

Influence of personal and contextual factors on academic satisfaction in medical students

Influencia de factores personales y contextuales en la satisfacción académica de estudiantes de medicina

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Resumen

Medical training requires high levels of commitment, autonomy, and resilience; therefore, academic satisfaction has become a key indicator of educational quality and student well-being. Such satisfaction is influenced by personal factors, such as motivation and learning style, as well as by contextual conditions, including academic workload, socioeconomic environment, and faculty support. In the Medical Degree program at the Faculty of Medicine of Tampico “Dr. Alberto Romo Caballero,” curricular intensity and evaluative pressure make academic satisfaction particularly vulnerable, which justifies its systematic analysis. The objective of this study was to analyze how learning style, motivation to study Medicine, socioeconomic factors, perceived academic workload, and faculty support influence academic satisfaction among medical students at the Autonomous University of Tamaulipas. A quantitative, cross-sectional, and correlational study was conducted using a survey design in a sample of 251 active students. Overall academic satisfaction was assessed using a 7-point Likert scale, while the independent variables showed adequate reliability indices ($\alpha = 0.74-0.86$). The analysis included descriptive statistics, Pearson correlation, and multiple linear regression. The results indicated that the explanatory model accounted for 68% of the variability in academic satisfaction. Intrinsic motivation was the main predictor, followed by a self-regulated learning style and perceived faculty support, while the academic semester showed no significant effect. These findings support the implementation of educational interventions focused on strengthening motivation, faculty mentoring, and students’ academic autonomy.

Keywords: academic satisfaction; medical students; personal factors; contextual factors; medical education

Abstract

La formación médica exige altos niveles de compromiso, autonomía y resiliencia, por lo que la satisfacción académica se ha consolidado como un indicador clave de calidad educativa y bienestar estudiantil. Dicha satisfacción se encuentra influida por factores personales, como la motivación y el estilo de aprendizaje, así como por condiciones contextuales, entre ellas la carga académica, el entorno socioeconómico y el apoyo docente. En la carrera de Médico Cirujano de la Facultad de Medicina de Tampico “Dr. Alberto Romo Caballero”, la intensidad curricular y la presión evaluativa hacen que la satisfacción académica sea particularmente vulnerable, lo que justifica su análisis sistemático. El objetivo del estudio fue analizar cómo el estilo de aprendizaje, la motivación para estudiar Medicina, los factores socioeconómicos, la percepción de carga académica y el apoyo docente influyen en la satisfacción académica de los estudiantes de Medicina de la Universidad Autónoma de Tamaulipas. Se desarrolló un estudio cuantitativo, transversal y correlacional mediante un diseño de encuesta, en una muestra de 251 estudiantes activos. La satisfacción académica general se evaluó mediante una escala Likert de 7 puntos, mientras que las variables independientes mostraron adecuados índices de confiabilidad ($\alpha = 0.74-0.86$). El análisis incluyó estadística descriptiva, correlación de Pearson y regresión lineal múltiple. Los resultados indicaron que el modelo explicativo alcanzó un 68 % de la variabilidad en la satisfacción académica. La motivación intrínseca fue el principal predictor, seguida del estilo de aprendizaje autorregulado y el apoyo docente percibido, mientras que el semestre cursado no mostró efecto significativo. Estos hallazgos respaldan la implementación de intervenciones educativas centradas en fortalecer la motivación, el acompañamiento docente y la autonomía académica del estudiante.

Palabras clave: satisfacción académica; estudiantes de medicina; factores personales; factores contextuales; educación médica

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INTRODUCTION

Medical education requires high levels of commitment, autonomy, and resilience. Academic satisfaction has become a key indicator of educational quality and is influenced by personal factors, such as learning style and motivation, as well as contextual conditions, including socioeconomic environment, academic workload, and faculty support. Within the Medical Surgeon program at the Faculty of Medicine of Tampico "Dr. Alberto Romo Caballero," the demanding curriculum, evaluative pressure, and stress inherent to the medical profession make academic satisfaction particularly vulnerable. This study is framed within the field of educational research in medical training, with a specific focus on student well-being in high-demand academic contexts.

OBJETIVE

The objective of this study is to analyze how learning style, motivation to study medicine, socioeconomic factors, perceived academic workload, and faculty support influence the academic satisfaction of medical students at the Universidad Autónoma de Tamaulipas. The study aims to identify key predictors associated with academic satisfaction in order to generate evidence that can inform the design of more effective educational strategies focused on improving student well-being and academic experience during medical training.

