

## ORIGINAL ARTICLE

## THE RELATION BETWEEN DEPRESSION AND PERCEIVED SOCIAL SUPPORT IN NURSING STUDENTS IN THE CONTEXT OF SUICIDAL BEHAVIORS

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### ABSTRACT

**Objective:** to determine the relationship between depression and perceived social support in nursing students in the context of suicidal behaviors. **Method:** secondary analysis of data from a previous study. **Sample** from the census of nursing students in Costa Rica. **Data collection** performed by LimeSurvey during 2020 by means of self-administered questionnaire composed of sociodemographic data section, Beck-II depression inventory and multidimensional scale of perceived social support. **Descriptive analysis** and Pearson correlation were used. **Results:** The majority were female (79.5%), with a mean age of 22.15 years; 85.8% reported mild to minimal depression; 92.2% reported high perceived social support. A significant inverse correlation was identified between level of depression and perceived social support ( $r=-0.44$ ,  $p<0.01$ ). **Conclusion:** The understanding about mental health conditions by nursing science is broadened to improve care practices in a specific group.

**DESCRIPTORS:** Depression; Nursing; Students; Mental Health; Suicide.

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## INTRODUCTION

College students are faced at a certain stage of life with different challenges that could promote their personal and professional fulfillment. These challenges involve transitions to new social roles; however, these roles are sometimes seen as stress factors that have an impact on their mental health<sup>1</sup>. In this sense, some vulnerability has been related to college students in relation to developing disorders such as depression, anxiety, and stress<sup>2</sup>.

Although most college students are subjected to various demands and challenges, a higher incidence and prevalence of such disorders has been observed in health careers. This has been related to the level of demand in the curricula<sup>3</sup>. In the case of nursing students, they have been found to manifest more adverse mental health conditions compared to students studying at other levels<sup>4</sup>. In addition, individual, interpersonal, community, social, and health system risk factors for suicidal behaviors have been identified that coincide with the reality described for students, among which are age, mental health disorders such as depression, and social support<sup>5</sup>.

In the case of age, suicide is the second leading cause of death among 15–29-year-olds, and this is the most found population group among college students<sup>5</sup>. In the area of depression and social support, it has been found that depression is associated with suicide when accompanied by anxiety, panic, or post-traumatic stress disorder, and that social support may play a role in the health of college students as a factor that can be protective when its perception is high or risky if it is considered low<sup>6</sup>.

Several related research studies have been conducted around the world that take these variables into account. For example, a study was conducted with college students in which low family support was identified as one of the main reasons for triggering adverse mental health conditions. In addition, it was observed that emotional aspects such as loneliness or helplessness could induce people to commit suicide<sup>7</sup>.

In another study, it was mentioned that suicide is the leading cause of death among college students in Japan. It was also noted that the young Japanese population suffers from mental health disorders such as low self-esteem and depressive feelings. A quantitative study showed that 21% of the participants reported suicidal thoughts and about 40% felt that they had difficulty living<sup>8</sup>.

A project was also conducted among college students in the United States, in which predictors of suicidal behavior such as forgiveness, cynicism, and depression were examined. An association between suicidal behavior and psychological pain was evidenced<sup>9</sup>. Moreover, a descriptive correlational study conducted in Brazil with college students showed statistically significant negative correlations between adverse mental health conditions such as depression and academic experiences and self-efficacy, for which the interpersonal and social interaction dimensions stood out<sup>1</sup>.

These surveys reflect that the study of mental health conditions such as depression and social support in university students is a priority issue. In this regard, it has been found that risk factors for suicidal behavior vary according to the sociodemographic characteristics of individuals; however, depression and social support have been found to be significant factors in Costa Rican populations<sup>10</sup>. However, there is no recent study in Costa Rica, which shows its status. Therefore, it is of great interest to address the various psychosocial situations that young people experience daily, since it is a problem with global impact.

Therefore, this paper presents the results of an analysis aimed at determining the relationship between depression and perceived social support in nursing students in the context of suicidal behavior. It is possible that higher perceived social support is related to a lower level of depression (H1). The development of this study is of great relevance to nursing in Costa Rica, as it is one of the first formal studies on mental health conditions and

suicide risk in university students to be conducted by this discipline. In this way, nursing would achieve a specific understanding of this problem that would impact the direction and quality of its interventions in person-centered care.

