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Some Socio-Health And Academic Performance Factors In University Students In Department Of Sucre, Colombia

Eustorgio Amed-Salazar[1], Yohana Pérez-Pertuz[2] , Jhon J. Feria-Díaz[2]

[1]Faculty of Health Sciences, Universidad de Sucre, Sincelejo, Colombia.
[2]Faculty of Engineering, Universidad de Sucre, Sincelejo, Colombia.

ABSTRACT

Objective: to identify the situation of some socio-health and academic performance factors in university students from the department of Sucre (Colombia). It is developed in young university students. Methodology: Descriptive, cross-sectional study; a database analysis based on an institutional survey to characterize students, made up of 4689 records. Results: most of the students are between 15 and 20 years old, almost a third of them are recognized as indigenous and belong to low socioeconomic strata, about a third of the population indicated having failed subjects and highlighted reasons related to this low performance; some students mentioned not consuming, sometimes, any meal a day and in general more than half of the students surveyed reported having limited their food rations during the day. Conclusion: The socioeconomic and dietary conditions explored minimally reveal a concern about students' health and within that larger concept generate opportunities to intervene in students' academic performance and possible dropouts.

Keywords: Academic performance, eating behavior, social class, social determinants of health

1. INTRODUCCIÓN

Academic performance is a complex concept in itself; however, an approximation could place it as the value attributed to the learning results of university students in each subject area compared to the knowledge expected level of their peers and which is reflected through a grading scale. Some authors also consider it as an indicator of the university teaching quality and it is the interaction result of pedagogical, institutional, sociodemographic, and psychosocial factors, among others (Gutiérrez-Monsalve et al., 2021). Within these factors are items of connoted influence such as human health, even seen from the determinants of this, understood as the conditions in which people are born, live, and affect their health (Spruce, 2019). It is understood that a person who does not enjoy good health, as an individual factor, could find his or her academic performance affected (Hernández-García et al., 2020). The health-illness phenomenon can be assessed through the way in which this health is self-perceived, and this is a valid and widely accepted indicator. The self-perception of health is an individual and subjective conception that results from the intersection between biological, social, and psychological factors, and provides an assessment type of the health general state of the person (Bustos-Vázquez et al., 2017); that is, it is mediated by various elements of daily life among others such as leisure, sleep, recreation, income and food, the latter having a relevant impact on academic performance.

It is important to keep in mind that university life initiation regularly coincides with the adolescence final stage and the transition to adulthood; this is usually the time when students become responsible for their nutrition for the first time; although there are also different factors that contribute to the establishment of these new eating habits, which in many cases are maintained throughout life and can trigger complex eating disorders associated with biological, psychological and/or environmental abnormalities, which could clearly influence various aspects of the individual (Concha et al., 2019) (Zuniga-Jara et al., 2018).

When the situation of how academic performance and certain socio-health factors are self-perceived is known. It could help to glimpse improvement elements in the realization of academic quality thought through the human health intervention, in the components that this includes, and in the possibility of proposing integrative strategies from the institutional level, understanding the university as a tools application area for health promotion and disease prevention with a differential approach, and considering the influence of inequalities, within the framework of a primary health care model, understanding the need to legitimize healthy learning environments in an intentional way (Castillo-Cedeño et al., 2017).

2. METHOD

You should provide sufficient detail to allow the work to be replicated. Methods already published should be indicated by a reference. Only relevant modifications should be described here. A study was conducted under the quantitative approach, descriptive, cross-sectional design (Munnangi & Boktor, 2022). Which sought to know the situation of some socio-health factors and academic performance in university students from the department of Sucre (Colombia). The research was developed on young university students of a higher education institution (IES) from the department of Sucre (Colombia).

The population consisted of students belonging to an IES in Sucre. The statistical analysis was executed based on an anonymized database provided by the HEI, which contained 4689 records. The database was cleaned and then the variables were transformed and labeled, according to the interests of the study. The information was processed using SPSS software version 23.0 (Statistical Package for the Social Science) (Pacheco et al., 2020). The data set was characterized by considering the academic performance variables and others related to health and well-being; proportions and frequencies presented in univariate and bivariate tables and graphs were calculated.

Ethical considerations

The research complied with the Declaration of Helsinki ethical principles and with Resolution 008430, article 11; it was considered as "research with minimal risk" due to the non-manipulation of biological variables (Ministry of Health, 2021) (WMA, 2017).

