Revista Latinoamericana de Medicina Conductual
Latin American Journal of Behavioral Medicine
Vol. 11, Núm 1 Agosto 2020 – Enero 2021

Symptoms of depression and stress perception in medical students: Needs for attention and willingness to get help

Síntomas de depresión y percepción de estrés en estudiantes de medicina: Necesidades de atención y disposición para recibir ayuda

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Objective. To assess medical students' needs for care and the association of depressive symptoms and perceived stress with readiness to receive care. Method. Through a cross-sectional study, a total of 1,226 medical students from different years of university schooling participated. Participants responded to a digital survey including the Beck Depression Inventory (BDI); the Brief Illness Perception Questionnaire (BIPQ), modified for stress; and a questionnaire to assess care needs. **Results**. A total of 68% of participants expressed willingness to get help and 82% of these considered that the person who could best help them was a health professional. A total of 71% of those willing to get help preferred individual, face-to-face modality and 50% considered that help should take between 4 and 8 sessions. Lower willingness to get help was associated with very limited economic resources (OR = 2.58, p = .029), high depressive symptoms score (OR= 0.98, p = .046), and higher perception of stress (OR= 0.96, p < .0001). **Conclusions**: The increase of symptoms is the best indicator for the willingness to ask for help, sex and academic year do not seem to influence the willingness to seek help.

Key words: Needs for care; medical students; depressive symptoms; perceived stress.

Palabras clave: necesidad de ayuda; estudiantes de medicina; síntomas depresivos; estrés percibido.

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Artículo disponible: http://www.revistas.unam.mx/index.php/rlmc/index

Mental health within schools is expected to be a public policy priority since its promotion contributes to reducing inequity for both health and education (Bravo-Sanzana et al. 2015). This is particularly relevant for medical students since they tend to show a high prevalence of depressive symptoms and stress. Regarding depression, several meta-analyses have shown symptoms in one-third of students (27% to 33%), with little differences by sex or academic year (Mao et al., 2019; Puthran et al., 2016; Rotenstein et al., 2016). Perceived stress appears to be even higher as reflected by some meta-analyses since more than 50% (range 12.2% to 96.7%) perceive high levels of stress (Hope and Henderson 2014) and association with academic year or sex have yielded inconsistent results (Abdel Wahed and Hassan 2017; Almojali et al., 2017; Gold et al., 2015; Rafique et al., 2019; Steiner-Hofbauer & Holzinger 2020).

Both conditions tend to coexist closely, high levels of perceived stress are indeed associated with depressive symptoms (Cristóbal-Narváez et al. 2020; Krapić et al. 2015). Perceived stress during medical training also relates to the development of depressive symptoms among students (Guille et al. 2014; Ludwig et al. 2015; Rotenstein et al. 2016; Sen et al. 2010). Also, participants who report depression symptoms may perceive events as more stressful (Krapić et al. 2015). Several studies show that excessive workloads, exams, extracurricular activities, competition among peers, long working hours, facing intense emotions, abuse by superiors, and sleep deprivation cause serious stress during medical training (Duarte et al., 2017; Sen et al. 2010; Soliman 2014; Steiner-Hofbauer & Holzinger 2020; Vidal et al., 2020).

Despite the high prevalence of these disorders among university students, many of them do not seek attention. It has been reported that only 23% of college students, men or women, said they would seek help from college support centers or another professional source if a difficulty arose (Ennis et al. 2019). Intention to seek help appears less likely when symptoms are subclinical. It is estimated that only 27% of those with subclinical depression receive help and 40% of those with symptoms do not perceive that they need professional attention. Seeking help increases as symptoms become more severe due to perceived need (C. Fouilloux, 2020, personal communication, October, 3, 2020; van Zoonen et al., 2015).

Medical students who are stressed often report mental health needs: 34.5% vs. 10.5% without stress, $p < 0.001$ (Gold et al. 2015). However, overall, 51% acknowledge academic needs but only 25% acknowledge psychological needs. Of those students reporting anxiety, depression, or low quality of life, only 26% use institutional support; use of mental health services. Also, perceived psychological needs and anxiety symptoms seem more frequent in females (Sousa-Leao et al. 2011).

