

ORIGINAL

## Relationship between emotional intelligence and health personnel attitudes toward hospitalized patients with addictions

## Relación entre inteligencia emocional y actitud del personal de salud ante pacientes con adicciones hospitalizados

Julia Lizeth Villarreal-Mata<sup>1</sup> , Antonio Daniel Tadeo Gutiérrez-Barrera<sup>2</sup> , Josefina Sarai Candia-Arredondo<sup>1</sup> , Roberto Joel Tirado-Reyes<sup>3,4</sup> , Sylvia Claudine Ramírez-Sánchez<sup>4</sup> , Pedro Moisés Noh-Moo<sup>4,5</sup>  

<sup>1</sup>Universidad Autónoma de Nuevo León. Facultad de Enfermería. Monterrey, Nuevo León, México.

<sup>2</sup>Secretaría de Salud. Jefatura de Enfermería. Monterrey, Nuevo León, México.

<sup>3</sup>Universidad Autónoma de Sinaloa. Facultad de Enfermería Culiacán. Culiacán, Sinaloa, México.

<sup>4</sup>Instituto Mexicano del Seguro Social, Centro Médico Nacional Siglo XXI. Ciudad de México, México.

<sup>5</sup>Universidad Autónoma del Carmen. Facultad de Ciencias de la Salud. Ciudad del Carmen, Campeche, México.

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Corresponding author: Pedro Moisés Noh-Moo 

### ABSTRACT

**Introduction:** health personnel's attitudes toward patients with substance use disorders can influence the quality of care provided. Emotional intelligence has been shown to be a key factor in providing empathetic and stigma-free care in clinical settings.

**Objective:** to analyze the relationship between emotional intelligence and health personnel's attitudes toward hospitalized patients who use alcohol or drugs.

**Method:** an observational study was conducted with 286 health professionals working in a tertiary level hospital. Data were collected using the Emotional Intelligence Scale (TMMS-24), the Alcohol Problem Perception Questionnaire (AAPPQ), and the Drug Problem Perception Questionnaire (DDPPQ). Spearman's test analysis was performed.

**Results:** relationship was identified between emotional intelligence and attitudes toward patients with alcohol use problems ( $r = 0,248$ ,  $p < 0,01$ ), but not toward patients with drug use problems ( $r = 0,097$ ,  $p > 0,05$ ). Emotional clarity and repair, as dimensions of emotional intelligence, correlated with positive attitudes of healthcare personnel toward both groups of patients ( $p < 0,01$ ).

**Conclusions:** it is suggested that training programs be developed to promote the strengthening of emotional intelligence to reduce negative attitudes and stigma in the hospital setting when faced with people requiring medical care for problems caused by alcohol and drug use.

**Keywords:** Emotional Intelligence; Attitudes; Alcohol; Drugs; Health Personnel.

### RESUMEN

**Introducción:** las actitudes del personal de salud hacia pacientes con trastornos por consumo de sustancias pueden influir en la calidad de la atención otorgada. La inteligencia emocional ha demostrado ser un factor clave en el abordaje empático y libre de estigmas, en contextos clínicos.

**Objetivo:** analizar la relación entre la inteligencia emocional y las actitudes del personal de salud ante pacientes hospitalizados que consumen alcohol o drogas.

**Método:** estudio observacional con 286 profesionales de la salud adscritos a un hospital de tercer nivel.

Los datos se recolectaron a través de la Escala de Inteligencia Emocional (TMMS-24), el Cuestionario de Percepción de los Problemas con el Consumo de Alcohol (AAPPQ) y el Cuestionario de Percepción de los Problemas con el Consumo de Drogas (DDPPQ). Se realizaron análisis de correlación de *Spearman*.

**Resultados:** se identificó relación entre la inteligencia emocional y las actitudes hacia pacientes con problemas de consumo de alcohol ( $r = 0,248$ ,  $p < 0,01$ ), pero no hacia pacientes con problemas de consumo drogas ( $r = 0,097$ ,  $p > 0,05$ ). La claridad y reparación emocional como dimensiones de la inteligencia emocional correlacionaron con las actitudes positivas del personal de salud hacia ambos grupos de pacientes consumidores ( $p < ,01$ ).