## METHOD

A data analysis was developed based on a previous descriptive quantitative correlational research study to analyze mental health conditions and suicide risk in university students. The population consisted of college students from a School of Nursing (SN) of a higher education institution in Costa Rica.

For this analysis, we worked with data from 78 students from two different levels of the nursing course: third level (n=43); and fourth level (n=35) which represented 72.2% of the student body at these levels. The inclusion criteria established were being between 18 and 24 years of age; and being enrolled in one of the courses taught at the third and fourth levels at the time of the study. Both courses are theoretical-practical modules of the nursing course and are situated in the VII and X cycle of the curriculum. The exclusion criteria by which no participants were excluded were being enrolled at the core site and another university site at the same time; and being enrolled at another university (public or private).

Data collection was conducted during the month of November 2020, in which a link developed for a self-administered digital survey on the LimeSurvey platform was distributed to students in these courses. The primary study was divided into five parts, however, for the purposes of this analysis, only the following three parts were taken into consideration:

Sociodemographic characteristics, which included variables such as age, marital status, gender identity, residence, and paid work.

The Beck Depression Inventory-second edition<sup>11</sup>, which consists of a scale to measure the level of depression, is adapted, and validated for Costa Rica, reporting reliability levels of 0.908<sup>12</sup>. It comprises 21 sets of questions that assess depressive symptoms. It has four response options that have a variable score according to symptom intensity, from zero (absence or mild symptom) to three (dysfunctional symptom presence). The total sum of the answers suggests the level of depression. In addition, there is a cut-off point proposed for Costa Rica, which allows the establishment of intervals: minimal from zero to seven; mild from eight to 20; moderate from 21 to 33; and severe from 34 to 63<sup>12</sup>. A Cronbach's alpha of 0.896 was reported for this analysis.

The Multidimensional Scale of Perceived Social Support<sup>13</sup> measures a person's perception of social support in three areas: family, friends, and partner. Other studies have reported a reliability of 0.8813. It consists of 12 questions using a Likert scale with seven possible answers with a score from one (strongly disagree) to seven (strongly agree). It is scored from 12 to 84, with higher scores related to better perceived social support. Responses were grouped into seven ranges based on the score obtained and the Likert scale. A Cronbach's alpha of 0.932 was used for this analysis.

The collected data were downloaded from the LimeSurvey platform and organized into a database in Microsoft Excel version 16.47.1. The database was then exported to IBM SPSS Statistics version 24, and statistical analysis was performed. Frequency distributions, measures of central tendency, and Pearson's correlation coefficient were obtained to test the hypothesis. No loss of values was reported.

The university student body had access to informed consent to accept or decline participation in the primary study. In addition, the research was approved under code 840-CO-338 by the Scientific Ethics Committee of the University of Costa Rica.

## RESULTS

We obtained the participation of 78 nursing students, representing a distribution of 72.2% of the study population (n=108) of which 55.1% (n=43) were in their third year and 44.9% (n=35) were fourth year nursing students. The results obtained for sociodemographic data can be seen in table 1. Most of the students were female, single, without paid work, residing in the central valley and with a mean age of 22.15 years (SD=1.16).

Table 1- Distribution of participating nursing students according to sociodemographic data (n=78). Montes de Oca, San José, Costa Rica, 2020

Variables	Frequency	
	Absolutes	Relative
Age		
20	6	7.7
21	19	24.4
22	20	25.6
23	23	29.5
24	10	12.8
Gender Identity		
Male	16	20.5
Female	62	79.5
Marital status		
Single	77	98.7
Not married	1	1.3
Province of domicile		
San José	33	42.3
Heredia	18	23.1
Cartago	9	11.5
Alajuela	13	16.7
Guanacaste	1	1.3
Limón	4	5.1
Paid job		
No	70	89.7
Yes	8	10.3

Source: the authors (2021).

Regarding depression, figure 1 shows the recorded results. The most frequent level

of depression was mild, however, 14.2% (n=11) reported having a level of depression between moderate and severe. From the results, 64.1% (n=50) reported knowing of at least one case of self-harm in general.

