which accounts for approximately 45% of the years lived with disability among individuals aged 10 to 24.[18]Suicide, in turn, is one of the main causes of death in this age group, ranking second among young people aged 15 to 19[19]. Given this scenario, preventing suicidal ideation plays a strategic role, since it is a strong predictor of suicide at-

tempts and deaths. Neury Botega points out that although it is necessary to break the silence surrounding suicide, this must be done with technical and ethical responsibility, avoiding negligent or ill-informed approaches that could aggravate psychological suffering. Thus, it is essential that mental health care is based on evidence and is committed to qualified and continuous listening, capable of offering real and effective support to individuals at risk.[20]

This study does not exhaust the debate on suicidal ideation among health students, but it does provide important input for planning more effective institutional policies. It is suggested that future research move towards interventional approaches, testing prevention and support strategies based on the data presented here, in order to reduce the prevalence of this phenomenon and promote the well--being of future health professionals.

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