**Conclusiones:** se sugiere desarrollar programas de capacitación que promuevan el fortalecimiento de la inteligencia emocional para reducir las actitudes negativas y estigma en el contexto hospitalario ante la presencia de personas que requieren atención médica por problemas ocasionados por consumo de alcohol y drogas.

**Palabras clave:** Inteligencia Emocional; Actitudes; Alcohol; Drogas; Personal de Salud.

## INTRODUCTION

The use of legal and illegal substances represents a significant challenge for health systems worldwide. In 2022, around 292 million people used some drug (alcohol, marijuana, methamphetamines), and 64 million suffered from a substance use disorder.<sup>(1)</sup> People with these types of disorders often require hospital care due to the physiological and neurocognitive effects of excessive and harmful use. However, in most cases, they do not seek specific treatment for substance use at the time of admission. As a result, hospital care focuses on the clinical condition that triggered admission, overlooking the substance use problem until complications arise or readmissions occur that reveal a problematic pattern.<sup>(2,3,4)</sup>

In the face of increasing alcohol and drug use, the hospital setting offers a critical opportunity for the development and establishment of strategies aimed at the comprehensive management of substance use disorders.<sup>(4,5,6)</sup> These actions not only promote a more humane and empathetic care experience but also strengthen trust in the clinical team, promote the adoption of evidence-based interventions, and improve continuity of treatment after hospital discharge, which can reduce morbidity and mortality associated with drug use.<sup>(4,7)</sup>

It has been documented that hospitalized patients with substance use-related diagnoses face, in addition to the medical consequences of excessive use, social stigma and negative attitudes on the part of health professionals.<sup>(2,6,8,9)</sup> These behaviors can compromise the quality of care and significantly affect therapeutic outcomes. In these scenarios, the attitudes of healthcare personnel and their ability to manage their own emotions play a crucial role. Empathetic, stigma-free, and emotionally regulated care has been shown to promote the establishment of a more effective therapeutic relationship, improve patient adherence to treatment, and enhance clinical outcomes.<sup>(2,6,10)</sup>

Scientific evidence indicates that healthcare personnel's attitudes toward people with substance use disorders are influenced by various factors, such as professional training, previous experiences, emotional characteristics, and personal feelings, beliefs, values, and even age, gender, ethnicity, and religion.<sup>(7,10,11)</sup> In this sense, emotional intelligence emerges as a crucial factor in the therapeutic relationship, directly influencing the quality, effectiveness, and safety of the healthcare provided.<sup>(12)</sup>

Emotional intelligence is the ability to perceive, understand, and regulate one's own and others' emotions.<sup>(13)</sup> This ability can have a substantial impact on professional attitudes toward substance-using patients. In the hospital setting, the feelings experienced by healthcare professionals influence the formation of their attitudes, which predict professional behavior.<sup>(7,10,14)</sup> These attitudes are made up of cognitive, affective, and behavioral components that interact with each other to form the basis of each attitude. They are also composed of multiple beliefs that predispose the individual to respond consistently to certain social stimuli.<sup>(15)</sup> Unlike values, which are unique beliefs with a prescriptive function, attitudes reflect a complex organization that can lead to discriminatory responses, especially toward people perceived as different.<sup>(16)</sup>

Healthcare personnel's attitudes toward people who use alcohol and drugs are often assessed in terms of the adequacy and legitimacy of their role, the perceived support for their clinical performance, motivation, task-related self-esteem, and job satisfaction.<sup>(17,18,19)</sup> Those professionals who perceive themselves as prepared to care for this population, feel supported by the team, and consider such care to be part of their professional role are associated with greater motivation and job satisfaction.<sup>(18,19)</sup>

Therefore, assessing the attitudes of healthcare professionals is essential for identifying suitable clinical profiles, as well as for designing continuing education programs and educational strategies that strengthen

emotional competencies and promote a comprehensive approach to substance use in the hospital setting. Understanding the relationship between emotional intelligence and attitudes will enable the development of strategies to improve clinical care, reduce negative emotions and attitudes, and promote more effective therapeutic relationships with patients hospitalized for alcohol and drug use. Therefore, the objective of this study is to analyze the relationship between emotional intelligence and healthcare professionals' attitudes toward hospitalized patients who use alcohol and drugs.