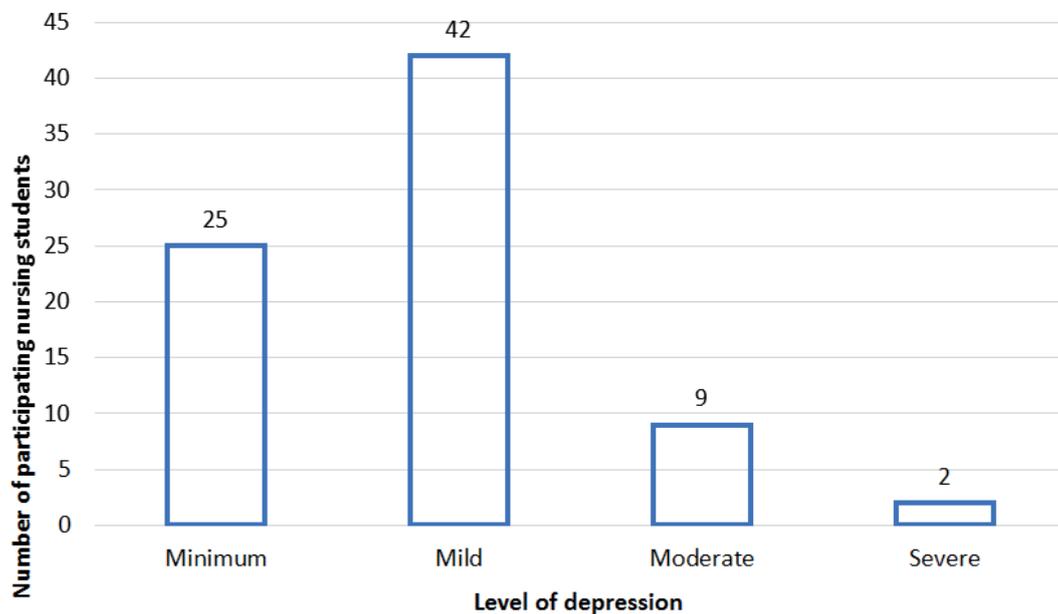


Figure 1 - Absolute frequency distribution of participating nursing students according to level of depression (n=78). San José, Costa Rica, 2020

Source: Authors (2021).

Regarding perceived social support, the mean suggested as relevant that most participants enjoy high perceived social support. Table 2 presents the results for depression and perceived social support.

Table 2 - Results obtained for depression and perceived social support in participating nursing students. Montes de Oca, San José, Costa Rica, 2020

Variables	X (SD)	CI 95%
Depression	12.08 (8.39)	[10.18-13.97]
Perceived social support	69.94 (12.34)	[67.15-72.72]

X, average; CI, confidence interval; SD, standard deviation.

Source: Authors (2021).

Finally, Pearson's coefficient between the two variables was analyzed. An inversely significant correlation ( $r=-0.44$ ,  $p<0.01$ ) was found between the variables, indicating that the higher the perceived social support the lower the reported level of depression. Therefore, the study hypothesis is accepted.

## DISCUSSION

The results of this study provide evidence for the hypothesis, as it was found that the lower the level of depression the higher the perception of social support. Although suicide risk was not measured in this research, it was observed that more than half of the participants claim to know of at least one case of self-harm. This may illustrate the idea that the problem of suicide does not only affect the individual, but extends to families, communities, and societies.

Moreover, nursing students are immersed in demanding environments in which they are exposed to stressors that could trigger mental suffering or maintain proximity to the patient, so that there is exposure to the development of a mental disorder and/or suicidal behavior<sup>14</sup>. Furthermore, considering the epidemiology of this phenomenon, these results coincide with the idea that suicidal behaviors are currently part of the daily experiences of this population<sup>15</sup>. This supports the need to work to demystify it to improve the understanding and approach of healthcare personnel and nursing professionals.

Regarding the sociodemographic data, it was observed that the participants coincided with some characteristics that are considered risk factors for suicidal behavior. In terms of age group, it corresponds to a group that undergoes changes in their mental health conditions, and where suicide is the second leading cause of death, which clarifies the importance of the study, as has been done in other geographical areas. In this regard, data from suicide mortality registries in Ecuador, estimate that young people have a risk of death by suicide 1.9 times higher than in adolescence<sup>16</sup>.

This risk of death by suicide is influenced by different factors, such as gender identity. Historically, men are more likely to commit suicide than women, while women are more likely to make suicide attempts<sup>17</sup>. In the case of this research, there was a greater participation of people who identified themselves as female. According to the epidemiological profile of Costa Rica, 61.8% of cases treated for suicidal behavior are female<sup>18</sup>.