It has been proposed that the intention to seek help depends on such perceived factors as the severity of the condition, personal susceptibility as well as perceived benefits, and barriers (Kim and Zane, 2016). When assessing Asian-American and White-American students with psychological distress, perceived severity, and barriers were associated with help-seeking in both groups. However, Asians showed less intention to seek help even though they perceived that benefits were more important in seeking help (Kim and Zane, 2016). A study exploring social and cognitive factors in college students found that the strongest predictors for intention to seek help were perceived control and psychological distress (Mesidor and Sly, 2014). The intention to use cybercounseling was evaluated in upper-middle-level students, the main predictors being subjective norms, perceived control, and attitudes toward the Internet (Teo et al. 2020). In psychology students, although less than 25% expressed intention to seek treatment if they felt psychological distress, the factor associated with intention to seek help was identifying symptoms (Thomas et al., 2014).

Some studies indicate that the severity or presence of a condition does not seem to affect the intention to seek help. One study comparing medical students to undergraduates of other careers found that, although medical students were more likely to positively evaluate professional help, they did not differ in their intentions to seek help compared to other students. Medical students with or without depressive episodes did not differ in their intentions to seek help (Amarasuriya et al. 2015). One Chinese study had similar results; the presence of depressive symptoms was associated with less intention to seek help from family and friends but did not associate to seek professional help (Chin et al., 2015). In students of various educational levels, greater severity of depressive symptoms was associated with a greater likelihood of "not wanting help from anyone" (Wilson et al., 2007). A systematic review of research on help-seeking behaviors in various populations concludes that high levels of psychological distress, increased suicidal ideation, and more depressive symptoms were associated with fewer help-seeking behaviors (Aguirre-Velasco et al. 2020).

Regarding sources of support, very few college freshmen used professional university-based to help service and preferred informal sources of help (parents, friends, partner/boyfriend, internet). However, those using informal support showed higher wellbeing scores. Students with low or average wellbeing scores sought less professional help than those with higher scores, $B = -0.35$, 95% CI= -0.10 to -0.05, $p<.001$ (Goodwin et al. 2016).

Thus, identifying the care needs and characteristics of those willing to receive help will contribute to designing programs to promote professional care. Despite some inconsistencies in the results of various studies, the present study hypothesizes that the presence of severe symptoms of depression/stress will associate with an increased willingness to receive help in medical students. To assess medical students' needs for care and the association of depressive symptoms and perceived stress with readiness to receive care. The purpose of this study was to assess medical students' needs for care and the association of depressive symptoms and perceived stress with readiness to receive care.

METHOD

Participants and procedure

Once approved by the corresponding ethics committees for a cross-sectional study, a non-probabilistic sample of 1,226 students from the six grades of the medical career at a large public university in Mexico City were evaluated by responding to an online survey. The curriculum of the university's medical career for a GP is composed of six years, two years in basic areas, and four years in clinical settings/areas. The survey was distributed by the researchers of this study, in digital form, and included thirteen questionnaires and a section on academic background and sociodemographic data. The call for participation was disseminated through the official social networks of the school and students were asked to promote the participation of their peers. The purpose of the study was explained to the students and they were asked to answer the survey by marking their unwillingness to participate; in the same format, a second consent was added to be contacted in case of finding a psychological condition that required support, and this to be able to offer specialized support from the university institution.The data was collected in November 2019, when none of the levels were in the examination period.

Measurement

Care needs and willingness to receive help. A seven-question multiple-choice questionnaire was developed to assess preferences for mental health care. Questions included:
1)Willingness to receive help, ("Yes", "No", "Maybe")
2)Who would help them manage their stress symptoms: (family or friends, professor or faculty advisor, a health professional)
3)Participation in a stress management program (yes, no, maybe)
4)Preferred mode of the program: (individual, face-to-face, group, online, other)
6)Program length: one session, two or three sessions, four to eight sessions, more than eight sessions
7)Timing of participation: (GP training, specialty training, both).
Willingness to receive help was considered *high* when the response was "yes" to the question of whether they would be willing to receive help with their mental health, and *low* when they responded "no" or "maybe.

Perception of stress. The Brief Illness Perception Questionnaire (BIPQ) (Broadbent et al., 2006), adapted for stress assessment, was used. The questionnaire has eight items on "stress perception" on a scale of 0 to 10, and a ninth item assessing the source of stress. The total score was obtained by adding up items (1, 2, 3, 6 and 8, direct; and 3, 4 and 7, inverse), with a total sum from 0 to 80. As an antecedent, in a study with Mexican hypertensive patients, this instrument revealed a three-dimensional structure (perception, control, and knowledge). The explained variance was 61% and internal consistency $\alpha = .67$ (Bazán Riverón, et al., 2013). For the present study, the internal consistency (Cronbach's alpha) was $\alpha = .75$., median = 46 (Q1 = 37, Q3 = 53). These values were used to divide participants with low and high-stress perceptions.