## METHOD

A correlational observational study was conducted between January 2023 and December 2024 at a tertiary care hospital located in Monterrey, Nuevo León, Mexico. The study population consisted of healthcare professionals affiliated with the institution. The sample was selected through non-probabilistic convenience sampling. The final sample included 286 healthcare professionals (nurses and doctors) working in different hospital areas with direct patient care.

The inclusion criteria were: being active healthcare personnel, having direct clinical contact with hospitalized patients, agreeing to participate voluntarily in the study, and signing the informed consent form. Professionals with less than six months of work experience were excluded, and those who did not adequately complete the assessment instruments were eliminated.

The following were used to measure the study variables:

A Sociodemographic Data Form was used to collect data on gender, age, marital status, religion, level of education, profession, and area of work.

The Emotional Intelligence Scale (Trait Meta-Mood Scale-24; TMMS-24).<sup>(21)</sup> The instrument contains 24 items distributed across three dimensions: emotional awareness (ability to perceive and attend to one's own feelings), emotional clarity (ability to understand one's own emotions), and emotional repair (ability to regulate negative emotional states). The items are answered using a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree). The TMMS-24 has been applied to a Spanish-speaking population, obtaining a Cronbach's alpha of 0,85.<sup>(20)</sup>

The Alcohol Problem Perception Questionnaire (AAPPQ).<sup>(21)</sup> This instrument assesses healthcare personnel's attitudes toward patients with alcohol use problems through 30 items distributed across six subscales: role adequacy (items 1 to 7), role legitimacy (items 8 to 11), role support (items 12 to 14), motivation (items 15 to 19), task-specific self-esteem (items 20 to 25), and job satisfaction (items 26 to 30). Each item has a 7-point Likert response scale ranging from 1 = strongly disagree to 7 = strongly agree. It has been validated in clinical and educational settings and has been adapted into Spanish for health and vocational training populations.<sup>(17,19,22)</sup>

The Drug Use Problem Perception Questionnaire (DDPPQ).<sup>(23)</sup> This questionnaire measures healthcare personnel's attitudes toward patients who use legal or illegal drugs through 20 items structured into six dimensions: role adequacy (items 1-7 and 19), role legitimacy (10), role support (items 11-13), job satisfaction (items 14-18), motivation (item 15), and professional self-esteem (items 19-22). Responses are evaluated on a 5-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree. (items 14, 20 to 22), motivation (item 15), and professional self-esteem (items 16 to 18). Responses are evaluated using a 7-point Likert scale (1 = strongly disagree to 7 = strongly agree). This instrument has shown acceptable reliability, with alpha coefficients above 0,80 in most of its subscales. It has been validated in different languages, including its translation and adaptation into Spanish for use in primary care and health training contexts.<sup>(7,23)</sup>

The data collected were stored and analyzed in SPSS version 26.0. Descriptive analyses were performed to characterize the sample. Because the data were not normally distributed, Spearman's correlation analysis was used to examine the relationships between the variables and respond to the study objective.

This study complied with the provisions of the General Health Law on Health Research.<sup>(24)</sup> Data collection was carried out with the prior authorization of the hospital authorities and after the participants signed an informed consent form. The invitation to participate was personal, emphasizing voluntary participation in the study. The instruments were administered anonymously, and the confidentiality of the information provided was guaranteed. The ethical principles governing research with human subjects were explained, informing participants of the benefits and risks of their participation and that they could withdraw from the study at any time without repercussions.

## RESULTS

Of the 286 participants, 74,1 % were women and 25,9 % were men, with an average age of 28,8 years (SD= 11,6). Most of the health professionals are single (74,1 %) and have a high school education (42,3 %). Sixty-nine point two percent professed the Catholic religion, followed by Christianity (16,4 %). In terms of profession, fifty point four percent worked as general nurses, followed by registered nurses (29 %), while 11,2 % were medical specialists. The most common areas of work were hospitalization (41,9 %), emergency care (12,2 %), internal

medicine (11,9 %), and operating rooms (10,5 %) (table 1).