3. RESULTS

From the 4689 records obtained for the study. It was obtained that most of the students surveyed were between 15 and 20 years old (65.2%), it is interesting that about a third of the participants self-recognized themselves as indigenous (26.7%), Most (94.5%) of them are single in terms of marital status, followed by those who live in a free union (3.8%) and in socioeconomic stratification terms, the vast majority are located in strata one (73.9%), two (24.5%) and three (1.3%) (See Table 1).

Table 1. Socio-demographic variables by sex

	Items	Total	
		Frec	%
AGE	15-20 years	1280	65,2 %
	21 a 26	3056	27.3%
	27 and more	353	7.5%
SEX	Man	2550	54.4
	Woman	2139	45.6
ETHNIA	Afro descendant	560	11.9%
	Indigenous	1250	26.7%
	None	2494	53.2%
	Rrom	385	8.2%
CIVIL STATUS	Married	68	1.5%
	Separated	8	0.2%
	Single	4432	94.5%
	Free Union	179	3.8%
	Widowed	2	0.0%
SOCIO-ECONOMIC STRATA	1	3463	73.9%
	2	1150	24.5%
	3	60	1.3%
	4	9	0.2%
	5	1	0.0%
	6	3	0.1%
Total*		4686	100.0%

* Total applicable to all variables analyzed, for N=4689

Table 2. Students' reasons for their low achievement.

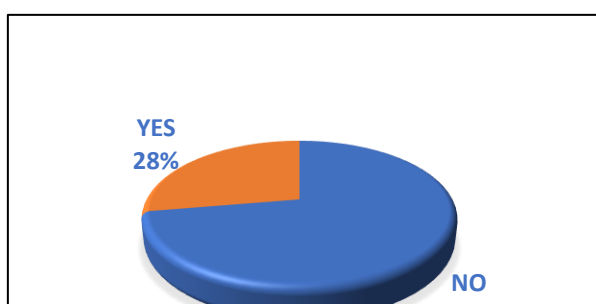| Item	Frequency	Percent (%)
Family/personal conflicts	936	20
Some type of difficulty with the teacher	591	12,6
Some type of difficulty with the university	162	3,5
I have had no difficulty	1238	26,4
Presents thematic comprehension problems.	1762	37,6
Total	4689	100

Figure 1: Currently failing

It has observed that nearly one-third (28%) of the students reported having failed some subject at the time they were surveyed (Figure 1) and that, in their opinion, of the reasons related to this poor performance, thematic comprehension problems (37.6%) were the most frequent. All this is followed by family or personal conflicts (20%). It seems that at least 1 out of 10 students (12.6%) may have had difficulty with teachers, and a small number (3.5%) reported problem with the university (See Table 2).

Table 3. Number of meals per day

	Frequency	Percentage (%)
At least one meal a day	1514	32,3
Generally two meals per day	857	18,3
Generally three meals per day	2221	47,4
Sometimes no meals are consumed during the day	97	2,1
Total	4689	100,0

Source: self made

It is striking that, although small (2.1%), there is a student's group reporting that they sometimes do not eat food during the day and those who at least eat once are just over a third of the population (32.3%), in addition, those who only have the possibility of generally accessing two meals a day are a representative group (18, 2%), we are talking about more than half of the students surveyed (52.6%) who stated that they have limited their food rations during the day, finding then that only a part of them (47.4%) can manage to consume food three times a day (See Table 3).

4. DISCUSSION

This study's findings allowed the population profile construction according to the behavior of the variables investigated; thus, it was found that regarding age, most of the university students are between 15 and 20 years old, a figure like that reported by some authors where it is seen that the largest number of university students are in a range close to 18 years old (Díaz Muñoz et al., 2021). Regarding ethnicity, the majority (53.2%) do not recognize themselves as belonging to any ethnic group, those who do are Afro-descendants 11.9% and indigenous 26.7%; here it can be seen how those belonging to indigenous ethnic groups represent a significant number, most likely related to our territorial context and area of influence that has multicultural and multiethnic participation (Government of Colombia, 2022).

Regarding the marital status of the student population consulted, most of them are single (94.5%), followed by those living in free union (3.8%), and finally, the married ones who represent

a minimal fraction (1.5%). The contrasting results have some similarity with the findings of Ramirez et al. in another Colombian university where they found that 87.5% of the participants were single, 11.3% were living in a free union and 11.3% were married. These circumstances show a certain pattern that these populations follow, finding a variant in the volume of those who stated living in a free union, situations surely marked by preferences related to cultural phenomena and idiosyncrasies related to the territories (Ramirez et al., 2020).