Depressive symptomatology. Used the Beck Depression Inventory (Beck et al. 1961) is composed of 21 items, each with four choices, from 0 to 3. The stem question was *how you have felt during the past week*. In all cases, 0 indicated no symptom, and 3 the most severe or affected symptom. The total score was computed through the sum of all items (from 0 to 63). To identify probable cases with clinical depression, a score greater than or equal to 14 points was considered as valid for diagnostic decisions (Torres-Castillo et al. 1991). In the present study, the internal consistency of the BDI (Cronbach's alpha) was $\alpha = .93$.

Statistical analysis

The statistical normality of the distribution was evaluated with the Kolmogorov-Smirnov test for the sum of depression symptoms and global stress perception. Since the normality criterion was not met for these variables, non-parametric statistics were used for their analysis. The attention needs of participants are described as frequencies and percentages for perceived stress and depression symptoms as well as medians and interquartile ranges. The comparison includes a willingness to receive care [higher (yes) vs. lower (no/maybe)] with the Mann Whitney U-test. Perceived stress and stress symptoms were also categorized according to their median value. Prevalences are described and compared concerning willingness to receive care, using the chi-square test. Sources of stress are categorized and described by frequencies and percentages. Logistic regressions were computed to evaluate the association of participants' characteristics (sex, age, year, symptoms of depression, and overall perception of stress) with the willingness to receive care as a dependent variable. Association of depressive symptoms and stress perception characteristics was also examined with the willingness to receive help. All statistical tests used the two-tailed criterion for hypothesis testing with a $p < .05$ value as a decision rule.

RESULTS

A total of 1,226 medical students with an average age of 21.22 (SD ± 2.69) years participated, 72% were women; 97% were single, 47% perceived limited resources to maintain their studies and 78% did not have to leave their place of origin to pursue their career. The characteristics of the students about the willingness to receive help only showed significant differences in the symptoms of depression and the overall perception of stress (see Table 1).

From those students deemed "positive" for probable depression (59%), 75% showed a high disposition to receive help and 25% showed low disposition. Of the negatives for probable depression (41%), 58% reported high willingness to receive help and 42% low ($\chi2 = 40.59$, $p < .0001$). Of students classified as high stress (49%), 78% reported an increased willingness to

Table 1.
Participants' Characteristics.

	Willingness to get help				
	High (n = 831)	Low (n = 395)	χ^2 o Z	p	Total
Sex					
Male	219 (26)	122 (31)			341 (28)
Female	612 (74)	273 (69)	2.74	.098	885 (72)
Marital status[a]					
Single	802 (96)	385 (98)			1187 (97)
Married/living together	29 (4)	10 (2)	0.80	.372	39 (3)
Resources					
More than enough	25 (3)	17 (4)			42 (3)
Sufficient	290 (35)	143 (36)			433 (35)
Limited	396 (48)	181 (46)			577 (47)
Scarce	80 (10)	45 (11)			125 (10)
Very scarce	40 (5)	9 (2)	6.75	.149	49 (4)
Academic year[a]					
First	206 (25)	108 (27)			314 (26)
Second	170 (20)	65 (17)			235 (19)
5th semester	92 (11)	34 (9)			126 (10)
Third	116 (14)	53 (13)			169 (14)
Fourth	70 (8)	44 (11)			114 (9)
Fifth	97 (12)	55 (14)			152 (12)
Sixth	80 (10)	36 (9)	7.85	.249	116 (10)
Moved from home to study					
No	643 (77)	308 (78)			951 (78)
Yes	188 (23)	87 (22)	0.05	.815	275 (22)
Overall stress perception (BIPQ)[b]	48 (40, 55)	40 (32, 49)	–9.34	.0001	46 (37, 53)
Depression symptoms (BDI)[b]	19 (11, 27)	13 (6, 22)	–7.66	.0001	17 (9, 26)

[a]Frequency (Percentage) compared through Chi-square.
[b]Medians (Q1 y Q3) compared through the Mann Whitney U test.

receive help and 22% reported decreased willingness. Of those participants reporting low-stress perception (51%), 58% reported an increased willingness to receive help, and 42% reported decreased willingness to receive help ($\chi2 = 55.09$, $p < .0001$).

In terms of care needs, a high percentage of those evaluated said they were willing to receive help (68%) and said that the person who could help them was a health professional (82%). Concerning participating in a stress management program, 72% indicated a willingness to participate, 98% said that it would be good if their own school offered it; 71% preferred individual, face-to-face modalities, 50% said that it should take between 4 and 8 sessions, and 97% said that they would participate in the program were offered during GP training studies (see Table 2).

