ORIGINAL RESEARCH

Factors associated with nursing students' sense of coherence: A cross-sectional study

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Received: March 14, 2023 **Accepted:** May 22, 2023 **Online Published:** June 15, 2023
DOI: 10.5430/jnep.v13n10p9 **URL:** https://doi.org/10.5430/jnep.v13n10p9

ABSTRACT

Background and objective: The Salutogenic Theory has a central element called Sense of Coherence, which measures the ability to cope of individuals in everyday situations. The objective of this study is to verify the factors associated with the nursing students' Sense of Coherence.
Methods: Analytical cross-sectional study, carried out with 199 students from an undergraduate nursing course at a public university in the city of Fortaleza, Ceará, Brazil, in June 2019. A form with sociodemographic and health characteristics, and Antonovsky's Sense of Coherence Questionnaire were applied. The median of the scale score was used to rate the Sense of Coherence in higher and lower.
Results: The variables age up to 21 years (p = .013), not having a job (p = .032), absence of a spouse (p = .018), concern for the future (p = .006), lack of physical activity (0.023), use of psychotropic drugs (p = .002), insomnia (0.004), severe anxiety (p = .001), and moderate and severe depression (p = .000) were associated with a lower Sense of Coherence.
Conclusions: The sociodemographic and academic variables presented influence the nursing students' Sense of Coherence, which emphasizes the need for actions aimed at the more susceptible students' mental health.

Key Words: Sense of coherence, Mental health, Students, Nursing, Cross-sectional studies

1. INTRODUCTION

The Theory of Salutogenesis develops a new approach to health promotion, as it seeks to understand what is related to the health condition, analyzing the individual's ability to cope with adverse conditions. Thus, it can be seen that this theory changed the paradigm from valuing disease to valuing health, as it tries to understand reactions in the presence of stressors, which generate a central impact on health maintenance.[1,2]

In addition, this theory implements the concept of Generalized Resistance Resources (GRR), which may be physical and biochemical mechanisms that promote coping with tension. Such mechanisms are exemplified as the management of emotions; material mechanism, such as money, food, clothing, accommodation, safety and services; interpersonal - relational mechanism, such as social support and commitment; and macro sociocultural mechanism, such as culture and social structures, including religion. These resources can neutralize several stressors, that is, can facilitate the management of tensions and help in coping with daily activities so

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as to promote health.[1–3]

The Salutogenic Theory has a central element called Sense of Coherence (SOC), which measures the ability to cope of individuals in everyday situations. This element is related to mental well-being and can be understood based on the ability to experience stressful situations, understanding events, their meanings, and managing tensions.[2] The SOC proposal refers to a construct with universal meaning and allows reflection on external and internal courses, to identify and mobilize a common coping mechanism in every individual.[4]

Thus, the higher the SOC, the better the resolution of stressful situations and, consequently, the lower the impact on health. A cross-sectional study carried out with 14,916 participants from public and private universities in Germany showed a significant association among SOC, well-being, and health complaints, and it was perceived that a high level of future concerns and low SOC were correlated with low well-being and multiple health complaints. This study also adds the need to implement mental health promotion strategies aimed at strengthening SOC among students.[5]

Seeking to understand university students as prone to dealing with stressors during training, a study carried out with 443 university students in Japan investigated the relationship among SOC, Social Capital (SC), self-efficacy, and mental health. This study found SOC significantly related to cognitive SC, structural SC, self-efficacy, as well as mental health. In addition, it was also found that these analyzed factors can act as GRR to promote the development of a strong SOC and, likewise, good mental health.[6]

From this perspective, searching for the relationship between SOC and academic performance, another study carried out with 381 students in Campo Grande-MS, Brazil, found that the lower school performance of adolescents was related to demographic factors such as age, sex, years of study, number of people living in the house, socioeconomic factors such as monthly family income, as well as a lower SOC. Thus, it can be seen that the coping ability can be influenced by both academic and social factors.[7]

