







## Relationship between impulse control and addiction, emotional intelligence, and academic performance in university students

### Relación entre control de impulsos y adicciones, inteligencia emocional y desempeño académico en universitarios

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#### Abstract

The main purpose of this study was to examine the relationship between impulse control and addictions, emotional intelligence, and academic performance among university students from various public universities in the state of Sonora. This is a quantitative, non-experimental, cross-sectional, and correlational study, using a non-probability convenience sampling method. The instruments used were the MULTICAGE-CAD4 test, the TMMS-24, and a questionnaire to collect academic information. The results showed that lower impulse control is associated with decreased academic performance and emotional clarity. It was concluded that there is a significant relationship among impulse control, addictions, emotional intelligence, and academic performance. These three variables are correlated with the first two having a direct effect on the latter. Poor impulse management negatively impacts students' academic achievement.

#### Resumen

El siguiente estudio tuvo como propósito principal conocer la relación que existe entre el control de impulsos y adicciones, la inteligencia emocional y el desempeño académico en estudiantes universitarios de diferentes universidades públicas del estado de Sonora. Éste es un estudio cuantitativo con diseño no experimental de corte transversal y correlacional, utilizando un muestreo no probabilístico por conveniencia. Los instrumentos utilizados fueron el test MULTICAGE-CAD4, el TMMS-24 y un cuestionario para recolectar la información académica. Los resultados mostraron que ante un menor control de impulsos, tanto el promedio como la claridad emocional se ven disminuidas, concluyendo que la relación entre el control de impulsos, las adicciones, la inteligencia emocional y el desempeño académico es existente, habiendo correlación entre estas tres variables, y las primeras dos teniendo efecto en la última. Al no manejarse óptimamente los impulsos, el promedio académico se ve afectado negativamente.

Relationship between impulse control and addiction, emotional intelligence, and academic performance in university students		
Objectives	Methodology	Contribution
To identify the relationship between impulse control and addictions, emotional intelligence, and academic performance in university students through measurement instruments, in order to establish associations among these variables within this population.	This study was conducted using a quantitative approach, with a non-experimental and correlational design. The sample consisted of 70 university students. The instruments used were the MULTICAGE-CAD4 test, the TMMS-24, and a questionnaire designed to collect academic information.	The study concluded that there is a significant relationship among impulse control, addictions, emotional intelligence, and academic performance.

Relación entre control de impulsos y adicciones, inteligencia emocional y desempeño académico en universitarios		
Objetivo	Metodología	Resultados
Conocer la relación entre el control de impulsos y adicciones, la inteligencia emocional y el desempeño académico en estudiantes de universidad a través de instrumentos de medición con el fin de asociar estas variables en esta población.	El presente estudio se desarrolló bajo un enfoque cuantitativo, con un diseño no experimental y de tipo correlacional. La muestra fue de 70 estudiantes universitarios. Los instrumentos usados fueron: el test MULTICAGE-CAD4, el TMMS-24 y un cuestionario para obtener información académica.	Se concluyó que que la relación entre el control de impulsos, las adicciones, la inteligencia emocional y el desempeño académico es existente.

#### Impulse control, Emotional intelligence, Academic performance

#### Control de impulsos, Inteligencia emocional, Desempeño académico

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## Introducción

The aim of this study is to analyse the relationship between impulse control and addiction, emotional intelligence and academic performance in university students. The goal is to determine whether there is a significant association between these three variables taken together. To address this purpose, the article is structured as follows: first, a general introduction that includes some background information and reflection on the problem; second, the methodology used; and third and last, the results obtained, accompanied by conclusions based on the findings.

Addictions have accompanied human beings throughout history. According to Rivadeneira et al. [2020], some of the substances historically used by people include alcohol, coca leaves, psychoactive preparations, potions, marijuana, opium for pain relief, and tobacco, among others.

In Cuba, a study defined addictions as the inability to control an activity, leading to compulsive behaviours that negatively affect a person's life. These addictions are not limited to substance use, but can also manifest as compulsive behaviour related to the activity itself [Mendoza et al. 2015].

Impulse control and addictions in university students are factors that can predispose them to falling into some type of addiction. Parra and Góngora [2020] define impulse control disorders [ICD] as 'behaviours performed in an impulsive-compulsive manner that can interfere with the main areas of a person's life, to the point of causing physical, psychological, social, legal or financial problems' [p. 1].

Studies affirm that there is a correlation between student grades and emotional intelligence. They point out that students who perceive, assimilate, understand, and regulate their emotions better tend to achieve higher academic performance [López and Gutiérrez, 2019; Gutiérrez, 2025].

The Pan American Health Organisation [PAHO, 2023] reports that, in the Americas, the treatment gap for affective, anxiety and substance use disorders is 73.5%.

This percentage breaks down into 47.2% in North America and 77.9% in Latin America and the Caribbean [LAC]. In these regions, it is estimated that approximately 100,000 deaths by suicide occur each year, some of them self-inflicted. In Mexico, for example, suicide cases increased from 7,896 in 2021 to 8,432 in 2022. In addition, the National Institute of Statistics and Geography [INEGI, 2023] reports that 66.9% of people over the age of 12 have experienced depression at some point, and a similar percentage have experienced depressive episodes several times a year.