The causes of stress revealed six main sources: school (73%), personal problems (14%), family-related concerns (9%), financial difficulties (3%), social factors (1%) and the remaining 1% said they did not know. Regarding specific sources of school stress, participants indicated as causes: the career itself (36%), exams (19%), academic performance (17%), workload (8%), difficulties getting organized (5%), problems with specific subjects (4%), difficulties in dealing with superiors and/or peers (3%), handling of patients/hospital environment (2%), not understanding the subject matters (2%) and vocational doubts (1%). There were no differences in the frequency of the main causes of stress when compared by the willingness to receive help ($\chi2 = 10.75$, $p = .150$).

Characteristics associated with high willingness to receive help were higher scores on depressive symptoms and stress perception (OR= 1.02, $p = .046$; and OR= 1.04, $p < .0001$; respectively). Perceiving very limited economic resources (OR= 0.39, $p = .029$) was associated with lower disposition, $\chi2 = 101.28$, $p < .0001$, $R2 = .11$. (see Table 3).

More specifically, depressive symptoms associated with greater willingness to receive help were sadness (OR = 1.34, $p = .015$), guilt (OR = 1.27, $p = .032$), and concern about their health (OR = 1.31, $p = .021$), $\chi2 = 80.41$, $p < .0001$, $R2 = .09$ (see Table 4). Sources of stress associated with greater willingness to receive help were: thinking that treatment can actually help (OR = 1.25, $p < .0001$), that your stress concerns you (OR = 1.13, $p = .001$), and it affects you emotionally (OR = 1.10, $p = .032$). Perception of stress control showed negative association (OR = 0.90, $p = .002$), $\chi2 = 240.85$, $p < .0001$, $R2 = .25$ (see Table 5).

Table 2.
Attention needs.

	***f*(%)**
Is willing to receive help	
No	87 (7%)
Maybe	308 (25%)
Yes	835 (68%)
The best person to help him/her deal with stress	
Family/friends	161 (13%)
Professor or School Counselor	64 (5%)
Specialized health professional	1005 (82%)
Would participate in a general program to train stress management?	
No	35 (3%)
Maybe	315 (26%)
Yes	880 (72%)
It would be good if the School offered such a program	
No	5 (0)
Don't know	21 (2%)
Yes	1204 (98%)
The best way to provide such training would be	
Individually, face to face	876 (71%)
As a group, with other students	256 (21%)
Online	90 (7%)
Other	8 (1%)
Such training should take	
One session	23 (2%)
Two or three sessions	218 (18%)
Between four and eight sessions	617 (50%)
More than eight sessions	372 (30%)
Would participate if the program were offered during	
G.P. Training	609 (50%)
Residence/graduate level	34 (3%)
Both levels	587 (48%)

Table 3.
Multiple analysis of characteristics associated with a high willingness to receive help.

	B	***SE***	**Wald**	***OR***	**CI 95%**	***p***
Sex (female)	-0.06	0.14	0.15	0.94	0.71, 1.25	.695
Age (years)	0.03	0.04	0.82	1.03	0.96, 1.11	.366
Had to leave home to study	0.01	0.16	0.00	1.01	0.74, 1.38	.955
Resources						
More than enough						
Enough	-0.74	0.51	2.08	0.48	0.17, 1.30	.149
Limited	-0.45	0.41	1.22	0.64	0.29, 1.42	.269
Scarce	-0.55	0.40	1.87	0.58	0.26, 1.27	.172
Very scarce	-0.95	0.43	4.75	**0.39**	**0.17, 0.91**	**.029**
Academic year						
First						
Second	-0.20	0.26	0.01	0.82	0.50, 1.35	.438
5th semester	0.04	0.18	0.11	1.05	0.73, 1.49	.803
Third	0.28	0.18	0.17	1.32	0.92, 1.89	.128
Fourth	0.02	0.17	0.19	1.32	0.73, 1.42	.900
Fifth	-0.16	0.19	0.19	1.02	0.85, 1.23	.389
Sixth	-0.04	0.19	0.19	0.96	0.66, 1.39	.828
Depression symptoms (BDI)	0.02	0.01	3.99	**1.02**	**1.00, 1.03**	**.046**
Stress symptoms (BIPQ)	0.04	0.01	31.91	**1.04**	**1.03, 1.04**	**.0001**
Constant	-1.41	0.97	2.10	.24		.148

SE= Standard Error, OR= Odds Ratio, CI = Confidence Interval, BDI = Beck Depression Inventory, BIPQ = Brief Illness Perception Questionnaire

Table 4.
Multiple analysis of depressive symptoms (BDI) associated with a high willingness to receive help.