There are some peculiarities of nursing students that can influence SOC. A cross-sectional study carried out in Salvador with 286 nursing students found that the highest levels of stress are concentrated in female students from the 6th to the 10th semester, with a monthly income equal to or less than the minimum wage and who do not consider their income sufficient.[8] Moreover, another study carried out in southern Brazil showed that the lack of time to rest and the lack of leisure and social activities can overwhelm students and consequently increase emotional exhaustion. Furthermore, insecurity in practical activities, commuting time, financial expenses, and the use of public transport are perceived as stress factors.[9]

Therefore, it is essential to understand the factors associated with the Sense of Coherence of Nursing students, as this may guide professors, coordinators, and managers to intervene and seek viable alternatives in modifiable situations, favoring the occurrence of greater SOC. Therefore, there is a need for studies on the Sense of Coherence among nursing students, in view of the importance of resilience during the course, the ability to cope with stressful situations in clinical practices of professional training, as well as the personal overload that students already face. The objective of this study was to verify the factors associated with the nursing students' Sense of Coherence.

2. METHODS

2.1 Design of study

This is a cross-sectional analytical study which aims to estimate the proportion of a population that has a particular condition.[10]

2.2 Local

The study was developed at the Nursing Department of the Federal University of Ceará (UFC). The department has rooms and laboratories where theoretical and practical classes are given. This way, all students, regardless of the semester they were taking, attended the department on different days.

2.3 Population studied

The study population consisted of all students of the Undergraduate Nursing course at UFC.

Sample calculation was performed for finite populations, with sampling error of 5% being adopted, with a prevalence of 50%, Z_α of 1.96, and a population of 391 students regularly enrolled. Due to possible losses, 2.5% more were added. At the end, there was a total sample of 199 students, with this simple random probability being stratified and varied according to the semester, since not all classes have the same number of students and the calculation took the proportion of each class into account. Following stratification, 24 students from the 1st semester, 23 from the 2nd, 23 from the 3rd, 21 from the 4th, 16 from the 5th, 14 from the 6th, 20 from the 7th, 19 from the 8th, 19 from the 9th, and 20 from the 10th semester were drawn.

2.4 Sample selection criteria

Inclusion criteria were: students over 18 years of age, regularly enrolled in any semester at the institution. The exclusion

criteria consisted of students unable to attend any discipline, such as the students who were on a leave or enrolled in a regime called matrícula institucional - when the student would not attend the classes of the semester, but maintained a bond with the University; for this type of enrollment no justification is required, but it is limited to students who fulfilled all mandatory components of the first two semesters of the course.

2.5 Data collection

Data collection was carried out in June 2019. The questionnaires were given to students in a classroom environment or via e-mail for those who were on a full-time internship, and answered individually, with an average duration of 30 minutes. In cases of face-to-face collection, the interviewer remained on site to assist in the instrument completion, in case there was any doubt. In the virtual collection, questions were answered via e-mail.

2.6 Measurement instrument

The instruments used were: sociodemographic and health characterization instrument (including the Beck Anxiety Inventory - BAI) and Antonovsky's Sense of Coherence Questionnaire (ASOCQ).[11] The level of anxiety was analyzed using BAI, validated with Cronbach's alpha between 0.83 and 0.92.[12] This instrument has 21 descriptive items of anxiety symptoms that shall be self-assessed by severity and frequency in the past week, including the test day, on a scale of 0 to 3 points. The maximum general score corresponded to 63 points, with the following cutoff points: minimum level of anxiety (0 to 10 points), mild level of anxiety (11 to 19 points), moderate level of anxiety (20 to 30 points), and severe level of anxiety (31 to 63 points).

The level of depression was analyzed by the Beck Depression Inventory - BDI, validated with Cronbach's alpha of 0.82.[12] This questionnaire consisted of 21 groups of statements containing a scale ranging from 0, 1, 2 or 3 points. Following self-analysis, the score that best describes how the individual has been feeling in the past week, including the day of the test, is chosen. Total scores range from 0 to 63 points, with the following cutoff points: minimal depression/no depression (0 to 13 points), mild depression (14 to 19 points), moderate depression (20 to 28 points), and severe depression (29 to 63 points).