| Table 1. Sociodemographic data                     |                                |     |      |
|----------------------------------------------------|--------------------------------|-----|------|
| Variable                                           | Category                       | f   | %    |
| Sex                                                | Female                         | 212 | 74,1 |
|                                                    | Male                           | 74  | 25,9 |
| Marital status                                     | Single                         | 212 | 74,1 |
|                                                    | Married                        | 43  | 15   |
|                                                    | Common-law marriage            | 17  | 5    |
|                                                    | Divorced                       | 14  | 4,8  |
|                                                    |                                |     |      |
| Level of education                                 | High school                    | 12  | 42,3 |
|                                                    | Bachelor's degree              | 108 | 37   |
|                                                    | Postgraduate                   | 57  | 19   |
| Religion                                           | Catholic                       | 198 | 69,2 |
|                                                    | Christian                      | 47  | 16,4 |
|                                                    | Other                          | 41  | 15,3 |
| Occupation                                         | General nursing                | 144 | 50,4 |
|                                                    | Nursing with bachelor's degree | 83  | 29   |
|                                                    | Nursing with master's degree   | 22  | 7    |
|                                                    | General practitioner           | 5   | 1    |
|                                                    | Specialist doctor              | 32  | 1    |
| Work area                                          | Emergency                      | 35  | 12   |
|                                                    | Operating room                 | 30  | 1    |
|                                                    | Internal medicine              | 34  | 11   |
|                                                    | Hospitalization                | 120 | 41   |
|                                                    | Adult Intensive Care Unit      | 25  | 8    |
|                                                    | Pediatric Intensive Care Unit  | 11  | 3    |
|                                                    | Urology                        | 10  | 3    |
|                                                    | Gynecology and Obstetrics      | 21  | 7    |
| <b>Note:</b> frequency = f; Percentage =%; n = 286 |                                |     |      |

In relation to the correlation analysis between the study variables, the results show a positive and significant relationship between the overall emotional intelligence score and attitudes toward patients who consume alcohol ( $r = ,248$ ,  $p < ,01$ ). However, no relationship was observed between emotional intelligence and attitudes toward patients who use drugs ( $r = 0,097$ ,  $p > ,05$ ).

| Table 2. Correlation of study variables                                                                                                                              |         |         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|
| Variables                                                                                                                                                            | INPERAL | INDPEDR |
| Emotional intelligence                                                                                                                                               | ,248    | 0       |
| <b>Note:</b> INPERAL = attitudes of health personnel toward alcohol consumers; INPERAL = attitudes of health personnel toward drug users; * $p < ,05$ ; ** $p < ,01$ |         |         |

With regard to emotional intelligence (and its subscales) and the Alcohol Problem Perception Questionnaire, significant and positive relationships were identified between the overall emotional intelligence score and the role support, motivation, work-related specific self-esteem, and job satisfaction subscales ( $p < ,05$ ).

Likewise, a relationship was found between the job satisfaction subscale and attention ( $r = ,129$ ,  $p < ,05$ ), clarity ( $r = ,169$ ,  $p < ,01$ ), and emotional repair ( $r = ,194$ ,  $p < ,01$ ). This same trend was observed in the work-specific self-esteem subscale and the motivation subscale with the three dimensions of emotional intelligence ( $p < ,01$ ). Meanwhile, the role support subscale only correlated positively and significantly with emotional repair ( $r = ,150$ ,  $p < ,05$ ).

**Table 3.** Relationship matrix of emotional intelligence subscales and perception of problems with alcohol consumption

| Variable                | 1      | 2      | 3      | 4      | 5      | 6      | 7      | 8      | 9      | 10 |
|-------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----|
| 1. Emotional Care       | -      |        |        |        |        |        |        |        |        |    |
| 2. Emotional Clarity    | ,577** | -      |        |        |        |        |        |        |        |    |
| 3. Emotional Repair     | ,478** | ,740** | -      |        |        |        |        |        |        |    |
| 4. Role Adjustment      | -,002  | ,075   | .      | -      |        |        |        |        |        |    |
| 5. Role legitimacy      | -,028  | ,090   | .      | ,811** | -      |        |        |        |        |    |
| 6. Role support         | ,056   | ,106   | ,150*  | ,732** | ,844** | -      |        |        |        |    |
| 7. Motivation           | ,216** | ,244** | ,287** | ,506** | ,590** | ,666** | -      |        |        |    |
| 8. Specific self-esteem | ,240** | ,376** | ,361** | ,253** | ,327** | ,322** | ,519** | -      |        |    |
| 9. Job satisfaction     | ,129*  | ,169** | ,194** | ,345** | ,353** | ,314** | ,401** | ,630** | -      |    |
| 10. IE Global           | ,789** | ,910** | ,864** | ,067   | ,073   | ,130*  | ,290** | ,385** | ,188** | -  |