	B	SE	**Wald**	***OR***	**CI 95%**	**p**
Sadness	0.29	0.12	5.91	1.34	1.06, 1.69	.015
Discouragement	0.01	0.12	0.01	1.01	0.80, 1.29	.916
Failure	-0.07	0.11	0.43	0.93	0.75, 1.15	.510
Satisfaction	0.09	0.11	0.81	1.10	0.89, 1.35	.369
Guilt	0.24	0.11	4.62	**1.27**	**1.02, 1.57**	**.032**
Being punished	0.01	0.09	0.00	1.01	0.84, 1.20	.945
Unhappy with him/herself	0.05	0.12	0.19	1.06	0.83, 1.35	.663
Worse as compared to others	0.01	0.12	0.01	1.01	0.80, 1.29	.909
Suicidal ideation	-0.08	0.14	0.36	0.92	0.70, 1.21	.550
Crying/weeping	0.02	0.08	0.08	1.02	0.87, 1.20	.772
Irritability	-0.02	0.10	0.06	0.98	0.80, 1.19	.813
Loss of interest in people	0.04	0.10	0.19	1.04	0.86, 1.27	.665
Difficulty to make decisions	0.04	0.10	0.12	1.04	0.85, 1.26	.725
Preocupation for appearance	-0.14	0.08	2.85	0.87	0.74, 1.02	.092
Difficulty to work	0.11	0.12	0.89	1.12	0.89, 1.42	.345
Sleep problems	0.07	0.10	0.48	1.07	0.88, 1.32	.489
Fatigue	0.06	0.09	0.56	1.07	0.90, 1.26	.455
Loss of appetite	-0.09	0.10	0.72	0.92	0.75, 1.12	.395
Losing weight	0.01	0.16	0.00	1.01	0.74, 1.38	.956
Preocupation for health	0.27	0.12	5.36	**1.31**	**1.04, 1.66**	**.021**
Lack of interest in sex	-0.05	0.08	0.34	0.96	0.82, 1.12	.562
Constant	-0.15	0.13	1.16	0.86		.282

SE= Standard Error, *OR*= Odds Ratio, CI = Confidence Interval

Table 5.
Multiple analyses of characteristics of perceived stress (BIPQ) associated with a high willingness to receive help.

	B	**SE**	**Wald**	***OR***	**CI 95%**	***p***
How much does stress affect your life?	0.00	0.05	0.00	1.00	0.91, 1.09	.982
How long you think will your stress last?	-0.05	0.04	1.56	0.95	0.88, 1.03	.211
How much control do you have over your stress?	-0.11	0.04	9.15	**0.90**	**0.84, 0.96**	**.002**
How much you think some treatment will help you deal with stress?	0.22	0.03	70.29	**1.25**	**1.19, 1.32**	**.0001**
How much do you experience stress symptoms?	0.02	0.04	0.21	1.02	0.94, 1.11	.650
How much does your stress worry you?	0.12	0.04	10.85	**1.13**	**1.05, 1.22**	**.001**
How well you think you understand your stress?	-0.03	0.03	0.90	0.97	0.91, 1.03	.342
How much your stress affects you emotionally?	0.09	0.04	4.59	**1.10**	**1.01, 1.20**	**.032**
Constant	-1.09	0.40	7.35	0.34		.007

BIPQ = Brief Illness Perception Questionnaire, *SE*= Standard Error, *OR*= Odds Ratio, CI = Confidence Interval

DISCUSSION

The objective of this study was to describe the needs for care and factors associated with the willingness to receive help. The description is made in terms of depressive symptomatology and stress perception, in a sample of medical students from all years of the career (GP training). The initially proposed hypothesis that depressive and stress symptoms would be the most associated with the willingness to receive help was confirmed. Although several studies have examined factors associated with willingness to seek help in college students, few have done so in medical students. This context is relevant because it is a population exposed to high levels of stress and depressive symptoms and many of the results have been inconsistent. Knowing the needs for care and the factors that might contribute to willingness to receive treatment will help to promote aspects that motivate their search.