For SOC analysis, the Portuguese version of ASOCQ was used, validated with Cronbach's alpha of 0.79.[11] It has 29 items, 11 of which are intended for the comprehension of the surrounding environment, 10 items for the component handling or even to the ability to manage a given situation individually or with the help of others, and eight related to meaning.[12] Answers are obtained using a seven-point scale, with values ranging from one (1) to seven (7), related to self-assessed feelings. The possible range for the total measurement varied from 29 to 203 points, in which the higher the value, the greater the Sense of Coherence, and consequently, the greater the ability of individuals to deal with stressful situations.[12]

2.7 Data analysis and treatment

The Sense of Coherence (SOC) was considered as the outcome variable. The predictor variables were: age, income, religion, employment, marital status, sexual orientation, gender identity, semester, concern for the future, physical activity, leisure time, use of licit drugs, use of psychotropic drugs, insomnia, depression, and level of anxiety.

The acquired data were processed and analyzed using the software Statistical Package for the Social Sciences (SPSS), version 22.0. In the numerical variables, the Kolmogorov-Smirnov test was used for the analysis of normality, justifying the use of the median and of the interquartile range in the results. For the analysis of study outcome variable, SOC, the median was used as the cutoff point for the classification into higher SOC and lower SOC, as used in another study.[14] The chi-square test was performed to test the association between the variables. In addition, the Odds Ratio (OR) with a Confidence Interval of 95% was adopted.

2.8 Ethical aspects

The study was designed following Resolution no. 466/12, of the National Health Council, which establishes ethical criteria for research with human beings, being approved by the Research Ethics Committee of the Federal University of Ceará, through Plataforma Brasil, with opinion number 3.284.038.

3. RESULTS

It was observed that the sociodemographic data, such as the students' age, ranged from 17 to 47 years, with a median of 21 years and an interquartile range of 3. As for family income, the median was BRL 2,000.00, an interquartile range of BRL 3,375.00, and the majority, 112 (63.6%), had an income greater than two minimum wages. The Catholic religion corresponded to the majority of respondents, totaling 102 (51.3%).

Regarding the association of sociodemographic factors and the sense of coherence in Table 1, it could be noted that participants aged up to 21 years had a 2.03 times higher prevalence of having a lower SOC. Employment was also a significant factor, in which unemployed students were 3.05 times more likely to have a lower SOC. Furthermore, those who did not have a spouse had a 5.38 times higher prevalence of developing minor SOC.

Table 1. Association of sociodemographic variables with Nursing students' SOC, according to age, income, religion, employment status, marital status, sexual orientation, gender identity, and ethnicity. Fortaleza, CE, Brazil, 2018 (n = 104)

Variable	Lower SOC		Higher SOC		PR	CI 95%	*p*-value*
	n	%	n	%			
Age							
Up to 21 years	60	58.3	43	41.7	2.03	1.159-3.588	.013
Over 21 years	39	40.6	57	59.4			
Income							
Up to 2000	47	52.2	43	47.8	1.14	0.634-2.069	.653
Above 2000	42	48.8	44	51.2			
Religion							
Yes	81	48.5	86	51.5	0.73	0.342-1.569	.422
No	18	56.2	14	43.8			
Employment status							
Unemployed	94	52.2	86	47.8	3.05	1.058-8.849	.032
Employed	5	26.3	14	73.7			
Marital status							
No spouse	97	51.9	90	48.1	5.38	1.149-25.264	.018
With spouse	2	16.7	10	83.3			
Sexual orientation							
Heterosexual	81	49.4	83	50.6	0.99	0.444-0.342	.827
Non-hetero	18	51.4	17	48.6			
Gender identity							
Male	15	42.9	19	57.1	0.71	1.491	.369
Female	84	51.2	81	48.8			
Ethnicity							
Black	9	36.0	16	64.0	0.52	0.220-1.252	.141
Non-black	90	51.7	84	48.3			

*Chi-Square Test

As for academic factors, such as term (semester), most students were at up to the fifth semester. As for the concern for the future, most showed concern for what comes after the undergraduate course. In general, respondents did not practice physical activity and did not have leisure and most used licit and psychotropic drugs. In addition, respondents in general had insomnia, severe anxiety, and moderate and severe depression.