**Note:** \* $p < ,05$ . \*\* $p < ,01$ , EI = emotional intelligence

With regard to emotional intelligence (and its dimensions) and the Drug Problem Perception Questionnaire, significant and positive relationships were found between the overall emotional intelligence score and the motivation subscale, specific work-related self-esteem, and job satisfaction ( $p < ,05$ ).

Significant positive relationships were also identified between the job satisfaction subscale and emotional clarity ( $r = ,124$ ,  $p < ,05$ ) and repair ( $r = ,137$ ,  $p < ,05$ ). The work-related self-esteem subscale showed the same trend, but with all three dimensions of emotional intelligence ( $p < ,01$ ). A similar situation occurred with the motivation subscale and the attention dimension ( $r = ,122$ ,  $p < ,05$ ), clarity ( $r = ,218$ ,  $p < ,01$ ), and emotional repair ( $r = ,205$ ,  $p < ,01$ ).

**Table 4.** Relationship matrix between emotional intelligence subscales and perception of problems with drug use

| Variable                | 1      | 2      | 3      | 4      | 5      | 6      | 7      | 8      | 9     | 10 |
|-------------------------|--------|--------|--------|--------|--------|--------|--------|--------|-------|----|
| 1. Emotional Care       | -      |        |        |        |        |        |        |        |       |    |
| 2. Emotional Clarity    | ,577** | -      |        |        |        |        |        |        |       |    |
| 3. Emotional Repair     | ,478** | ,740** | -      |        |        |        |        |        |       |    |
| 4. Role Adjustment      | -,029  | -,011  | .      | -      |        |        |        |        |       |    |
| 5. Legitimacy of role   | -,092  | -,025  | ,047   | ,757** | -      |        |        |        |       |    |
| 6. Role support         | -,037  | -,070  | ,004   | ,723** | ,726** | -      |        |        |       |    |
| 7. Motivation           | ,122*  | ,218** | ,205** | ,362** | ,411** | ,459** | -      |        |       |    |
| 8. Specific self-esteem | ,156** | ,302** | ,309** | ,324** | ,363** | ,329** | ,700** | -      |       |    |
| 9. Job satisfaction     | ,109   | ,124*  | ,137*  | ,634** | ,527** | ,618** | ,486** | ,382** | -     |    |
| 10. IE Global           | ,789** | ,910** | ,864** | -,001  | -,023  | -,038  | ,210** | ,303** | ,140* | -  |

**Note:** \* $p < ,05$ . \*\* $p < ,01$ , IE = overall emotional intelligence

## DISCUSSION

The results of this study reveal a significant relationship between the overall emotional intelligence score and the attitudes of healthcare personnel toward hospitalized patients who consume alcohol, but not toward those who use drugs. These findings contribute to the existing body of knowledge on professional attitudes in the context of hospital care for people with substance use disorders.

The positive and significant relationship found between emotional intelligence and healthcare personnel's attitudes toward hospitalized patients who consume alcohol is consistent with findings in the Brazilian context,<sup>(7)</sup> which indicate that the emotional characteristics of healthcare personnel significantly influence their professional attitudes. It is also similar to the findings of studies conducted in the United States, which demonstrated that educational interventions that include emotional development components can improve attitudes toward patients with substance use disorders.<sup>(10,14)</sup>

In terms of motivation, specific self-esteem and job satisfaction were the dimensions that showed the strongest correlations with the overall emotional intelligence score, which is consistent with the findings of a study conducted in primary care settings in different European countries,<sup>(17)</sup> which found that these dimensions are key predictors of positive attitudes toward patients with alcohol problems. Emotional repair capacity showed the highest correlation with motivation, suggesting that professionals who can better regulate their



emotions are more willing to work with this population.