According to the initial hypothesis, more students were willing to receive help among those who showed more depressive symptoms (75%) compared to those who did not (41%). Also, more participants were willing to receive care if they perceived they had high stress (78%) compared to those with low stress (58%). These results are consistent with observations of medical students in whom a greater percentage of those who admitted to needing help were in the high-stress group (Gold et al. 2015).

When evaluating the model of interaction between the main characteristics of the students (sex, academic year, whether they had to leave home and financial resources), it was found that perceived financial resources along with the greater perception of stress and more depressive symptoms showed a consistent and significant association. The association with symptoms can be explained, by the fact when there is a high psychological distress the need for help increases, por example, students who recognize psychological needs (OR = 3.19; p = 0.018) and students with symptoms of anxiety (OR = 4.43; p = 0.003) were significantly more likely to use the Mental Health Service (Sousa-Leao et al. 2011; van Zoonen et al. 2015); thus, psychological discomfort itself contributes to the intention to seek help (Sousa-Leao et al. 2011; Mesidor and Sly 2014; Kim and Zane 2016). However, these findings are contrary to studies in which the presence of depression showed no effect on the intention to seek help, for example in medical students (Amarasuriya et al. 2015), students from other academic levels (Wilson et al. 2007), or other populations (Chin et al. 2015; Aguirre-Velasco et al. 2020). The fact that those who reported lower economic incomes showed less willingness to receive help could be explained by the proposal by Aguirre-Velasco et al. (2020) that, although income is a factor that is very little explored in the different studies, the perception of having to pay is conceived as a barrier to seeking help.

When exploring specific symptoms of depression that could be associated with a greater willingness to seek help, contrary to what was stated in this study - regarding the severity of psychological distress as contributing to the intention to seek help - suicide ideation (as an indicator of the severity of depression) was not associated with a greater willingness to seek help. Instead, aspects such as sadness, guilt, and health concerns were associated with seeking help. Perhaps this lack of association is because suicidal ideation in the population studied is low and being in subclinical ranges, does not motivate them to receive help as other studies have found (van Zoonen et al. 2015). In contrast, health concern was associated with accepting help, which could be due to students identifying symptoms of mental illness (Thomas et al. 2014). For perceived stress, the results were more consistent with our hypotheses, as 1) thinking that treatment can help them, 2) that stress worries them, and 3) that it affects them emotionally increased the likelihood that they would be willing to seek help.

In this regard, the proposal by Kim and Zane (2016), that an important aspect of the intention to seek help is to perceive that they can benefit from it. In the present study, the greater the perception that treatment could help them, the greater the willingness to receive it. The fact that they were concerned about stress could also be an indicator of symptom identification and would also explain the association (Thomas et al. 2014). Emotional distress was also associated with perceived distress (Mesidor and Sly 2014; van Zoonen et al. 2015; Kim and Zane 2016). On the other hand, greater perceived control over their stress was associated with less willingness to receive help. Beliefs of control over treatment have been reported to be central to the intention to seek help (Mesidor and Sly 2014; Teo et al. 2020); in contrast, perceived control seems to decrease willingness to seek help. The finding that causes stress does not influence the willingness to seek help suggests that sources of stress are independent of perceived distress, which appears to be linked to the willingness to seek help.

It has also been noted that the sources preferred by college students are generally informal (Goodwin et al. 2016). In the present study, students said that the person who could help them most to manage stress is a health professional. This is consistent with the fact that medical students most positively evaluate professional help (Amarasuriya et al. 2015). Almost all respondents favored in-school care, taking four to eight sessions, and 71% preferred in-school sessions versus 7% who preferred online sessions.

Some possible limitations of this study is that the non-random selection of participants The characteristics of those who agreed to take the survey may influence responses and limit the generalization of results, and the cross - sectional nature of the study does not allow a causal relationship to be established for the findings. Furthermore, the results are based on medical students from a single institution, so generalization also is limited. Likewise, the willingness to receive care was evaluated using a questionnaire constructed for this study, so it would be recommended that future studies consider the use of validated instruments for this purpose. However, the results are based on a large enough sample of all the years of medical school, which allows us to know the responses of a large portion of the population.

In summary, the main conclusions of the present study include: medical students have high levels of stress and depressive symptoms; to favor their attention, it is important to know their needs: sex and academic year do not seem to influence the willingness to seek help, the increase of symptoms is the best indicator for the willingness to ask for help. It seems that, among medical students, greater emotional distress may be a determining factor in being willing to receive formal intervention.

The present findings highlight the importance of increasing knowledge about factors that may motivate medical students to seek help for mental health problems and encourage more detailed assessments of this problem to improve their well-being.

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