As for associations in Table 2, it was observed that students who stated concern about the future had 6.62 times more prevalence of developing a lower SOC. The chances were also higher among sedentary students, 94%; students who used psychotropic drugs and who reported insomnia, 2.47 times more prevalence; and among those who had severe anxiety, 2.81 times more prevalence of having a lower SOC. It should be noted that in the assessment of anxiety using BAI, only moderate and severe classifications were observed, with no responses classified as minimal or mild. As for the assessment of depression, students who showed levels of moderate and severe depression had a 9.90 higher prevalence of developing lower SOC.

4. Discussion

The high Sense of Coherence therefore motivates people to be confident that the result achieved will be reasonable, thus stimulating the search for resources to deal with situations.[13,14] Consequently, students with a high SOC are able to mobilize adequate resources to deal with school challenges, resulting in better performance in studies.[15]

Thus, the results obtained from the association of sociodemographic factors with SOC revealed significance with age, employment status, and marital status. The chance of an individual having a lower SOC was higher among students aged up to 21 years, which may be an indication that young

people may not have awakened or have not developed more effective mechanisms to solve their problems. This is consistent with the results of a study carried out in Germany, in which it could be noted that there was a significant tendency for higher SOC as a function of age.[15] Other studies point out that the SOC of individuals increases with age throughout the life cycle.[16, 17] In this context, it is believed that older people can, due to experiences in life, be more prepared and mature to face different situations.

Table 2. Association of academic and health variables with SOC, second semester, concern for the future, physical activity, leisure time, licit drugs, psychotropic drugs, insomnia, depression, and anxiety. Fortaleza, CE, Brazil, 2018 (n = 104)

Variable	Lower SOC		Higher SOC		Gross OR	CI 95%	*p*-value*
	n	%	n	%			
Semester							
Up to 5 semesters	60	56.1	47	43.9	1.73	0.988-3.046	.054
Above 5 semesters	39	42.4	53	57.6			
Concern for the future							
Yes	96	52.5	43	47.5	6.62	1.441-30.417	.006
No	2	14.3	44	85.7			
Physical activity							
No	68	56.2	53	43.8	1.94	1.090-3.472	.023
Yes	31	39.7	47	60.3			
Leisure time							
Yes	80	47.1	90	52.9	0.46	0.205-1.065	.065
No	19	65.5	10	34.5			
Licit drugs							
Yes	51	51.5	48	48.5	1.15	0.660-0.917	.62
No	48	48	52	52			
Psychotropic Drugs							
Uses	25	73.5	9	26.5	2.47	1.356-4.533	.004
Does not use	74	44.8	91	55.2			
Insomnia							
Yes	45	64.3	25	35.7	2.47	1.356-4.533	.004
No	53	42.1	73	57.9			
BAI							
Severe	69	58	50	42	2.81	1.531-5.181	.001
Moderate	24	32	49	67.1			
BECK II							
Moderate and severe	76	75.2	25	24.8	9.90	18.867-5.181	< .01
Minimal and mild	23	23.5	75	76.5			

*Chi-Square Test

In addition to the association with age, it was perceived that SOC may have a multifactorial influence, as it was observed that those who were not employed had lower SOC, indicating that being employed can be a protective factor for the individuals' mental health, since they start to have greater perspective and empowerment regarding their financial and social status.[18, 19] This datum corroborated the research carried out with 7,185 participants in South Africa, which demonstrated significant differences in the SOC of participants for different levels of financial well-being, indicating a positive relationship between SOC and financial status.[20]

Another significant variable of this study was marital status, as participants who did not have a spouse (51.6%) demonstrated lower SOC. This finding differed from the population sample of Iranian students, which claimed that there is no relationship between marital status and SOC.[21] In this case,

further research is suggested to clarify such issues.