In this study, no correlation was found between emotional intelligence and attitudes toward patients with drug use, a result that differs partially from the international literature,<sup>(25,26)</sup> which found that stigma toward patients with substance use is widespread regardless of the type of substance. These differences suggest that illicit drugs may generate more entrenched attitudes that are resistant to change, even in professionals with high emotional intelligence. Furthermore, the findings highlight that alcohol or drug use is perceived differently by healthcare personnel, possibly due to legal, cultural, and professional training factors.

The study also identified clarity and emotional repair as the dimensions of emotional intelligence most closely related to positive attitudes among healthcare personnel toward both groups of patients (alcohol and drug users). This finding is relevant and consistent with previous studies on the importance of understanding, organizing, and regulating emotions in professional performance, particularly in situations that compromise the physical and mental well-being of patients.<sup>(3,12,27)</sup> These results are also consistent with the findings of Collins et al., who emphasize that the ability of healthcare professionals to manage, understand, and regulate their emotions is essential for establishing effective therapeutic relationships with people who have psychoactive substance use disorders.<sup>(2)</sup>

This study has several limitations that should be considered when interpreting its findings. The cross-sectional design prevents the establishment of causal relationships between emotional intelligence and the attitudes of healthcare personnel. Likewise, the overrepresentation of women and nursing professionals limits the generalization of the results to other disciplines and genders. The use of self-report instruments may introduce social desirability biases, and relevant variables such as previous experience with these patients or specific training in addiction were not controlled for.

## CONCLUSIONS

The emotional intelligence of healthcare personnel is positively related to attitudes toward hospitalized patients who consume alcohol, but not toward those who use drugs. However, the dimensions of clarity and emotional repair are the components most sensitive to positive attitudes among healthcare personnel toward people who consume alcohol or drugs.

These findings underscore the need for differentiated approaches in interventions aimed at improving professional attitudes toward patients who use alcohol or drugs. The implementation of programs that promote the development and strengthening of emotional intelligence is recommended as a key strategy for optimizing care for patients with substance use disorders. Investing in the strengthening of these competencies should be a priority for healthcare institutions committed to comprehensive and humanized care, to improve the quality of hospital care for patients who consume alcohol and drugs.

## REFERENCES

1. Oficina de las Naciones Unidas contra la Droga y el Delito. Informe mundial sobre drogas 2024. 2024. Disponible en: <https://bit.ly/3FF3lgz>
2. Collins D, Alla J, Nicolaidis C, Streifel C, Englander H. "If it wasn't for him, I wouldn't have talked to them": qualitative study of addiction peer mentorship in the hospital. *J Gen Intern Med*. 2019. doi:10.1007/s11606-019-05311-0.
3. Englander H, Dobbartin K, Lind BK, Nicolaidis C, Graven P, Dorfman C, et al. Inpatient addiction medicine consultation and post-hospital substance use disorder treatment engagement: a propensity-matched analysis. *J Gen Intern Med*. 2019;34:2796-803. doi:10.1007/s11606-019-05251-9.
4. Englander H, Jones A, Krawczyk N, Patten A, Roberts T, Korthuis PT, et al. A taxonomy of hospital-based addiction care models: a scoping review and key informant interviews. *J Gen Intern Med*. 2022;37(11):2821-33. doi:10.1007/s11606-022-07618-x.
5. Englander H, Weimer M, Solotaroff R, Nicolaidis C, Chan B, Velez C, et al. Planning and designing the Improving Addiction Care Team (IMPACT) for hospitalized adults with substance use disorder. *J Hosp Med*. 2017;12(5):339-42. doi:10.12788/jhm.2736.
6. Velez CM, Nicolaidis C, Korthuis PT, Englander H, Lewis JH. "It's been an experience, a life learning experience": a qualitative study of hospitalized patients with substance use disorders. *J Gen Intern Med*. 2017;32(3):296-303. doi:10.1007/s11606-016-3919-4.
7. De Vargas D, Pereira CF, Ramírez EGL, Ponce TD. Health professionals' attitudes toward alcoholism and

associated issues: a comparative study in a Brazilian sample. *J Addict Nurs.* 2020;31(4):287-94. doi:10.1097/JAN.0000000000000369.