In the socioeconomic stratification case, the vast majority are in strata one (71.9%), two (26.1%), and three (1.6%), a situation equivalents to that reported by other authors who indicates that 81.1% belong to socioeconomic strata 1 and 2 (Rueda Ramirez et al., 2020), as well as in other higher education institutions in the country (Molano-T et al., 2021). As can be seen, a large concentration of the population is in the low socioeconomic strata, and this as a factor could have influence on the student's academic performance.

The failure of subjects is a great significant element of the university's institutional quality. Several authors state its close relationship with the student's academic performance and in the worst cases with dropout or desertion; these may be associated with the student's context, socioeconomic factors, teacher's characteristics, or the academic organization of the careers and the institution (Guerrero et al. 2020); within this element's range, we can see the similarity with what was found in the present study, where about a third of the population indicates having failed and they highlight as reasons related to this low performance: thematic comprehension problems by the student, also family or personal conflicts that these individuals experience. Also, some may have had difficulty with teachers, and a small number indicates problem with the university, as can be seen, this seems to be a definite pattern and that merits intervention.

It is important to note that some results related by Melo-Becerrara et al. (2017) in their study indicate that variables associated with the infrastructure and socioeconomic environment of students have a positive and significant impact on academic achievement or performance.

The socioeconomic environment is an important channel to supply the basic needs of the individual, such as food, an area in which this study found quite striking results where some students mentioned not consuming, sometimes, no food a day and in general more than half of the students surveyed reported having limited their food rations during the day, which represents a negative fact for overall health and its possible consequences on academic performance, a situation very similar to that found in several Latin American countries where it was found that 84% of young university students do not comply with nutritional recommendations regarding food intake (El Dinamo, 2022). Some researchers have pointed out that eating habits have a direct impact on academic performance. Among the young population of university students, it has been observed that there is an association between good eating and study habits, which has an impact on their academic performance (Parra-Castillo et al., 2021).

5. CONCLUSIONS

The socioeconomic and nutritional conditions explored, which are finally part of the elements that contribute to people's health, reveal a concern about the health of students and within that great concept that implies being healthy, the conditions can be given. to intervene in the academic performance of students and possible dropouts.

The elements are shown. They make us consider that university students are a feasible population to carry out health promotion and disease prevention activities, integrally incorporating

healthy habit acquisition but also self-management. The participation of integrated health networks that provide support to the well-being and these people's life quality, from their spring, in such a way that their social determinants of health can be impacted and therefore favor the improvement of their academic performance and professional future. We speak, then, in a very concrete way of the construction of a healthy University project.

REFERENCES

Bustos-Vázquez, E., Fernández-Niño, J. A., & Astudillo-Garcia, C. I. (2017). Self-rated health, multimorbidity and depression in Mexican older adults: Proposal and evaluation of a simple conceptual model. Biomédica, 37, 92-103. https://doi.org/10.7705/biomedica.v37i3.3070

Castillo-Cedeño, I., Flores-Davis, L. E., & Miranda-Cervantes, G. (2017). Hacia una Universidad de convivencia saludable: Percepción de un grupo de estudiantes de bachillerato del Centro de Investigación y Docencia en Educación (CIDE). Revista Electrónica Educare, 21(1), 397-419.

Concha, C., González, G., Piñuñuri, R., Valenzuela, C., Concha, C., González, G., Piñuñuri, R., & Valenzuela, C. (2019). Relación entre tiempos de alimentación, composición nutricional del desayuno y estado nutricional en estudiantes universitarios de Valparaíso, Chile. Revista chilena de nutrición, 46(4), 400-408. https://doi.org/10.4067/S0717-75182019000400400

Díaz Muñoz, G. A., Pérez Hoyos, A. K., cala Liberato, D. P., Rentería, L. M. M., Quiñones Sánchez, M. C., Díaz Muñoz, G. A., Pérez Hoyos, A. K., cala Liberato, D. P., Rentería, L. M. M., & Quiñones Sánchez, M. C. (2021). Diferencia de los niveles de actividad física, sedentarismo y hábitos alimentarios entre universitarios de diferentes programas de la salud de una universidad privada en Bogotá, Colombia. Revista Española de Nutrición Humana y Dietética, 25(1), 8-17. https://doi.org/10.14306/renhyd.25.1.1007

El Dinamo. (2022). Alimentación universitarios ¿cómo influye en su salud y rendimiento académico? - Especiales El Dínamo. Especiales El Dínamo - Noticias de Chile y el Mundo. https://especiales.eldinamo.cl/wellness/2022/08/24/alimentacion-universitarios-como-influye-en-su-salud-y-rendimiento-academico/

Gobierno de Colombia. (s. f.). Resguardos Y Cabildos Indiginas De Sucre | Datos Abiertos Colombia. Recuperado 15 de octubre de 2022, de https://www.datos.gov.co/Cultura/Resguardos-Y-Cabildos-Indiginas-De-Sucre/iaw2-k2qk

Gobierno de Colombia. (2022). Resguardos Y Cabildos Indiginas De Sucre | Datos Abiertos Colombia. https://www.datos.gov.co/Cultura/Resguardos-Y-Cabildos-Indiginas-De-Sucre/iaw2-k2qk

Guerrero, F. E. B., Ortega, M. P. P., & Peña, L. I. (2020). Reprobación y abandono de estudiantes universitario. Revista UNIANDES Episteme, 7(4), 502-516.