Even though there was no statistical association in this study between gender identity and SOC, considerable differences could be observed in this regard, showing the male sex with the highest SOC in another African study, carried out with 7185 individuals, which compared SOC to the dynamics between income and financial well-being.[22] This can be explained by the country's culture of lesser appreciation of women or even by the several obstacles women face, which prompts the need for further studies addressing these gender issues.

It could be observed that more than half of the respondents showed concern for the future and, as a consequence, lower SOC. Another study also showed a significant amount of young people concerned about the future. This study showed that young people associated the professional future with the personal effort to achieve a promising future, mainly correlated to good financial conditions. Moreover, it is stated that one of the major concerns regarding the future of the participants is the job market, which is a critical factor when choosing an undergraduate course. Thus, the study highlighted that the function of the university is not only prepare students for the adversities of the academic journey, but also for the future experiences of the professional in formation.[23]

Regarding the practice of physical activity, it could be observed that, in the present study, more than half of the people did not exercise and non-practitioners of physical activity were 94% more likely to present lower SOC than those who practiced. A cross-sectional study carried out in China observed that students with high health awareness, in other words, those who opted for a physical activity routine and who were satisfied with their weight, had higher SOC.[24] This demonstrated the need for students to maintain regular physical activities, which help in social interaction and in greater SOC.

In a study aiming to determine the effects of a 9-month resistance training intervention on quality of life, on the Sense of Coherence, and on depressive symptoms, it was evidenced that SOC improved in the training group after three months. It should be noted that the practice of physical activity is a key factor to maintain health and functional capacity during aging.[25]

It was observed that participants who used psychotropic drugs had lower SOC. The association made in a study in Campinas that noticed that the lower prevalence of the use of psychotropic drugs can lead to a reduced proportion of diagnoses of health problems of psychic origin is relevant.[26] This demonstrated that the use of these drugs deserves due caution and care so that the consequences of this use do not affect the students' SOC. Furthermore, in another study, the side effects of the drugs in question were presented. Memory impairment, resulting from the use of these drugs, generated anxiety and anguish in the research participants, and these situations could result to significant academic impairment for those using them.[27]

In this scenario, it was worth highlighting some favorable points of the Theory of Salutogenesis, which can be used as a strategy among managers in the academic environment as mechanisms to improve students' SOC.

A model of salutogenic treatment with generalized resistance resources seemed a promising approach in the psychiatric treatment of children and young people,[27] in view of the association between anxiety and lower mental well-being and lower SOC among academics, thus being an opportunity to implement new research aimed at including generalized resistance resources to improve SOC among academics, due to the need to know how academics deal with stressors.[28]

In addition, anxiety stimulates the individual to take action, but when in excess, it does exactly the opposite and prevents reactions, and may become pathological. Anxiety disorders were related to excessive fear and distress that differ from the body's normal adaptive responses and cause behavioral disorders that usually last six months or more.[29]

Some studies pointed to the association of the Sense of Coherence with depressive symptoms.[16,26] In a systematic review of 876 articles, it was found that low SOC was a predictor of depression, burnout syndrome, and job dissatisfaction among nurses. However, higher SOC improved mental and physical health status, acting as a health-promoting resource.[30]

The study carried out had limitations regarding its representativeness, as the sample consisted of students from a single university. In addition, the present study was based on self-reported answers, so there was a potential for bias and inaccuracy in the data due to the research participants' memory.

5. CONCLUSION

It was concluded that the lowest SOC was influenced by age up to 21 years, unemployment, absence of a spouse, concern for the future, sedentary lifestyle, use of psychotropic drugs, insomnia, severe anxiety, and moderate and severe depression. In this perspective, further study of such factors could be essential, given that by identifying the factors that influenced the students' Sense of Coherence, there would be the possibility of implementing strategies allowing them to strengthen the coping mechanisms and resistance to adversi-

ties and everyday problems.

Therefore, it is important that more studies in the area of mental health in the university space be carried out, with a view to deepening and clarifying this theme, aiming at promoting the quality of life of academics.