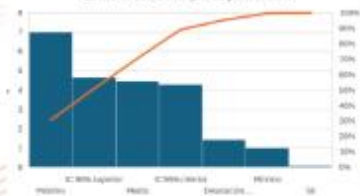
METHODOLOGY

This study was conducted using a quantitative approach with a cross-sectional and correlational survey design. The target population consisted of active students enrolled in the Medical Surgeon program at the Faculty of Medicine of Tampico "Dr. Alberto Romo Caballero," located in Tampico, Tamaulipas. A total of 251 participants were included in the sample. The dependent variable of the study was General Academic Satisfaction, which was measured using a seven-point Likert scale. Independent variables included preferred learning style, motivation to study medicine, perceived faculty support, and perceived academic workload. These variables were measured through Likert-type items ranging from one to seven and demonstrated adequate internal consistency, with Cronbach's alpha coefficients ranging from 0.74 to 0.86. Data analysis included descriptive statistical procedures to summarize the characteristics of the variables. Pearson correlation analysis was used to evaluate bivariate associations between predictors and academic satisfaction. In addition, multiple linear regression analysis was conducted to determine the partial contribution and predictive power of each independent variable with respect to the dependent variable. All analyses were performed using a confidence level of 95%, ensuring that the statistical assumptions required for regression analysis were adequately verified.

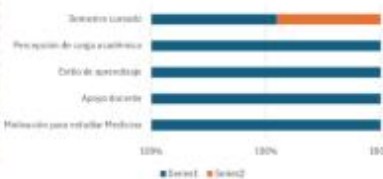
RESULTS

The analysis of the cross-sectional cohort, which included 251 participants, revealed that the multiple linear regression model explained approximately 68% of the variance in academic satisfaction. Among the variables analyzed, motivation to study medicine emerged as the most influential predictor, presenting the highest predictive weight with a regression coefficient of $B = 0.34$. This finding indicates that students with stronger intrinsic motivation toward studying medicine tend to report higher levels of academic satisfaction, regardless of the influence of other variables included in the model. Self-regulated learning strategies associated with preferred learning styles were identified as the second most important predictor, with a regression coefficient of $B = 0.28$. This result highlights the relevance of autonomous learning practices, planning abilities, and self-management of academic tasks in shaping students' satisfaction with their academic experience. Perceived faculty support was identified as the third most significant predictor, with a regression coefficient of $B = 0.26$. The results suggest that the accessibility of instructors, the quality of academic guidance, and the perceived level of mentorship play a substantial role in influencing students' academic satisfaction. Finally, perceived academic workload demonstrated a positive but comparatively smaller effect on academic satisfaction, with a regression coefficient of $B = 0.21$. Although the influence of this variable was lower than that of the other predictors, it still contributed to explaining variations in students' perceptions of their academic experience.

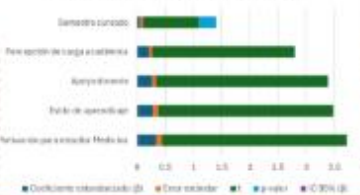
Estadísticos descriptivos por variable



Matriz de correlaciones de Pearson (satisfacción académica vs predictores)



Modelo predictivo: regresión lineal múltiple



CONCLUSIONS

The findings of this study indicate that academic satisfaction among medical students at the Universidad Autónoma de Tamaulipas is primarily associated with modifiable factors, particularly intrinsic motivation, self-regulated learning strategies, and perceived faculty support. Together, these variables explain a substantial proportion of the variability observed in academic satisfaction among students. In contrast, the academic semester in which students were enrolled did not demonstrate a statistically significant effect on academic satisfaction, suggesting that the quality of the educational experience may depend more on motivational and pedagogical factors than on the stage of training itself. These results support the implementation of educational interventions aimed at strengthening intrinsic motivation, improving faculty mentoring and academic support systems, and promoting autonomous learning strategies among students. Such measures could contribute to enhancing both academic satisfaction and overall student well-being within demanding medical training environments.

REFERENCES

Bansal, S., & Pagidas, K. (2025). Strength of motivation and academic performance of medical students: A longitudinal study. *BMC Medical Education*, 25, 1154.

Bazan-Perkins, B., & Sanluisa-Salgado, J. A. (2025). Relationship between the learning gains and learning style preferences among students from the school of medicine and health sciences. *BMC Medical Education*, 25, 71.

Bazan-Perkins, B., & Sanluisa-Salgado, J. A. (2025). Relationship between the learning gains and learning style preferences among students from the school of medicine and health sciences. *BMC Medical Education*, 25, 71.

Cabrera Jiménez, M., León Vázquez, M. de la L., Ruzoño Ramos, M., Ramírez Dueñas, L. K., & Hernández Domínguez, J. (2024). *Aprendizaje autodirigido en el área de la salud. Avances de investigación*. Ciencias Latina, 9(2).

Chen, X., Wu, M., Ding, G., Cui, L., Qi, B., & Zhu, Y. (2024). Social support and academic procrastination in health professions students: The serial mediating effect of intrinsic learning motivation and academic self-efficacy. *Advances in Health Sciences Education*, 29(1), 1-18.