8. Morgan BD, Rosenheck RA, Curran GM, Desai RA, Rosenheck R. Nursing attitudes toward patients with substance use disorders in acute care settings. *J Addict Nurs.* 2020;31(3):170-8. Disponible en: <https://bit.ly/46UQRSq>

9. Volkow ND. Stigma and the toll of addiction. *N Engl J Med.* 2020;382(14):1289-90. doi:10.1056/NEJMp1917360.

10. Jackman KM, Scala E, Nwogwugwu C, Huggins D, Antoine DG. Nursing attitudes toward patients with substance use disorders: a quantitative analysis of the impact of an educational workshop. *J Addict Nurs.* 2020;31(3):213-20. doi:10.1097/JAN.0000000000000351.

11. Brouwers EP, Mathijssen J, Van Bortel T, Knifton L, Wahlbeck K, Van Audenhove C, et al. Discrimination in the workplace, reported by people with major depressive disorder: a cross-sectional study in 35 countries. *BMJ Open.* 2013;3(2):e002316. Disponible en: [https://idhdp.com/media/531827/tranzo\\_brouwers\\_sgma\\_daad\\_2013.pdf](https://idhdp.com/media/531827/tranzo_brouwers_sgma_daad_2013.pdf)

12. Morales CL, Gracia VY, Landeros OE. Relación de la inteligencia emocional con el cuidado otorgado por enfermeras/os. *Rev Cuid.* 2020;11(3):e989. doi:10.15649/cuidarte.989.

13. Salovey P, Mayer JD. Emotional intelligence. *Imagin Cogn Pers.* 1990;9(3):185-211. doi:10.2190/DUGG-P24E-52WK-6CDG.

14. Mitchell MA, Broyles LM, Pringle JL, Korthuis PT, Gordon AJ, Sharma G, et al. Education for the mind and the heart? Changing residents' attitudes about addressing unhealthy alcohol use. *Subst Abuse.* 2017;38(1):40-2. doi:10.1080/08897077.2016.1185076.

15. Katz D, Stotland E. A preliminary statement of a theory of attitude structure and change. In: Koch S, editor. *Psychology: A Study of a Science.* Vol. 3. New York: McGraw-Hill; 1959. p. 423-75. Disponible en: <https://bit.ly/4klZe6N>

16. Rokeach M. Value theory and communication research: review and commentary. *Commun Yearb.* 1979;3(1):7-28. doi:10.1080/23808985.1979.11923751.

17. Anderson P, Clement S, Gual A. The Alcohol and Alcohol Problems Perception Questionnaire (AAPPQ): a validation study in European primary healthcare. *J Stud Alcohol Drugs.* 2013;74(3):412-20. Disponible en: <https://pubmed.ncbi.nlm.nih.gov/23633092/>

18. Curcio F, Lommi M, Zambrano Bermeo RN, Esteban-Burgos AA, Pucciarelli G, Avilés González CI. Identifying and exploring Jean Watson's theory of human caring in nursing approaches for patients with psychoactive substance dependence in medical and surgical acute wards. *Nurs Rep.* 2024;14(3):2179-2191. doi:10.3390/nursrep14030162.

19. Watson H, Maclaren W, Kerr S. Staff attitudes towards working with drug users: development of the Drug Problems Perceptions Questionnaire. *Addiction.* 2007;102(2):206-15. doi:10.1111/j.1360-0443.2006.01686.x.

20. Fernández-Berrocal P, Extremera N, Ramos N. Validación de la versión española de la Trait Meta-Mood Scale (TMMS-24): propiedades psicométricas y análisis de su estructura factorial. *Psicothema.* 2004;16(1):25-31. Disponible en: <https://www.psicothema.com/pdf/291.pdf>

21. Cartwright AK. The attitudes of helping agents towards the alcoholic client: the influence of experience, support, training, and self-esteem. *Br J Addict.* 1980;75(4):413-31. doi:10.1111/j.1360-0443.1980.tb01406.x.