ACKNOWLEDGEMENTS

We would like to thank the Tutorial Education Program/National Fund for the Development of Education (FNDE)/Ministry of Education (MEC).

CONFLICTS OF INTEREST DISCLOSURE

The authors declare that there is no conflict of interest.

REFERENCES

[1] Antonovsky A. Unraveling the Mystery of Health. How People Manage Stress and Stay Well. The Journal of Nervous and Mental Disease. San Francisco: Jossey-Bass; 1987.

[2] Eriksson M, Lindstrem B. Antonovskys sense of coherence scale and the relation with health: a systematic review. Journal of Epidemiology Community Health. 2006; 60(5): 376-381. PMid:16614325 https://doi.org/10.1136/jech.2005.041616

[3] Pantuza JJ, Alexandre IO, Medeiros AM de, et al. Senso de Coerência e o medo de falar em público em universitários. CoDAS. 2020; 32. PMid:33053083 https://doi.org/10.1590/2317-1782/20202019071

[4] Greimel E, Kato Y, Müller-Gartner M, et al. Recursos internos e externos como determinantes da saúde e qualidade de vida. PLoS ONE. 2016; 11(5): e0153232. PMid:27136375 https://doi.org/10.1371/journal.pone.0153232

[5] Dadaczynski K, Okan O, Messer M, et al. University students' sense of coherence, future worries and mental health: findings from the German COVID-HL-survey. Health Promotion International. 2021; 37. PMid:34214156 https://doi.org/10.1093/heapro/daab070

[6] Mato M, Tsukasaki K. Fatores que promovem o senso de coerência entre estudantes universitários em áreas urbanas do Japão: capital social em nível individual, autoeficácia e saúde mental. Promoção da saúde global. 2019; 26(1): 60-68.

[7] Oliva MIG, Cunha IP, Silva AN, et al. Senso de coerência e fatores associados ao desempenho escolar de adolescentes. Ciênc. saúde coletiva. 2019; 24(8): 3057-3066. PMid:31389552 https://doi.org/10.1590/1413-81232018248.22642017

[8] Ribeiro FMSS, Mussi FC, Pires CGS, et al. Stress level among undergraduate nursing students related to the training phase and sociodemographic factors. Rev. Latino-Am. Enfermagem. 2020; 28: e3209. PMid:32321037 https://doi.org/10.1590/1518-8345.3036.3209

[9] Hirsch CD, Barlem ELD, Almeida LK, et al. Stress triggers in the educational environment from the perspective of nursing students. Texto contexto – enferm. 2018; 27(1): e0370014.

[10] Polit DF, Beck CT. Fundamentos de pesquisa em enfermagem: avaliação de evidências para a prática da enfermagem. 9th ed. Porto Alegre: Artmed; 2019.

[11] Cunha JA. Manual da versão em português das Escalas Beck. São Paulo: Casa do Psicólogo; 2001.

[12] Dantas RA. Adaptação cultural e validação do Questionário de Senso de Coerência de Antonovsky em uma amostra de pacientes cardíacos brasileiros. Ribeirão Preto: Escola de Enfermagem de Ribeirão Preto; 2007.

[13] Antonovsky A. The structure and properties of the sense of coherence scale. Soc Sci Med. 1993; 36: 725-33. PMid:8480217 https://doi.org/10.1016/0277-9536(93)90033-Z

[14] Cortelo FM, Marba S, Cortellazzi KL, et al. Women 's sense of coherence and its association with early weaning. Jornal de pediatria. 2018; 94(6): 624-9. PMid:29097193 https://doi.org/10.1016/j.jped.2017.08.007

[15] Jörgensen S, Ginis KA, Iwarsson S, et al. Depressive symptoms among older adults with long-term spinal cord injury: Associations with secondary health conditions, sense of coherence, coping strategies and physical activity. Journal of Rehabilitation Medicine. 2017; 49(8): 644-651. PMid:28762446 https://doi.org/10.2340/16501977-2259