PAHO [2023] also estimates that 5.6 million people in Latin America suffer from some type of drug-related disorder, whether it be dependence or another condition that affects their health over time. By linking these data, it is possible to estimate the number of people at risk of health problems resulting from substance use [NOH-MOO, 2025].

The University of Guadalajara indicates that one of the warning signs in young drug users is poor academic performance. This coincides with the findings of [Valverde and Farias, 2009], who reported that more than 65% of the students surveyed had consumed alcohol and 42.3% had consumed cannabis. They concluded that the use of drugs and psychostimulants negatively influences academic performance.

To address the social problem of substance use and addictive behaviours in university students, it is essential to promote values and strengths both within the university and in other settings, including expectations, beliefs, advertising, and family and social customs [Pedrero et al. 2007].

The modern world presents university students with a more complex challenge than it seems. Global development and its components put pressure on this population, pushing them to their physical and psychological limits and affecting their emotional stability.

Emotional intelligence, at a moderate to high level, helps to manage these situations and increases the likelihood of quality professional development [Barrera et al., 2019]. Another study conducted in Spain supports this idea, concluding that it is necessary to promote emotional intelligence education among university students to improve personal well-being [Cejudo et al., 2016].

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Based on the literature review, it was found that existing research addresses one or two of these variables, but none integrates all three into a single analysis. This study seeks to fill that gap, contributing to scientific knowledge and supporting the continuous development of strategies that promote both educational quality and the overall well-being of university students. If the results are appropriate, they could help to better understand the context and develop more effective strategies.

## Methodology

### Design

This study was conducted using a quantitative approach, as numerical data are used for statistical analysis and pattern identification. It presents a non-experimental, correlational design, as it describes the variables at a single point in time.

### Participants

A non-probabilistic convenience sampling was used, with a population of 70 active university students from universities in Ciudad Obregón, Sonora. The participants belonged to programmes in the areas of health sciences and humanities.

### Instruments

The MULTICAGE CAD-4 questionnaire was used to assess impulse control and addictions [32 items, dichotomous Yes/No scale, reliability > 0.7]. The TMMS-24 measured emotional intelligence through three subscales [24 items, Cronbach's alpha > 0.85]. Finally, a questionnaire designed by the authors collected academic averages from primary school to university.

### Procedure

After reviewing the literature, the title of the study was assigned, the problem was defined, and both the variables and the measurement instruments were determined. The instruments were digitised using the Google Forms platform. Once the materials were ready, permissions were requested from the educational institutions and the application schedule was coordinated.

Data collection was carried out by visiting classrooms and providing printed and digital QR codes so that students could access and complete the questionnaires from their electronic devices. The purpose of the study was explained verbally, and a written informed consent form was presented, emphasising the confidentiality of the data and voluntary participation. Participants could choose not to respond if they wished.

Once the data was collected, descriptive and correlational analyses were performed using SPSS 28.

## Results

This study focuses on exploring the relationship between impulse control, emotional intelligence, and academic performance in higher education students. Understanding how these variables interact is essential for the development of effective teaching and learning strategies. This chapter presents the results obtained from the instruments applied and their analysis within the study population.

On the compulsive spending scale, 62.86% of students do not present the problem, while 1.4% show a confirmed presence of it, as shown in Table 1.

### Box 1

**Table 1**

Impulse control on the compulsive spending scale

Level of presence	n= 70
In the present	80,0% [56]
Possible presence	11,4% [8]
Highly probable presence	5,7% [4]
Confirmed attendance	2,8% [2]

With regard to the compulsive spending scale, the findings indicate that 62.86% of participants fall into the non-present category, suggesting that there are no significant indicators of problematic behaviour in this area. In contrast, a small proportion of students [1.4%] show a confirmed presence of compulsive spending behaviour, as detailed in Table 2.

## Conclusion

The relationship between impulse control, addictions, emotional intelligence, and academic performance is evident, as these variables are interlinked and significantly influence school performance.

Inadequate management of emotions, especially in terms of how clearly they are identified and regulated, can negatively affect academic performance, while lack of impulse control is also associated with a decrease in grade point average. Furthermore, these variables not only affect academic performance, but are also interrelated, so that poor emotional management can lead to a reduced ability to control impulses.

On the other hand, the results of the compulsive spending scale show that the greater the presence of this problem, the lower the academic average. This finding coincides with that of Mendoza et al. [2015], who point out that excessive use and abuse of mobile devices can become a latent addiction, significantly affecting school performance.

## Declarations

### Conflict of interest

The authors declare no conflict of interest. They have no known competing financial interests or personal relationships that could have appeared to influence the article reported in this article.

### Author contribution

*Bojórquez-Díaz, Cecilia Ivonne*: Methodology and work supervision.

*Peralta-Zapien, Alejandro*: Contributed to the idea and execution of the project.

*Quintana-López, Victor Alexander*: Supported the results.

*Sotelo-Castillo, Mirsha Alicia*: Reinforced the methodology.

### Availability of data and materials

The data from this research are available.

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