22. Terhorst L, Gotham HJ, Puskar KR, Mitchell AM, Talcott KS, Braxter B, et al. Confirming the factor structure of the Alcohol and Alcohol Problems Perception Questionnaire (AAPPQ) in a sample of baccalaureate nursing students. *Res Nurs Health.* 2013;36(4):412-22. doi:10.1002/nur.21537.

23. De Souza GAM, Arciprete APR, de Andrade TMM, Pillon SC. Adaptação transcultural e validação do Drug and Drug Problems Perceptions Questionnaire para o contexto brasileiro. Rev Enferm Referência. 2018;4(19):11-9. doi:10.12707/RIV18011.

24. Secretaría de Salud. Reglamento de la Ley General de Salud en Materia de Investigación para la Salud. 2014. Disponible en: [https://www.diputados.gob.mx/LeyesBiblio/regley/Reg\\_LGS\\_MIS.pdf](https://www.diputados.gob.mx/LeyesBiblio/regley/Reg_LGS_MIS.pdf)

25. Bazzi A, Ghazanfari MJ, Aghaei I, et al. A systematic review of knowledge and attitude of nurses towards substance use or users. Addict Health. 2024;16(4):297-304. doi:10.34172/ahj.1326.

26. Van Boekel LC, Brouwers EP, van Weeghel J, Garretsen HF. Stigma among health professionals towards patients with substance use disorders and its consequences for healthcare delivery: systematic review. Drug Alcohol Depend. 2013;131(1-2):23-35. Disponible en: <https://www.sciencedirect.com/science/article/abs/pii/S0965230207000525>

27. Mesa Castro N. Influencia de la inteligencia emocional percibida en la ansiedad y el estrés laboral de enfermería. Ene. 2019;13(3):e13310. Disponible en: <https://scielo.isciii.es/pdf/ene/v13n3/1988-348X-ene-13-03-e13310.pdf>

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## CONFLICT OF INTEREST

The authors declare that they have no conflict of interest regarding the data reported in the manuscript.

## AUTHOR CONTRIBUTION

*Conceptualization:* Julia Lizeth Villarreal-Mata, Pedro Moisés Noh-Moo.

*Data curation:* Antonio Daniel Tadeo Gutiérrez Barrera, Roberto Joel Tirado-Reyes, Pedro Moisés Noh-Moo, Julia Lizeth Villarreal-Mata, Sylvia Claudine Ramírez-Sánchez.

*Formal analysis:* Josefina Sarai Candia-Arredondo, Julia Lizeth Villarreal-Mata, Sylvia Claudine Ramírez-Sánchez.

*Research:* Roberto Joel Tirado-Reyes, Julia Lizeth Villarreal-Mata, Pedro Moisés Noh Moo.

*Methodology:* Julia Lizeth Villarreal-Mata, Josefina Sarai Candia-Arredondo, Pedro Moisés Noh Moo, Sylvia Claudine Ramírez-Sánchez.

*Project management:* Julia Lizeth Villarreal-Mata, Josefina Sarai Candia-Arredondo, Antonio Daniel Tadeo Gutiérrez-Barrera.

*Resources:* Julia Lizeth Villarreal-Mata, Josefina Sarai Candia-Arredondo, Antonio Daniel Tadeo Gutiérrez-Barrera.

*Software:* Roberto Joel Tirado-Reyes, Pedro Moisés Noh-Moo, Julia Lizeth Villarreal-Mata, Sylvia Claudine Ramírez-Sánchez.

*Supervision:* Pedro Moisés Noh-Moo, Julia Lizeth Villarreal-Mata, Roberto Joel Tirado-Reyes, Sylvia Claudine Ramírez-Sánchez.

*Validation:* Julia Lizeth Villarreal-Mata, Roberto Joel Tirado-Reyes, Pedro Moisés Noh-Moo, Sylvia Claudine Ramírez-Sánchez.

*Visualization:* Antonio Daniel Tadeo Gutiérrez-Barrera, Josefina Sarai Candia-Arredondo.

*Writing - original draft:* Julia Lizeth Villarreal-Mata, Roberto Joel Tirado-Reyes, Jesús Pedro Moisés Noh-Moo.

*Writing - review and editing:* Pedro Moisés Noh-Moo, Julia Lizeth Villarreal-Mata, Sylvia Claudine Ramírez-Sánchez.