[16] Alsén P, Eriksson M. Illness perceptions of fatigue and the association with sense of coherence and stress in patients one year after myocardial infarction. J Clin Nurs. 2016; 25(3-4): 526-533. PMid:26818377 https://doi.org/10.1111/jocn.13088

[17] Thoma MV, Mc Gee SL, Fegert JM, et al. Evaluation of the revised sense of coherence scale in a representative German sample. PLOS ONE. 2018; 13(12): e0209550. PMid:30596688 https://doi.org/10.1371/journal.pone.0209550

[18] Wiesmann U, Hannich HJ. A salutogenic inquiry into positive aging – A longitudinal analysis. Aging & Mental Health. 2018; 23(11): 1562-68. PMid:30444131 https://doi.org/10.1080/13607863.2018.1501667

[19] Milner A, Krnjacki L, Butterworth P, et al. The role of social support in protecting mental health when employed and unemployed: A longitudinal fixed-effects analysis using 12 annual waves of the HILDA cohort. Social Science & Medicine. 2016; 153: 20–6. PMid:26867208 http://dx.doi.org/10.1016/j.socscimed.2016.01.050

[20] Barnard A. Sense of coherence: A distinct perspective on financial well-being. South African Journal of Economic and Management Sciences. 2016; 19(4): 647-60. https://doi.org/10.4102/sajems.v19i4.1405

[21] Rakizadeh E, Hafezi F. Sense of coherence as a predictor of quality of life among Iranian students living in Ahvaz. Oman Medical Journal. 2015; 30(6): 447. PMid:26676165 https://doi.org/10.5001/omj.2015.88

[22] Moksnes UK, Espnes GA. Sense of Coherence in Association with Stress Experience and Health in Adolescents. Internacional Journal of Environmental Research and Public Health. 2020; 17(9): 3003. PMid:32357461 https://doi.org/10.3390/ijerph17093003

[23] Sobrosa GM, Santos AS, Oliveira CT, et al. Perspectivas de futuro profissional para jovens provenientes de classes socioeconômicas desfavorecidas. Temas em Psicologia. 2014; 22(1): 223-34. https://doi.org/10.9788/TP2014.1-17

[24] Chu JJ, Khan MH, Jahn HJ, Kraemer A.et al Sentido de coerência e fatores associados entre estudantes universitários da China: evidência transversal. BMC Saúde Pública. 2016; 16: 336. PMid:27083414 https://doi.org/10.1186/s12889-016-3003-3

[25] Kekäläinen T, Kokko K, Sipilä S, et al. Effects of a 9-month resistance training intervention on quality of life, sense of coher-

ence, and depressive symptoms in older adults: randomized controlled trial. Qual Life Res. 2018; 27: 455–465. PMid:29124498 https://doi.org/10.1007/s11136-017-1733-z

[26] Prado MAMB, Francisco PMSB, Barros MBA. Uso de medicamentos psicotrópicos em adultos e idosos residentes em Campinas, São Paulo: um estudo transversal de base populacional. Epidemiol. Serv. Saúde. 2017; 26(4): 747-758. PMid:29211139 https://doi.org/10.5123/S1679-49742017000400007

[27] Cavalcante DM, Cabral BE. Uso de medicamentos psicotrópicos e repercussões existenciais para usuários de um CAPS II. Estudos de Psicologia. Natal. 2017; 22(3): 293-304. https://doi.org/10.22491/1678-4669.20170030

[28] Dodd RH, Dadaczynski K, Okan O, et al. Psychological Wellbeing and Academic Experience of University Students in Australia during COVID-19. IJERPH. 2021; 18: 866. PMid:33498376 https://doi.org/10.3390/ijerph18030866

[29] American Psychiatric Association. Diagnostic and statistical manual of mental disorders DSM-V. 5th ed. Washington DC: APA; 2013. https://doi.org/10.1176/appi.books.9780890425596

[30] Masanotti GM, Paolucci S, Abbafati E, et al. Sense of Coherence in Nurses: A Systematic Review. Int. J. Environ. Res. Public Health. 2020; 17(6): 1861. PMid:32183042 https://doi.org/10.3390/ijerph17061861