Gutiérrez-Monsalve, J. A., Garzón, J., Segura-Cardona, A. M., Gutiérrez-Monsalve, J. A., Garzón, J., & Segura-Cardona, A. M. (2021). Factores asociados al rendimiento académico en estudiantes universitarios. Formación universitaria, 14(1), 13-24. https://doi.org/10.4067/S0718-50062021000100013

Hernández-García, E., Álvarez-Martínez, B., & Ruiz-Ruisánchez, A. (2020). Salud y desempeño en estudiantes de distintos niveles académicos. Revista del Hospital Juárez de México, 86(4), 196-201.

Melo-Becerra, L. A., Ramos-Forero, J. E., & Hernández-Santamaría, P. O. (2017). La Educación Superior en Colombia: Situación Actual Y Análisis De Eficiencia1. Desarrollo y Sociedad, 78, 59-111.

Minsalud. (2021). RESOLUCION 8430 de 1999- Repositorio Institucional Digital. https://www.minsalud.gov.co/sites/rid/paginas/freesearchresults.aspx?k=Resoluci%C3%B3n%20008430%20de%201993%20&ss=Todos

Molano-T, N.-J., Chalapud-N, L.-M., & Molano-T, D.-X. (2021). Estilos de vida y cronotipo de estudiantes universitarios en Popayán-Colombia. Revista de la Universidad Industrial de Santander. Salud, 53, 21-28.

Munnangi, S., & Boktor, S. W. (2022). Epidemiology Of Study Design. En StatPearls. StatPearls Publishing. http://www.ncbi.nlm.nih.gov/books/NBK470342/

Pacheco, J. L. R., Argüello, M. V. B., & Suárez, A. I. D. L. H. (2020). Análisis general del spss y su utilidad en la estadística. E-IDEA Journal of Business Sciences, 2(4), Art. 4.

Parra-Castillo, A., Morales-Canedo, L., Medina-Valencia, M., Parra-Castillo, A., Morales-Canedo, L., & Medina-Valencia, M. (2021). Relación entre los hábitos alimentarios y el rendimiento académico en estudiantes de universidades públicas y privadas de la localidad de Chapinero, Bogotá. Perspectivas en Nutrición Humana, 23(2), 183-195. https://doi.org/10.17533/udea.penh.v23n2a05

Ramírez, S. M. R., Velásquez, D. U., Zapata, E. P., Velásquez, C., & Ramírez, E. M. H. (2020). Perfiles de riesgo de deserción en estudiantes de las sedes de una universidad colombiana. Revista de Psicología, 38(1), 275-297. https://doi.org/10.18800/psico.202001.011

Rueda Ramírez, S. M., Urrego Velásquez, D., Páez Zapata, E., Velásquez, C., Hernández Ramírez, E. M., Rueda Ramírez, S. M., Urrego Velásquez, D., Páez Zapata, E., Velásquez, C., & Hernández Ramírez, E. M. (2020). Perfiles de riesgo de deserción en estudiantes de las sedes de una universidad colombiana. Revista de Psicología (PUCP), 38(1), 275-297. https://doi.org/10.18800/psico.202001.011

Spruce, L. (2019). Back to Basics: Social Determinants of Health. AORN Journal, 110(1), 60-69. https://doi.org/10.1002/aorn.12722

WMA. (2017). WMA - The World Medical Association-Declaración de Helsinki de la AMM – Principios éticos para las investigaciones médicas en seres humanos. https://www.wma.net/es/policies-post/declaracion-de-helsinki-de-la-amm-principios-eticos-para-las-investigaciones-medicas-en-seres-humanos/

Zuniga-Jara, S., Pizarro-Díaz, R., Escudero-López, M. E., Honores-Marín, G., Zuniga-Jara, S., Pizarro-Díaz, R., Escudero-López, M. E., & Honores-Marín, G. (2018). Rendimiento Académico Universitario y Conductas Alimentarias. Formación universitaria, 11(2), 57-64. https://doi.org/10.4067/S0718-50062018000200057