As for marital status, 98.7% responded that they were single, coinciding with that reported by Díaz-Mazariegos<sup>18</sup> in which he mentions that most people with suicidal behavior in Costa Rica, are single (69.4%). To further explore this issue, it has been reported that suicidal behavior is most often associated with singleness<sup>19</sup>. In the case of the province of domicile, 93.6% reside in the Greater Metropolitan Area (GAM), as do most cases treated for this problem in the country (87.4%)<sup>18</sup>.

The sociodemographic data of the sample are highlighted to establish a relationship with risk factors for mental disorders and suicidal behaviors. Although no information is collected about suicide risk per se, the validation of these characteristics allows us to understand that the participants are in a risk context. Consequently, their study addresses the reality of specific groups, favoring the analysis of this phenomenon.

In addition to the above, the analysis of depression and social support variables is relevant because their impact on college and nursing students has been demonstrated. At the same time, different research has shown that a high prevalence of mental disorders such as depression is associated with suicidal behavior. These have even shown that dysfunctional interpersonal relationships are positioned as stressors for such behaviors<sup>2, 20-21</sup>.

The results of this survey on depression showed that the participating students show

symptoms of depression at different levels. Although most of them do not reflect serious mood problems, the others should not be underestimated. A prevalence of depression of 30.2% was found in college students, demonstrating that it is imperative for understanding suicidal behaviors<sup>22</sup>.

Following the above idea, in a study conducted in China with college students it was found that in 40.8% of those who reported having a moderate-severe level of depression, suicidal behaviors were present<sup>23</sup>. It has been proposed that greater depressive symptoms are associated with a higher risk of suicide attempts in individuals<sup>24</sup>. Furthermore, in other research, the presence of depression has been associated with suicidal ideation and completed suicide<sup>25-26</sup>.

These data would allow us to understand that within the sample there is a third of college students living with varying levels of mental distress, which could increase the risk of suicidal behavior. Although the rest report minimal or mild symptoms, it should not be ignored that there may be other variables that make the study group vulnerable.

Regarding social support, it has been shown that it could play antagonistically as a risk factor and protection factor, being determined by the functionality of interpersonal relationships with family or peers, the bond established, or the quality of communication<sup>25-26</sup>. Relatedly, in research conducted in the United States, participants expressed the importance of family relationships in mitigating suicide risk<sup>27</sup>. Another study found that participants with high social support were 2.57 times less likely to have suicidal ideation than those with low social support<sup>28</sup>.

Perceived social support could be a buffer for other mental health conditions in the study group and even for other groups of young people. It represents a relevant condition because its positive perception provides a sense of belonging and strengthens the mental health of college students, enabling them to cope with the usual demands of daily life<sup>29</sup>.

Results showed an inverse association between level of depression and perceived social support, and it has been reported that despair and suicidal ideation increase the likelihood of lower scores in domains such as relationship with parents and family life, and friends and social support<sup>30</sup>. Significant negative relationships have also been reported between mental health conditions such as depression, anxiety, and stress with academic experiences and self-efficacy on dimensions such as social interaction<sup>1</sup>.

The results of this research allow us to analyze the phenomenon of suicidal behavior in a sample of nursing students. In this sense, it was shown that this group is subject to different situations that condition their mental health. The study of variables such as sociodemographic data, depression, and social support help to understand elements that have an impact on suicidal behavior. In this specific case, social support is seen as a protective factor that could reduce other risk factors.

As limitations of this analysis, the results presented cannot be generalized to all nursing students in Costa Rica because we worked with a convenience sample of students in their third and fourth year of nursing studies. Also, although the variables studied are directly related to suicide as risk factors, the implications of the study sample for suicidal behavior have not been determined.

## CONCLUSION

To conclude, changes in mental health conditions and suicidal behavior are part of the environment surrounding college students as a social phenomenon and are not limited to specific cases. In this context, it is suggested that perceived social support at a high level could be considered as a protective factor that could play a role in the level of adverse mental health conditions such as depression.

These data are important for developing strategies from nursing practice to maintain and increase perceived social support among college students, such as creating support groups or educational spaces focused on social mental health awareness.

In terms of research, it is recommended to continue the study of this phenomenon in specific populations of college students, including other variables that allow better understanding, such as stress, substance use, anxiety, and suicide risk, in order to support the effectiveness and efficiency of the care offered by nurses in the treatment of this phenomenon.

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